STATE OF CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of NATURAL RESOURCES DEFENSE COUNCIL, INC.

For Review of Waste Discharge ()
Requirements Order No. 90-079 of the ()
California Regional Water Quality ()
Control Board, Los Angeles Region for ()
Los Angeles County and Co-Permittees. ()
NPDES Permit No. CA0061654. Our ()
File No. A-693.

ORDER NO. WQ 91-04

BY THE BOARD:

On July 18, 1990, the State Water Resources Control
Board (State Board) received a petition from Natural Resources
Defense Council, Inc. (petitioner), seeking review of waste
discharge requirements which the California Regional Water
Quality Control Board, Los Angeles Region (Regional Board)
adopted in Order No. 90-079, regulating discharges of storm water
from municipal separate storm sewers throughout Los Angeles
County.

Many of the issues raised by the petitioner are discussed in great detail in Order No. WQ 91-03, which we are also issuing today, and which concerns a permit issued by the Regional Water Quality Control Board, San Francisco Bay Region (San Francisco Bay Regional Board) regulating discharges of storm water from municipalities in the Santa Clara Valley. Given the similarity of these issues, we will discuss most of the

petitioner's contentions in only a summary manner, and will refer to our determinations in Order No. WQ 91-03. In adopting that Order, we did consider the petitioner's arguments, and also those of the Regional Board, the dischargers, and interested persons.

I. BACKGROUND

As we discussed in Order No. WQ 91-03, over the last twenty years, the Environmental Protection Agency (EPA), has developed a program to regulate discharges of storm water and urban runoff through the National Pollutant Discharge Elimination System (NPDES) of permits. The requirements for this program are contained in Clean Water Act Section 402(p). In this case, as in the case of the San Francisco Bay Regional Board, the Regional Board adopted its permit regulating discharges from municipal separate storm sewer systems prior to EPA's promulgation of regulations implementing Section 402(p).

As did the San Francisco Bay Regional Board, the Los Angeles Regional Board also proceeded to take earlier steps to study and control storm water discharges while EPA's program development was delayed. In 1975, the Regional Board adopted its Water Quality Control Plan (Basin Plan). The Basin Plan characterized constituents commonly found in runoff and roughly estimated runoff wasteloads through the Los Angeles River and

¹ A major portion of our other Order involved discussion of Clean Water Act Section 304(1). That section does not apply here. However, the discussion concerning the regulations which EPA adopted to implement Section 304(1), i.e. 40 CFR Section 122.44(d), is also relevant to this matter.

² Water Quality Plan Report, Santa Clara River Basin (4A) and Los Angeles River Basin (4B) (March 1975). The Basin Plan was approved by the State Board in Resolution No. 75-21.

Santa Clara River sub-basins.³ The Basin Plan also compared local runoff data with the results of several investigations conducted elsewhere in the nation.

The Basin Plan identified beneficial uses of the surface waters within the region, established water quality objectives to protect and enhance these uses, and described a detailed "Implementation Plan" to achieve those objectives. The beneficial uses of the surfaces waters typically include ground water recharge (replenishment), contact and non-contact recreation and wildlife habitat. A few creeks also support warm and cold water habitat, fish migration and fish spawning uses. Some reservoirs also provide municipal, industrial supply and industrial process water uses. Rare and endangered habitat and agricultural supply were identified as existing beneficial uses of several surface waters also. The Basin Plan listed marine habitat, contact and non-contact recreation, commercial and sport fishing, navigation, and shellfish harvesting as the beneficial uses of the Pacific Ocean.

The Basin Plan also established water quality objectives. First, it referred to several state policies for water quality control and statewide plans. These include the "Water Quality Control Policy for the Enclosed Bays and Estuaries

³ The 1975 Basin Plan divided its region into two sub-basins: the Santa Clara River Basin ("4A") and the Los Angeles River Basin ("4B").

^{4 1975} Basin Plan, Table 2-3.

⁵ Id.

⁶ Id.

of California"⁷ and the "Water Quality Control Plan for Ocean Waters of California".⁸ The Basin Plan stated that the Ocean Plan and the Bays and Estuaries Policies established effluent quality requirements for certain discharges. "Land runoff", however, was specifically excluded from the effluent requirements.⁹

The receiving water quality objectives set forth in the Basin Plan included several general requirements and narrative objectives. For inland surface waters, enclosed bays, and estuaries in the Los Angeles River sub-basin, narrative receiving water quality objectives were specified for tastes and odors, floating material, suspended material, settleable material, oil and grease, sediment, turbidity, bacteria, and several other pollutants. 10 The narrative toxicity objective required that all waters be maintained free of "toxic substances in concentrations that are toxic to, or produce detrimental physiological responses in human, plant, animal, or aquatic life." 11 The Basin Plan

⁷ The "Bays and Estuaries Policy", as this document is know, was adopted on May 16, 1974.

⁸ The State Board first adopted this plan, commonly known as the "Ocean Plan", on July 6, 1972. The State Board approved amendments to the Ocean Plan on March 22, 1990 by Resolution No. 90-27.

⁹ The 1975 Basin Plan states:

[&]quot;This policy does not apply to wastes from vessels or land runoff except as specifically indicated for siltation and combined sewer flows." See page I-4-5.

^{10 1975} Basin Plan, pages I-4-6 through I-4-8.

^{11 &}lt;u>Ibid</u>., at page I-4-8.

further specified "limiting concentrations" for inorganic chemical constituents (primarily heavy metals) in waters used as domestic and municipal supply. 12 It also prescribed "mean mineral quality objectives" for the Los Angeles River, the San Gabriel River and their "tributaries". 13

to reduce wasteloads from various pollutant sources and their effects on the basin's waters. For urban runoff and storm water discharges, the Basin Plan indicated that the pollutants found in runoff discharges varied considerably and exhibited a seasonal nature. More specifically, the Plan stated that the "bulk of these mass emissions is normally experienced in only a few days of wet weather during the rainy season." Although certain beneficial uses, such as groundwater recharge and recreational uses, may be temporarily impaired during storm flow conditions, the Basin Plan noted few traditional "end-of-pipe" controls existed for runoff flows. It explained:

"...there is little, if anything, that can be done to mitigate the effects of such runoff except for improved air pollution control practices, improved urban housekeeping, and improved environmental levels of performance for automotive equipment." 15

¹² Ibid., at page I-4-9.

¹³ Ibid., at Table 4-1 and pages 1-4-11 and I-4-12.

^{14 1975} Basin Plan, "Impact of Runoff Waste Loads", page II-15-94.

^{15 &}lt;u>I</u>d.

Although much runoff data was included in the Basin Plan, limited information about the significance or effects of runoff discharges on receiving water quality existed.

The Basin Plan specified requirements and controls for "traditional" point sources, 16 but storm water discharges were not covered, based on the difficulty of their regulation:

"...no practical and economical means has yet been developed for containment and treatment of urban runoff wastes for reduction of pollutants prior to downstream release, nor are standards for such measures presently in existence or contemplated for the foreseeable future, at least on a widespread basis....There are presently no generally applicable effluent limits nor water pollution control facilities in connection with urban runoff that appear practical or economical. The emphasis for water quality control from this standpoint should be public education, public cooperation in improved (outdoor) housekeeping, and continued search of solutions to the air pollution problems." 17 (Emphasis added)

The Regional Board has not amended the portions of its Basin Plan relating to storm water and urban runoff since 1975. Therefore, we conclude that the Basin Plan does not address controls on such discharges, except for the few practices listed above. Clearly, the effluent limitations listed for other point sources are not meant to apply. In addition, there are no

¹⁶ As was explained in Order No. WQ 91-03, throughout the years many documents have treated storm water discharge as a nonpoint source, even though it is legally a point source. This has led to some confusion in terminology. However, it is often obvious from statements in the document that decision makers have sought to exclude storm water from requirements otherwise applicable to point sources.

^{17 &}lt;u>Ibid.</u>, at pages I-5-87 and I-5-88.

numeric water quality standards which have yet been developed. 18
On April 11, 1991, the State Board adopted the Water Quality
Control Plan for Inland Surface Waters (Inland Plan) which is
applicable here. The Inland Plan establishes numeric water
quality objectives but allows dischargers of storm water a
maximum of ten years to achieve compliance.

As was discussed in Order No. WQ 91-03, in 1987 the federal Clean Water Act was amended 19 to add provisions specifically requiring a regulatory program for storm water discharges. Section 402 of the Clean Water Act was amended to add subsection 402(p), which establishes NPDES permit application requirements for municipal storm water discharges and for storm water discharges associated with industrial activities. 20

Section 402(p) includes the following requirements for municipal discharges of storm water:

"Permits for discharges from municipal storm sewers--(i) may be issued on a system- or jurisdiction-wide basis; (ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and (iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the [EPA] Administrator or the State determines appropriate for the control of such pollutants." (Emphasis added.)

¹⁸ The petitioner contends that numerical objectives contained in the Ocean Plan apply to discharges of storm water. We shall discuss that contention infra.

¹⁹ The amendments are entitled, <u>Water Quality Act of 1987</u>, Public Law 100-4 (February 4, 1987).

²⁰ Section 405(p) of the Water Quality Act of 1987.

The Water Quality Act of 1987 also added Section 320 to This amendment created the National the Clean Water Act. Estuaries Program, an effort to develop and implement comprehensive conservation and management plans for estuaries of national importance. In December 1987, a federal appropriations act formally included Santa Monica Bay in EPA's National Estuaries Program. 21 The State of California then organized the Santa Monica Bay Restoration Project to coordinate local, state, and federal activities to develop the required plan which would improve the condition of Santa Monica Bay. The nomination document for this project indicated that urban runoff and storm water discharges may contain heavy metals, organic constituents, pathogens, and other pollutants that threaten or may impair the beneficial uses of Santa Monica Bay. 22 As a part of this project, the Los Angeles Regional Board -- and the numerous local and regional governments and environmental interest groups that also participate in the project--began a more thorough investigation of runoff discharges to Santa Monica Bay. Because existing runoff data was incomplete or inconsistent, the Santa Monica Bay Restoration Project initiated detailed monitoring studies to identify pollutants in runoff flow, especially pathogens, and to assess their effects on the bay. monitoring work is now in progress.

²¹ National Estuary Program, The Nomination of Santa Monica Bay, Environmental Affairs Agency, May 1988.

²² <u>Ibid</u>., see "Executive Summary", page viii, and "Storm Drains and Runoff", page 41.

The permit which we are reviewing here was the result of a cooperative effort of the "Storm Water Permit Work Group," which was established to fulfill part of the objectives of the Santa Monica Bay Restoration Project. The Work Group assisted in drafting the permit.

In order to implement the Basin Plan, the provisions of state law regarding adoption of waste discharge requirements, 23 and the Clean Water Act provisions regarding storm water permits, the Regional Board issued a draft NPDES permit to regulate urban runoff and storm water discharged throughout Los Angeles County. The revised draft permit designated the County of Los Angeles as the "Principal Permittee" and 16 cities as "Co-permittees" (the dischargers). A workshop was held by the Regional Board on April 23, 1990, and a public hearing was held on June 18, 1990, and on the latter date the Regional Board adopted the NPDES permit (NPDES permit CA-0061654; Regional Board Order No. 90-079). Subsequently, the petitioner filed a timely petition for review of the NPDES permit.

II. CONTENTIONS AND FINDINGS

The petition raises a number of contentions which all address whether the permit must include numeric, water quality-based effluent limitations. The petitioner argues that the Clean Water Act requires permits regulating municipal discharges of storm water to prescribe numeric effluent limitations for toxic pollutants. The petitioner also contends that the permit does

²³ California Water Code Section 13000 et seg.

not require controls which reduce pollutants to the "maximum extent practicable". Finally, the petitioner argues that the permit does not comply with the three-year time schedule required in Clean Water Act Section 402(p).

A. The Need for Numeric Effluent Limitations

The petitioners' arguments are based on the premise that the dischargers' municipal separate storm sewer system discharges pollutants to Santa Monica Bay, and that these discharges violate numeric water quality standards in the bay. The numeric standards which the petitioner relies upon are found in the Ocean Plan. As we shall explain, the petitioner's broad assertions vastly oversimplify the complex nature of the dischargers' flood control and drainage facilities, imply that the storm sewer system discharges only into Santa Monica Bay, and misconstrue ambient water quality criteria, receiving water quality standards and effluent limitations.

The County of Los Angeles, Department of Public Works' municipal separate storm sewer system serves a geographic area greater than 4,000 square miles²⁴ and includes more than 87 overlapping local governmental jurisdictions. This system, a vast network of catchments, street gutters, conduits, pipes, and channels that were designed for drainage and flood control purposes, collects urban runoff flows and storm water flows from throughout Los Angeles County. The County's Department of Public Works and 87 cities own, operate, or maintain this enormous

²⁴ See Regional Board's Response to Petition, page 10.

municipal separate storm sewer system. More than 5,000 outfalls or "point sources" discharge these runoff flows into both constructed works and the natural streams, rivers, and other surface water bodies that comprise the Los Angeles River hydrologic unit.

As we discussed in Order No. WQ 91-03, the specific location at which the storm water outfall intersects receiving waters is where the "point source" discharge occurs. While the precise location of each of the several thousand outfalls in Los Angeles County is understandably omitted from the record, the substantial majority of these outfalls discharge urban runoff and storm water flows to surface waters—such as Ballona Creek, Coyote Creek, and San Antonia Creek, the Los Angeles River and the San Gabriel River, Rio Hondo, and other water bodies—throughout the hydrologic basin. 25

Obviously, not all of the dischargers' 5,000 municipal separate storm sewer system outfalls actually discharge directly to Santa Monica Bay. Although the numerous natural water courses which receive storm water generally are <u>ultimately</u> tributary to Santa Monica Bay, they are the receiving waters. As such, these natural water courses cannot be considered elements of the dischargers' municipal separate storm sewer system. In fact, many of these surface waters are clearly identified in the Los Angeles Regional Board's Basin Plan.

²⁵ The nomination document for the Santa Monica Bay Restoration Project stated that "over 60 storm drains" empty into the Bay.

In the Los Angeles Basin, the storm sewer outfalls generally discharge to the water courses upstream from Santa Monica Bay. Both Santa Monica Bay and the water courses which receive the storm water discharges have beneficial uses.

However, the uses of the streams, creeks, reservoirs and rivers in the Los Angeles River Basin are not the same as the uses of Santa Monica Bay. The upstream waters support fresh water uses, while Santa Monica Bay sustains marine water uses.

As was described above, while the Basin Plan does include narrative water quality objectives for the upstream surface waters, the Regional Board has not yet developed numeric objectives for all of the pollutants the petitioner enumerates. Although the Inland Plan does contain numeric objectives, up to ten years is allowed for compliance. The Ocean Plan also includes numeric standards, but these do not apply to discharges of storm water.

The Ocean Plan states that all parts are applicable to point source discharges to the ocean. Narrative water quality objectives and toxic materials limitations (Table B) do apply to nonpoint sources, but compliance is determined by direct measurement in receiving waters. The petitioner requests that the storm water discharges be subject to Table B, and also to Table A (which is meant only to apply to publicly-owned treatment works).

While on its face, Table B may appear to apply to storm water discharges, it is clear from reading the Functional

Equivalent Document, 26 which was adopted by the State Board at the same time as the Ocean Plan, that neither Table A nor Table B are meant to apply to storm water discharges:

"The attainability analysis did not include stormwater discharges because there are few data available on pollutant concentrations in stormdrains. EPA's proposed regulations for stormwater discharges do not use water quality-based effluent limits for stormdrains. 27 Instead, an approach based on Best Management Practices is proposed, following an initial period of characterization.

"We do not propose to apply water quality-based effluent limits such as Table B to stormdrains at this time. Technology-based standards will not be based on Table A, but on Best Management Practices. Since the Table B objectives represent levels of pollutants that are protective of beneficial uses they may be applied to stormdrains at some future date. We do not anticipate that this would occur until adequate characterization data are available so that attainability can be assessed and implementation measures established."

Following the above statement, the Functional Equivalent Document states that the Plan explains how to apply Table B objectives to nonpoint sources. From this statement, it is clear that in drafting the Ocean Plan the State Board was viewing storm water discharges as nonpoint sources. This characterization is understandable. Storm water discharges,

²⁶ Functional Equivalent Document, Amendment of the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (March 1990), at pages 33 and 34.

²⁷ It appears that the reference here was to <u>numeric</u> water quality-based limitations, since such limitations are required in Table B. As we explained in Order No. WQ 91-03, water quality-based limitations need not always be numeric.

while ultimately flowing through a point source to receiving waters, are by nature more akin to nonpoint sources as they flow from diffuse sources over land surfaces. This point is discussed in the Preamble to EPA's storm water regulations:

"For the purpose of [national assessments of water quality], urban runoff was considered to be a diffuse source or nonpoint source pollution. From a legal standpoint, however, most urban runoff is discharged through conveyances such as separate storm sewers or other conveyances which are point sources under the [Clean Water Act]." 55 Federal Register 47991.

We therefore conclude that the petitioner has misinterpreted appropriate criteria and the applicability of Ocean Plan provisions to storm water. There are no numeric objectives or numeric effluent limits required at this time, either in the Basin Plan or in any statewide plan that apply to This absence, however, will not in any storm water discharges. way diminish the permit's enforceability or its ability to reduce pollutants in storm water discharges substantially. numeric objectives are contained in the Inland Plan, these need not be achieved for up to ten years. In addition, the Plan endorses the application of "best management practices" rather than numeric limitations as a means of reducing the level of pollutants in storm water discharges.

The permit which the Regional Board adopted is very similar to that reviewed in Order No. WQ 91-03. The NPDES permit employs a two-fold strategy: It effectively prohibits non-storm

water discharges and illicit connections; and, it requires a comprehensive series of regulatory, governmental, and educational control measures.

As in the case of the permit issued by the San

Francisco Bay Regional Board, the method by which the specific control activities will be implemented is that the dischargers must submit an Implementation Plan for approval by the Regional Board's Executive Officer, and then must implement the Plan.

Thus, the permit lists some, but certainly not all of the management practices which will be undertaken. The remaining specific practices will be developed over a two-year period starting with adoption of the NPDES permit. In addition, the "co-participant" cities, which have not yet been added to the permit, are also being required to select appropriate control measures.

Although the permit does not make specific reference to violation of water quality standards, the permit will be read so as to require the implementation of practices which will achieve compliance with applicable standards. Such a requirement is implicit in the issuance of an NPDES permit, since that is a minimum requirement of a permit, as we discussed in Order No. WQ 91-03. The requirement is also a part of the California Water Code. Water Code Section 13263. The permit does provide that the Regional Board may, in the future adopt numeric water quality objectives and limitations. 28

²⁸ Permit, Finding 19.

We concluded in Order No. WQ 91-03 that permits for municipal separate storm sewer systems issued pursuant to Clean Water Act Section 402(p) must contain effluent limitations based on water quality standards. In addition, the applicable water quality standards are those established for the receiving waters of the storm water discharges. We further concluded there that even if such effluent limitations are intended to require compliance with water quality standards, "best management practices" constitute legally acceptable effluent limitations. We find here, as we did in Order No. WQ 91-03, that the permit includes a comprehensive and stringent program for reducing pollutants in storm water discharge, and that it will implement the Basin Plan, including the protection of beneficial uses.

We note that the dischargers argued in their response that the fact that the permit was derived from a cooperative effort, prior to the promulgation of regulations by EPA, had relevance to its enforceability. While we are certainly pleased that the dischargers and the Regional Board have been able to work together in a cooperative and positive manner, the permit which was adopted is a lawfully adopted NPDES permit, and is fully enforceable as such. The fact that it was adopted prior to the deadline for adoption of such permits, and prior to promulgation of the regulations, has no relevance to its enforceability. The prohibitions and practices contained in the

permit must be obeyed, and those prohibitions and practices must result in compliance with any applicable water quality standards.

Just as in our review of the San Francisco Bay Regional Board's permit, we have reviewed the appropriateness and propriety of this permit. We find here also that the approach of the Regional Board, requiring the dischargers to implement a program of best management practices which will reduce pollutants in runoff, and prohibiting non-storm water discharges, is appropriate and proper. We base our conclusion on the difficulty of establishing numeric effluent limitations which have a rational basis, the lack of technology available to treat storm water discharges at the end of the pipe, the huge expense such treatment would entail, and the level of pollutant reduction which we anticipate from the Regional Board's regulatory program. We feel compelled to note here our agreement with the Regional Board that this permit does truly represent a massive undertaking. No other permit in the State, and perhaps in the nation, will control the number of outfalls in a metropolitan area as this permit undertakes to regulate.

B. The Maximum Extent Practicable Standard

The petitioners contend that the permit must include specified management practices in order to comply with the requirement in Clean Water Act Section 402(p) of reducing pollutants in municipal separate storm sewer discharges to the maximum extent practicable (MEP). The petitioner states that MEP means, "what can be done now, must be done now." As we stated in

Order No. WQ 91-03, however, we find that the Regional Board's approach of requiring the dischargers to prepare a plan with proposed control measures for approval by the Regional Board is preferable to specifying all such measures in the permit. The petitioner gives as an example a requirement for catch basin cleaning, which it claims would reduce pollutants. However, an effective and cost-effective storm water program requires an analysis of the specific area subject to regulation, and should not involve a simple listing of practices that all municipalities must follow. As EPA stated in its Preamble to the draft storm water regulations:

"A wide variety of control measures to reduce the discharge of pollutants from municipal storm sewer systems are currently available. The performance of appropriate control measures is highly dependent on site-specific factors. It is therefore not practicable to define one standard set of controls which will control all pollutants in all municipalities." 53 Federal Register 4945629

We also note that, while we share the petitioner's goal of rapid achievement of an effective practices program, the Clean Water Act does not require implementation of all measures <u>now</u>, but rather has set forth a three-year time schedule for compliance. We shall discuss this point further in the next section.

²⁹ This point was also made in the preamble to EPA's final regulations. 55 Fed. Reg. 48038. There a reference to the legislative history of Clean Water Act Section 402(p) makes clear that Congress' intent was not to dictate specific practices.

C. Time Schedule for Compliance

The petitioner contends that the permit violates the Clean Water Act by not requiring timely compliance with water quality standards. We addressed this point in Order No. WQ 91-03. Here, also, we find that the permit contains provisions requiring such compliance.

The permit includes a very aggressive and comprehensive program of developing and implementing best management practices over a three-year period. The permit does require a program aimed at compliance with applicable water quality standards and all practices necessary to achieve such compliance must be in place within three years of adoption of the permit. Therefore, the permit complies with the time schedule requirements of the Clean Water Act. The permit also specifically provides that the Regional Board may include more stringent effluent limitations, including numeric effluent limitations if necessary.

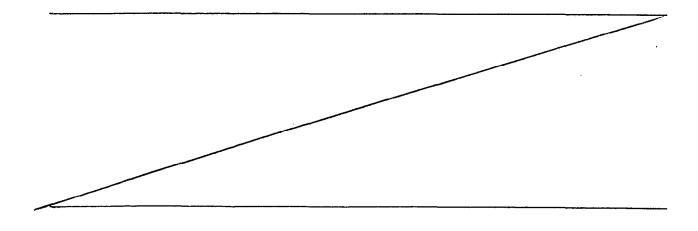
III. CONCLUSIONS

After review of the record and consideration of the contentions of the petitioners, and for the reasons discussed above, and in Order No. WQ 91-03, we conclude:

1. Impacts of storm water discharges on receiving waters and Santa Monica Bay are complicated, and at this time, it would be infeasible to establish numeric effluent limitations on

discharges to storm drains in the Los Angeles River Basin, which are validly associated with impacts in Santa Monica Bay.

- 2. The permit adopted by the Regional Board requires implementation of specific source control measures and effectively prohibits discharges of non-storm water and violation of water quality standards.
- 3. The provisions in the Clean Water Act regulating municipal storm water discharges require effluent limitations and achievement of water quality standards, but the limitations may consist of source control measures, rather than numeric effluent limitations.
- 4. It is appropriate and proper to issue a permit regulating municipal separate storm sewer systems which requires specific practices, rather than containing numeric effluent limitations.
- 5. The specific control measures requested by the petitioner should be considered by the Regional Board when approval of the dischargers' control plan is sought, rather than by this Board.



6. The permit complies with the time schedule requirements of the Clean Water Act.

IV. ORDER

IT IS ORDERED that the petition is denied.

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 May 16, 1991.

AYE: W. Don Maughan

Edwin H. Finster Eliseo M. Samaniego

John Caffrey

NO: None

ABSENT: None

ABSTAIN: None

Maureen Marché

Administrative Assistant to the Board