

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

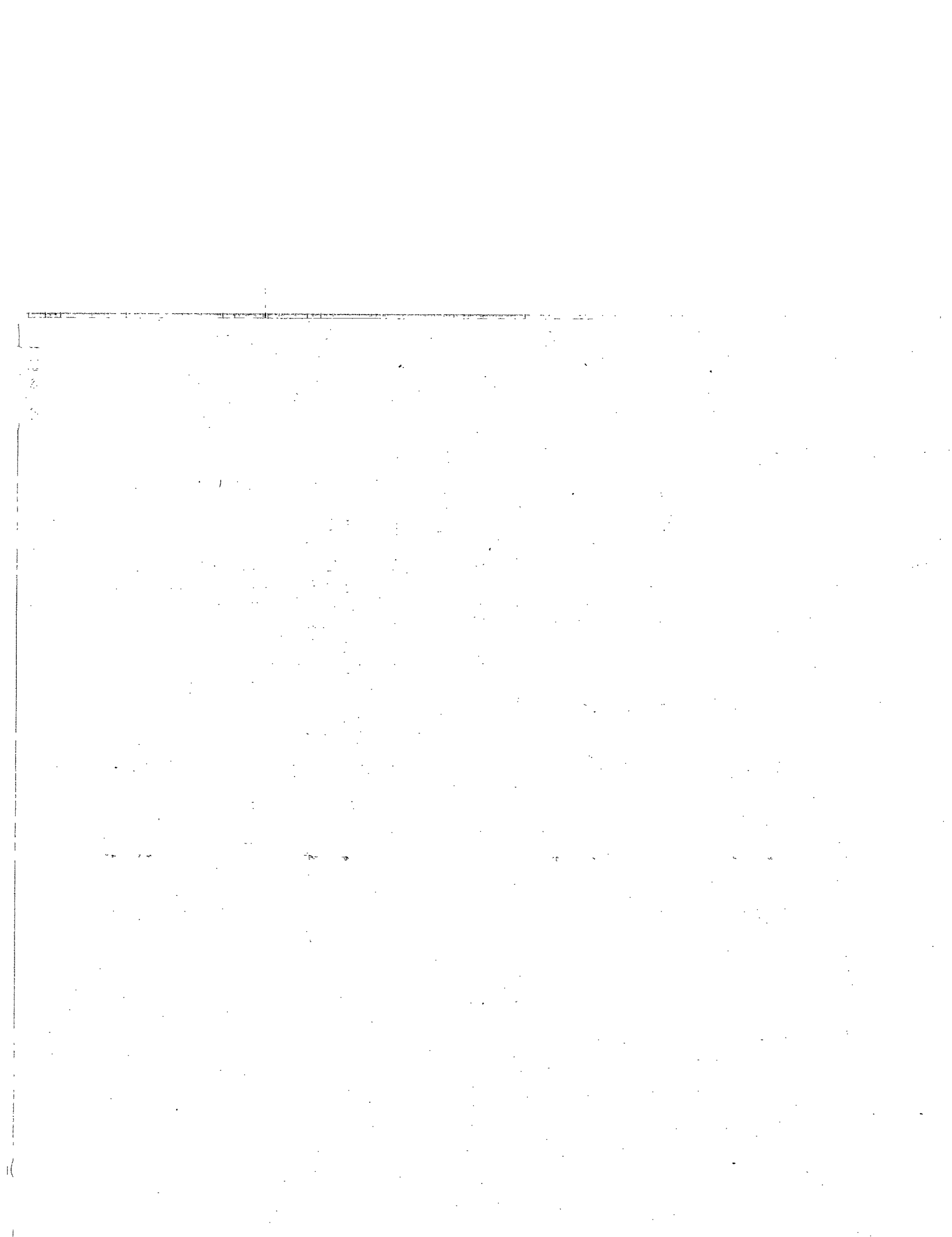
In the Matter of the Petitions of)
the Atchison, Topeka and Santa Fe)
Railway Company and the City of)
Barstow for Review of Cleanup and)
Abatement Order No. 73-4 of the)
California Regional Water Quality)
Control Board, Lahontan Region)

Order No. WQ 74-13

BY THE BOARD:

On October 18, 1973, the Atchison, Topeka and Santa Fe Railway Company (Railway) and the City of Barstow, California (Barstow), jointly referred to as "petitioners", requested the State Water Resources Control Board (State Board) to review Cleanup and Abatement Order No. 73-4 of the California Regional Water Quality Control Board, Lahontan Region (Regional Board). Order No. 73-4 was adopted September 21, 1973, and provided in part that:

1. Petitioners must refrain from further discharge of inadequately treated wastewater to the Mojave River Bed.
2. Petitioners must cleanup and/or abate the effects of the wastes in the groundwaters of the Mojave River that are associated with the discharge at various locations by the Railway and Barstow.
3. Actions necessary for compliance with this order must be commenced no later than November 1, 1973, and the actual cleanup and/or abatement operation must commence at a later date to be determined by the Regional Board.



4. Reports must be submitted to the Regional Board on or before the first of each month which describe the progress of the cleanup and/or abatement efforts to that date.

5. On or before April 1, 1974, a complete report must be submitted to the Regional Board outlining the methods proposed to cleanup and/or abate the effects of the degraded groundwater in the Barstow area, including a time schedule of significant events necessary to accomplish that cleanup and/or abatement.

Additionally, petitioners requested the State Board to stay the effect of the subject order pending disposition of the petitions. The State Board in Order No. WQ 73-29 stayed the effect of said order and consolidated the petitions for review.

The State Board has considered the petitions and reviewed the record of the Regional Board regarding adoption of Cleanup and Abatement Order No. 73-4, and for the reasons stated below finds that the Regional Board's action in adopting the subject order should be modified in accordance with the terms of this order.

BACKGROUND

The alluvial aquifer along the Mojave River near Barstow has been utilized for the disposal of municipal and/or industrial wastes since before 1910. The Railway constructed a drainage system at its facilities near Barstow in 1910, and from that time until 1968 utilized various methods of treatment and disposal for the wastes generated at that site.

In 1953, the Railway began to discharge all domestic waste to the newly constructed treatment plant of Barstow and in

1968 completely terminated its industrial wastewater discharge by connecting to a treatment plant operated by Barstow.

The original sewage treatment facility serving the Barstow municipal area was constructed in 1938 by the Barstow Sanitary District. The treatment consisted of an Imhof tank followed by a trickling filter and chlorination facilities, as well as sludge drying beds. The effluent was then discharged to the bed of the Mojave River. In 1953, Barstow constructed a new 1.0 mgd secondary treatment plant utilizing a primary clarifier and a trickling filter followed by disposal to oxidation-percolation ponds. Any effluent from the oxidation-percolation ponds was either discharged directly to the river bed or used to irrigate alfalfa fields located adjacent to the plant.

A third sewage treatment plant was constructed in December 1968 by Barstow. Treatment at this plant, located approximately $2\frac{1}{2}$ miles downstream from the two previous plants, consisted, until recently, of primary sedimentation followed by a mechanically aerated oxidation pond. Effluent from this pond was then discharged into a series of unlined oxidation ponds from which percolation also occurred. In March, 1973, the City's new secondary treatment facility was placed into operation at the same location. This new facility has a design capacity of 4.5 mgd and the treatment process includes primary sedimentation followed by activated sludge chambers and secondary clarification.

The hearing record indicates that during recent years the chemical quality of groundwater along the Mojave River downstream

from Barstow has deteriorated significantly. A series of investigations by the California Department of Public Works (1952), the California Department of Public Health and California Department of Water Resources (1960), and the California Department of Public Health (1966 and 1970) indicated that groundwater degradation had resulted from local municipal and industrial waste disposal. The areas affected were delineated on the basis of taste, odor and the presence of detergents. A comparison of the degraded areas in each of the above reports indicates that degraded groundwater is advancing down gradient and could pose a threat to the domestic supply well field at the United States Marine Corps (USMC) Supply Center at Nebo, California.

In addition to the foregoing investigations, a recent study was conducted by the United States Department of the Interior, Geological Survey (U.S.G.S.), in cooperation with the United States Marine Corps and the Regional Board. The objective of the study was to identify and describe the areas of degraded groundwater and the potential effect of the degraded groundwater on the quality of water pumped from the USMC Supply Center well field. The study, entitled "Effects of Waste Percolation on Ground Water in Alluvium Near Barstow, California (1973)", indicates that several plumes of degraded groundwater caused by municipal and industrial discharge are moving down gradient towards the Supply Center well field. These plumes have been mapped both areally and vertically.

In conjunction with this study, a digital water quality model was developed which aided the evaluation of the hydrologic

effects of several possible management practices to alleviate water quality problems near the Supply Center. The model and other data indicate that a steady deterioration in water quality will occur in the Supply Center well field unless remedial measures are taken. USGS concluded that a line of pumping wells between the waste treatment facilities and the Supply Center well field could retard the degradation in the well field if proper barrier design and pumping rates are maintained. This conclusion is supported by Brown and Caldwell Engineers, consultants to the Mojave Water Agency, who concurrently conducted a study directed toward possible solutions to this particular problem of groundwater degradation of the Mojave River.

Waste discharge requirements were first adopted for Barstow by the Regional Board on May 18, 1951. These requirements specified that the discharge should be of such a quality that no unreasonable impairment of groundwater would occur. Resolution 66-18 modified these requirements, reaffirmed that groundwater should be protected, and added constituent requirements for phenolic compounds, methylene blue active substances, and hexavalent chromium. Resolution 70-16 added specifications for grease concentrations to the above requirements. The Regional Board also adopted Cease and Desist Order No. 71-3 regarding Barstow's failure to meet a timetable as set out in the requirements and for threatened violation of chemical oxygen demands, biological oxygen demands, MBAS and phenols.

Waste discharge requirements for Railway were adopted on May 18, 1951. The requirements provided that there be no

unreasonable impairment of groundwater as a result of the discharge, and placed limitations on hexavalent chromium and phenolic compound discharges. These requirements were revised in Order No. 53-8. Resolution 60-1 also modified the requirements and added emulsified oil and alkyl benzene sulfonate limitations. The Regional Board adopted Cease and Desist Order No. 70-9 for the Railway's accidental spill of petroleum products.

CONTENTIONS AND FINDINGS

The specific contentions of the petitioners and our findings relative thereto are as follows:

Contention

The imposition of the economic burden of performing the ordered cleanup and/or abatement upon petitioners is an application of penalties for prior lawful conduct. As such it is an "ex post facto" law prohibited by the United States and California Constitutions.

Finding

The constitutional prohibition against ex post facto legislation is restricted to criminal laws. (Galvan v. Press, 347 U.S. 522, 74 S.Ct. 737; Calder v. Bull, 3 U.S. (3 Dall.) 386. Water Code Section 13304 is not a criminal statute, nor can the economic burden of performing the ordered cleanup be construed as the application of "penalties" in a criminal sense. We find that this contention is without merit.

Contention

Adoption of Order No. 73-4 pursuant to Water Code Section 13304 as applied to conduct occurring before enactment of Section 13304, which did not become effective until January 1, 1970, is an unauthorized retroactive application of this section. Retroactive application was not intended by the California Legislature nor is it permissible under the guise of remedial legislation pursuant to the police powers of the State.

Finding

We agree with petitioners' argument that, absent specific language to the contrary, a statute is generally given only prospective application. As petitioners note, a retroactive statute "reaches back to attach new legal rights to already completed transactions". As Section 13304 does not contain express language providing for retroactive effect, Order No. 73-4 can only apply to the effects of a discharge occurring after January 1, 1970. Finding #6 of Order No. 73-4 and substantial evidence in the hearing record indicate that plumes of the degraded groundwater in question are active and are continuing to move down gradient through the alluvial aquifer, causing more extensive and additional conditions of pollution and nuisance and threats thereof. Although petitioners may have actually discharged a major portion of the waste causing the continuing degradation prior to 1970, the consequences and the ambit of their discharge continue to expand and affect areas free of said water quality problems prior to 1970. The Regional Board has jurisdiction to order cleanup or abatement of these post-1970 effects.

Such an order is not retroactive in effect inasmuch as the discharge continues to occur and expand. Petitioners do not have a vested right to continue this discharge in the alluvial aquifer. [Water Code Section 13263(g)].

We find that the dischargers must refrain from further discharge of inadequately treated wastewater to the Mojave River Bed. We find further that the dischargers must prevent the degraded groundwater from expanding and affecting new areas which were not affected as of January 1, 1970. This means that the plumes of degraded groundwater must be confined to their location as of that date. The Regional Board order should be modified in this respect.

It should be noted that the plaintiff in Polich v. Atchison, Topeka and Santa Fe Railway Co., et al., San Bernardino County Superior Court, No. 138157, alleged that over a period of many years defendants polluted his wells by discharging inadequately treated wastewater to the Mojave River which percolated to the alluvial materials of the river bed. The Court in a Memorandum of Intended Decision dated October 11, 1973, found defendants liable to plaintiff in the amount of \$43,660 and ordered judgment accordingly. Consequently, it appears that property owners may have adequate remedies at law for any actual damage which occurred prior to the date of Order No. 73-4.

Contention

Petitioners were not accorded substantive due process protection of a fair hearing and decision premised on substantial evidence as guaranteed by the U. S. and California Constitutions.

Findings

Petitioners contend that they were denied due process in that prejudicial evidence was admitted into the record which erroneously indicated that Railway was violating requirements after 1968 when they actually commenced disposing of industrial waste through Barstow's treatment facilities in 1968.

Although it is true that Railway commenced discharging its industrial waste through Barstow's treatment facilities in 1968, the waste discharge requirements for the Railway, prescribed in Order No. 60-1, were expressly not rescinded as there were concerns regarding operation of Railway facilities other than discharges of industrial waste to Barstow's treatment facilities. These concerns were justified when, on February 11, 1970, a cease and desist order, Resolution 70-9, was adopted by the Regional Board against Railway for violations of requirements in Order No. 60-1. These violations involved accidental spillage of petroleum products by the Railway. The hearing record contains evidence regarding this and other accidental spillage. Thus, it can be reasonably found that Railway violated waste discharge requirements after 1968.

Petitioners contend that they were denied due process in that the Regional Board erroneously considered evidence presented

by the staff of accidental spillage occurrences of which the effects were completely rectified and of which there was no demonstrated causal relationship to the alleged degradation.

There is substantial evidence in the record to show that constituents of the degraded plumes could only have resulted from Railway's facilities since there was no other source for those constituents. It was not an abuse of discretion for the Regional Board to infer the causal connection between the discharges of Railway and the composition of constituents in the degraded plumes based on the hearing record and the findings of Cease and Desist Order No. 70-9.

Petitioners contend they were denied due process in that the Regional Board erroneously admitted into evidence and considered a highly prejudicial letter from the Daggett Community Services District dated September 19, 1973, even though the writer was not present at the hearing.

This letter from the Daggett Community Services District referred to the groundwater degradation problem in question and expressed the District's concern regarding the possible effect on the District's future water supply. The letter contained little factual material and urged the Regional Board to take prompt remedial action.

The Regional Board was instructed by its legal counsel that the contents of the letter could be considered in the discretion of the Regional Board to have less weight due to the absence of the

writer and the consequent inability to cross-examine him on the contents. Counsel for petitioner was permitted to comment regarding the contents of the letter and to point out any inaccuracies or improprieties. Petitioners took advantage of this opportunity to comment regarding the contents of the subject letter. In view of other evidence which fully supports the Regional Board's findings, admission of this letter under all the circumstances was not an abuse of discretion or prejudicial to the petitioners.

Petitioners contend that they were denied due process in that the Regional Board considered the contradictory and erroneous testimony of Mr. Sam G. Kalichman of the State Department of Health which indicated that nondegradable detergents in the kind and constituencies found in the purported degraded plumes and wells in the vicinity of Barstow were harmful to health. New evidence exists from the State Department of Health that alters this testimony.

As requested by petitioners in their letter dated November 12, 1973, the State Board has considered the evidence in the form of a letter from the State Department of Health dated October 1, 1973, and signed by Mr. Sam G. Kalichman that purportedly alters the above testimony. While the letter apparently alters Mr. Kalichman's letters of July 25, 1973, and September 18, 1973, and his oral testimony at the hearing on September 20 and 21, 1973, to the extent that the presence of detergents in the form of Methylen blue active substances (MBAS) in domestic water supplies

has been reclassified in proposed revisions to the Federal Drinking Water Standards from inclusion as a health risk to inclusion in the category of aesthetics, this changed testimony does not alter the finding of a "pollution" as argued by petitioners. A pollution as defined by Water Code Section 13050(1), means an alteration of the quality of the waters of the State by waste to a degree which unreasonably affects such water for beneficial uses. The groundwater of the Mojave River Bed has been classified as suitable for the beneficial use of domestic water supply Water Quality Control Plan (Interim), South Lahontan Basin, June 1971. A domestic water supply may become unusable as much on the ground of unacceptable odors and tastes as on the ground of health risks. The fact that there may be no immediate risk to health does not negate the finding that the discharge of waste by petitioners has in fact altered the quality of waters of the State to a degree which unreasonably affects the beneficial use of the water as a domestic supply.

In addition to the testimony of Mr. Kalichman, there is other substantial and adequate evidence in the record to show that domestic supply wells have been abandoned or rendered unusable because of tastes and odors. (See State of California, Department of Public Health and Department of Water Resources, Ground Water Quality Studies in Mojave River Valley in the Vicinity of Barstow, June 1960; State of California, Department of Public Health; Barstow Ground Water Study, June 1970). There is also substantial evidence in the record to show that the presence of the specific constituents of detergents and phenols as well as presence of odors, taste and foaming, in wells located down gradient of the discharges of petitioners exceeded the accepted limits of use of this water for domestic or municipal purposes. (See State of California, Department of Public Health and Department of Water Resources, Ground

Water Quality Studies in Mojave River Valley in the Vicinity of Barstow, June 1960; State of California, Department of Public Health; Barstow Ground Water Study, May-August 1966; State of California, Department of Public Health, Barstow Ground Water Study, June 1970; United States Department of the Interior, Geological Survey, Effects of Waste Percolation on Ground Water in Alluvium near Barstow, California, June 1973). In the case of Polich v. Atchison, Topeka, and Santa Fe Railway Co., et al., cited previously, the Court found that the various pollutants clearly damaged plaintiff's water supply.

In light of this evidence, it cannot be said that the Regional Board abused its discretion or acted without a substantial basis, thus, denying petitioners due process of law.

Petitioners contend that they were denied due process in that the staff report findings which attribute MBAS in the degraded waters to the effluent discharged by petitioner Railway are prejudicial, inaccurate and misleading, because the staff report does not state that Railway converted from nondegradable to degradable detergents in the years 1964 and 1965. Railway contends that this conversion was made as soon as practical after the deleterious effects of synthetic detergents were discovered.

The gist of petitioners' contention is that they should not be held responsible for the presence of detergents in the degraded groundwater because they purportedly converted to a degradable type of detergent as soon as the adverse effects of nondegradable detergents were discovered. Violations of waste discharge requirements may exist without any element of wrongful conduct on the part of the person responsible. (For an analogy in

the law of nuisance see Kafka v. Bozio, 191 Cal. 746, 218 Pac. 753).

The State has the authority to provide for the abatement of nuisances whether they exist by the fault of the persons affected or not. (People v. Gifford, 54 Cal.App. 182, 201 Pac. 469).

Therefore, petitioner was not denied due process in this respect.

Petitioners contend that they were denied due process in that prejudicial and irrelevant evidence of the degraded condition of less than ten private wells was introduced at the hearing.

Petitioners contend that it was these wells only that were alleged to either be polluted and/or immediately threatened by the purported degraded water, and no current evidence regarding the present condition and use of these wells or the availability of alternative sources of water was considered by the Regional Board.

Petitioners are mistaken. The Regional Board received evidence contained in written testimony and in oral testimony regarding the threatened degradation of additional wells, particularly those located in the well field of the USMC Supply Center at Nebo, California. The Supply Center well field serves the domestic water supply requirements of the military and civilian population at the Supply Center. Although consideration of alternative sources of water may be an acceptable alternative to actual cleanup and/or abatement of the groundwater degradation, the issue is of little relevance to the appropriateness of adoption of the cleanup order. Also the Regional Board has no authority to order the use of alternative sources.

Petitioners contend that they were denied due process in that the findings of the Regional Board do not represent an

independent decision formed from the nonpartisan presentation of evidence but rather are predicated upon reliance and acceptance of the findings of the staff report.

Based upon the record before the Board, it cannot be said that the Regional Board abdicated its responsibility to make an independent decision with regard to the adoption of Order No. 73-4 in light of the extensive questioning by the individual Regional Board members of witnesses for both staff and petitioners, and particularly in light of the extensive discussion which occurred during the public deliberations after the public hearing was closed and the changes made by the Board to the original proposed order which was prepared by the staff.

Contention

Petitioners contend that the findings of the Regional Board upon which Cleanup and Abatement Order No. 73-4 is based are not supported by substantial evidence with respect to: (1) the existence of or threatened condition of pollution; (2) the existence of or threatened nuisance; (3) the public character of the nuisance and the "community" affected; and (4) the causal relationship between the alleged pollution and nuisance condition and the conduct and practices of petitioners.

Finding

Section 13304 authorizes issuance of a cleanup and abatement order whenever waste has been discharged in violation of requirements without regard to whether the discharge has caused pollution or a nuisance. However, petitioners' claim has

been substantially refuted in the discussion regarding previous contentions of petitioners. There is substantial evidence in the record of the hearing on September 20 and 21, 1973, to support the findings of the Regional Board concerning the existence of a "pollution", the existence of a "nuisance", the "community character" of the nuisance, and the conduct and practices of petitioners.

Contention:

Petitioners contend that the Regional Board failed to consider economic factors necessarily resulting from the issuance of a cleanup and abatement order prior to adoption of said cleanup order, and that failure to consider economic factors contravenes express requirements of Sections 13000 and/or 13241 of the California Water Code.

Finding

Section 13241 of the Water Code relates to the establishment of water quality control plans, a matter which was not before the Regional Board. We must presume that economic factors were considered in the adoption of the water quality control plan for the Lahontan Region. Similarly, Section 13000 is directed to the exercise of policy-making authority of the State and Regional Boards as it relates to the development of statewide programs for the control of water quality and the exercise of full power and jurisdiction to protect waters from degradation. It should be noted that the consideration of economic factors is not specifically required prior to adoption of any enforcement action by a Regional Board pursuant to Chapter 5, Division 7, of the Water Code. Despite the fact

that the Water Code does not require consideration of economic factors in this matter, a review of the hearing record shows that many economic considerations were before the Board and that it was clear that the cost to petitioners in complying with the proposed order would be substantial. We find no merit to this contention.

Contention

Petitioners contend that the action taken by the Regional Board is an unconstitutional and unauthorized use of the State's police power by arbitrary and capricious taking of property without compensating petitioners.

Finding

The protection of the natural resources of the State, including the protection of water quality, is in the general welfare and constitutes a reasonable exercise of the police power.

(Freeman v. Contra Costa County Water District, 18 Cal.App.3d 404, 95 Cal.Rptr. 852; Gin Chow v. Santa Barbara, 217 Cal. 673, 22 P.2d 5; Tulare Irrigation District v. Lindsay Strathmore Irrigation District, 3 Cal.2d 489, 45 P.2d 972). The constitutional guaranty of compensation for the taking of property does not apply to the State's exercise of its police power. (17 Cal.Jur.2d Eminent Domain, Section 3). In this case, we believe the action of the Regional Board clearly falls within the reasonable exercise of the State's police power.

Contention

Petitioners contend that the action taken by the Regional Board is barred from enforcement by the Statute of Limitations which

prohibits actions for trespass or nuisance and the taking by a public entity instituted after the passage of three and five years respectively since discovery of the facts constituting the infringement of rights.

Finding

The Statute of Limitations set forth in Code of Civil Procedure 338 and Government Code Section 905 are only applicable to an action for damages based on the theory of trespass or a private nuisance. It has no application to an action for an injunction to abate a public nuisance. (Cloverdale v. Smith, 128 Cal. 230, 60 Pac. 851). Reiterating the provisions of California Civil Code Section 3490 that no person can perfect a prescriptive right to maintain a public nuisance, once the factual determination is made that a nuisance is public rather than private, the State is entitled by law to an effective injunction. Further, said limitations do not apply to cleanup or abatement orders pursuant to Water Code Section 13304.

Although not mentioned in the Petition for Review, petitioners argue in their points and authorities that the defense of "laches", the failure to assert a remedy for a lengthy period of time resulting in prejudice to petitioners, prevents the Regional Board from taking this action. In light of the 1970 enactment of Section 13304 and our finding regarding retroactivity, this claim is without merit as well.

Contention

Although not mentioned in the Petition for Review, petitioners contend in their points and authorities that the contributory conduct of the state regulatory agencies including the Division of Water Quality of the State Board and the federal funding agencies in reviewing and approving the waste treatment facilities and procedures implemented by the City of Barstow renders enforcement of Cleanup and Abatement Order No. 73-4 unconstitutional.

Finding

Whatever effect the alleged defense of contributory negligence has upon an action for damages, such defense is not available in an action for cleanup or abatement. We find this contention has no merit.

Contention

Petitioners contend that the definitions and/or applicability of nuisance, pollution, negligence, intentional conduct, strict liability, threatened condition of pollution, nuisance and community in the public nuisance context as expressly or impliedly included in Water Code Section 13304, as explained by legal counsel to the Regional Board, were prejudicial, arbitrary, erroneous and without support of legal authority.

Finding

The propriety of the definitions of intentional or negligent conduct are irrelevant as the Regional Board expressly deleted such a finding. The definitions of pollution and nuisance

were those provided by Water Code Sections 13050(1) and 13050(m).

Contention

Petitioners contend that Cleanup and Abatement Order No. 73-4 is fatally defective and unenforceable in that (1) it is vague, ambiguous, overbroad and not susceptible of reasonable compliance by petitioners; (2) it makes no delineation of the relative culpability and concomitant liability for the degradation of the groundwaters of the Mojave River among the many waste dischargers thereto; (3) it fails to indicate the relationship between the degraded condition of the groundwaters and petitioners' liability for purification; and (4) it fails to devolve reasonable and tolerable degradation parameters to which the ordered cleanup and abatement must conform.

Finding

The Regional Board is expressly precluded by Water Code Section 13360 from specifying the design, location, type of construction or particular manner in which compliance may be had with a Regional Board order. The method of compliance is left to petitioners to determine and to that end, a compliance date of April 1, 1974, was included in Order No. 73-4 at which time petitioners shall submit a complete report to the Regional Board outlining the methods proposed to cleanup and/or abate the effects of the degraded groundwater in the Barstow area which are associated

with the discharges of Railway and Barstow. Since the beneficial use that has been destroyed or severely impaired or is threatened with destruction or severe impairment is that of domestic water supply, the reasonable conclusion regarding what results are expected of petitioners is that the groundwater shall be maintained in such condition which enables its use for domestic water supply.

IT IS HEREBY ORDERED that:

1. Paragraphs 2, 3, and 5 of Cleanup and Abatement Order No. 73-4 are modified as follows:

"2. Clean-up and/or abate the effects of the wastes in the groundwaters of the Mojave River that are associated with the discharge at various locations by Atchison, Topeka and Santa Fe Railway Company and the City of Barstow so as to prevent the further movement of the degraded plumes to areas not affected as of January 1, 1970.

"3. Actions necessary for compliance with this Order shall commence no later than August 30, 1974, and the actual cleanup and/or abatement operation shall commence at a later date to be determined by the Regional Board.

"5. On or before February 1, 1975, a complete report shall be submitted to the Regional Board outlining the methods proposed to clean-up and/or abate the effects

of the degraded groundwater in the Barstow area including a time schedule of significant events necessary to accomplish that clean-up and/or abatement."

2. The stay order of Order No. WQ 73-29 is continued in effect for a period of 30 days from date of this order.

3. In all other respects the petition is denied.

Dated:

/s/ W. W. Adams
W. W. Adams, Chairman

ABSENT
Ronald B. Robie, Vice Chairman

ABSENT
Roy E. Dodson, Member

/s/ Mrs. Carl H. Auer
Mrs. Carl H. (Jean) Auer, Member

/s/ W. Don Maughan
W. Don Maughan, Member