

California Regional Water Quality Control Board
Santa Ana Region

October 9, 1998

ITEM: 6

SUBJECT: Revisions to the Basin Plan Amendment Establishing a Total Maximum Daily Load (TMDL) for Nutrients in the Newport Bay/San Diego Creek Watershed

DISCUSSION:

On April 17, 1998 the California Regional Water Quality Control Board, Santa Ana Region (Regional Board) approved a Basin Plan amendment establishing a nutrient TMDL for the Newport Bay/San Diego Creek Watershed (Attachment to Resolution No. 98-9). On May 13, 1998, the State Water Resources Control Board approved the Basin Plan amendment. The Basin Plan amendment was then forwarded to the Office of Administrative Law (OAL) for review. OAL staff reviewed the Nutrient TMDL and recommended areas of the Basin Plan amendment that needed further clarification. Several of these comments are being addressed by State Board staff in correspondence with OAL. However, additional clarifying language needs to be added to the Basin Plan amendment to satisfy OAL.

The recommended changes are discussed below. It should be emphasized that these are minor changes and will not affect the Regional Board's implementation of the TMDL or the regulatory requirements imposed on the nutrient dischargers in the watershed. These changes also do not affect the Environmental Assessment of the nutrient TMDL (See Attachment B, Environmental Checklist)

Implementation of Monitoring Programs

The nutrient TMDL requires the development and implementation of a nutrient management program for agricultural activities. This program is anticipated to include a monitoring component. The TMDL also requires the Regional Board to establish a Regional Monitoring Program (RMP) to evaluate various elements of the TMDL. Pursuant to the TMDL approved by Resolution No. 98-9, these management and monitoring programs were to be implemented upon approval by the Executive Officer; however, OAL staff advised us that the management and monitoring programs are regulatory provisions that need to be approved by the Regional Board in a public hearing.

To address this concern, staff is recommending the additional clarifying language as shown in Attachment A to Resolution No. 98-100, which simply states that the watershed agricultural nutrient management plan and the Regional Monitoring Program will not become effective until approved by the Regional Board.

This report includes the following attachments:

- Attachment A -Revisions to the Basin Plan Amendment Establishing a Total Maximum Daily Load (TMDL) for Nutrients in the Newport Bay/San Diego Creek Watershed
- Attachment B -Environmental Checklist

STAFF RECOMMENDATION:

Adopt Resolution No. 98-100, amending Resolution No. 98-9, as shown in Attachment A to this staff report.

California Regional Water Quality Control Board
Santa Ana Region

RESOLUTION NO. 98-100

Resolution Revising the Amendment to the Water Quality Control Plan for the
Santa Ana River Basin Incorporating a Nutrient TMDL for the
Newport Bay/San Diego Creek Watershed (Resolution No. 98-9)

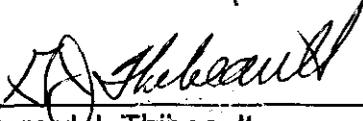
WHEREAS, the California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. On April 17, 1998, the Regional Board adopted an amendment to the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) establishing a Total Maximum Daily Load for nutrients for the Newport Bay/San Diego Creek Watershed (Resolution No. 98-9).
2. On May 13, 1998, the State Water Resources Control Board approved the Total Maximum Daily Load for nutrients for the Newport Bay Watershed (SWRCB Resolution No. 98-38).
3. The Office of Administrative Law (OAL) recommended that language regarding the management and monitoring activity approval process should be clarified. This resolution amends Resolution No. 98-9 to provide clarification.
4. The Regional Board prepared and distributed a written report (staff report) regarding the adoption of revisions to the Basin Plan amendment in compliance with the applicable state and federal environmental regulations (California Code of Regulations, Section 3775, Title 23, and 40 CFR, Parts 25 and 131).
5. The process of basin planning has been certified by the Secretary of Resources as exempt from the Requirements of the California Environmental Quality Act (Public Resources Code, Section 21000 *et seq.*) for preparing an Environmental Impact report or Negative Declaration. The Basin Plan amendment package includes an Environmental Checklist, an assessment of the environmental impacts of the Basin Plan amendment, and a discussion of alternatives. The amended Basin Plan, Environmental Checklist, staff reports, and supporting documentation are functionally equivalent to an Environmental Impact Report or Negative Declaration.
6. On October 9, 1998 the Regional Board held a Public Hearing to consider the Basin Plan amendment. Notice of the Public Hearing was given to all interested persons and published in accordance with Water Code Section 13244.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The Regional Board adopts the revisions to the Newport Bay/San Diego Creek Watershed Nutrient TMDL Basin Plan amendment as set forth in the attachment.
2. The Executive Officer is directed to forward copies of the revised Basin Plan amendment to the SWRCB in accordance with the requirements of Section 13245 of the California Water Code.
3. The Regional Board requests that the SWRCB approve the revised Basin Plan amendment in accordance with Sections 13245 and 13246 of the California Water Code and forward it to the OAL and U.S. EPA for approval.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Santa Ana Region, on October 9, 1998.



Gerard J. Thibeault
Executive Officer

Attachment to Resolution No. 98-100

Resolution Revising the Amendment to the Water Quality Control Plan for the Santa Ana River Basin Incorporating a Nutrient TMDL for the Newport Bay/San Diego Creek Watershed (Resolution No. 98-9)

The proposed changes to the Basin Plan are presented in the following pages. The additions are highlighted (**highlighted**) and the deletions are marked in ~~strikeout~~ (~~strikeout~~).

CHAPTER 5 - IMPLEMENTATION PLAN, Page 5-39

2. Eutrophication (Page 5-41)

2.b. Phase I of the Nutrient TMDL

4. Agricultural Activities

A watershed-wide nutrient management program for agricultural activities shall be developed by the Orange County Farm Bureau, University of California Cooperative Extension, and the affected growers, in conjunction with Regional Board staff. The proposed management program shall be submitted by July 1, 1999. ~~and shall be implemented upon the approval of the Executive Officer.~~ **The nutrient management program will not become effective until approved by the Regional Water Quality Control Board at a duly noticed public meeting.**

5. Urban Stormwater

Co-permittees of the Orange County Areawide Urban Stormwater Permit (Order No. 96-31) shall be required to submit for approval by the Regional Board's Executive Officer an analysis of appropriate Best Management Practices which will be additionally implemented through the Drainage Area Management Plan (DAMP) to achieve the short term (5-year) interim targets and final nutrient load reduction targets for the Newport Bay Watershed. The co-permittees shall also be required to provide a proposal for 1) evaluating the effectiveness of control actions implemented, and 2) evaluating compliance with the nutrient load allocation. The analyses shall be submitted by July 1, 1999, and shall be implemented upon approval of the Executive Officer.

6. Phosphorus

The primary reduction of phosphorus loading is expected to be achieved by the implementation of the total maximum daily load for sediment in the Newport Bay/San Diego Creek watershed. The sediment TMDL is incorporated into the nutrient TMDL for the Newport Bay/San Diego Creek watershed by reference (Note - the sediment TMDL will be appropriately referenced once it is approved by OAL). Limits on phosphorus discharges shall be incorporated into the new and revised Waste Discharge Requirements previously listed, as necessary.

2.c. Phase II of the Nutrient TMDL

1. Monitoring

The Regional Board will establish and oversee a regional monitoring program (RMP) for the Newport Bay watershed. The new and revised WDRs, NPDES permits, DAMP, and agricultural nutrient management plans shall ~~have~~ include requirements to conduct self-monitoring, or in lieu of self-monitoring, to participate in the RMP. Participation in the RMP could result in the reduction of self-monitoring requirements. **The RMP will not become effective until approved by the Regional Water Quality Control Board at a duly noticed public meeting.**

The RMP shall be designed by the Regional Board to assess the attainment of the goals of the nutrient TMDL. The objectives of the monitoring program shall be the quantification of the three endpoints of the nutrient TMDL: (1) the seasonal nutrient loading from the watershed; (2) the nutrient concentration in San Diego Creek, Reaches 1 and 2; and (3) the extent, magnitude, and duration of algal blooms in San Diego Creek and Newport Bay. The monitoring plan shall be implemented by March 1999.

The Regional Board will initiate investigations into the currently unknown sources of nutrients in the Newport Bay Watershed. The Regional Board, in cooperation with other agencies and entities, will investigate the occurrence of rising shallow groundwater in the Newport Bay Watershed. The study will focus on the contributions of rising groundwater to the loading of nutrients to drainage channels which are tributary to Newport Bay. Additionally, the study of the nutrient and algae processes of Newport Bay and San Diego Creek will be encouraged and supported by the Regional Board. Regional Board support could include financial resources, personnel, agency coordination, and scientific review.

ATTACHMENT B

ENVIRONMENTAL CHECKLIST

I. BACKGROUND

1. Name of Proponent:
California Regional Water Quality Control Board, Santa Ana Region.
2. Address and Phone Number of Proponent:
3737 Main St.. Suite 500, Riverside CA 92503, (909)782-4130
3. Date Checklist Submitted: October 11, 1997
4. Name of Proposal:
Basin Plan Amendment - Revision of Implementation Plan to Incorporate
a Nutrient Total Maximum Daily Load for the Newport Bay/San Diego
Creek Watershed.

II. ENVIRONMENTAL IMPACTS

(All "yes" and "maybe" answers are explained on attached sheets.)

		<u>Yes</u>	<u>Maybe</u>	<u>No</u>
1.	Earth. Will the proposal result in:			
	a. Unstable earth conditions or changes in geologic substructures?	___	___	_X_
	b. Disruptions, displacements, compaction or overcoming of the soil?	___	___	_X_
	c. Change in topography or ground surface relief features?	___	___	_X_
	d. The destruction, covering or modification of any unique geologic or physical features?	___	___	_X_
	e. Any increase in wind or water erosion of soils, either on or off the site?	___	___	_X_
	f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of river or stream or the of the ocean or any bay, inlet or lake?	___	___	_X_

- g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards? ___ ___ X

- 2. **Air.** Will the proposal result in:
 - a. Substantial air emissions or deterioration of ambient air quality? ___ ___ X
 - b. The creation of objectionable odors? ___ ___ X
 - c. Alteration of air movement, moisture, or temperature, or any change in climate either locally or regionally? ___ ___ X

- 3. **Water.** Will the proposal result in:
 - a. Changes in current, or the course of direction of water movements, in either marine or fresh waters? ___ ___ X
 - b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff? X ___ ___
 - c. Alterations to the course or flow of flood waters? ___ ___ X
 - d. Change in the amount of surface water in any water body? ___ X ___
 - e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity? X ___ ___
 - f. Alteration of the direction or rate of flow of groundwater? ___ X ___
 - g. Change in the quantity of groundwaters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations? ___ X ___

Environmental Checklist

Yes Maybe No

- h. Substantial reduction in the amount of water otherwise available for public water supplies? ___ ___ X
 - i. Exposure of people or property to water related hazards such as flooding or tidal waves? ___ ___ X
 - 4. **Plant Life.** Will the proposal result in:
 - a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)? X ___ ___
 - b. Reduction of the numbers of any unique, rare or endangered species of plants? ___ ___ X
 - c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species? ___ ___ X
 - d. Reduction in acreage of any agricultural crop? ___ ___ X
 - 5. **Animal Life.** Will the proposal result in:
 - a. Change in the diversity of species, or numbers of any species of animals (birds, land animals, including reptiles, fish and shellfish, benthic organisms or insects?) ___ X ___
 - b. Reduction of the numbers of any unique, rare or endangered species of animals? ___ ___ X
 - c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals? ___ ___ X
 - d. Deterioration to existing fish or wildlife habitat? ___ ___ X
 - 6. **Noise.** Will the proposal result in:
 - a. Increases in existing noise levels? ___ ___ X

Environmental Checklist

Yes Maybe No

- b. Exposure of people to severe noise levels? ___ ___ X
- 7. **Light and Glare.** Will the proposal produce new light or glare? ___ ___ X
- 8. **Land Use.** Will the proposal result in a substantial alteration of the present or planned land use of the area? ___ ___ X
- 9. **Natural Resources.** Will the proposal result in:
 - a. Increase in the rate of use of any natural resources? ___ ___ X
 - b. Substantial depletion of any non-renewable natural resources. ___ ___ X
- 10. **Risk of Upset.** Will the proposal involve:
 - a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions? ___ ___ X
 - b. Possible interference with an emergency response plan or an emergency evaluation plan? ___ ___ X
- 11. **Population.** Will the proposal alter the location, distribution, density, or growth rate of the human population of an area? ___ ___ X
- 12. **Housing.** Will the proposal affect housing, or create a demand for additional housing? ___ ___ X
- 13. **Transportation/Circulation.** Will the proposal result in:
 - a. Generation of substantial additional vehicular movement? ___ ___ X
 - b. Effects on existing parking facilities, or demand on new parking? ___ ___ X
 - c. Substantial impact upon existing transportation systems? ___ ___ X

Environmental Checklist

Yes Maybe No

- d. Alterations to prevent patterns of circulation or movement of people and/or goods? ___ ___ X
- e. Alterations to waterborne, rail or air traffic? ___ ___ X
- f. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians? ___ ___ X
- 14. **Public Services.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:
 - a. Fire Protection? ___ ___ X
 - b. Police Protection? ___ ___ X
 - c. Schools? ___ ___ X
 - d. Parks or other recreational facilities? ___ ___ X
 - e. Maintenance of public facilities, including roads? ___ ___ X
 - f. Other governmental services? ___ ___ X
- 15. **Energy.** Will the proposal result in:
 - a. Use of substantial amounts of fuel or energy? ___ ___ X
 - b. Substantial increase in demand upon existing sources or energy, or require the development of new sources of energy? ___ ___ X
- 16. **Utilities.** Will the proposal result in a need for new systems, or substantial alterations to the following utilities?
 - a. Power or Natural Gas? ___ ___ X
 - b. Communications systems? ___ ___ X
 - c. Water? ___ ___ X

Environmental Checklist

Yes Maybe No

- d. Sewer or septic tanks? ___ X ___
- e. Storm water drainage? ___ X ___
- f. Solid waste and disposal? ___ ___ X

- 17. **Human Health.** Will the proposal result in:
 - a. Creation of any health hazard or potential health hazard (excluding mental health)? ___ ___ X
 - b. Exposure of people to potential health hazards? ___ ___ X

- 18. **Aesthetics.** Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view? ___ ___ X

- 19. **Recreation.** Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities? ___ ___ X

- 20. **Cultural Resources.** Will the proposal result in:
 - a. The alteration of or the destruction of a prehistoric or historic archaeological site? ___ ___ X
 - b. Adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object? ___ ___ X
 - c. The potential to cause a physical change which would effect unique ethnic cultural values? ___ ___ X
 - d. Restricting existing religious or sacred uses within the potential impact area? ___ ___ X

Yes Maybe No

21. **Mandatory Findings of Significance.**

- a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ___ ___ X
- b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.) ___ ___ X
- c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.) ___ ___ X
- d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ___ ___ X

III. **Discussion of Environmental Evaluation** (see attached sheets)

IV. **Determination** On the basis of this initial evaluation:

X I find that the proposed project **COULD NOT** have a significant adverse effect on the environment.

___ I find that the proposed project **MAY** have a significant adverse effect on the environment; however, there are feasible alternatives and/or mitigation measures available which will substantially lessen any significant adverse impact. These alternatives and mitigation measures are discussed in the attached written report.

___ I find the proposed project **MAY** have a significant adverse effect on the environment. There are no feasible alternatives and/or feasible mitigation measures available which would substantially lessen any significant adverse impact. See the attached written report for a discussion of this determination.

Date

Gerard J. Thibeault - Executive Officer

Discussion of Environmental Evaluation

III. Water

The proposed regulatory actions address water quality issues in the Newport Bay Watershed and will have a direct and indirect impact on the rate and amount of surface runoff, surface water, and groundwater quality. The implementation of the elements of the TMDL will control and regulate the discharge of nutrients to surface and groundwaters. These controls will improve the water quality in the Newport Bay/San Diego Creek Watershed.

IV. Plant Life

The proposed regulatory actions address water quality issues in the Newport Bay Watershed and will decrease the abundance of nuisance macrophyte algae in Newport Bay. The high macrophyte abundance is the result of anthropogenic nutrient enrichment and currently impairs fish and wildlife habitat.

V. Animal Life

The proposed regulatory actions address water quality issues in the Newport Bay Watershed and is expected to increase the diversity of animal species by reducing the amount of macrophyte algae in Newport Bay. The pervasive algae currently impairs fish and wildlife habitat.

XVI. Utilities

The proposed regulatory actions and possible response from local entities, in order to comply with water quality objectives, will not result in an increased use of existing utilities. The regulations could necessitate the alteration of the storm water conveyance system and sewer system.

Attachment to Resolution 98-100

Resolution Revising the Amendment to the Water Quality Control Plan for the Santa Ana River Basin Incorporating a Nutrient TMDL for the Newport Bay/San Diego Creek Watershed (Resolution No. 98-9)

CHAPTER 5 - IMPLEMENTATION PLAN, Page 5-39

2. Eutrophication (Page 5-41)

2.b. Phase I of the Nutrient TMDL

4. Agricultural Activities

A watershed-wide nutrient management program for agricultural activities shall be developed by the Orange County Farm Bureau, University of California Cooperative Extension, and the affected growers, in conjunction with Regional Board staff. The proposed management program shall be submitted by July 1, 1999. **The nutrient management program will not become effective until approved by the Regional Water Quality Control Board at a duly noticed public meeting as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.).**

5. Urban Stormwater

Co-permittees of the Orange County Areawide Urban Stormwater Permit (Order No. 96-31) shall be required to submit for approval by the Regional Board's Executive Officer an analysis of appropriate Best Management Practices which will be additionally implemented through the Drainage Area Management Plan (DAMP) to achieve the short term (5-year) interim targets and final nutrient load reduction targets for the Newport Bay Watershed. The co-permittees shall also be required to provide a proposal for 1) evaluating the effectiveness of control actions implemented, and 2) evaluating compliance with the nutrient load allocation. **The proposal and analyses shall be submitted by July 1, 1999, and shall be implemented upon approval of the Executive Officer as specified by Section IV.1.a.ii.A of Order No. 96-31.**

6. Phosphorus

The primary reduction of phosphorus loading is expected to be achieved by the implementation of the total maximum daily load for sediment in the Newport Bay/San Diego Creek watershed. The sediment TMDL is incorporated into the nutrient TMDL for the Newport Bay/San Diego Creek watershed by reference (Note - the sediment TMDL will be appropriately referenced once it is approved by OAL). Limits on phosphorus discharges shall be incorporated into the new and revised Waste Discharge Requirements previously listed, as necessary.

2.c. Phase II of the Nutrient TMDL

1. Monitoring

The Regional Board will establish and oversee a regional monitoring program (RMP) for the Newport Bay watershed. The new and revised WDRs, NPDES permits, DAMP, and agricultural nutrient management plans shall include requirements to conduct self-monitoring, or in lieu of self-monitoring, to participate in the RMP. Participation in the RMP could result in the reduction of self-monitoring requirements. **The RMP will not become effective until approved by the Regional Water Quality Control Board at a duly noticed public meeting as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.).**

The RMP shall be designed by the Regional Board to assess the attainment of the goals of the nutrient TMDL. The objectives of the monitoring program shall be the quantification of the three endpoints of the nutrient TMDL: (1) the seasonal nutrient loading from the watershed; (2) the nutrient concentration in San Diego Creek, Reaches 1 and 2; and (3) the extent, magnitude, and duration of algal blooms in San Diego Creek and Newport Bay. The monitoring plan shall be implemented by March 1999.

The Regional Board will initiate investigations into the currently unknown sources of nutrients in the Newport Bay Watershed. The Regional Board, in cooperation with other agencies and entities, will investigate the occurrence of rising shallow groundwater in the Newport Bay Watershed. The study will focus on the contributions of rising groundwater to the loading of nutrients to drainage channels which are tributary to Newport Bay. Additionally, the study of the nutrient and algae processes of Newport Bay and San Diego Creek will be encouraged and supported by the Regional Board. Regional Board support could include financial resources, personnel, agency coordination, and scientific review.