REPORT BY THE

AUDITOR GENERAL

OF CALIFORNIA

THE STATE OF CALIFORNIA SHOULD DO MORE TO REDUCE AND PREVENT CONTAMINATION OF WATER SUPPLIES

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REPORT BY THE

OFFICE OF THE AUDITOR GENERAL

TO THE

JOINT LEGISLATIVE AUDIT COMMITTEE

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APRIL 1984

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Thomas W. Hayes
Auditor General

April 4, 1984 P-376

Honorable Art Agnos, Chairman
Members, Joint Legislative
Audit Committee
State Capitol, Room 3151
Sacramento, California 95814

Dear Mr. Chairman and Members:

The Office of the Auditor General presents its report concerning the State Water Resources Control Board and the Regional Water Quality Control Boards' procedures to regulate those discharging wastes that affect the quality of state waters. The report concludes that the state and regional boards have made little improvement in regulating waste dischargers since the Auditor General's 1979 report.

Respectfully submitted,

THOMAS W. HAYES
Auditor General

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SUMMARY

The State of California is not protecting all of its waters from contamination. The State Water Resources Control Board (state board) and the regional water quality control boards (regional boards) are responsible for regulating those discharging wastes that affect the quality of state waters. However, regional boards estimate that up to 50 percent of the waste discharge requirements that they have issued are outdated. Additionally, regional boards inspect waste dischargers on an irregular and often infrequent basis, and there is little evidence that regional boards follow-up to ensure that violations discovered during inspections are corrected. The 1984-85 Governor's Budget estimates that the state and regional boards will spend $20.2 million in fiscal year 1983-84 and $23.2 million in fiscal year 1984-85 to regulate waste dischargers.

In April 1979, the Auditor General issued a report entitled "State Water Resources Control Board and Regional Water Quality Control Boards: Need for Uniform Regulatory Policies and Procedures." That report was critical of the procedures used by the state and regional boards to regulate waste dischargers. Since 1979, there has been little improvement in the regulation of waste dischargers. The state board and the regional boards still do not have an effective regulatory program either to identify waste dischargers that violate standards or to ensure that violations are corrected. Additionally, because of delays in establishing an interagency agreement between the state board and the Department of Health Services, the regional boards have not evaluated hazardous waste disposal facilities for conformance with federal groundwater protection requirements.

The need for a consistent and effective regulatory program is evidenced by the continuing reports of water contamination throughout the State, such as those reported at Aerojet General Corporation in Sacramento County, Occidental Chemical Company in San Joaquin County, the

Stringfellow Acid Pits in Riverside County, and the San Gabriel Ground Water Basin in Los Angeles County. Contamination at three of these locations has already affected the groundwater used for drinking by the neighboring communities. Experts estimate that it will cost hundreds of millions of dollars to clean up the water contamination at these locations, and in at least one case, experts are uncertain whether it is technically possible to clean up the water contamination.

Ineffective Regulatory Program

Since 1979, the state board has adopted regulations that require the regional boards to review waste discharge requirements and to inspect each waste discharger at least once every five years. However, there has been little overall improvement in the regulatory program. Regional boards still do not have adequate procedures or sufficient management information to regulate waste dischargers effectively. Consequently, waste dischargers submit self-monitoring reports irregularly, and there is little evidence that the regional boards ever resolve violations reported on these self-monitoring reports. In 42 of 75 cases we reviewed that required self-monitoring, the discharger did not submit self-monitoring reports when they were due. Furthermore, the regional boards conducted inspections on an irregular and often infrequent basis. Of the 98 cases we reviewed, 15 dischargers had not been inspected in over five years, and 6 had not been inspected in over ten years. In some cases, there was no evidence that the regional board followed up to ensure that the discharger corrected violations discovered during inspections.

Moreover, regional boards do not have systematic procedures to identify and revise outdated waste discharge requirements. Regional boards estimate that up to 50 percent of their waste discharge requirements are outdated. Consequently, these waste discharge requirements may not reflect current water quality plans or standards. Also, the regional boards have inconsistent policies regarding the fees charged to waste dischargers, and the regional boards do not always

charge fees when they could, thereby foregoing state revenues. Fees for waste discharge requirements range from $25 to $10,000.

Inadequate Regulation of Hazardous Waste Disposal Facilities

The state board and the Department of Health Services (department) are responsible, under separate authority, for protecting groundwater from contamination by hazardous waste. Under state law, the state board and the regional boards are responsible for issuing waste discharge requirements to any waste discharger that may affect the quality of state waters; these dischargers include hazardous waste disposal facilities. Additionally, in 1981, the U.S Environmental Protection Agency (EPA) delegated to the state board and the department responsibility for regulating the handling of hazardous waste. The EPA designated the department to receive federal funds and to account for the results of the program.

The state board and the department have not fully carried out their responsibilities in regulating the approximately 128 hazardous waste disposal facilities that the department identified. In particular, the regional boards have issued waste discharge requirements to only 78 of the 128 hazardous waste disposal facilities. Some of these waste discharge requirements do not regulate the facility's disposal operation, and others do not include adequate measures to protect underlying groundwater. While officials of the regional boards state that they do not have enough staff to regulate hazardous waste disposal facilities, we also noted that the state board has not actively directed that waste discharge requirements be issued to these facilities.

Furthermore, because of delays in delineating responsibilities and apportioning federal funds between the state board and the department, the regional boards had less than four months to implement the 1982-83 interagency agreement that required the regional boards to

evaluate the 128 facilities for conformance with federal groundwater protection standards. As of February 1984, the regional boards had not submitted any evaluations of the 128 facilities. The department is ultimately responsible to the EPA for evaluating facilities' conformance with the federal requirements; this responsibility includes inspecting facilities. During the 1982-83 federal fiscal year, the department inspected only 69 of the 128 facilities.

Recommendations

The state board should adopt specific procedures to improve the regulation of waste dischargers. Furthermore, the state board should monitor the regional boards' regulatory activities and make the regional boards accountable to the state board.

To increase funding for additional staff at the regional boards, the Legislature should establish an expiration date for all waste discharge requirements. Dischargers would then have to submit new applications and filing fees to renew their waste discharge requirements. The Legislature should also consider making the regional boards supported primarily by fees paid by waste dischargers. The Legislature should also use budget control language to make appropriations for the state and regional boards contingent upon their progress in improving the regulation of waste dischargers.

Finally, if the Secretary of the Environmental Affairs Agency is dissatisfied with the progress of the state and regional boards in improving the regulation of waste dischargers, the Secretary should request the Legislature to restructure the legal and organizational relationship of the state and regional boards. This restructuring could improve the regulatory program since state board officials say that the regional boards' semiautonomous status makes it difficult to require them to adhere to uniform procedures.

INTRODUCTION

The State Water Resources Control Board (state board) and the nine regional water quality control boards (regional boards) are responsible for protecting and enhancing the quality of all waters of the State. Under its water quality control program, the state board is responsible for developing an effective, unified water quality control plan and for administering grants to local governments to construct wastewater treatment facilities. Through its water rights program, the state board issues permits and licenses to those who appropriate water from streams, rivers, and lakes. The nine regional boards, located throughout the State, are responsible for developing and enforcing water quality control standards within their respective regions. (A map in Appendix A shows the State's nine water quality control regions.) This report focuses on the State's water quality control program, particularly the regional boards' regulation of those who discharge wastes.*

The Porter-Cologne Water Quality Control Act, which took effect January 1, 1970, provides general legislative authority for the State's water quality control program. The act makes the state and regional boards responsible for protecting and enhancing all waters of the State, including surface waters and groundwater. (Groundwater is the source of about half of the drinking water in the State.) The act requires the State to regulate any activities that may affect the quality of the

*"Waste" includes sewage and other waste substances.

State's waters in order to attain the highest possible water quality. The act also authorizes the state board to exercise those powers delegated to the State by the Federal Water Pollution Control Act. Through this federal law, the U.S. Environmental Protection Agency has authorized the State to issue permits regulating discharges into navigable waters of the State. Navigable waters include surface waters such as oceans, bays, and rivers. For state fiscal year 1983-84, the federal government provided approximately $3.14 million to assist the State in regulating those discharging wastes into navigable waters.

The 1984-85 Governor's Budget estimates that total program expenditures for the state and regional boards in fiscal year 1983-84 will be over $105 million. Of that amount, $99.9 million is allocated for the water quality control program. Expenditures for the water quality control program include $74.4 million for facility development, $20.2 million for regulation, $2.3 million for technical assistance and research, and $3.0 million for planning. Staffing for the state and regional boards is authorized at 692 personnel years.

Excluding federal funds, funding sources for the state and regional boards during fiscal year 1983-84 include the General Fund, the State Clean Water Bond Fund, the State Water Quality Control Fund, and the Hazardous Waste Control Account. The state and regional boards also receive reimbursements, such as certification fees or fees charged to dischargers when they apply to the regional boards for waste discharge requirements.

Program Administration

In fulfilling its responsibility for protecting the quality of state waters, the state board adopts statewide policy for water quality control and reviews and approves regional plans for water quality control. The state board also provides policies, guidance, and legal and technical assistance to the regional boards. The state board reviews the regional boards' budgets and incorporates them into its own budget. The state board is also the final administrative authority for appeals of actions taken by the regional boards.

In addition, the state board administers grants to public agencies to construct wastewater treatment projects. The Clean Water Bond Acts of 1970, 1974, and 1978 provide $875 million to finance projects for controlling water pollution and developing water conservation and wastewater reclamation projects. As of June 30, 1983, the State Treasurer had sold $660 million in bonds, 75 percent of the total authorized by the bond acts; the state board had spent $589 million of the proceeds from these sales.

In the Porter-Cologne Water Quality Control Act, the Legislature made the regional boards semiautonomous agencies to provide them with flexibility in responding to regional problems. Each regional board establishes its own objectives for maintaining water quality, and each regional board develops a plan to achieve those objectives. The regional plan must conform to the State's water quality control policy,

and the regional plan must be approved by the state board. The regional boards are also directly responsible for regulating waste dischargers. The regional boards regulate waste dischargers through three activities: adopting waste discharge requirements, monitoring and surveillance, and enforcement.

Regional boards issue waste discharge requirements to anyone discharging waste or proposing to discharge waste that may adversely affect water quality. Waste discharge requirements are issued to implement the objectives of the regional water quality control plans and thus protect water for beneficial uses. Waste discharge requirements specify the type, quality, and quantity of wastes that may be discharged, and they may also indicate the condition or degree of purity that must be maintained in the water affected by the discharge. For discharges to navigable waters, waste discharge requirements also serve as permits that satisfy the requirements of the National Pollution Discharge Elimination System established by federal law. The State issues these permits under a delegation agreement with the Environmental Protection Agency.*

*The Porter-Cologne Water Quality Control Act authorizes regional boards to issue waste discharge requirements to protect all waters of the State; therefore, all waste discharge requirements are technically issued under the authority of the Porter-Cologne Act. However, since the federal government requires different provisions for regulating discharges to navigable waters, for the purposes of this report, we distinguish between waste discharge requirements issued under federal law from those issued under the Porter-Cologne Act.

Regional boards are required periodically to review and update waste discharge requirements so that they conform to current technology, water quality conditions, and treatment levels as specified by state and federal regulations. In addition, if a discharger changes either the quantity or type of discharge or the method of treatment, the discharger must notify the regional board. The regional board then reviews and, if necessary, revises the waste discharge requirements. As of June 1983, there were approximately 8,403 waste discharge requirements in force in California; this total comprises 1,557 federal permits and 6,846 state waste discharge requirements.

To ensure that dischargers comply with waste discharge requirements, the regional boards conduct monitoring and surveillance activities, such as collecting, interpreting, and maintaining data on water quality. On-site compliance inspections and reviews of dischargers' self-monitoring reports are two key monitoring and surveillance activities that the regional boards conduct. If a regional board discovers a violation of the waste discharge requirements, the regional board encourages the discharger to comply voluntarily. If the discharger does not comply, the regional board takes administrative enforcement action, such as issuing clean-up and abatement orders, or finally seeks legal remedies.

Regulation of Groundwater at Hazardous Waste Disposal Facilities

State agencies administer two programs that protect groundwater from unsafe disposal of hazardous waste. As noted above, under the Porter-Cologne Water Quality Control Act, the state and regional boards are responsible for protecting all state waters, including groundwater. Through this act, the regional boards regulate hazardous waste disposal facilities by issuing waste discharge requirements prohibiting leaks or discharges of hazardous waste that could contaminate underlying groundwater. In addition, under the California Hazardous Waste Control Act, amended to implement the federal Resource Conservation and Recovery Act, the Department of Health Services ensures the proper handling of hazardous waste by regulating persons or facilities that generate, treat, store, or dispose of hazardous waste. Thus, through separate legislation, the state board and the Department of Health Services each have responsibility for protecting groundwater from the unsafe disposal of hazardous waste.

In June 1983, officials of the state board and the Department of Health Services signed an interagency agreement for federal fiscal year 1982-83 establishing specific responsibilities for regulating hazardous waste disposal sites. Under this agreement, the state board was responsible for inspecting hazardous waste sites, evaluating groundwater monitoring programs, reviewing applications for disposal permits, providing technical assistance to applicants, aiding the Department of Health Services in enforcing hazardous waste laws, and

developing regulations to control hazardous waste. The state board and the Department of Health Services plan to sign a similar interagency agreement for federal fiscal year 1983-84; as of March 1, 1984, the agreement had not been signed, however.

Auditor General's 1979 Report on the State Water Resources Control Board

In April 1979, the Auditor General reported on the state and regional boards' procedures for regulating waste dischargers.* At that time, Auditor General staff conducted fieldwork at each of the nine regional boards. The report noted that the regional boards did not have uniform procedures for reviewing self-monitoring reports submitted by dischargers and that regional boards were neither consistent nor prompt in conducting inspections or updating waste discharge requirements.

Additionally, the report identified problems with the state board's automated management information system, the Waste Discharger System. The report concluded that the regional boards were not fully using the system and that the data base was both inaccurate and incomplete.

*This report is entitled "State Water Resources Control Board and Regional Water Quality Control Boards: Need for Uniform Regulatory Policies and Procedures," Report P-856.1, April 1979. A summary of this report appears in Appendix B.

The Auditor General recommended that the state board establish and enforce uniform policies, procedures, and formats for inspections, self-monitoring functions, and renewal of waste discharge requirements. We also recommended that the state board reevaluate the objectives of the Waste Discharger System, considering both state and regional needs, and that it develop and implement minimum reporting and use requirements.

In a June 1979 letter to the Joint Legislative Audit Committee, the state board reported on its progress in implementing the Auditor General's recommendations. The state board indicated that it would complete updating its procedures manual for regional boards by December 1979. The state board also reported that it was developing standard inspection and self-monitoring forms and that the regional boards were in the process of updating older waste discharge requirements. Additionally, the state board reported that it was correcting the automated Waste Discharger System so that the data base would be accurate by July 1, 1979. Finally, the state board reported that it would adjust the system to meet the needs of the regional boards by June 30, 1980.

SCOPE AND METHODOLOGY

This audit focused on the regional water quality control boards' policies and procedures for regulating waste dischargers. This report updates the information presented in the Auditor General's 1979 report. We also discuss the State Water Resources Control Board's and the Department of Health Services' implementation of an interagency

agreement to protect the State's groundwater from contamination by hazardous waste disposal facilities. We also summarize all expenditures made under the Clean Water Bond Acts as of June 30, 1983, and we reviewed a sample of expenditures made between July 1, 1981, and June 30, 1983.

To conduct our review, we interviewed staff of the state board, and we reviewed administrative manuals and other program documents to determine statewide requirements, policies, and procedures. We also reviewed pertinent state and federal laws and regulations.

We conducted fieldwork at four regional boards, interviewing staff, reviewing program documents, and reviewing case files for a sample of waste discharge requirements. The regions we visited were the San Francisco Bay region, the Los Angeles region, the Central Valley region, and the Lahontan region (along California's eastern border from Oregon to the Mojave desert). We also interviewed personnel at the State Department of Health Services and the U.S. Environmental Protection Agency.

CHAPTER I

THE STATE WATER RESOURCES CONTROL BOARD AND THE REGIONAL WATER QUALITY CONTROL BOARDS CONTINUE TO HAVE PROBLEMS IN REGULATING WASTE DISCHARGERS

The State Water Resources Control Board (state board) and the regional water quality control boards (regional boards) are not adequately protecting the public and the environment from the harmful effects of water pollution, as evidenced by the continuing reports of water contamination throughout the State. Although the state board adopted regulations that require the regional boards to review waste discharge requirements and to inspect each facility at least once every five years, the state board has done little else to improve the regulation of waste dischargers since the Auditor General's 1979 report. The state board and the regional boards still do not have an effective regulatory program to identify violators and to ensure that problems are corrected. Problems related to self-monitoring reports, inspections, and waste discharge requirement revisions, all of which were identified in our 1979 report, continue to exist. Additionally, the regional boards are not complying with the new regulations adopted by the state board, and the earlier problems associated with the automated management information system, the Waste Discharger System, persist.

Two major groundwater contamination cases, one at Aerojet General Corporation near Sacramento and the other at Occidental Chemical Company near Stockton, illustrate what can happen when the state and regional boards do not operate an effective regulatory program. On

pages 32 through 36 of this report we present these cases in detail and show how failures in the regional boards' regulatory programs contributed to their occurrence.

INEFFECTIVE REGULATORY PROGRAM

The state and regional boards have developed a coordinated multi-phase program to control water quality in California. All of the regional boards perform the same general activities in regulating waste dischargers. Each regional board issues and revises waste discharge requirements, reviews self-monitoring reports submitted by dischargers, conducts compliance inspections, and takes administrative or legal enforcement action when necessary. The state board developed a procedures manual for the regional boards to use, but the regional boards have considerable flexibility in implementing specific procedures for carrying out their regulatory activities. Because the state board does not oversee the regional boards' regulatory activities, there is considerable variation in the procedures that the regional boards use. None of the regional boards we visited had adequate systematic procedures to conduct their regulatory activities.

Self-Monitoring Reports

Regional boards may establish self-monitoring programs for waste dischargers as part of their waste discharge requirements. The self-monitoring programs usually require the discharger to sample and

test both the waste discharge and the waters affected by the discharge. The dischargers must then report the results of these tests to the regional boards. Depending upon the schedule established in the waste discharge requirements, dischargers must submit self-monitoring reports to the regional boards on a monthly, quarterly, semiannual, or annual basis. The regional boards should promptly review self-monitoring reports to determine whether a discharger is violating the terms of the waste discharge requirements.

The Auditor General's 1979 report found wide variation in the way that regional boards reviewed and acted upon self-monitoring reports. Some regional boards reviewed and followed up immediately, while other regional boards took no action. In conducting our current review, we found that regional boards still do not have adequate systems to track self-monitoring reports. Dischargers submit self-monitoring reports irregularly, and the regional boards have not acted to ensure that reports are submitted regularly. Also, there is little evidence that the regional boards resolve the violations reported in self-monitoring reports. Because the regional boards do not have effective systems for tracking and following up on self-monitoring reports, the regional boards do not readily know whether dischargers are submitting self-monitoring reports as required or whether they are complying with their waste discharge requirements.

At four regional boards, we reviewed 98 waste discharge requirements, 75 of which required the discharger to submit self-monitoring reports. Over half of these 75 dischargers were not regularly submitting self-monitoring reports, 10 had not submitted self-monitoring reports in over three years, and one had not submitted a self-monitoring report since 1963. Generally, the regional boards did little in response to dischargers' failure to submit self-monitoring reports.

Only one of the four regional boards we visited had a satisfactory system for tracking self-monitoring reports. At that regional board, one person is assigned to review all self-monitoring reports. The person records in a log book the date that a report is received and notes whether the report indicates a violation. For those cases we reviewed, the log was up-to-date and accurate. When violations occurred, the regional board sent a letter to the discharger requesting compliance with the waste discharge requirements.

Another regional board had a similar system for tracking waste discharge requirements issued under the federal National Pollution Discharge Elimination System but not for those issued under the state program.* For dischargers regulated by the federal program, the regional

*Throughout this report, we refer to the National Pollution Discharge Elimination System as the "federal program."

board maintained a log showing when self-monitoring reports were received and when they were reviewed. The regional board also kept a log showing whether these dischargers complied in submitting self-monitoring reports required under the federal program. However, the regional board had no formal procedure for tracking self-monitoring reports submitted by dischargers regulated under the state program. The regional board relied on each engineer to keep track of the dischargers that he or she was responsible for monitoring.

The third regional board also used a log system to track self-monitoring reports, but the log was inaccurate. For each county within the region, the regional board maintained a summary sheet indicating the required reporting frequency for each discharger and showing when each discharger submitted reports. In addition to the data on the summary sheet, the regional board also kept specific data for each discharger, including the dates when reports were submitted to the regional board and the results of the self-monitoring tests. This system provided unreliable information, however. For some counties, the regional board had not updated the log since 1981, and it did not include in the log all dischargers required to submit self-monitoring reports. Furthermore, the information on the summary sheet sometimes conflicted with other data pertaining to the discharger, and the log at times indicated that a discharger had not submitted a self-monitoring report even though the self-monitoring report was in other files that the regional board maintained.

In addition to not adequately tracking self-monitoring reports, regional boards do not follow up on the violations that are reported in self-monitoring reports. At two of the regional boards, we reviewed 12 self-monitoring reports that indicated that the discharge exceeded the standards established in the waste discharge requirements. In 7 of these 12 cases we found no evidence that the regional board had followed up on the reported violations. We could not determine whether any of the violations reported were significant. At the other two regional boards, the self-monitoring reports did not clearly show whether a violation had occurred. However, at one of these regional boards, we found evidence in the files that the regional board had followed up on violations reported in some self-monitoring reports.

The state board is currently testing an automated system for reviewing self-monitoring reports. The system is designed to evaluate and report on the performance of individual dischargers. A computer reviews the self-monitoring reports and automatically prints a compliance report when it notes violations. The compliance report also indicates when dischargers are not submitting self-monitoring reports as required. Three of the nine regional boards are participating in the pilot program to test the system; the pilot program is scheduled to conclude by the end of June 1984. Although the system will be available to all the regional boards, the state board is not planning to require their participation. At the time of our 1979 report, the state board had estimated that it would implement the automated system for reviewing self-monitoring reports by June 30, 1980.

Inspections

Self-monitoring reports alone are not sufficient to ensure that waste dischargers comply with required standards. Regional board personnel also inspect facilities that discharge wastes to assure compliance with waste discharge requirements, to validate self-monitoring reports, to test the quality of the water affected by the waste discharge, and to gather data for subsequent enforcement action.

In 1979, the Auditor General reported that the regional boards conducted inspections at different intervals, often with long periods of time between inspections, and recorded inspection results in a variety of formats. Because the different report formats did not require inspectors to collect standard information, the quality of an inspection was left to the inspector's discretion. Our 1979 report recommended that the state board establish standard inspection policies specifying the frequency with which inspections should occur and the format to be used in reporting the results of an inspection. Our present review indicates, however, that except for waste dischargers regulated under the federal program, the regional boards are still inspecting dischargers irregularly and often infrequently. The regional boards do not have effective systems to schedule facilities for inspections, nor do they have standard inspection or reporting criteria. Furthermore, the regional boards do not always resolve violations discovered during inspections.

At the time of our 1979 review, the state board required the regional boards to develop schedules for inspecting waste dischargers regulated by the State's Porter-Cologne Water Quality Control Act; however, the state board did not specify a required frequency for those inspections. In contrast, the federal government set stricter requirements for waste dischargers regulated by the federal program. For dischargers classified as "major," the federal government has required inspections every year; dischargers classified as "minor" must be inspected once during the permit life, which cannot exceed five years. In addition, the U.S. Environmental Protection Agency (EPA) requires the State to submit quarterly schedules of inspections. In 1980, the state board adopted regulations requiring inspections at least once every five years for dischargers regulated under the Porter-Cologne Act.

In our review of 98 waste discharge requirements, we found that 15 dischargers had not been inspected in over 5 years; 6 of these had not been inspected in over 10 years. Of the 15 dischargers that had not been inspected in over 5 years, 12 had been issued waste discharge requirements under the state program. Each of the 6 dischargers that had not been inspected in over 10 years had also been issued waste discharge requirements under the state program. One regional board estimated that in fiscal year 1982-83, it had made detailed inspections of approximately 5 percent of the facilities to which it had issued waste discharge requirements. In its 1983-84 budget request, that regional board noted that "for years our inspection program has been extremely limited and has no doubt resulted in lax compliance from a number of dischargers."

Not one of the four regional boards we visited had a formal system to schedule inspections of waste dischargers regulated under the state program. Staff at one regional board stated that, except for "significant" dischargers, they inspect facilities only when they receive a complaint about the discharger. Staff at other regional boards said that their inspection scheduling was "hit and miss" and that some dischargers "fall through the cracks." Moreover, despite the state board regulation requiring that regional boards inspect all waste dischargers at least once every five years, staff at two of the regional boards we visited said that they had no formal policy regarding the frequency of inspections. Officials at one regional board said that their policy was to inspect waste dischargers every year; our review of their files disclosed that they were not following that policy, however. For 7 of 22 waste discharge requirements that we reviewed, the regional board had not inspected the facility in more than five years.

Besides not conducting inspections, the regional boards do not always follow up on inspections that disclose violations of waste discharge requirements. None of the regional boards that we visited had a formal system to determine whether violations discovered during inspections were resolved. At each of the four regional boards, it was left to the individual inspectors to ensure that such violations were resolved.

In one case, the regional board suspected in 1980 that a facility was contaminating groundwater. In 1981, the State Solid Waste Management Board inspected the site and found safety violations and violations pertaining to gas emissions. The regional board did not inspect the facility until January 1982, and the regional board's file noted that the engineer who inspected the facility could not tell whether wastes were properly disposed of. There was no evidence in the file of a follow up to the 1982 inspection. This facility is operating under waste discharge requirements that were issued in 1960, and it disposes of wastes in a manner that was acceptable in 1960 but is no longer considered safe. Even though the facility is a suspected source of groundwater contamination and its method of operation is now considered unsafe, the regional board has not required this facility to install groundwater monitoring wells to determine whether it is contaminating groundwater.

In an example from another regional board, a discharger was issued a clean-up and abatement order in 1974 to clean up oil spills. An inspection in 1976 disclosed other serious violations of the waste discharge requirements. A 1977 inspection found no violations, but a 1980 inspection noted questionable discharge to a major river nearby. Despite this inspection history, there was no evidence that the regional board had followed up on this case since the 1980 inspection.

Although our 1979 report recommended that the state board establish standard inspection formats, regional boards still do not have uniform inspection criteria or reporting formats for dischargers regulated under the state program. The federal government has established reporting requirements for inspections of dischargers regulated under the federal program. Each inspection must be reported on a standard form that includes detailed information on operations and maintenance, and that indicates whether the discharger is complying within required schedules. The federal form also requires the inspector to validate information that the discharger submits in self-monitoring reports and to verify the discharger's waste discharge requirements. For dischargers regulated under the state program, however, the regional boards let the inspectors determine the extent of the inspection on a case-by-case basis. An inspection can entail merely observation in which the inspector walks through the facility looking for obvious violations, or an inspection can include taking samples of discharges and waters receiving the waste discharge to determine levels of contamination. Of 149 inspection reports we reviewed, 116 were "observation" inspections, and the format of the inspection reports varied among the regional boards we visited. Some reports were completely unstructured memoranda, while others were one-page checklists. In some cases it was not apparent from the inspection report whether a discharger was in compliance with its waste discharge requirements.

In fiscal year 1981-82, one regional board conducted a study to determine what the regional board needed to do to ensure that dischargers complied with regulations. The study found that most of the major problems that the regional board experienced could have been prevented or corrected much earlier had more staff effort been devoted to inspections and to prompt and vigorous follow up when violations were first detected.

Review of Waste Discharge Requirements

As noted in the Introduction, the regional boards issue waste discharge requirements to those facilities discharging waste that could affect the quality of the waters of the State. The terms of the waste discharge requirements are specific for each discharger, indicating the type, quality, and quantity of wastes that can be discharged. The waste discharge requirements also specify the condition or degree of purity that must be maintained in waters that receive the discharge.

The Auditor General's 1979 report found disparities in the regional boards' policies for reviewing waste discharge requirements. The report stated that many waste discharge requirements were outdated and that the State was losing revenue because the regional boards were not consistently revising waste discharge requirements or charging dischargers filing fees for renewing waste discharge requirements.

At the time of our earlier report, state law said that regional boards should "periodically" review waste discharge requirements. Our report recommended that the state board revise administrative regulations to establish more specific requirements for reviewing waste discharge requirements. As noted in the preceding section, the state board amended its regulations in 1980 to require that regional boards review waste discharge requirements at least once every five years. (Waste discharge requirements issued under the federal program are for set terms not to exceed five years; when the permit expires, the discharger must submit a new application to the regional board.)

Despite the state board's new regulations, the regional boards still do not have a systematic plan to identify and update older waste discharge requirements, especially those issued under the state program. Many of the waste discharge requirements we reviewed were more than five years old. We also found that regional boards still do not consistently charge a filing fee to dischargers when waste discharge requirements are revised. Consequently, the State is losing revenues.

Of the 98 waste discharge requirements we reviewed, 71 had been issued under the state program. Of the 71, 46 had not been revised by the regional boards in over five years; 23 of the 46 had not been revised in over ten years, and 7 of these 23 had not been revised in over twenty years. While it is likely that some of these waste discharge requirements do not need to be revised, in most cases there was no evidence on file that the regional boards had reviewed these waste

discharge requirements. Two regional boards estimated that about 50 percent of their waste discharge requirements were outdated. A 1983 state board report notes that some regional boards have issued waste discharge requirements that the regional boards have never reviewed.

One of the reasons that so many waste discharge requirements are outdated is that the regional boards do not have systematic procedures for identifying and updating old waste discharge requirements, especially those issued under the state program. A supervising engineer at one regional board said that staff do not routinely review waste discharge requirements and that staff only review them when there is a complaint against the discharger, when the discharger notifies the regional board of a change in operations, or when a violation is discovered during an inspection. He acknowledged that many outdated waste discharge requirements "slip through the cracks" because there is no systematic scheduling of reviews. Officials at another regional board stated that they review the waste discharge requirements of known problem sites but that they do not review other waste discharge requirements. These officials reported that in the last year, regional board staff reviewed 8 of the approximately 730 waste discharge requirements in the regional boards' inventory. The two other regional boards we visited also indicated that they had no system or policy to review waste discharge requirements routinely.

The following case, involving waste discharge requirements issued in 1962 for a domestic sewage system, illustrates the types of problems that can occur when waste discharge requirements are out of date and the regional board does not follow up. In 1962 and 1964, the regional board reported sewage overflows at the site. The problem continued to exist in 1976, and the regional board noted that the waste discharge requirements needed to be revised. In 1981, the regional board again noted failures in the sewage system and directed the discharger to improve its disposal system. Also in 1981, the county health department issued a "Notice to Abate Nuisance" to the discharger. In 1983, the discharger reported that it was working toward a solution of the overflow problem. A regional board engineer told us that this discharger was, nevertheless, still operating under the same waste discharge requirements and with the same sewage system that were in effect in 1962.

Regional boards are more prompt in reviewing waste discharge requirements issued under the federal program than they are in reviewing those issued under the state program.* According to federal regulations, NPDES permits are issued for fixed terms not to exceed five years. When the permit expires, the discharger must once again apply to the regional board for a new NPDES permit. One of the regional boards we visited uses an automated system to schedule reviews of NPDES permits expiring within

*Waste discharge requirements issued under the federal program, the National Pollution Discharge Elimination System (NPDES), are also referred to as "NPDES permits."

the next eight months. Of the 27 NPDES permits we reviewed that were issued under the federal program, 9 had expired. The oldest NPDES permit in this sample expired in 1978, five years ago.

There are a number of important reasons for updating waste discharge requirements. First, the technology for regulating water quality has changed over the years. Old waste discharge requirements need to reflect the current technology to ensure the best possible protection of water quality. Also, discharges that were once thought harmless are now known to be dangerous, and the levels of toxins considered safe have changed. Moreover, a facility may change its method of operation, it may discharge different or additional types of wastes, or it may increase the amount of wastes discharged. These changes need to be reflected in the waste discharge requirements. In a 1983-84 budget change proposal, the state board said that many waste discharge requirements are unenforceable because they are inconsistent with current regional water quality control plans or because the conditions of the waste being discharged have radically changed.

Another reason for updating waste discharge requirements is to ensure adequate legal grounds should legal action be necessary. According to one regional board official, the regional board's legal advisor warned that if the regional board had to take legal action against a discharger, the regional board's case may be vulnerable if the waste discharge requirements were more than five years old. The legal advisor noted that waste discharge requirements would be especially

difficult to enforce if they had been adopted under a different regional plan than the one currently in effect.

Still another reason for updating waste discharge requirements is that the regional boards need to know how many of their waste discharge requirements are active. We found one case in which the regional board staff went to make an inspection and discovered that the facility had burned down 14 years earlier. Three of the four regional boards we visited could not give us an exact number of waste discharge requirements issued, either active or inactive. Thus, the regional boards do not have accurate data for conducting workload analyses or for developing workload standards. They are, therefore, unable to evaluate how staff time is spent and unable to assign staff in the most efficient manner.

In addition to the regulatory and administrative consequences of not revising waste discharge requirements, the state loses revenue when regional boards do not revise waste discharge requirements. When regional boards have to revise waste discharge requirements, they may charge a fee to the discharger. The fees range from $25 to $10,000 depending upon the type and quantity of waste being discharged. Our review of the four regional boards suggests that there is a large number of waste discharge requirements that need to be revised. Therefore, the amount of filing fees forgone, and thus the loss in state revenues, could be significant.

We also found, however, that the regional boards are not consistent in how they charge fees for reviewing and revising waste discharge requirements. In the absence of a state board policy regarding the fees for reviewing waste discharge requirements, regional boards have adopted their own policies. Although the regional boards that we visited had similar policies, a report that the state board issued in November 1983 states that the regional boards follow different fee policies. Moreover, officials at two regional boards that we visited said that the regional boards do not consistently apply their own fee policies. In one case, for example, the regional board could have charged a $500 fee but did not. That regional board's policy is to charge a fee if the waste discharge requirements have to be revised because of a discharger-initiated change. In this case, the discharger changed its method of operation, and the regional board had to revise the waste discharge requirements. Nevertheless, the regional board did not charge a filing fee. Another regional board has a similar policy but it, too, did not always apply that policy. In one instance, a discharger wanted to increase the amount of waste being discharged. The regional board revised the waste discharge requirements, but the regional board did not charge the $250 fee.

Causes of the Ineffective Regulatory Program

The regional boards have not been able to manage an effective regulatory program because they lack an effective management information system, they lack uniform regulatory procedures, and they lack sufficient staff.

If the regional boards had an effective management information system, they would be provided with the data necessary to regulate waste dischargers. Neither the state board nor the regional boards could provide an exact count of the waste discharge requirements they had issued, and they do not know how many of their waste discharge requirements are outdated. Furthermore, the regional boards do not have information systems to track dischargers' compliance with self-monitoring requirements or to provide data pertaining to inspections. Consequently, the regional boards do not have ready access to information on the overall compliance of waste dischargers throughout the State.

In November 1983, the state board's Program Analysis Office issued a report entitled "Waste Discharge Fee Study" that recognized the problems caused by the lack of an effective management information system. The report states the following:

> We cannot accurately define the size of the universe, i.e., the number of dischargers in the State. We cannot determine the number of dischargers under requirements now or in the past. We do not know how many requirements need revisions. We do not know how many dischargers are "lost" in the system, i.e., they were issued requirements some time in the past, never to be seen or heard from again.

The report further states that available data are insufficient to make rational management decisions. The state board has developed an automated management information system, the Waste Discharger System, that the regional boards could use to provide data necessary for operating an effective regulatory program. For the most part, however,

the regional boards have chosen not to fully use the Waste Discharger System. (We discuss the Waste Discharger System in detail on pages 36 through 46 of this report.)

Another reason for the ineffective regulatory program and an underlying cause of the lack of adequate information about dischargers is that regional boards still do not have uniform procedures for carrying out their regulatory activities. Each regional board establishes its own procedures, but even within a region, procedures vary among the staff. We noted this problem in our 1979 report. The state board said, in its response to that report, that it was in the process of revising its administrative regulations and its procedures manual to establish more consistent inspection and self-monitoring review systems. The state board had estimated that the procedures manual would be updated by December 1979. However, state board staff recently told us that they are now in the process of updating the 1975 procedures manual and expect the revision to be completed by July 1984.

In discussing the ineffective and inconsistent regulatory program, state board officials said that they have been reluctant to require the regional boards to implement uniform procedures because the regional boards are semiautonomous agencies. State board officials noted that the Legislature recognized the regional boards as individual entities and not as extensions of the state board.

Finally, regional boards cited lack of staff as the cause of their inability to carry out an effective regulatory program. Each of the regional boards we visited maintained that it had insufficient staff to manage its workload. We reviewed budget requests at each of the four regions we visited and found that the regional boards consistently requested more staff, citing negative consequences to their regulatory programs if additional staff were not provided. We also found that there had been staff reductions at the regional boards over the years. One regional board we visited reduced its staff from 50 in 1978 to 36 in 1984; another regional board dropped from 22 staff members to 12 during the same period.

We found further evidence of staffing shortages in the cases we reviewed. For example, in one case, the regional board reported in May 1983 that there were very toxic chemicals polluting groundwater wells at depths up to 95 feet. The report also noted that petroleum products seeped out of the soil and floated on the surface of the water in two wells. The report concluded that this was "an uncontained, improperly operated group I waste disposal site" and that it was "an imminent pollution problem which required immediate attention." However, the report went on to note that it would be "counter-productive" to stop work at other sites having equal or greater problems in order to attend to this one. A self-monitoring report submitted by this discharger for December 1983, seven months after the regional board's report, noted eight violations of waste discharge requirements.

Staff at each of the regional boards we visited stated that, because they were understaffed, they had to divert resources from routine activities to focus their efforts on known problem sites. The state board recognized the regional boards' staffing shortages and requested funding to provide additional staff to the regional boards for fiscal year 1984-85. The Department of Finance did not approve the state board's request for additional staff and instead provided funds to contract with other sources to accomplish the work.

Effects of the Inadequate Regulatory Program

Two major cases of groundwater contamination illustrate the importance of an integrated, well-managed regulatory program that includes prompt review of self-monitoring reports, regular and thorough inspections, and up-to-date waste discharge requirements. The first case, involving groundwater contamination at Aerojet General Corporation, illustrates the need to review self-monitoring reports and to conduct thorough inspections. The second case involves Occidental Chemical Company and demonstrates the importance of conducting regular and thorough inspections and updating waste discharge requirements.

Aerojet General Corporation

Aerojet General Corporation (Aerojet) and its subsidiary Cordova Chemical Company (Cordova Chemical) are located on approximately 8,000 acres in Sacramento County. Aerojet is involved in numerous manufacturing enterprises including the manufacture of rocket engines, and Cordova Chemical manufactures herbicides and chemical products used in paints.

In 1962, the regional board issued to Aerojet waste discharge requirements to consolidate previous waste discharge requirements and to regulate industrial waste disposal at various locations on Aerojet property. Since 1962, the regional board has issued five waste discharge requirements regulating additional disposal operations on the property.

In 1979, a Cordova Chemical employee complained that Cordova Chemical was mishandling herbicide wastes. During an inspection to investigate the complaint and during follow-up inspections, regional board staff learned that Aerojet and Cordova Chemical had seriously contaminated the underlying groundwater that was used for local drinking water supplies. The staff found that Aerojet and Cordova Chemical had been discharging hazardous industrial wastes in at least three locations on Aerojet property without notifying the regional board of the location or the chemical composition of these discharges.

In one case, regional board staff found that Cordova Chemical was not discharging hazardous industrial wastes to two deep disposal wells as required; instead, for two years Cordova Chemical had been diverting these wastes to a pit one-half mile away. In a second case, regional board staff found that Aerojet and Cordova Chemical were discharging hazardous industrial wastes into five unlined ponds. A regional board report states that the regional board was not notified that Aerojet and Cordova Chemical had dug three of the five ponds or that hazardous wastes were being discharged into the five ponds. Finally, in a third case, regional board staff found that Aerojet failed to notify the regional board promptly that other ponds containing hazardous waste had overflowed.

After identifying these unregulated discharges, the regional board ordered Aerojet and Cordova Chemical to drill wells around the unregulated discharge areas to sample the groundwater. Initial samples showed the presence of ten chemicals that were above the recommended levels for safe drinking water. Additional samples at these wells and at wells near Aerojet property showed major contamination by volatile organic chemicals, some of which are suspected human carcinogens.

In December 1979, the Attorney General filed suit against Aerojet and Cordova Chemical charging that these entities "had knowingly, willfully, or negligently" discharged hazardous industrial wastes and polluted groundwater without regard for the public health and safety.

Since December 1979 when the Attorney General filed suit against Aerojet and Cordova Chemical, further harmful effects of contamination have been found on and near Aerojet property. In 1982, the first municipal well was closed because of contamination. In 1983, dimethylnitrosamine, an extremely hazardous chemical that can be absorbed through the skin, was identified in wells both on and near Aerojet property. The regional board acknowledges that it does not yet know the exact location of all sources of contamination or the location of the leading edge of contamination traveling through the groundwater. Aerojet officials estimate that Aerojet will spend up to $600 million to clean up the contaminated soil and water. Further, these officials said that it may be technically impossible to eliminate all of the contamination.

The regional board could have detected and stopped the sources of contamination sooner if it had conducted more frequent inspections of the disposal operations regulated by waste discharge requirements and if it had responded to information provided by Cordova Chemical in its self-monitoring reports. If regional board staff had inspected Cordova Chemical's injection wells, which were regulated by waste discharge requirements, they would have learned that Cordova Chemical had constructed a pipeline and for two years was diverting to an unlined pit wastes that were required to be discharged to the injection wells. At a public hearing on this case, a regional board official was asked why the regional board had not discovered the problem earlier. He responded that the regional board "apparently had not made any inspection of that facility." A second regional board official stated that if regional board staff had inspected two of the regulated ponds on Aerojet property, the staff would have detected the three adjacent unregulated ponds. This regional board official reports that the three unregulated ponds are the source of some of the worst contamination documented to date on Aerojet property.

Finally, the second regional board official also said that because the regional board staff did not review and respond to all self-monitoring reports, they did not discover that Aerojet had allowed ponds containing hazardous industrial waste to overflow. In its self-monitoring reports, Cordova Chemical had been reporting since 1975 high levels of perchlorate, a substance used in rocket fuel. The regional board official stated that the perchlorate contamination could easily have been traced to the plants on Aerojet property that were known to handle this chemical. A regional board report notes that while perchlorate is not particularly toxic, its presence was indicative of improper handling of hazardous wastes.

The example of Aerojet General Corporation illustrates the potential for contamination of groundwater that resulted at least partially from inadequate regulation by the regional board. Had staff of the regional board promptly reviewed self-monitoring reports or conducted more frequent and thorough inspections, they may have discovered the problem at Aerojet before it reached such proportions.

Occidental Chemical Company

The Occidental Chemical Company (Occidental), located in San Joaquin County, operated a fertilizer manufacturing and pesticide formulating plant until January 1983. In 1968, the regional board issued to Occidental waste discharge requirements allowing Occidental to

discharge into ponds waste from the manufacture of fertilizers. Because the regional board was not aware that Occidental was formulating pesticides, the regional board did not incorporate into the waste discharge requirements provisions to regulate the disposal of pesticide waste.

In December 1978, regional board staff met with Occidental staff to discuss documents that Occidental would be releasing during upcoming legal proceedings. Occidental staff informed regional board staff that Occidental had documented an increase in organic and inorganic chemicals in the groundwater over a period of several years. In January 1979, regional board staff inspected Occidental, and in February 1979 regional board staff began sampling the groundwater at Occidental. Staff found that Occidental had caused extensive contamination to soil and groundwater from the discharge of fertilizer and pesticide wastes. In the groundwater, the staff found concentrations of five chemicals in excess of the amounts allowed by the waste discharge requirements. Groundwater sampling also revealed the presence of at least six pesticides from the unregulated disposal of pesticide waste into ponds.

In a regional board report, staff state that Occidental knew as early as 1969 that it was polluting groundwater. In an internal memo dated 1975, an Occidental employee wrote that "our laboratory records indicate that we are slowly contaminating all wells in our area and two of our own wells are contaminated to the point of being toxic to animals and humans." In another internal memo dated 1977, the same employee wrote that "the attached well data shows [sic] that we have destroyed the usability of several wells in our area.... I don't believe the [regional] Water Quality Control Board is even aware that we process pesticides."

The regional board did not detect the unregulated discharges until 1979 because it did not routinely inspect the facility and because the waste discharge requirements had not been updated to include a groundwater monitoring program. Even though the regional board had indications of problems at Occidental in 1970, it did not regularly inspect the facility. In 1970, regional board staff found that Occidental was disposing used pesticide containers into a landfill. Occidental agreed to change its operating process to eliminate this disposal, but there is no evidence in the regional board's files that the regional board inspected Occidental until March 1977. The inspector did not detect the unregulated discharges during that inspection, but he did note that the waste discharge requirements appeared to be out of date and should be revised either to include groundwater monitoring or to restrict concentrations of waste discharged to ponds. The regional board did not update the waste discharge requirements and did not inspect the facility again until 1979, after Occidental notified the regional board of possible problems.

A regional board official acknowledged that the regional board could have detected and stopped the sources of contamination sooner if the regional board had inspected Occidental more frequently to ensure compliance with waste discharge requirements and if the regional board

had revised the waste discharge requirements to include groundwater monitoring. Instead, from 1969 to 1979, groundwater contamination continued without being detected by the regional board.

The state board has recognized that Aerojet General Corporation and Occidental Chemical Company are examples of major problems that could have been avoided. These two examples are not isolated cases of significant water contamination. Other major cases in the State include the Stringfellow Acid Pits in Riverside County and the San Gabriel Ground Water Basin in Los Angeles County.

INEFFECTIVE USE OF THE WASTE DISCHARGER SYSTEM

Since 1979, the state board has made limited progress in improving its automated management information system, the Waste Discharger System. Although the Waste Discharger System could provide the state board with data for statewide policymaking and the regional boards with information necessary to operate an effective regulatory program, neither the state board nor the regional boards regularly use the system. Further, because they do not regularly use the Waste Discharger System, some regional boards do not regularly update the system's data files. Consequently, the system's data files are inaccurate and incomplete. The state board and the regional boards have been relying on ineffective manual systems that do not enable the state or regional boards to ensure that waste dischargers are complying with required water quality standards.

The Auditor General's 1979 report found that the state board used considerable resources to develop an automated management information system, the Waste Discharger System, that was both inaccurate and incomplete and that four regional boards were not using. We recommended that the state board reevaluate the objectives of the Waste Discharger System, considering the data needs of the state and regional boards, and that it implement minimum requirements for using the management information system.

The state board followed our first recommendation. In 1982, the state board's Management Analysis Office evaluated the Waste Discharger System and reported that the benefits of the system to the state board and the regional boards varied because their uses of information varied. The Management Analysis Office also noted that because three regional boards were not using the Waste Discharger System, the state board was limited in its ability to respond quickly to requests for statewide information on dischargers. Nevertheless, the state board concluded that the Waste Discharger System was useful both to it and to the regional boards. The state board did not implement our second recommendation, however. Since 1979, the state board has neither adopted minimum usage and reporting requirements nor required that regional boards participate in the Waste Discharger System.

As noted earlier in this report, federal and state laws have made the state board responsible for controlling water quality in California. To administer their regulatory activities effectively, the

state board and the regional boards need an effective management information system. Furthermore, the Porter-Cologne Water Quality Control Act requires that the state board, with the assistance of the regional boards, prepare and implement a program for maintaining information about water quality throughout the State.

The state board intended for the Waste Discharger System to provide accurate, complete, and timely data regarding the current status of all waste dischargers in the State. This system can produce over 80 reports including discharger inventories, self-monitoring and inspection compliance histories, inspection schedules, permit renewal schedules, and special reports. For example, the Waste Discharger System can automatically provide current histories of dischargers' compliance with requirements as well as indicate when facilities should be inspected or waste discharge requirements should be reviewed. Such a system would provide water quality officials with the data necessary to make decisions regarding the future of the State's water, and it would provide the regional boards with an automated means of tracking and controlling waste dischargers.

Despite the capabilities of the Waste Discharger System, the state board does not require regional boards to participate in the system but rather makes it available if the regional boards want to use it. To participate in the Waste Discharger System, the regional boards must submit manually prepared waste discharger data to the state board so that

staff at the state board can enter the data into the computer files. The state and regional boards transmit their data and reports through the mail.

Waste Discharger System Is Not Fully Used

Even though the Waste Discharger System provides an automated system for monitoring waste dischargers, the state board and most of the regional boards do not fully use the system. The state board does not use this system to maintain statewide data on all waste dischargers because only six of the nine regional boards participate in the Waste Discharger System. If all nine regional boards were participating, the state board could use the Waste Discharger System to compile the reports required by the Environmental Protection Agency or to prepare budget data for both the state and regional boards. The state board could also use the Waste Discharger System to provide compliance information on dischargers throughout the State and to provide data for state-level policy decisions. However, because not all regions participate in the Waste Discharger System, the state board must rely primarily on time-consuming manual systems to compile the necessary data.

The regional boards also do not frequently use the waste discharger system for administering their regulatory activities. Our 1979 audit report found that four of the nine regional boards elected not to use the Waste Discharger System. As of March 1984, three of the regional boards still did not use the Waste Discharger System, and of the six regional boards that use the system, at least three underuse it.

Two of the four regional boards we visited use the Waste Discharger System primarily to provide semi-annual or quarterly inventories of dischargers. These lists, organized by county, are distributed to the area engineers who may use them to schedule inspections or to prepare mailing lists. Only one of the four regional boards that we visited regularly uses the Waste Discharger System in its regulatory activities. This regional board uses the system to monitor dischargers' compliance with self-monitoring reporting requirements. The regional board also uses the system to identify waste discharge requirements that are expiring under the federal program. In total, this regional board routinely receives 22 reports from the Waste Discharger System. The fourth regional board in our review does not participate in the Waste Discharger System.

Data Files Are Inaccurate and Incomplete

The data files in the Waste Discharger System are neither accurate nor complete. At two of the three regional boards we visited that used the Waste Discharger System, officials said that they did not regularly update their waste discharger inventory files; one region had not updated some of its files since 1979, and the other had not updated its files since August 1983. Furthermore, officials at both of the regional boards indicated that the regional boards' inventory of dischargers listed in the Waste Discharger System were inaccurate. Neither regional board could provide an actual total number of active dischargers. Consequently, because the regional boards know that the

information may be inaccurate and incomplete, they are reluctant to use the Waste Discharger System.

Automated Self-Monitoring Program Has Not Been Implemented

At the time of the Auditor General's 1979 report, the state board estimated that the Waste Discharger System would be fully implemented by June 30, 1980, and the state board was planning an automated review of waste dischargers' self-monitoring reports. However, the state board still has not fully implemented the automated program for reviewing self-monitoring reports.

Currently, regional boards manually review most of the self-monitoring reports, which totaled approximately 20,000 statewide in fiscal year 1982-83. The state board is conducting a pilot project in three regions to evaluate a program that performs automated reviews of self-monitoring reports. A state board official indicated that each of the three regional boards selected a small number of dischargers (60 in total) to participate in the pilot program. These dischargers submit system-generated self-monitoring report forms, and the automated system compares the performance of each discharger to its waste discharge requirements. When appropriate, the system generates a notice of violations or notice of incomplete or missing reports; these notices are sent to both the discharger and the regional board. The state board is scheduled to complete an evaluation of the pilot program by June 1984.

As a state board evaluation of the Waste Discharger System has noted, without the automated self-monitoring review, self-monitoring reports must be laboriously reviewed and tabulated. One regional board stated in its budget request that more violations may be occurring because staff are not always reviewing self-monitoring reports. An automated system would allow the regional boards to review more self-monitoring reports and to detect more violations.

Because the state board and most of the regional boards are not effectively using the Waste Discharger System, they must rely on manual systems for monitoring and controlling waste dischargers. As illustrated earlier in this report, the manual systems have proven inadequate in administering an effective regulatory program.

Furthermore, the state board and the regional boards cannot assure that dischargers are operating in compliance with required water quality standards because the manual systems do not provide adequate information on dischargers' compliance with established requirements. For example, one of the four regional boards that we visited does not maintain a centralized compliance information system, either manual or automated. Consequently, the regional board's managers must contact each of the regional board's engineers to collect compliance information. The regional board's managers estimated it could take the regional board weeks to compile a status report on dischargers' compliance. Two other regional boards, which participate in the Waste Discharger System, must also manually collect compliance data because they only use the system to

compile inventories of dischargers. Such inventories generally include the dischargers' names, identification numbers, and waste discharge requirement numbers, but they do not include any data on the dischargers' compliance with waste discharge requirements. A state board manager estimated that it could take four to five weeks just to compile a statewide list of dischargers. Without readily available compliance data, the state board and the regional boards cannot fully evaluate the State's water quality control program.

The state board has spent considerable resources to develop and operate a system that neither it nor the regional boards use effectively. The state board estimates that from fiscal year 1978-79, when the Waste Discharger System was first developed, through fiscal year 1983-84, the state board will have spent over $684,000 to develop, operate, and maintain the Waste Discharger System. The regional boards' total costs for participating in the Waste Discharger System are not available. If regional boards effectively used the system, however, costs could be reduced because regional board staff would not have to spend as much time manually performing tasks that could be performed by automation. It is difficult to estimate total cost savings because not all of the regional boards are participating in the Waste Discharger System; however, a feasibility study conducted by the state board in 1976 indicated that if the Waste Discharger System were fully used by the state and regional boards, the state board could redirect approximately $1.08 million per year to other programs. State board staff indicated that some of this $1.08 million is already being redirected.

Reasons for Not Using the Waste Discharger System

The regional boards have given several reasons for not using the Waste Discharger System. First, officials at two regional boards that do not regularly use the Waste Discharger System said that they do not use the system because they do not have the time and staff required to complete the data entry forms. When asked about the time required to complete some of their regulatory tasks manually and the ineffectiveness of the manual systems, officials at the two regional boards agreed that an automated system could be more efficient in the long run. In addition, regional boards stated that they do not use the Waste Discharger System because it was designed to meet the needs of the state board not the regional boards. Staff from the state board claim, however, that the system was designed to aid regional boards in regulating waste dischargers and that the regional boards participated in designing the system. They also noted that the state board has attempted to adapt the system to be more responsive to regional needs. Finally, some regional boards claim that not having immediate access to the data inhibits their use of the Waste Discharger System. As the system now operates, a regional board must manually prepare and submit input documents to the state board for keypunching. Any reports that the system generates are mailed to the regional board 7 to 30 days later.

The state board, in conjunction with the U.S. Environmental Protection Agency (EPA), has recently taken steps to improve the regional boards' accessibility to the Waste Discharger System. The EPA required

the state and regional boards to improve their automated systems for monitoring the compliance of waste dischargers regulated by the federal program. The state board is planning to use state and EPA funds to purchase and install at least 13 microcomputers; the cost will be approximately $220,000. A state board official indicated that these microcomputers must be compatible with both the EPA computer system and the state board's Waste Discharger System. The state board plans to provide each regional board with at least one microcomputer. The microcomputers could be used to provide the regional boards direct access to data in the Waste Discharger System. The microcomputers can also be used for state regulatory activities and for office automation.

The three reasons that the regional boards gave for not using the Waste Discharger System are the same reasons that the regional boards cited in 1979. However, staff at three of the regional boards we visited offered two other reasons: staff responsible for regulating waste dischargers have resisted using the Waste Discharger System, and there has been no direction from regional board management supporting the use of the system. A staff member at one regional board said that he would like to use the system but regional board management discouraged it. In contrast, staff at a regional board that does use the system said that one of the reasons they use it is that management has encouraged it. Furthermore, the executive officer at the regional board that does not use the system at all said that one reason that his regional board did not use the system was that it did not provide certain reports. In fact, however, the Waste Discharger System does provide the reports he cited.

This is the fifth report to identify problems with the data management needs of the state board and the regional boards. The Auditor General identified these issues in its 1979 report as well as in a report issued in 1980.* The Assembly Office of Research identified similar problems in April 1983.** Finally, a November 1983 report by the state board's Program Analysis Office stated the following:

> It is time for the state and regional boards to emerge from the horse and buggy age on data management. Existing manual systems are time-consuming, inefficient, and sometimes duplicative of computer systems. Further, no single system is universally used. Available computer technology would allow each of the regions to participate in a comprehensive statewide system that could also meet their individual data needs. A well-designed system could not only track workload but could also store waste discharge requirements and NPDES permit data and address other critical program needs.***

ALTERNATIVE CONSIDERATIONS TO IMPROVE THE REGULATORY PROGRAM

The state board and the regional boards have consistently cited two causes of the various problems we have discussed in this chapter. The state board alleges that it cannot take a stronger role in requiring

*The latter report is entitled "State Water Resources Control Board: Clean Water Grant Program Has Unrealistic Goals and Is Hindered by Fragmented Authority and Ineffective Administrative Procedures," Report P-856.2, January 1980.

**Assembly Office of Research, "Is Our Water Safe to Drink?" Report 970, April 1983.

***State Water Resources Control Board, "Waste Discharge Fee Study," November 1983.

uniform policies and procedures among the regional boards or in requiring the regional boards to participate in the Waste Discharger System because the regional boards are semiautonomous. The regional boards state that they do not have adequate staff either to manage an effective regulatory program or to participate in the Waste Discharger System.

In discussing the regional boards as semiautonomous agencies, state board officials noted that the regional boards need flexibility to be able to respond to local priorities and to set local policy for water standards. While we recognize that the regional boards must be able to establish local policy for water quality standards, we believe that developing uniform administrative policies would not infringe upon the regional boards' need for flexibility. The state board's requiring the regional boards to adopt uniform procedures for tracking self-monitoring reports, for scheduling inspections, and for revising waste discharge requirements would not seem to have a negative effect on local water quality standards. Likewise, requiring the regional boards to participate in the Waste Discharger System would seem unlikely to have a negative effect on local policy or water quality standards.

The state board is ultimately responsible for the quality of the State's waters and for developing a comprehensive, effective system to regulate waste dischargers throughout the State. Furthermore, state board officials state that because the Legislature has required the regional boards to submit their budgets to the state board, the state board can influence regional board activity through the budgetary review

process. State board staff told us, however, that they have been reluctant to use their budgetary authority to require that regional boards follow uniform procedures or participate in the Waste Discharger System because they fear negative reaction from the regional boards. State board staff said that, in the long run, such action could be "counter-productive."

It is important to note, however, that the regional boards' regulation of dischargers governed by the federal program was generally better than their regulation of dischargers governed by the state program. A state board official told us that there were several reasons for this. First, the dischargers governed by the federal program were frequently the larger facilities that required more attention. Second, the federal program regulates dischargers that may affect surface waters, in which pollution is more readily apparent. But the reason most often cited by regional board officials was that the regional boards are accountable for their performance to the Environmental Protection Agency and that continued federal funds depend upon regional boards' compliance with federal requirements. Since the performance of the regional boards seems to be related to their level of accountability, making them more accountable to the state board could improve their regulation of dischargers governed by the state program.

The issue that the regional boards cite as the major cause for their inability to manage their workload is lack of staff. The state board agrees that statewide funding cuts have resulted in staff shortages at the regional boards. However, as we noted earlier, the regional boards are not always charging fees to dischargers. Thus, they forgo a means of increasing revenues that could be used to provide additional staff to the regional boards. State board officials indicated that although they have not instructed the regional boards to follow an aggressive policy in charging fees in the past, they are currently drafting a statewide policy. A report prepared by the state board's Program Analysis Office in 1983 recommends various other ways that the state board could increase revenues.

We suggest two approaches to increasing revenues: establishing an expiration date on all waste discharge requirements and making the regional boards primarily fee-supported agencies.

Both of these approaches require legislative action. Waste discharge requirements issued under the federal program are for set terms not to exceed five years; when the permit expires, the discharger must submit a new application as well as a filing fee. Similar provisions could apply to waste discharge requirements issued under the state program. The state board could also increase the filing fees to approximate the costs of issuing waste discharge requirements and to offset the increased workload needed to establish waste discharge requirements. In addition to increasing revenues, these provisions would

ensure that all waste discharge requirements are reviewed on an established schedule. One regional board did establish expiration dates for waste discharge requirements issued under the state program, but the state board's Office of Legal Counsel told the regional board that this practice was of questionable legality because it went beyond the Porter-Cologne Water Quality Control Act. It appears, therefore, that only the Legislature can establish expiration dates on waste discharge requirements regulated under the state program.

We cannot project the increase in revenues that would result from establishing expiration dates and increasing fees because the necessary data are unavailable. However, the increase could be significant since there are an estimated 6,846 waste discharge requirements issued under the state program and since filing fees currently range from $25 to $10,000.*

The second approach is for the Legislature to make the regional boards fee-supported agencies, that is, agencies supported primarily by the fees that waste dischargers pay. There is a precedent for this in the State. Local air pollution control districts, which operate as part of local government, have primary responsibility for controlling air pollution. The State Air Resources Board coordinates activities among

*Although the state board estimates that there are 6,846 waste discharge requirements issued in 1982-83 under the state program, it does not know how many of these waste discharge requirements are inactive and should be rescinded. Therefore, the total number of dischargers that would reapply and file fees would be less than 6,846.

the local districts to ensure that those discharging pollutants to the air comply with the State's air quality regulations. The local districts may charge fees to cover the costs of issuing permits, inspecting facilities, and enforcing regulations. State regulations provide guidelines for establishing the fees, but each local district establishes its own fee schedule. Most of the local districts are supported primarily by fees charged for permits.

The following illustrates the difference between the fees charged by the local air pollution control districts and those charged by the regional water quality control boards. One air pollution control district charges a single facility an annual fee of approximately $400,000 for its permit. The regional boards, in contrast, charge one-time fees ranging from $25 to $10,000 for issuing waste discharge requirements. A fee must be paid again only if the discharger makes a material change in the character, location, or volume of the discharge. The disparity is significant when major dischargers are involved. For example, during a five-year period, one major discharger regulated by both a local air pollution control district and a regional board paid $69,000 to the local air pollution control district but only $500 to the regional board.

The Department of Health Services' hazardous waste management program is also primarily supported by fees collected from operators of hazardous waste disposal facilities and haulers of hazardous waste. In addition, the Department of Health Services' State Superfund program is

supported by taxes that the State collects from facilities that generate hazardous waste. Finally, some of the boards and bureaus within the Department of Consumer Affairs are supported primarily by fees paid by those entities that the boards and bureaus regulate.

CHAPTER II

INADEQUATELY REGULATED HAZARDOUS WASTE DISPOSAL FACILITIES THREATEN GROUNDWATER

The State Water Resources Control Board and the Department of Health Services (department) are responsible, under separate legislation, for protecting groundwater from contamination that results from the unsafe disposal of hazardous waste. However, the state board and the department have not adequately carried out their responsibilities in regulating hazardous waste disposal facilities, and the State cannot be certain that its groundwater is protected from contamination by leaks of hazardous waste.

The department has identified 128 facilities that have hazardous waste disposal operations in the State, but the regional boards have issued waste discharge requirements to less than two-thirds of these facilities. Moreover, some of the waste discharge requirements issued do not have adequate provisions to protect underlying groundwater. The regional boards stated that they do not have enough staff to regulate these facilities, but we also found that the state board has not actively directed the regional boards to issue waste discharge requirements promptly to these facilities.

Additionally, because of delays in delineating responsibilities and apportioning federal funds between the state board and the department, the regional boards had less than four months to implement the 1982-83 interagency agreement between the state board and the

department. Under the terms of the interagency agreement with the department, the state board was responsible for evaluating the 128 facilities' compliance with federal groundwater protection requirements. However, as of February 1984, the regional boards had not submitted any evaluations of the 128 facilities. The department is ultimately responsible for evaluating facilities' compliance with groundwater protection requirements, which includes inspecting these facilities. During federal fiscal year 1982-83, the department had conducted inspections of only 69 of the 128 facilities.

GROUNDWATER PROTECTION AT HAZARDOUS WASTE DISPOSAL FACILITIES

The state board and the department are responsible for safeguarding the quality of groundwater underlying hazardous waste disposal facilities in California. As discussed in the Introduction, the Porter-Cologne Water Quality Control Act authorizes the regional water quality control boards to issue waste discharge requirements to all waste dischargers, including hazardous waste disposal facilities, that may affect the quality of state waters. The department is also responsible for protecting groundwater from hazardous waste. In 1972, the Legislature enacted the California Hazardous Waste Control Act to ensure the safe handling and disposal of hazardous waste. In 1976, Congress enacted the federal Resource Conservation and Recovery Act (RCRA), which created a comprehensive, nationwide program to protect public health and the environment from the harmful effects of hazardous waste. The RCRA required inspections and permits for facilities that

treat, store, or dispose of hazardous waste. The RCRA directed the U.S. Environmental Protection Agency (EPA) to implement the federal program and provide grants to states for administering specific portions of the program. In 1982, the Legislature amended the California Hazardous Waste Control Act to require the department to implement provisions of the RCRA in California.

To ensure the safe disposal of hazardous waste, the department is required to issue permits to hazardous waste disposal facilities. The permits include provisions for protecting groundwater, and they require facilities to take measures such as installing linings under disposal ponds and installing groundwater-monitoring wells to prevent and detect leaks of hazardous waste into the groundwater. The provisions also specify the procedures for sampling and analyzing groundwater. The department is required to inspect hazardous waste disposal facilities once each year to ensure that they comply with the groundwater-protection provisions in the federal program.*

*The Auditor General has issued two reports concerning the department's performance in issuing permits to and enforcing standards at facilities that generate, store, treat, or dispose of hazardous waste: "California's Hazardous Waste Management Program Does Not Fully Protect the Public From the Harmful Effects of Hazardous Waste," Report P-053, October 1981; and "The State's Hazardous Waste Management Program: Some Improvement, But More Needs To Be Done," Report P-343, November 1983. In both of these reports, the Auditor General made recommendations to the department to improve its program to issue permits, to inspect, and to enforce standards at hazardous waste facilities. Our present report focuses on the implementation of an interagency agreement between the state board and the department to regulate 128 hazardous waste disposal sites.

In June 1981, the EPA approved a joint application from the state board and the department to administer various components of the State's water quality control program and hazardous waste management program in lieu of the EPA's administering the corresponding federal program. The EPA designated the department to receive federal funds and to be accountable for the results of the programs. Since receiving joint authorization from the EPA, the state board and the department have negotiated three agreements to delineate each agency's responsibilities. These agreements have assigned the responsibility for ensuring groundwater quality to the state board.

In December 1982, the state board and the department signed a Memorandum of Agreement that delineated each agency's general responsibilities. In June 1983, the state board and the department signed a second agreement that more specifically defined the division of responsibilities. In this interagency agreement, which was effective from October 1, 1982, to September 30, 1983, the department agreed to transfer up to $300,000 in federal funds to the state board. In return, the state board agreed to inspect hazardous waste disposal facilities and to review pertinent historical and technical information to determine whether these facilities' programs to protect groundwater conformed to federal requirements. The state board also agreed to perform other tasks within the scope of the federal program.

The state board and the department have negotiated a similar interagency agreement that was to be effective from October 1, 1983, to June 30, 1984. However, this agreement had not been signed as of March 1, 1984. The proposed agreement will require the department to transfer up to $670,000 in federal funds to the state board, enabling the state board to hire more staff to carry out the terms of the agreement.

Our review of the state board's program to protect groundwater quality at hazardous waste disposal facilities focused on the state board's issuance of waste discharge requirements to these facilities and its implementation of the federal fiscal year 1982-83 interagency agreement with the department.

REGIONAL BOARDS HAVE NOT ISSUED ADEQUATE WASTE DISCHARGE REQUIREMENTS TO ALL HAZARDOUS WASTE DISPOSAL FACILITIES

The regional boards have issued waste discharge requirements to less than two-thirds of the 128 facilities that the department identified as having hazardous waste disposal operations.* Further, some of the

*The department's number of hazardous waste disposal facilities is based on the number of facilities that applied to the EPA under the RCRA program for a permit to dispose of hazardous waste at their facilities or to operate as commercial disposal sites. The department, however, does not consider the 128 facilities to be an accurate count of the number of hazardous waste disposal facilities because that number does not account for facilities that did not apply for a federal permit, facilities that wrongly applied for a federal permit, or facilities that are considered hazardous waste disposal facilities under state law but not under federal law. Other estimates of the number of hazardous waste disposal facilities in California reach as high as 1,200.

waste discharge requirements that the regional boards have issued either do not regulate the facilities' hazardous waste disposal operation or do not have adequate provisions for monitoring or protecting groundwater.

According to a report compiled by the state board, the regional boards have issued waste discharge requirements to 78 of the 128 facilities identified by the department as having hazardous waste disposal operations. We reviewed facility files for 22 of these 78 facilities and found that 7 facilities had waste discharge requirements that did not regulate the facility's hazardous waste disposal operation. In one case, the waste discharge requirements controlled only the facility's disposal of treated waste into surface waters. Regional board staff confirmed that many of these 78 hazardous waste disposal facilities have more than one type of discharge and that the regional boards have not issued to each of the 78 facilities waste discharge requirements that regulate their hazardous waste disposal operation.

Of the 15 hazardous waste disposal facilities whose waste discharge requirements regulated waste disposal operations, 4 facilities were not required to sample their groundwater to detect leaks of hazardous waste, and 12 did not have adequate linings under disposal ponds to prevent leaks of hazardous waste. Furthermore, 5 facilities did not have a system that would detect leaks of hazardous waste before that waste reached groundwater. Managers at three regional boards said that many cases of groundwater contamination have occurred at hazardous waste disposal facilities because the waste discharge requirements did not

require facilities to have adequate structures to prevent leaks and back-up systems to detect leaks if the leak-prevention measures failed.

State board and regional board officials acknowledge that many waste discharge requirements are inadequate because they have not been revised since the mid-1970's and that these waste discharge requirements need to be revised to incorporate new technologies in preventing and detecting leaks and to include groundwater tests for all contaminants being disposed of at the facilities.

Managers at three regional boards we visited stated that their staff will establish or revise waste discharge requirements for hazardous waste disposal facilities when the department issues its final permit to these facilities. Pending authorization from the EPA, the department plans to issue final permits to the 128 hazardous waste disposal facilities by July 1988. If the regional boards follow the department's permitting schedule, the regional boards will take over four years to issue waste discharge requirements to the 128 hazardous waste disposal facilities. Since the state and regional boards currently have statutory responsibility to issue these waste discharge requirements under the Porter-Cologne Water Quality Control Act, there is no need for the regional boards to wait until 1988 to establish or revise waste discharge requirements for these 128 facilities.

REGIONAL BOARDS HAVE NOT EVALUATED HAZARDOUS WASTE DISPOSAL FACILITIES' PROGRAMS TO PROTECT GROUNDWATER

In its federal fiscal year 1982-83 interagency agreement with the department, the state board agreed to evaluate hazardous waste disposal facilities' conformance with the federal provisions designed to protect groundwater. However, as of February 1984, regional board staff had not submitted written evaluations of any of the 128 facilities.

In 1981, the EPA authorized the department to issue interim status documents to hazardous waste facilities that had applied to the EPA for a RCRA permit. The purpose of these interim status documents was to impose a set of uniform national standards until the final permits with more stringent requirements issued. Under the 1982-83 interagency agreement, the state board was to evaluate facilities' adherence to the groundwater protection provisions in the interim status documents. To carry out this evaluation, the state board required the regional boards to inspect facilities, review historical data and technical reports prepared by other agencies and facilities' consultants, and submit to the department, through the state board, a written report assessing the adequacy of the facilities' groundwater protection programs.

The regional boards have not completed the required evaluations, however. In fact, the state board and the department said that they have not received one evaluation report from the regional boards. We did find evidence that regional board staff had reviewed

historical and technical data or performed partial inspections at 40 of the 128 hazardous waste disposal facilities. In addition, one regional board manager stated that although his staff have collected or reviewed a "significant amount" of data, he will not require his staff to collect the remaining data, evaluate all data, and submit reports until the state board and the department sign an interagency agreement for federal fiscal year 1983-84 and until they agree upon a final reporting format.

In a recent report, the U.S. General Accounting Office concluded that California did not know the extent of facilities' failure to comply with federal groundwater protection requirements. The General Accounting Office reported that the department, which is ultimately responsible for inspecting hazardous waste disposal facilities, had inspected only 22 facilities between October 1, 1982, and March 31, 1983. Of these 22 facilities, the department found 9 that were not complying with their groundwater monitoring programs. The department reports that it inspected an additional 47 facilities between April 1, 1983, and September 30, 1983.

EFFECTS OF INADEQUATE REGULATION OF HAZARDOUS WASTE FACILITIES

Since neither the state board nor the department has adequately regulated hazardous waste disposal facilities, the State cannot be sure that its groundwater is protected against being contaminated by hazardous waste. We found examples of hazardous waste disposal facilities that had contaminated the groundwater because they had not been adequately

regulated. In one case, a facility caused the underlying soil and groundwater to be contaminated when it disposed of its hazardous waste into an unlined disposal pond. Staff at the regional board stated that they did not see this disposal operation during their inspections of the facility's other regulated operations. Consequently, staff did not revise this facility's waste discharge requirements to ensure the proper disposal of this hazardous waste. The facility expects to spend $6 million to clean up the contamination.

In another case, inspectors from a regional board inspected a facility in response to a complaint and discovered that the facility was contaminating the groundwater with lead, a hazardous waste. Although the regional board knew that this facility was operating, it still did not issue waste discharge requirements to the facility.

Finally, one regional board reported that 8 of the 35 hazardous waste disposal facilities under its jurisdiction had contaminated the groundwater. Although the regional board had issued waste discharge requirements to each of these 8 facilities, a regional board report showed that 7 of the 8 facilities' waste discharge requirements needed to be updated or revised to include provisions for groundwater monitoring.

REASONS FOR INADEQUATE REGULATION OF HAZARDOUS WASTE DISPOSAL FACILITIES

Regional board managers stated that they have not issued adequate waste discharge requirements to all hazardous waste disposal facilities because the state board has not given priority to this function and because the regional boards lack the staff to perform these and other required duties. In addition, problems involving the interagency agreement between the state board and the Department of Health Services further hampered the regulation of hazardous waste disposal facilities.

The state board has the power to establish statewide policy for controlling water quality. However, three regional board managers stated that they have not given priority to issuing or revising waste discharge requirements to hazardous waste disposal facilities because the state board has not required them to do so. Despite the authority vested in the state board, state board managers said that they are reluctant or unable to exercise their authority over the regional boards. Some managers explained that the regional boards' semiautonomous status makes it difficult to enforce the state board's policies.

Regional board managers also said that they have not issued or revised waste discharge requirements for all hazardous waste disposal facilities because the regional boards' regulatory programs have been disrupted over the past five years by staffing cuts and vacancies. Furthermore, regional board managers have given priority to issuing waste

discharge requirements and to inspecting facilities that discharge waste to surface waters because the EPA provides funding and requires regional boards to account for that portion of the State's regulatory program that pertains to protecting the quality of surface waters.

Another cause of the inadequate regulation of hazardous waste disposal facilities was the confusion over whether the state board or the department was responsible for inspecting these facilities. In the Memorandum of Agreement that the state board and the department signed in 1982, the state board agreed to assist the department by evaluating facilities' compliance with federal requirements pertaining to groundwater protection. However, unlike the subsequent interagency agreement, the Memorandum of Agreement did not specify the tasks that the state board was required to carry out. Therefore, until the interagency agreement was signed, it was unclear whether the state board or the department was required to conduct the inspections necessary to evaluate facilities' conformance with federal groundwater protection requirements.

However, problems continued even after the interagency agreement was signed. State board managers reported that the regional boards were unable to fulfill their responsibilities under the federal fiscal year 1982-83 interagency agreement with the department because staff at the regional boards had less than four months to implement the interagency agreement. The 1982-83 agreement was signed in June 1983 and was due to expire in September 1983. Management officials at both the state board and the department said that they were unable to sign the

1982-83 agreement until June 1983 because of disagreements over the delineation of responsibilities and the apportionment of federal funds. The amount of time that regional board staff had to implement the agreement was further reduced because the EPA did not provide the training necessary to conduct the facility inspections until July 1983.

As of March 1, 1984, the state board and the department had still not signed the interagency agreement for the 1983-84 federal fiscal year. In January 1984, the Legislature gave approval to the department to accept and spend additional federal funds for the 1983-84 state fiscal year. The Legislature's action enables the department to transfer a portion of these funds to the state board through the proposed interagency agreement. Thus, once the interagency agreement is signed and the funds become available, the state board can hire additional staff to inspect hazardous waste disposal facilities and evaluate facilities' conformance with federal requirements.

CHAPTER III

CONCLUSION AND RECOMMENDATIONS

The State Water Resources Control Board has done little since 1979 to improve its procedures for regulating waste dischargers. Most of the problems discussed in this report were also identified in the Auditor General's 1979 report, in response to which the state board indicated that it was implementing procedures that would correct the problems we identified. The state board has adopted regulations requiring the regional boards to review waste discharge requirements and to inspect each facility once every five years, but it has done little else to improve the regulation of waste dischargers.

The state board and the regional water quality control boards still do not have an effective regulatory program to identify violators and to ensure that violations are corrected. The regional boards do not have effective systems to track and follow up on dischargers' self-monitoring reports, to schedule and follow up on inspections, or to identify and revise outdated waste discharge requirements. Additionally, the regional boards have inconsistent policies regarding the fees charged to waste dischargers, and the regional boards do not always charge fees, thereby forgoing additional state revenues.

Furthermore, the state board and the regional boards still are not effectively using their automated management information system, the Waste Discharger System. Three of the nine regional boards do not

participate in the system at all, and most of the other regional boards provide only partial information. Consequently, the State has spent considerable resources on a system that is not being consistently used either to regulate waste dischargers or to provide data for statewide policymaking.

In addition, the state board and the Department of Health Services have not adequately fulfilled their responsibilities in regulating hazardous waste disposal facilities. The regional boards have issued waste discharge requirements to less than two-thirds of 128 hazardous waste disposal facilities that the department has identified. Furthermore, because of confusion and delays in delineating responsibilities and apportioning federal funds, neither the state board nor the department has sufficiently evaluated hazardous waste disposal facilities' conformance with the groundwater protection provisions of the federal Resource Conservation and Recovery Act.

Because of the above conditions, the state board and the regional boards have not adequately regulated waste dischargers, and they have not protected the public and the environment from the harmful effects of water pollution, a fact that is evidenced by the continuing reports of water contamination throughout the State.

The state board and the regional boards consistently cite the same reasons for the various problems discussed in this report. The state board alleges that it cannot take a stronger role in requiring

uniform policies and procedures among the regional boards or in requiring the regional boards to participate in the Waste Discharger System because the regional boards are semiautonomous. The regional boards state that they do not have adequate staff to manage an effective regulatory program or to participate in the Waste Discharger System.

Recommendations

To improve its regulation of waste dischargers, the State Water Resources Control Board should take the following actions:

- Develop procedures to ensure prompt review of dischargers' self-monitoring reports. The state board could accomplish this by implementing the automated program for reviewing self-monitoring reports that is currently being tested and by requiring all regional boards to participate in the program once it is established.

- Develop minimum criteria for inspecting dischargers' facilities and develop standard reporting forms to ensure that all inspections meet the same minimum standards.

- Develop specific procedures to ensure that violations discovered through self-monitoring reports or inspections are resolved.

- Develop specific procedures to identify, review, and revise outdated waste discharge requirements.

- Implement an effective information system to be used by all regional boards in the State. The state board and the regional boards should jointly develop the system so that it will be more responsive to the regional boards' needs. As we recommended in our 1979 audit report, the state board should adopt minimum requirements for reporting to and using the system. The system should at least provide a current inventory of waste discharge requirements and a compliance history for each discharger. The system could then be used to schedule inspections of facilities and revisions of waste discharge requirements, to estimate workload, and to develop statewide policy.

- Develop accurate workload estimates that the state board and the regional boards can use to determine the most efficient use of staff and to justify requests for additional staffing.

- Expedite processing of the 1983-84 interagency agreement with the Department of Health Services. The state board should also expedite processing of future agreements to ensure that they are signed by the beginning of the agreement period.

- Develop a final reporting format for regional boards' evaluations of groundwater protection programs at hazardous waste disposal facilities.

- Direct the regional boards to issue waste discharge requirements to all hazardous waste disposal facilities and to review, and if necessary revise, existing waste discharge requirements for hazardous waste disposal facilities to ensure that those requirements adequately regulate the facilities' hazardous waste disposal operations.

- Adopt a uniform fee policy for revising waste discharge requirements and direct regional boards to apply that policy consistently.

- Monitor regional boards' regulatory activities and make regional boards accountable to the state board. The state board should also use its budgetary control to ensure that all regional boards adopt uniform administrative procedures and thus implement an effective regulatory program.

Additionally, the Legislature should take action to increase fee revenue and thereby alleviate staffing shortages at the regional boards. First, the Legislature should establish an expiration date on all waste discharge requirements. Dischargers would then have to submit new applications and filing fees to renew their waste discharge requirements. The state board could also increase filing fees to meet the cost of issuing waste discharge requirements. Besides providing increased revenue, this action will ensure that regional boards review waste discharge requirements on an established schedule. The Legislature should also consider making the regional boards primarily fee-supported

agencies, similar to the local air pollution control districts and the Department of Health Services' hazardous waste management program.

Finally, to ensure that the state board carries out the actions listed above, the Legislature should require the state board to submit periodic reports on its progress in implementing the recommendations. Furthermore, the Legislature should use budget control language to make appropriations for the state and regional boards contingent upon their progress in implementing these recommendations. If the Secretary of the Environmental Affairs Agency is dissatisfied with the state and regional boards' progress in implementing these recommendations, the Secretary should request the Legislature to restructure the legal and organizational relationship between the state board and the regional boards. This restructuring could improve the regulatory program since state board officials say that the regional boards' semiautonomous status makes it difficult to require them to adhere to uniform procedures.

OTHER INFORMATION REQUESTED BY THE LEGISLATURE

EXPENDITURE OF FUNDS PROVIDED BY THE CLEAN WATER BOND ACTS

The State's Clean Water Bond Acts of 1970, 1974, and 1978 provide $875 million to finance projects for controlling water pollution and for developing water conservation and wastewater reclamation. As of June 30, 1983, the State Treasurer had sold $660 million in bonds, 75 percent of the total authorized by the bond acts, and the State Water Resources Control Board (state board) had spent $589 million of the proceeds from the sale of the bonds. We reviewed a sample of the state board's expenditures made between July 1, 1981, and June 30, 1983. All of the expenditures that we reviewed were appropriate.

Funding and Administration

Title II of the federal Clean Water Act, as amended through December 1981, provides federal grants equal to 75 percent of the cost of constructing local sewage treatment plants. The remaining 25 percent of the costs of the projects is generally shared equally by state and local agencies. In 1970, 1974, and 1978, California voters approved a total of $875 million in general obligation bonds to finance the State's share of these projects.

The guidelines for the federal Clean Water Act exclude wastewater reclamation, water conservation, and pollution control projects such as cleaning up hazardous waste sites. Consequently, the State set aside $50 million of the $375 million provided by the 1978 bond act specifically for these types of projects. In addition, the state board may also use funds available under the Clean Water Bond Acts to "undertake plans, surveys, research, development, and studies necessary, convenient or desirable" to further control the water quality of California. Funds from the Clean Water Bond Acts are continuously appropriated in the authorizing acts; therefore, the state board does not have to obtain annual approval from the Legislature in the Budget Act to spend these funds.

Although the U.S. Environmental Protection Agency (EPA) has primary responsibility for administering the federal Clean Water Act, the EPA has delegated responsibility to the state board to administer portions of the act in California. The state board administers the Clean Water Grant Program in five major phases: assessment of needs and development of a statewide priority list, facility planning, design, construction, and project completion. Approved projects receive funding at the planning, design, and construction phases. In addition, the state board monitors contractors' compliance with approved plans and specifications.

The EPA retains authority to award federal grants, to approve the payment of federal funds, to approve "statements of no significant environmental impact," to prepare environmental impact statements, to conduct interim and final audits, and to resolve audit exceptions. In addition, the EPA retains the authority to approve the statewide priority list that determines the order in which projects will be funded. Thus, the EPA maintains ultimate control over the Clean Water Grant Program even while delegating most of the decision-making and administrative authority to the State.

Expenditure of Funds

According to the state board's accounting records, the expenditure of funds made available under the Clean Water Bond Acts totaled $589 million through June 30, 1983. Table 1 on the following page shows the details of these expenditures.

TABLE 1

CLEAN WATER BOND ACTS OF 1970, 1974, AND 1978 SCHEDULE OF EXPENDITURES INCEPTION TO JUNE 30, 1983

	1970 and 1974 Bond Acts	1978 Bond Act	Total Expenditures	
			Amount	Percent
Grant Expenditures				
Sewer treatment construction grants	$413,589,401	$111,420,201	$525,009,602	89.2
State-assisted program grants	0	15,226,944	15,226,944	2.6
Subtotal	413,589,401	126,647,145	540,236,546	91.8
Other Expenditures				
Planning and research	29,971,824	17,392,915	47,364,739	8.0
State Treasurer	178,545	74,752	253,297	0.0
Grant program administration	1,000,000	0	1,000,000	0.2
Audits	2,096	0	2,096	0.0
Total	$444,741,866	$144,114,812	$588,856,678	100.0

Sewer treatment construction grants may be awarded for planning, designing, improving, or constructing treatment facilities. For example, the City and County of San Francisco was granted $61 million to construct a sewer treatment facility. The State's portion of this grant is $7.7 million.

As provided for in the 1978 Clean Water and Water Conservation Bond Act, state-assisted program grants may be awarded for a broad range of wastewater reclamation, water conservation, and pollution control projects. Of the $50 million designated for state-assisted programs, approximately $11.2 million will be used for wastewater reclamation projects, $6.8 million for water conservation, and $22 million for pollution control projects. Approximately $10 million will be used for projects to control erosion and runoff at Lake Tahoe. Examples of state-assisted program grants include a grant to construct a pipeline and well system to halt the intrusion of seawater into the Oxnard Plain and a grant to reclaim 1,693 acre feet of water per year in Long Beach.

Planning and research activities apply to the full range of the state board's powers and purposes, from adopting formal water quality plans to conducting whatever research and development the state board believes are "convenient, necessary, or desirable" to protect the quality of the State's waters. For example, the state board spent over $1.1 million for special surveys and investigations between July 1, 1981, and June 30, 1983. These surveys and investigations attempted to identify sources of pollutants that violate or threaten to violate water quality standards.

State Treasurer's expenditures include the costs that the State Treasurer incurs to prepare and advertise the bonds for sale. Whenever bonds are sold, the first money realized from the proceeds of the sale is used to pay the State Treasurer's expenditures. Expenditures for grant program administration represent the state board's costs for administering the provisions of the bond acts. Finally, audit expenditures are the costs to the state board for the audits of the bond funds.

To assess the appropriateness of the state board's expenditure of bond funds, we reviewed a sample of expenditures made between July 1, 1981, and June 30, 1983. Expenditures for these two years totaled $139 million and represented 23.6 percent of the $589 million spent since the inception of the bond acts. Table 2 on the following page details these expenditures.

TABLE 2

CLEAN WATER BOND ACTS OF 1970, 1974, AND 1978 SCHEDULE OF EXPENDITURES JULY 1, 1981 THROUGH JUNE 30, 1983

	1970 and 1974 Bond Acts	1978 Bond Act	Total Expenditures	
			Amount	Percent
Grant Expenditures				
Sewer treatment construction grants	$23,134,832	$ 88,588,046	$111,722,878	80.4
State-assisted program grants	0	15,226,944	15,226,944	11.0
Subtotal	23,134,832	103,814,990	126,949,822	91.4
Other Expenditures				
Planning and research	0	11,932,295	11,932,295	8.6
State Treasurer	19,910	56,907	76,817	0.0
Audits	2,096	0	2,096	0.0
Total	$23,156,838	$115,804,192	$138,961,030	100.0

We focused our review on sewer treatment construction grants, state-assisted program grants, and planning and research expenditures because these categories accounted for most of the expenditures between July 1, 1981, and June 30, 1983. The sewer treatment construction and state-assisted program grants totaled approximately $127 million, 91.4 percent of the total expenditures for the period; planning and research expenditures totaled $12 million, 8.6 percent of the total

expenditures. We did not review the State Treasurer's expenditures and the audit expenditures because they represent less than one-half of one percent of the total expenditures, and we did not review program administration expenditures because they were funded by federal grants in the period of our review.

We selected a statistical sample of grant expenditures and determined that the grantee met federal and state eligibility requirements and that the contract provisions met the requirements set forth in the Clean Water Bond Acts. We found no inappropriate expenditures in our sample of grants for sewer treatment projects and state-assisted programs for the period from July 1, 1981, through June 30, 1983. Based on the results of our statistical sample, we conclude that the $127 million in total grant expenditures for the period are appropriate.

To assess the appropriateness of the planning and research expenditures, we reviewed 100 percent of these expenditures that were wholly charged to the Clean Water Bond Funds.* This amount, $3.15 million, represents 26 percent of the $12 million in planning and research expenditures made during the two-year period ended June 30, 1983. We reviewed each expenditure, noting the amount and description,

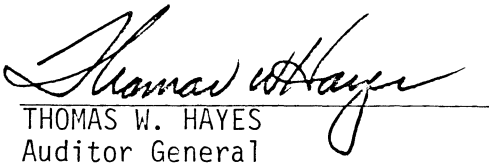
*Some planning and research expenditures are charged to other funds, such as the General Fund.

and we determined whether the expenditure was allowable according to the State's Clean Water Bond Acts. All of the expenditures we reviewed were appropriate as defined by the Clean Water Bond Acts. However, since we did not conduct a statistical sample, we cannot project whether all of the planning and research expenditures were appropriate.

In a March 1982 legal opinion, the state board's chief counsel stated that under the terms of the Clean Water Bond Acts of 1970, 1974, and 1978, the state board has discretion in planning and research expenditures but that the authority of the state board is subject to review by the Clean Water Finance Committee, which consists of the Governor or his designated representative, the State Controller, the State Treasurer, the Director of Finance, and the chairman of the state board. The opinion further stated that funding is not limited to planning and research connected with sewer treatment construction grants but extends to the full range of the powers and purposes of the state board.

We conducted this review under the authority vested in the Auditor General by Section 10500 et seq. of the California Government Code and according to generally accepted governmental auditing standards. We limited our review to those areas specified in the audit scope section of this report.

Respectfully submitted,



THOMAS W. HAYES
Auditor General

Date: March 26, 1984

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State of California

SACRAMENTO

GORDON W. DUFFY
Secretary of
Environmental Affairs

March 21, 1984

Mr. Thomas W. Hayes
Auditor General
660 J Street, Suite 300
Sacramento, CA 95814

Dear Mr. Hayes:

I am responding to your letter of March 14, 1984, on your draft report "The State of California Should Do More to Reduce and Prevent Contamination of Water Supplies."

As you are aware, I have administrative responsibility for the State Water Resources Control Board; however, statutorily this board is composed of members with term appointments, and as such has independent discretionary authority in most areas. I have therefore requested Mr. Mike Campos, Executive Director of the SWRCB, to respond to the technical aspects of your draft report. I will confine my remarks to those conclusions and recommendations which you have proposed in Chapter 3.

On page 68 you make the statement "the state board and regional boards . . . have not adequately fulfilled their responsibilities in regulating hazardous waste disposal facilities." I am sure that you are aware of the numerous programs which have been mandated by the legislature as well as increasing workload which has resulted from the discovery of additional water quality problems in the state. Therefore, while I would agree that there is room for improvement in the regulation of hazardous waste discharger facilities, I would temper this statement with the understanding that conditions have not been static. The workload has increased as the public and the Legislature have become more aware of the dangers of hazardous waste.

While I concur that the regulatory program on waste dischargers should and will be improved, I do not concur in the statement "they have not protected the public and the environment from the harmful effects of water pollution, . . ." (p. 68). Specifically, I would point out:

1. There has been significant improvement in the quality of the State's surface waters. All but three of California's 26 major rivers have steadily improved in quality since 1970.

2. The water quality of San Francisco Bay has improved to the point that beginning in 1983 shellfish in some areas of the Bay have been harvested and consumed by humans for the first time since the 1930s.

1102 Q STREET, SACRAMENTO, CALIFORNIA 95814 (916) 322-5840

3. The program to protect Lake Tahoe from non-point source pollution has halted construction on environmentally sensitive lands and begun implementation of remedial projects.

4. $5.5 billion has been granted to construct municipal wastewater facilities since 1970.

5. The adoption of best management practices have significantly reduced sedimentation of Newport Bay.

6. A major program was implemented to halt seawater intrusion to the aquifer of the Oxnard plain.

The statement is made that the "state board alleges that it cannot take a stronger role in requiring uniform policies and procedures . . . because the regional boards are semiautonomous" (pp. 68-69). I disagree with this statement if that has been made by the state board. I believe that adequate legal authority is available to the state board to provide uniform policies and procedures.

Your report states "the regional boards state that they do not have adequate staff to manage an effective regulatory program or to participate in the Waste Discharger System" (p. 69). I am unaware as to whether this is a true statement or not. However, I will be addressing new action to handle this problem.

Recommendations

1. "Develop procedures to ensure prompt review of dischargers' self-monitoring reports. The state board could accomplish this by implementing the automated program for reviewing self-monitoring reports that is currently being tested and then requiring all regional boards to participate in the program."

   I concur.

2. "Develop minimum criteria for conducting inspections and develop standard reporting forms to ensure that all inspections meet the same minimum standards."

   I concur.

3. "Develop specific procedures to ensure that violations discovered through self-monitoring reports or inspections are resolved."

   I concur.

4. "Develop specific procedures to identify, review, and revise outdated waste discharge requirements."

   I concur.

5. "Implement an effective information system to be used by all regional boards in the State. The state board and the regional boards should jointly develop the system to be more responsive to

the regional boards' needs. As we recommended in our 1979 audit report, the state board should adopt minimum requirements for reporting to and using the system. The system should at least provide a current inventory of waste discharge requirements and a compliance history for each discharger. The system could then be used to schedule inspections and revisions of waste discharge requirements, to estimate workload, and to develop statewide policy."

I concur. In response to a recent Legislative Analyst request, the Board is preparing a workplan to deal with correction of its regulatory process deficiencies. A draft will be submitted to the Legislative Analyst by April 1st. A copy of this workplan will be sent to you.

A central theme in the restructuring of the regulatory program will be an emphasis on using data processing to enhance development, collection and analysis of water quality related information whenever possible and cost effective. As pointed out in your report, the Board has already initiated steps to provide EDP capabilities to the regional boards which will tie into the Waste Discharge System. The Board's proposed 1984-85 Budget includes $98,000 to address this issue. Federal funds will help purchase computer equipment.

6. "Develop accurate workload estimates that the state board and the regional boards can use to determine the most efficient use of staff and to justify staffing requests."

   I concur.

7. "Expedite processing of the 1983-84 interagency agreement with the Department of Health Services. The state board should also expedite processing of future agreements to ensure that they are signed by the beginning of the agreement period."

   Insofar as my office has authority in this area, I concur.

8. "Develop a final reporting format for regional boards' evaluations of groundwater protection programs at hazardous waste disposal facilities."

   I concur and have requested the state board to take action on this item.

9. "Direct regional boards to issue waste discharge requirements to all hazardous waste disposal facilities and to review, and if necessary revise, existing waste discharge requirements for hazardous waste disposal facilities to ensure that those requirements adequately regulate the facilities' hazardous waste disposal operation."

   This is current law and I concur.

10. "Adopt a uniform fee policy for revising waste discharge requirements and direct regional boards to apply the policy consistently."

    I concur.

11. "Monitor regional boards' regulatory activities and make regional boards accountable to the state board. The state board should also use its budgetary control to ensure that all regional boards adopt uniform administrative procedures and thus implement an effective regulatory program."

    I concur.

12. "The Legislature should establish an expiration date on all waste discharge requirements. Dischargers would then have to submit new applications and filing fees to renew their waste discharge requirements. The state board could increase filing fees to meet the cost of issuing waste discharge requirements. Besides providing increased revenue, this action will ensure that regional boards review waste discharge requirements on an established schedule."

    This matter has already been addressed in the 1984-85 Budget submittals. It provides for review of all discharge requirements on a cycle of every three, five, or ten years depending on the degree of hazard. In view of this, no action is necessary by the Legislature.

13. "The Legislature should also consider making the regional boards primarily fee-supported agencies, similar to the local air pollution control districts and the Department of Health Services' hazardous waste management program."

    I must reserve judgment on your suggestion that the regional boards become totally fee-based agencies. Currently, people applying for waste discharge requirements pay fees from $50 to $10,000, depending on the size and type of discharge. These fees provide 17 percent of the funds for the water quality regulatory program. The Legislature should address the general public policy issue of whether or not a regulatory agency should be fully supported by those it regulates.

    If full support (or some lesser level) by fees is found appropriate, the State Board could be asked to suggest ways to meet those needs.

14. "Finally, to ensure that the state board implements these recommendations, the Legislature should require the state board to submit periodic reports on its progress in implementing the recommendations. Furthermore, the Legislature should use budget control language to make appropriations for the state and regional boards contingent upon their progress in implementing these recommendations. If the Secretary of the Environmental Affairs Agency is dissatisified with the state and regional board's progress in implementing these recommendations, the Secretary

should request the Legislature to restructure the legal and organizational relationship between the state board and the regional boards. This could improve the regulatory program since state board officials say they cannot require uniform procedures among the regional boards because they are semiautonomous."

I am immediately requesting the State Board file with me quarterly reports on its implementation of the workplan submitted to the Legislative Analyst. I will forward those progress reports to both your office and the Legislative Analyst for review and comment.

In addition, I am requesting the State Board, as part of its F.Y. 1985-86 Budget, to establish an internal control unit to continuously review its regulatory and enforcement procedures and the regions' compliance with those procedures. After reviewing the Water Code, I have determined that the State Board, through its statewide policy making, budgetary, and review functions, has ample authority to assure uniform policies, processes, and procedures.

Finally, I have directed the State Board to give high priority to coordinating the regulation of hazardous waste and to elevate any problems resulting from lack of agreement with other agencies to my immediate attention. I am sure that Secretary Swoap and I will be able to resolve any differences promptly, and thus avoid program delays similar to those you have noted.

Sincerely,

Gordon Duffy
Secretary of Environmental Affairs

cc: David Swoap, Secretary, Health and Welfare Agency
Mike Campos, Executive Director, State Water Resources Control Board

STATE OF CALIFORNIA GEORGE DEUKMEJIAN, *Governor*

STATE WATER RESOURCES CONTROL BOARD

PAUL R. BONDERSON BUILDING
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March 21, 1984

Thomas W. Hayes
Auditor General
660 J Street, Suite 300
Sacramento, CA 95814

Dear Mr. Hayes:

Gordon Duffy transmitted to me a copy of your draft report, The State of California Should Do More to Reduce and Prevent Contamination of Water Supplies, dated March 1, 1984. Mr. Duffy requested that I review the report and directly respond to you with our comments.

Much of the material contained in your report parallels findings already made by the State Water Resources Control Board, the Legislative Analyst, and the Assembly Natural Resources Committee. Both the State Board and the Legislative Analyst have proposed many of the recommendations set forth in your report.

In light of the conclusions and recommendations contained in your report, the State Water Resources Control Board will take a number of actions. These actions include:

1. We are formulating a workplan to identify those actions which must be undertaken to conduct a comprehensive internal review of our regulatory program. This is being done at the request of the Legislative Analyst. The review will concentrate upon unifying the water quality regulatory process, establishing standardized procedures for the issuance of waste discharge requirements, self-monitoring report review, compliance inspections, and enforcement. Furthermore, in conducting this review we will emphasize using data processing to enhance our ability to analyze water quality information and assist in overall management of the program. This workplan will be completed April 1, 1984.

2. A draft Administrative Procedures Manual has been completed and is scheduled for Board adoption May 17, 1984. This manual will contain a policy on fee collection and enforcement procedures. It will be adopted as a state policy for water quality control (Water Code Sec. 13140) and become legally binding.

3. As part of our F.Y. 85-86 budget, the Board will propose establishment of an internal control unit to continuously review our regulatory procedures and the regional boards' compliance with those procedures.

4. The State Board recognizes the need to give the hazardous waste program high priority and will direct the regional boards to expeditiously fulfill those commitments made to the Department of Health Services.

Despite the fact that in general we agree with most of the recommendations contained in your draft report, we feel that there are certain areas which deserve detailed comment:

Finding: Page iv. The state board should adopt specific procedures to improve the regulation of waste dischargers. Furthermore, the State Board should monitor the regional boards' regulatory activities and make the regional boards accountable to the state board.

Page 67. The regional boards do not have effective systems to track and follow-up on inspections, or to identify and revise outdated waste discharge requirements. Additionally, the regional boards have inconsistent policies regarding the fees charged to waste dischargers, and the regional boards do not always charge fees, thereby foregoing additional state revenues.

Furthermore, the state board and the regional boards still are not effectively using their automated management information system, the Waste Discharger System.

Response: In response to a recent Legislative Analyst request, the Board is preparing a workplan to deal with correction of its regulatory process deficiencies. A draft will be submitted to the Legislative Analyst by April 1st. A copy of this workplan will be sent to you.

A central theme in the restructuring of the regulatory program will be an emphasis on using data processing to enhance development, collection and analysis of water quality related information whenever possible and cost effective. As pointed out in your report, the Board has already initiated steps to provide EDP capabilities to the regional boards which will tie into the Waste Discharge System. The Board's proposed 1984-85 Budget includes $98,000 to address this issue. Federal funds will help purchase computer equipment.

In another effort to improve the regulatory program the Board will issue a revised Administrative Procedures Manual by May 17th. It will include standardized methods for writing waste discharge requirements, collecting filing fees, and handling enforcement actions.

Finding: Page 67. The state board and the regional water quality control boards still do not have an effective regulatory program to identify violators and to ensure that violations are corrected.

> Page 68. Because of above conditions, the state board and the regional boards have not adequately regulated waste dischargers, and they have not protected the public and the environment from the harmful effects of water pollution, a fact that is evidenced by the continuing reports of water contamination throughout the state.

Response: These and other statements in the draft report tend to indicate that a comprehensive review of the Board's regulatory program was performed. However, the actual review was centered on the Board's regulation of discharges to groundwater. Although some mention of the Board's regulation of surface water discharges is made, no analysis is presented of this major aspect of the Board's water quality program. (*) A 1979 Auditor General's report said:

> "Statewide, we found that the State Board and the nine regional boards administer an effective inspection and monitoring program under changing federal guidelines and state budget limitations. We have, however, identified some areas where the State and regional boards could improve their efficiency and effectiveness."

Now, looking at essentially the same facts, but concentrating on discharges to groundwater, you have concluded:

> "The Regional Boards still do not have adequate procedures or sufficient management information to effectively regulate waste dischargers."

I suggest that neither observation is completely supportable based upon the respective study results. In the second instance, a large aspect of the Board's regulatory effort appears not to have been evaluated. Nonetheless, the real measure of the program effectiveness is the general trends in water quality throughout the State. While there have been failures such as in the cases of Aerojet and Occidental Chemical, there have also been dramatic successes. All but 3 of our 26 major rivers have improved in quality since 1970. There have been significant improvements in the quality of San Francisco and Newport Bays. An effective program to reduce seawater intrusion into the aquifer beneath the Oxnard Plain was developed and implemented. Significant strides have been made in protecting the quality of Lake Tahoe. We feel a truly comprehensive look at our efforts should have identified these successes as well as our failures. Based upon the findings contained in your draft as well as your 1979 report, it is appropriate to conclude that the Board's regulatory program has a number of procedural and process deficiencies which detract from our ability to readily identify and quickly correct water quality problems. Furthermore, correction of these deficiencies would result in a more effective water quality control effort.

(*) The Auditor General's comment to this response appears on page 95.

Finding: Page 68. In addition, the state board and the Department of Health Services have not adequately fulfilled their responsibilities in regulating hazardous waste disposal facilities. The regional boards have issued waste discharge requirements to less than two-thirds of 128 hazardous waste disposal facilities identified by the Department. Furthermore, because of confusion and delays in delineating responsibilities and apportioning federal funds, neither the state board nor the department had sufficiently evaluated hazardous waste disposal facilities conforming with the groundwater protection requirements contained in the federal Resource Conservation and Recovery Act.

Response: Your observations are accurate that difficulty has been experienced in coordinating the efforts of the Board and the Department of Health Services in implementing a state hazardous waste control program which is the equivalent of the federal Resources Conservation and Recovery Act (RCRA). The hazardous waste control program is a large, new joint federal/state regulatory program. While the problems you point out must be solved, their occurrence is not surprising. However, the coordination and communication between the Board and the Department of Health Services has greatly improved over the last year.

Your report acknowledges that money for the hazardous waste control program was only available to the regional boards for a few months during 1983. Because of the timing, the regional boards were unable to hire additional staff even during the period money was available. More importantly, the report criticizes the regional boards for lack of outputs. However, the tasks described in the interagency agreement represent a continuing program; when the agreement was reached there was no expectation that all the described tasks would be completed within the then-current fiscal year.

Finding: Pages 68-69. The state board and the regional boards consistently cite the same reasons for the various problems discussed in this report. The state board alleges that it cannot take a stronger role in requiring uniform policies and procedures among the regional boards or in requiring the regional boards to participate in the Waste Discharger System because the regional boards are semiautonomous. The regional boards state that they do not have adequate staff to manage an effective regulatory program or to participate in the Waste Discharger System.

Response: While the semiautonomous nature of the State Board/regional board organization is a complicating factor in obtaining uniformity, the State Board and the regional boards are under a mandate "to achieve a unified and effective water quality control program....," Water Code Section 13001. Under Water Code Section 13140 the State Board is charged with the responsibility to formulate and adopt policy for water quality control. The regional boards

pursuant to Water Code Section 13146 are required to comply with such policy. In the future the Board will utilize its authorities under Section 13140 to establish uniform procedures. Furthermore, we recognize that an internal control function will need to be established to ensure that these policies are implemented.

Your report recognizes that resource limitations at the regional board level may be partially responsible for the present situation. Reviewing past budgets, it is clear the regional boards' regulation resources have been slightly reduced since 1978-79; however the workload (as evidenced by the number of facilities under regulation) has significantly increased. While lack of resources has been a contributing factor in the regional boards' failure to adequately regulate certain facilities, the State Board's November 1983 study concluded that lack of management information severely hampers our ability to document workload. The Governor's 1984-85 budget asks for an augmentation of 16 positions to assist the regional boards in updating waste discharge requirements in accordance with a fixed schedule. We shall be seeking additional resources as the need is established and all necessary corrective actions to the Board's regulatory program are being implemented.

Finding: Page 71. Additionally, the Legislature should take action to increase fee revenue and thus alleviate staffing shortages at the regional boards. First, the Legislature should establish an expiration date on all waste discharge requirements. Dischargers would then have to submit new applications and filing fees to renew their waste discharge requirements. The state board could increase filing fees to meet the cost of issuing waste discharge requirements. Besides providing increased revenue, this action will ensure that regional boards review waste discharge requirements on an established schedule.

Response: As part of its F.Y. 84-85 budget request, the Board and the Administration are requesting additional resources to enable the regional boards to update waste discharge requirements on a 3, 5, or 10-year interval based upon the degree of hazardous waste associated with the specific discharge. As fees only currently support approximately 17 percent of the waste discharge program effort and it is estimated that a thorough review of existing requirements takes one-half the resource required for initial requirement preparation, a significant fee increase would be required to offset program costs.

Finding: Page 72. The Legislature should also consider making the regional boards primarily fee-supported agencies, similar to the local air pollution control districts and the Department of Health Services' hazardous waste management program.

Response: Currently, people applying for waste discharge requirements pay fees from $50 to $10,000, depending on the size and type of discharge. These fees provide 17 percent of the funds for the water quality regulatory program. The Legislature should address the general public policy issue of whether or not a regulatory agency should be fully supported by those it regulates.

If full support (or some lesser level) by fees is found appropriate, the State Board will suggest ways to meet those needs.

Finding: Page 73. All of the expenditures (bond fund) that we reviewed were appropriate.

Response: We were pleased to see that your investigation of Clean Water Bond fund expenditures revealed nothing inappropriate. This has been an area of some controversy for the last two years. The Board's own legal staff and the Legislative Counsel have reached similar conclusions. I hope that your report will finally put this matter to rest.

I appreciate the opportunity to comment and will be pleased to provide any additional information you may need.

Sincerely,

Michael A. Campos
Executive Director

cc: Gordon W. Duffy
Secretary of Environmental Affairs
1102 Q Street
Sacramento, CA 95814

Joel Moskowitz
Deputy Director
Department of Health Services
714/744 P Street
Sacramento, CA 95814

AUDITOR GENERAL'S COMMENT (Refer to page 91):

The state board is incorrect in stating that our review focused only on one aspect of its regulatory program; our analysis included a sample of waste dischargers that affect both surface water and groundwater. Surface waters include oceans, bays, and rivers, such as those cited in the state board's response as program successes. Surface waters are regulated by federal permits. These federal permits constitute approximately 19 percent of the waste discharge requirements issued by the regional boards. Groundwaters include underground reservoirs which supply approximately 50 percent of the State's drinking water. Groundwaters are regulated by waste discharge requirements issued under the state program. These waste discharge requirements account for approximately 81 percent of the total waste discharge requirements issued. Our report describes in detail the regulatory procedures for both the federal program and the state program. In several places, the report notes that, based on our analysis, the regional boards' regulation of dischargers governed by the federal program was generally better than the regulation of dischargers governed by the state program, especially in terms of inspections and updating waste discharge requirements. The reason most often cited by the regional boards for the better regulation under the federal program was that the regional boards are accountable for their performance to the EPA and that continued federal funds depend upon regional boards' compliance with federal requirements.

GEORGE DEUKMEJIAN, *Governor*

STATE OF CALIFORNIA

HEALTH and WELFARE AGENCY

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March 22, 1984

Thomas W. Hayes
Auditor General
Office of the Auditor General
660 J Street, Suite 300
Sacramento, CA 95814

Dear Mr. Hayes:

This is in response to your request for comments on the "Report by the Office of the Auditor General to the Joint Legislative Audit Committee; The State of California Should Do More to Reduce and Prevent Contamination of Water Supplies" dated March 1984.

We believe the report is generally accurate as it relates to the Department's past regulatory involvement with the SWRCB in the area of protecting water quality. However, the report fails to recognize that EPA did not adopt requirements for water quality protection until January 1983 nor does the report recognize activities which have occurred more recently to correct the past problems which are noted. (1) These include the following:

1. Since July 1983, the Department, the Board and EPA have been meeting monthly to coordinate activities related to permitting land disposal facilities and to assure a smooth transition of the program to the State when full authorization is received. These meetings are now being expanded to include representatives of the Regional Water Quality Control Boards (RWQCB).

2. The Department and Board have been working together closely to develop regulations which reduce the overlap of regulatory authority and clarify the lines of responsibility. Meetings to accomplish this have been held

(1) Auditor General's Comments: As noted in Chapter 2 of the report, in 1981 the EPA authorized the department to issue interim status documents to hazardous waste facilities until final permits with more stringent requirements could be issued. The EPA has required the department to inspect hazardous waste disposal facilities annually for conformance with groundwater monitoring programs that are required in the facilities' interim status documents. The department's reference to requirements adopted in January 1983 refers to requirements for provisions to be included in the facilities' final permits.

at both top management and staff levels. A joint workshop and hearing have been held on these regulations. The proposed regulations go beyond federal regulations in protecting water quality and environmental quality in general.

3. The Department and Board are working together to update and confirm the accuracy of hazardous waste site lists maintained on data management systems. EPA is also involved in this effort as their list of facilities contains many inaccuracies.

4. The Toxic Substances Control Division's regional sections are working closely with EPA and the RWQCB's, to the extent possible, to review permit applications for 40 land disposal facilities.

5. The Department and Board have agreed on a number of procedural aspects of the program, for example, the Waste Discharge Requirements adopted by the SWQCB (as amended to reflect RCRA) will be incorporated verbatim into the Department's facility permits.

Several of the issues raised in the report reflect on the Department of Health Services programs for regulating hazardous wastes. The comments which follow respond to those issues.

1. The Regional Boards have not submitted any evaluations of disposal facilities as of February 1984.

   Comments: The Department has received 19 evaluations from the Board at this time. (2)

2. In 1982 the Legislature amended the Hazardous Waste Control Act to require the Department to implement the federal hazardous waste programs (RCRA).

   Comment: It is correct that the Legislature amended the Hazardous Waste Control Act to require that the Department implement the Resource Conservation and Recovery Act (RCRA). However, it should be pointed out that EPA did not propose the

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(2) As of the date we concluded our fieldwork in February 1984, the state board had not submitted to the department any evaluations of the 128 hazardous waste disposal facilities.

final ground water protection regulations until July 26, 1982. These regulations did not take effect until January 26, 1983. Further, State regulations to implement the federal act are still proceeding through the adoption process.

3. The Department is required to issue hazardous waste facility permits which address ground water protection including monitoring, installation of liners, and sampling procedures.

   Comment: The report is only partially correct in stating that the Department is required to issue hazardous waste facility permits which address water quality. The report fails to recognize the fact that California has not yet received authorization from EPA to implement this portion of the federal program. (3)

4. The Board and the Department have not yet signed an agreement for 83-84 as of March 1984. This agreement is to be for $670,000.

   Comment: The report is correct in that an interagency agreement has not yet been signed for the period October 1983 through June 1984. However, it should be noted that even though a formal agreement has not been concluded, conceptual agreement was reached with the State Water Resources Control Board (SWRCB) by July 1983.

5. California does not know the extent of facilities failure to comply with federal ground water protection requirements.

   Comment: This is only partially correct. The Department has identified facilities requiring ground water monitoring and is providing the Water Board with "Facility Status Sheets and Compliance Monitoring and Enforcement Logs" to be

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(3) Although the EPA has not granted the department the authority to issue final permits to hazardous waste disposal facilities, the EPA has authorized the department to issue interim status documents which impose national standards until final permits are issued. Furthermore, in federal fiscal year 1982-83 the EPA instructed the department to begin the final permitting process for 30 hazardous waste disposal facilities.

completed by the respective regions and submitted to TSCD. Close review of these reports on a monthly basis will determine if appropriate action is being taken to obtain compliance for ground water monitoring requirements. (4)

I hope these comments are helpful and assist in clarifying the issues addressed in your report.

Thank you for the opportunity to comment on the draft. If you have any questions, I have asked that staff of the Department be available to discuss our comments on the report.

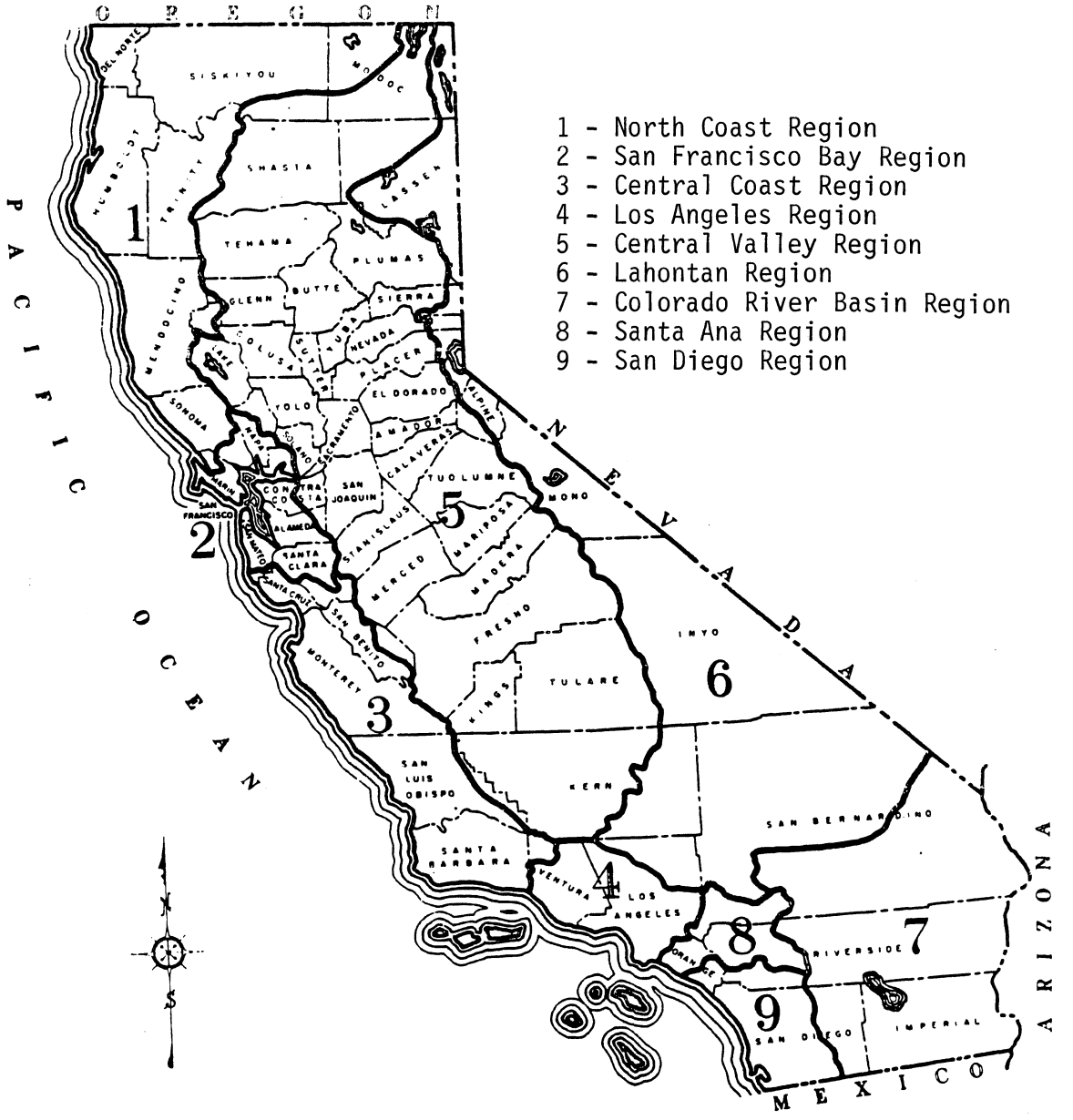
Sincerely,

for DAVID B. SWOAP
Secretary

(4) As of the date we concluded our fieldwork in February 1984, the state board had not submitted to the department any evaluations of the 128 hazardous waste disposal facilities' conformance with federal groundwater protection provisions.

APPENDIX A

MAP OF REGIONAL WATER QUALITY CONTROL BOARDS



SUMMARY OF THE AUDITOR GENERAL'S 1979 REPORT ON THE STATE WATER RESOURCES CONTROL BOARD AND THE REGIONAL WATER QUALITY CONTROL BOARDS

In 1979, the Auditor General issued a report entitled "State Water Resources Control Board and Regional Water Quality Control Boards: Need for Uniform Regulatory Policies and Procedures," Report P-856.1, April 1979. The review focused on the State's water quality control program, particularly the regional water quality control boards' procedures for regulating waste dischargers. The Auditor General concluded that there was a need for uniform regulatory policies and procedures among the regional boards.

The report stated that there was considerable variation in self-monitoring and inspection systems among the nine regional boards. In addition, regional boards did not promptly review and update waste discharge requirements issued under the state program, and they did not regularly inspect dischargers. The report concluded that these variations could lead to different regional standards and result in inconsistent application of the law. The report further concluded that violations of waste discharge requirements could persist without being detected. Finally, the report noted that the state board's automated information system, the Waste Discharger System, was inaccurate and incomplete and that the regional boards did not consistently use it.

The Auditor General found wide variation in the ways that regional boards reviewed and acted upon dischargers' self-monitoring reports. Some of the regional boards immediately reviewed and followed up on the self-monitoring reports, while other regional boards did not review or follow up on a number of self-monitoring reports. Staff at some regional boards said that other priorities prevented them from reviewing and acting on the self-monitoring reports.

The Auditor General's report also noted variations in the procedures that regional boards used to inspect waste dischargers' facilities. In 1979, the state board required that regional boards develop schedules to periodically inspect waste dischargers that were regulated under the state program. The U.S. Environmental Protection Agency required then, as it does now, that regional boards inspect waste dischargers regulated under the federal program approximately once every five years for minor dischargers and once every year for major dischargers. The Auditor General's 1979 report concluded that four of the nine regional boards had no schedule for inspecting waste dischargers except those regulated by the federal program. The Auditor General also reported variations in the inspection reporting forms that the regional boards used. The forms did not include consistent information, and, in many cases, the auditors could not tell from an inspection report whether the discharger was complying with requirements.

The Auditor General also found wide disparities in the regional boards' procedures for updating and reviewing waste discharge requirements issued under the state program. The regional boards often did not follow their stated policies for reviewing waste discharge requirements. For example, one regional board's policy was to review waste discharge requirements issued under the state program every three years. However, the auditors found one waste discharge requirement that had been issued in 1953, 26 years earlier. Staff at the regional board agreed that this permit needed to be updated. Another regional board's policy was to renew waste discharge requirements under the state program every five years. However, the auditors found that 10 of 14 waste discharge requirements reviewed were more than five years old; one waste discharge requirement was 24 years old and another was 16 years old. The Auditor General reported that because regional boards were not reviewing and renewing waste discharge requirements issued under the state program, the State was not earning revenue from the filing fees that dischargers must pay to renew waste discharge requirements.

Finally, the Auditor General reported problems in the state board's automated information system, the Waste Discharger System. The system's data file was inaccurate because the regional boards were reluctant to submit and update information. Furthermore, four of the nine regional boards seldom used the system. Instead, they maintained duplicate records manually, some of which were inadequate because they did not include inspection schedules and historical compliance data. The Auditor General advised that if the regional boards used the Waste Discharger System, they could eliminate some of the weaknesses in the regional boards' inspection and self-monitoring systems and could increase accountability, economy, and efficiency.

RECOMMENDATIONS

The Auditor General recommended that the state board establish and enforce uniform policies, procedures, and formats for inspections, self-monitoring functions, and renewal of waste discharge requirements. The Auditor General also recommended that the state board reevaluate the objectives of the waste discharger management information system, considering both state and regional needs, and develop and implement minimum requirements for reporting to and using the system.

cc: Members of the Legislature
Office of the Governor
Office of the Lieutenant Governor
State Controller
Legislative Analyst
Director of Finance
Assembly Office of Research
Senate Office of Research
Assembly Majority/Minority Consultants
Senate Majority/Minority Consultants
Capitol Press Corps