

California State Auditor

B U R E A U O F S T A T E A U D I T S

California Integrated Waste Management Board:

*Limited Authority and Weak Oversight
Diminish Its Ability to Protect Public Health
and the Environment*



December 2000
2000-109

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CALIFORNIA STATE AUDITOR

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December 11, 2000

2000-109

The Governor of California
President pro Tempore of the Senate
Speaker of the Assembly
State Capitol
Sacramento, California 95814

Dear Governor and Legislative Leaders:

As requested by the Joint Legislative Audit Committee, the Bureau of State Audits presents its audit report concerning our review of the California Integrated Waste Management Board's (board) oversight of the State's solid waste landfills.

This report concludes that the board lacks appropriate authority to fully protect the environment and public safety because the law does not allow the board to object to a permit if it believes that additional landfill capacity is unnecessary or counties and cities are not addressing concerns about environmental justice. Also, the board has weakened its ability to properly regulate landfills by adopting policies that contradict state law, not monitoring landfill activity, and allowing extensive delays in landfill closures. Finally, when counties and cities report their progress next year, they will probably fall short of the Integrated Waste Management Act of 1989's requirement aimed at diverting 50 percent of their solid waste from landfills by the end of 2000.

Respectfully submitted,

ELAINE M. HOWLE
State Auditor

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SUMMARY

Audit Highlights . . .

The California Integrated Waste Management Board (board) cannot fully achieve its mission to protect public health and safety and the environment because it:

- Does not have the authority to object to a permit if it believes that additional landfill capacity is unnecessary or that the local governments are not addressing concerns about environmental justice.*
- Has approved expansions for landfills even when the landfill owners or operators were continually violating state minimum standards.*
- Allows operators who are violating the terms and conditions of their existing permits to continue to do so while seeking approval for revised permits.*
- Allows operators to delay closure for extended periods and therefore bypass federal and state regulations.*

Although California has made significant progress toward waste diversion, it may not meet its goal of diverting 50 percent of waste away from landfills by 2000.

RESULTS IN BRIEF

The California Integrated Waste Management Board (board) lacks appropriate authority to fully protect the environment and public safety through its oversight of the State's 176 active solid waste landfills (landfills). Also, the board has weakened its ability to properly regulate landfills by adopting policies that contradict state law, not effectively monitoring landfill activity, and allowing extensive delays in landfill closures. Further, the Legislature's goal of using recycling and composting to divert trash away from landfills is at risk. When counties and cities (local governments) report their progress next year, they will probably fall short of the 50 percent diversion by 2000 that is required by the Integrated Waste Management Act of 1989 (act). These findings concern all Californians because weakly regulated landfill operations carry the potential to contaminate groundwater, release harmful gases into the air, and spread disease through animals and insects that are naturally attracted to landfills.

Currently, the board has the authority to object to a landfill expansion permit if the landfill owner or operator has not met state minimum standards, which include provisions for explosive gas control, daily cover, and landfill grading. However, the law does not allow the board to object to a permit if it believes that additional landfill capacity is unnecessary or that the local governments are not addressing concerns about environmental justice, which ensures the fair treatment of all people with respect to environmental regulations. Consequently, the board is limited in its authority to ensure that landfill operations do not unnecessarily harm the public and the environment.

The board has policies that conflict with state laws and regulations governing landfill activities. For example, the board has approved expansions for landfills even when the landfill owners or operators were continually violating state minimum standards, such as committing long-term explosive gas violations. The board's decisions to approve these permits were consistent with its 1994 policy, which states that the board can approve the

issuance of permits if the violations of state minimum standards are long-term and pose no threat to public health and safety or to the environment, the local enforcement agencies (LEAs) have issued enforcement orders, and the owners or operators are making good-faith efforts to correct the violations. The board also has a 1990 policy that allows operators that are violating the terms and conditions of their existing permits to continue to do so while seeking approval for revised permits from LEAs and the board. Between 1990 and 1999, this policy has allowed 56 operators to implement changes in operation without obtaining environmental analyses or seeking comments from the public. These policies are inconsistent with state law and may be harmful to the environment as well as public health.

The board's ineffective monitoring of landfill activity creates further environmental and health risks. The board did not monitor each landfill every 18 months, as state law requires, to ensure that the LEAs were adequately enforcing state minimum standards. Since 1995, the board was between 1 month and 4 years late in performing inspections at 132 of the 176 active landfills. However, in the last year, it has made significant strides toward reducing the number of overdue inspections. The board also does not ensure that LEAs enforce landfill violations in a timely and effective manner. According to the board's database, as of August 31, 2000, LEAs had issued 64 enforcement orders to 47 landfill operators. Our analysis shows that for 43 of these enforcement orders, the operators have not complied by the deadlines and are overdue from 114 to 2,710 days. Moreover, board staff state that only one monetary penalty has been assessed in the past 10 years. Without appropriate board oversight, potential conflicts of interest between LEAs and landfill owners or operators cannot be mitigated and long-term violations can continue without correction. Conflicts of interest are possible because LEAs, which have enforcement responsibilities, are often part of the same local governments that receive revenues from owning and operating landfills.

Finally, the board is allowing landfill operators to delay closure for extended periods. As a result, they are bypassing federal and state closure regulations established to address the fact that landfills not properly closed could threaten public health and the environment. Although state regulations require operators to submit final closure plans two years before completely ceasing operations, in 36 out of 289 instances, landfills had ceased operations before the board received the plans. Additionally, landfills are accepting only small amounts of waste, a process

called “trickling waste,” to delay final closure activities until they can amass sufficient funds to pay for final closure and postclosure maintenance. The board believes that a lack of coordination, consistency, and cooperation with other agencies on certain issues hinders effective closure activities. However, the board has taken no action either to change regulations to prevent LEAs from extending deadlines for closure plan submission indefinitely or to assume the role of coordinating agency.

In 1988, each Californian disposed of more than 2,500 pounds of solid waste, more than any other state in the country, and the State estimated that it would exhaust its remaining landfill space by the mid-1990s. Responding to this crisis, the Legislature required that local governments implement waste reduction, recycling, and composting programs aimed at diverting 50 percent of their solid waste from landfills by the end of 2000. California has made significant progress toward waste diversion but may not meet the 50 percent goal. Moreover, local governments may be reporting inaccurate diversion rates because their calculation method uses numbers that may be flawed and they have received inconsistent guidance from the board. The formula local governments use to calculate their diversion rates requires a reliable figure for the amount of solid waste generated in a base year. However, many local governments have found that the original studies of solid waste generation used to determine their base year have been inaccurate. For example, errors arose from their failure to track large segments of the waste stream. Local governments also were supposed to identify 15 years of landfill capacity. Based on our analysis, we estimate that California has sufficient landfill capacity for about 47 years. The increase in landfill capacity since the mid-1990s can be attributed to more realistic estimates, new and expanding landfills, and diversion efforts.

RECOMMENDATIONS

To ensure that the board can fully achieve its mission to protect public health and safety and the environment, the board should take the following actions:

- Explore its options for taking into account the necessity for increased landfill capacity as a factor in granting permits.
- Seek legislative authority to object to permit proposals when environmental justice concerns exist.

- Discontinue the use of its 1994 policy of concurring with permit revisions for landfills that have long-term violations of state minimum standards.
- Suspend its 1990 policy of allowing operators to violate the terms and conditions of their permits while seeking approval for permit revisions.
- Continue to improve its performance in conducting landfill inspections every 18 months, as state law requires.
- Ensure that LEAs require operators to comply with enforcement orders by the dates specified in the orders and issue penalties to those that do not comply.
- Modify its regulations to prevent LEAs from extending deadlines indefinitely for submitting closure plans.

To ensure that reported diversion rates are accurate, the board should modify its regulations to require local governments to revise their base-year figures at least every five years. The board should then identify local governments that need to perform new base-year solid waste generation studies and require them to do so.

AGENCY COMMENTS

The board generally concurs with our recommendations and indicates that its members have recently begun a full examination of all policies of the board with an eye toward lessons learned in the last 10 years. It also states that a full evaluation of these policies is underway and will result in a full review of all recommendations made in this report. ■

INTRODUCTION

BACKGROUND

Originally, state and federal laws did not require owners and operators of California's landfills to take into consideration issues affecting the environment or public health. However, in 1972, the Legislature created the part-time Waste Management Board, which established minimum standards statewide for handling, transferring, composting, and disposing of solid waste. In 1976, cities and counties (local governments) became responsible for enforcing these standards. Each local government, with the approval of the Waste Management Board, designated a local enforcement agency (LEA) to enforce state minimum standards as well as issue a solid waste facility permit. The Waste Management Board, however, retained an oversight role with the authority to concur with or object to the issuance of a permit. The permit identified the specific operating terms and conditions for new or expanding landfills.

In 1989, the California Legislature replaced the part-time, 10-member Waste Management Board with the full-time, 6-member Integrated Waste Management Board (board). It also directed the board to promote new waste management practices that focus on reducing the sources of waste, developing and initiating recycling and composting programs, and ensuring environmentally safe landfill disposal. Furthermore, using these practices, local governments were to reduce their solid waste landfill disposals 25 percent by 1995 and 50 percent by 2000. Currently, the board oversees 176 active landfills.

THE LANDFILL PERMIT PROCESS

Local governments identify the need to construct a new landfill or expand an existing landfill and ensure that the site they selected is consistent with the general plans of the affected city or county. A landfill operator applying for a new permit or modification of an existing permit must assemble a package of required documents and submit it to the local government's LEA. One of the most significant steps in the permit process is compliance with the requirement of the California Environmental Quality Act (CEQA) to prepare an Environmental Impact Report (EIR).

The Operator's Permit Application Package Must Include:

- Joint application form.
- Joint technical document.
- Evidence of compliance with the CEQA.
- Statement that the landfill conforms with the county plan for solid waste management and that it is consistent with city or county general plans.
- Complete closure plan.
- Financial assurances for landfill closure.
- Evidence that operating liability requirements have been met.
- Land use or conditional use permits, if applicable.
- Certification that the information in the application package is true and accurate to the operator's best knowledge and belief.

The LEA's Proposed Permit Package to the Board Must Include:

- Permit proposal.
- Acceptance of the permit application package.
- LEA certification that the permit package is complete and correct.
- Evidence of the applicant's compliance with any Regional Water Quality Control Board enforcement orders or the status of the applicant's waste discharge requirements.
- Written public comments concerning the pending application.
- Report of its review of the applicant's existing permit that has been prepared within the last five years.
- Determination that the permit is consistent with and supported by existing CEQA analysis, or information regarding progress toward CEQA compliance.

The EIR discloses to decision makers and the public the significant environmental effects of proposed activities, such as new landfills or expansions of existing landfills. It also includes an analysis of the project's potentially significant environmental effects and identifies mitigation measures and reasonable alternatives to avoid or substantially minimize any significant effects. The CEQA does not require local governments to consider every conceivable alternative but allows them to consider a range of reasonable alternatives that foster informed decision making and public participation.

The public agency with the greatest responsibility for supervising or approving the project prepares the EIR. In the case of landfills, the lead agency is generally the planning department of the county or city where the landfill will be located. The lead agency performs an initial study of environmental impacts and, using its results, prepares either a statement that an EIR is unnecessary or an EIR. Once the EIR is complete, it is made available for public comment. The lead agency is responsible for evaluating the comments and responding to them by either revising its draft EIR or adding a separate section to the final EIR.

Evidence of compliance with the CEQA is included in the application package that the landfill operator must submit to the LEA at least 150 days before the desired date to begin operation. In addition to submitting an EIR, the operator must demonstrate that the proposed landfill is compatible with city or county general plans and that sufficient funds and a plan exist for the eventual closure of the landfill.

The LEA has 30 days to accept or reject the application. The LEA reviews the application package for completeness and evaluates each document for accuracy and conformity to state laws and regulations. If the LEA accepts the application, it has 55 days to submit a permit package to the board.

Once the board receives the permit package, it has 60 days to concur with or object to the issuance of the proposed permit with a majority vote of four to

two. However, in the case of a three-to-three tie, or if the board takes no action within the 60-day period, by default it has concurred with the permit. Additionally, the board can only object to a proposed permit under certain circumstances, such as when it determines that the permit is not consistent with state minimum standards.

THE ROLE OF OTHER REGULATORY AGENCIES IN THE PERMIT PROCESS

Other regulatory agencies also have responsibilities for issuing permits and enforcing laws that govern the State's landfills. For example, California's nine Regional Water Quality Control Boards (regional water boards) are responsible for developing and enforcing water quality objectives, issuing waste discharge requirements, taking enforcement action against violators, and monitoring water quality. The regional water boards receive copies of proposed permit application packages at the same time as the board, and review and evaluate them for water quality issues and conditions that conflict with their waste discharge requirements.

Additionally, 35 local air pollution control districts in California are responsible for controlling stationary sources of emissions, such as landfills. Similar to the board's permit process, landfill operators must submit permit applications to their local districts for review and approval. Finally, other approvals and permits may be required, such as local land use permits.

SCOPE AND METHODOLOGY

The Joint Legislative Audit Committee requested the Bureau of State Audits to examine the state and local regulatory structure of the solid waste management system to determine whether it achieves the Legislature's intent of protecting public health and safety. We were also asked to review the board and local governments' permitting, monitoring, enforcement, and diversion efforts. Finally, we were asked to review the process used to grant permits for the recent expansion of the Sunshine Canyon Landfill in Los Angeles County and a sample of three other landfills. We found that local governments and the board followed current state laws and regulations related to the permitting process for

the four landfill expansions we reviewed. However, we could not review the entire process for the Sunshine Canyon Landfill expansion because, as of October 23, 2000, an application package for a permit had not been sent to the LEA for review. See the Appendix for a chronology and additional information on the Sunshine Canyon Landfill.

To select our sample of three additional landfills, we reviewed the minutes of board meetings and identified 66 landfill expansions within the past five years. From this list, we identified landfills with expansions that resulted in a significant increase in their capacity. In addition to Los Angeles' Sunshine Canyon, a privately owned landfill in Southern California, we selected three other landfills located in Central and Northern California: Highway 59 Landfill in Merced County and the Sacramento County Landfill (Kiefer), two publicly owned landfills, and the B & J Dropbox Landfill in Solano County, a privately owned landfill.

To determine whether the board and the LEAs follow the appropriate process before granting permits to expand the landfills, we reviewed the laws and regulations relating to the permit process. We met with staff of the board, LEAs, local planning departments, city and county sanitation departments, and community members. We reviewed files kept by the board, the LEAs, and the landfills for our sample. We also identified areas that, by law, the board must include or exclude from its consideration before concurring with or objecting to permits.

To ensure that the board properly monitors landfills, we analyzed data on the enforcement orders issued to landfills in the past 10 years. We also attended board meetings and workshops on its permit and enforcement process and interviewed board and LEA staff.

To determine whether the board ensures that landfill closure activities comply with federal and state regulations, we interviewed board staff to gain an understanding of the board's role in the closure process. We reviewed and analyzed board records to determine if the board ensures that landfill operators are timely in submitting and acting on closure plans. We also interviewed the operators of 38 of the 176 active landfills in California to obtain information relating to reasons that they might be delaying closure.

To assess whether landfills and transfer stations—facilities where solid waste is unloaded from collection vehicles, temporarily stored, and then later reloaded onto larger long-distance transport

vehicles for shipment to landfills—are disproportionately located in low-income and minority areas, we analyzed demographic data on census tracts in which California’s landfills and our statistical sample of 128 transfer stations are located. Census tracts are statistical subdivisions of a county and typically have between 2,500 and 8,000 persons residing in them. We attempted to use a similar methodology as that used by the U.S. General Accounting Office (GAO) in its 1995 study, which used census data to obtain the demographics of people living within either a 1-mile or 3-mile radius of a landfill. To conduct our analysis, we used 1990 census data available on-line through the U.S. Census Bureau’s Topologically Integrated Geographic Encoding and Referencing (TIGER) System Mapping Service. Due to the limitations of the TIGER System, we used data for a single census tract as opposed to determining the demographics for the population within a certain radius from the landfill; therefore, our analysis was not as precise as the GAO study.

To evaluate whether California has met its diversion requirements, we reviewed its progress to date and assessed the likelihood that it will achieve its goals. We were unable to determine whether local governments met the requirement to divert 50 percent of their waste by January 1, 2000, as state law requires, because the annual reports that local governments compile, which include information on whether they have achieved the 50 percent diversion requirement, are not due until August 1, 2001. However, we did examine the methodology used by local governments to calculate their diversion rates and the guidance the board provides to them.

Finally, to determine if California has sufficient landfill capacity, we calculated its current landfill capacity. For our calculations, we used the board’s 1993 report of capacity and updated the amounts by subtracting disposal data that landfills report to the board annually and adding new landfills or expansions of existing landfills that we identified through a review of the minutes of board meetings. To determine the number of years of remaining capacity for California’s landfills, we divided our estimate of remaining capacity by the amounts the board reported disposing of in landfills in 1999. ■

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CHAPTER 1

The Board Needs to Seek Additional Authority and Exercise Stronger Oversight of Landfill Permits and Enforcement

CHAPTER SUMMARY

The California Integrated Waste Management Board (board) is not overseeing solid waste landfills (landfills) in accordance with its mission of protecting the environment and public health and safety. Unfortunately, the board lacks appropriate authority to effectively carry out its mission. Currently, the board's reasons for objecting to permits are limited to circumstances specified in state law. However, the law does not allow the board to object to a permit if it believes that additional landfill capacity is unnecessary or that the city or county (local governments) is not addressing environmental justice concerns. Consequently, the board cannot ensure that landfill operations do not unnecessarily burden citizens.

Public and environmental protection are also slighted by the board's own policies. A board policy established in 1994 violates state law because it allows the board to approve permits for landfill operators that are long-term violators of state minimum standards. Furthermore, the board has another policy that allows landfill operators to circumvent the law by continuing to violate their permits without having followed the proper procedures for applying for a permit revision. These policies may prolong violations of state minimum standards that are designed to protect the environment and the public from contaminated groundwater, methane gas emissions, and disease-spreading insects and animals.

Moreover, the board needs to ensure proper oversight of landfills. Historically, landfill inspections, which the board must perform every 18 months, were overdue. Recently the board has become more diligent in performing these inspections as state law requires. The board also needs to ensure that local enforcement agencies (LEAs) are requiring operators to comply with their enforcement orders, called Notice and Orders (orders). According to the board's database, for 43 of the 64 orders issued in the past

10 years, compliance was overdue for an average of 1,058 days, or almost 3 years. In addition, the board is allowing landfill operators to delay closure for extended periods. Closure activities include placing a final cover on the landfill, which keeps liquid away from the buried waste and prevents the waste from leaking into the groundwater. Landfills that have ceased taking waste without completing closure can pose a continuing threat to public health and the environment. Ineffective oversight cannot mitigate potential conflicts of interest between LEAs and landfills or ensure that violations of state minimum standards are corrected. Conflicts of interest are possible because many local governments not only own and operate landfills that are sources of revenue for them but also have the responsibility for ensuring that landfills under their jurisdiction comply with orders.

THE BOARD DOES NOT HAVE SUFFICIENT AUTHORITY OVER LANDFILL PERMIT DECISIONS TO FULFILL ITS MISSION

Although the Legislature directs it to protect the environment and public health and safety through its regulation of solid waste facilities, the board does not have sufficient authority to do so. The board can object to a permit if the landfill operator is failing to meet state minimum standards for solid waste handling, transferring, composting, and disposal or does not demonstrate adequate financial assurance. However, it cannot object to a permit if it believes that a local government has not shown that additional landfill capacity is necessary or if a permit could disproportionately impact a low-income or minority community. Consequently, the board is limited in its ability to protect public health and safety and the environment, and in its ability to ensure that its permit decisions are in compliance with state and federal laws prohibiting environmental programs from discriminating against those communities.

The Board Can Object to a Permit Under the Following Circumstances:

- The operator is not meeting certain state standards.
- The operator has inadequate financial resources for personal injury and property damage claims, and for costs of closure and post-closure maintenance.
- It was not given a copy of the proposed permit within the specified time.
- The LEA does not certify that the landfill facility has met certain conditions.

The Board Does Not Have the Authority to Reject Permit Proposals When Additional Capacity Is Not Needed

The board has no express authority to object to an application for a landfill expansion if it determines that additional landfill capacity is unnecessary. In light of significant increases in California's landfill capacity over the last decade and the potential adverse environmental impacts that can arise from the use of landfills, it is especially important for the board to have the authority to object to unnecessary landfill expansions. Furthermore, the cost to dispose of municipal waste in local landfills has decreased over the last few years. These trends can negatively impact local governments' desire to develop and implement recycling programs because recycling is much more expensive than using local landfills. Ultimately, the availability of inexpensive landfill space could defeat the main purpose of the Integrated Waste Management Act of 1989 (act)—to reduce, recycle, and reuse solid waste generated in the State to the greatest extent possible.

Our analysis shows that California's landfills have about 1.7 billion tons, or 47 years of remaining capacity.

The act required each county to identify 15 years of landfill capacity, and currently, in total, California has more than met that goal. Our analysis shows that California has about 1.7 billion tons, or 47 years of remaining capacity. Analyses by other consultants show remaining landfill capacity of 1.9 billion and 2.1 billion tons. Given the abundance of landfill capacity in California, it seems reasonable that the board should consider available capacity when reviewing applications for landfill expansions. However, the board does not have the authority to do so. Moreover, it would need to research and resolve certain issues before considering capacity in its permitting process. For example, because the U.S. Supreme Court has found that solid waste is a commodity, the board would need to consider capacity in a manner that would not inadvertently discriminate against the free flow of that commodity on interstate commerce. Additionally, the board would have to ensure that the ultimate intent of its decision is to protect public health and safety and the environment. Nevertheless, we believe it is within the board's mandated purpose of protecting the public and the environment to explore its options for considering landfill capacity as a factor in granting permits.

Even if it had the authority, the board does not possess sufficient data to facilitate its decision-making process. The board would need to be able to track capacity on an annual basis in its database and follow up on inconsistencies. Currently, the board's

database is incomplete and often contains erroneous data. Additionally, there is no standard method of reporting data, because some landfills report available capacity in tons, while others use cubic yards. The board has hired a contractor to report on the remaining capacity of California's landfills, among other things. This assessment has a completion date of May 2002 and will give the board additional data to consider when making decisions about the necessity of landfill expansions, if the Legislature gives it the authority to do so.

The Board Has No Authority to Reject Permit Proposals That Have Environmental Justice Concerns

Environmental justice is the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. Although federal law and recent state legislation attempt to prohibit discrimination in this area, the board does not have the authority to consider or address environmental justice concerns when approving permits, nor does it maintain sufficient data to be able to do so.

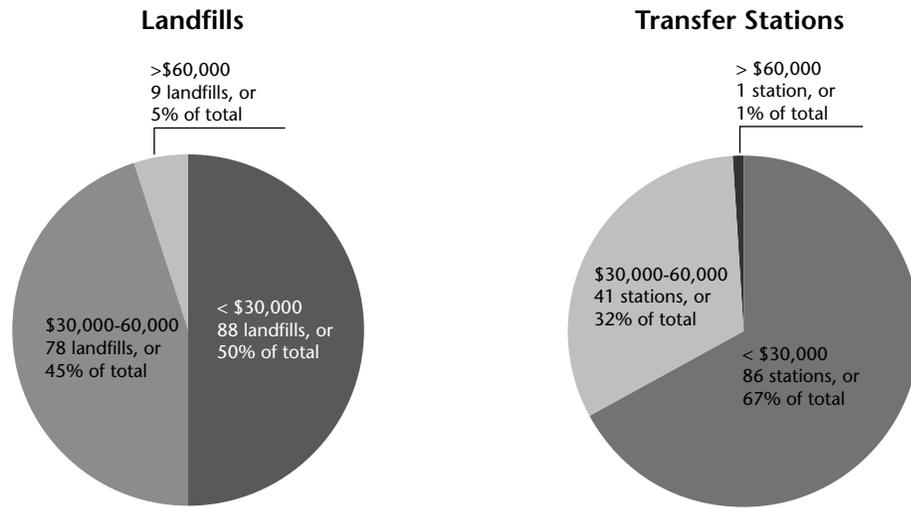
As a recipient of funding from the U.S. Environmental Protection Agency and an agency of the California Environmental Protection Agency (Cal EPA), the board must comply with environmental justice laws prohibiting discrimination. In addition, legislation that took effect in January 2000 directs Cal EPA to improve research and data collection for programs within the agency relating to the health and environment of people of all races, cultures, and income levels, including minority and low-income populations. As of October 2000, the board was unable to provide any data relating to how it enforces environmental justice when approving permits for landfills and transfer stations. Transfer stations are facilities where municipal waste is unloaded from collection vehicles, temporarily stored, and then later reloaded onto larger long-distance transport vehicles for shipment to landfills.

We conducted a high-level analysis of statewide data to determine whether active, permitted landfills and transfer stations in California are disproportionately located in low-income or minority areas. While we did not find this to be true for landfills, we did find that 67 percent of the transfer stations in our sample were in areas with median incomes of less than \$30,000, as Figure 1 shows. Given that the median income in California was about \$37,000 in 1995, it appears that California's transfer stations may be disproportionately located in low-income areas.

Even though environmental justice laws prohibiting discrimination took effect in January 2000, as of October 2000, the board was unable to provide any data relating to how it enforces these laws.

FIGURE 1

Income Levels in Areas in Which Landfills and Transfer Stations Are Located

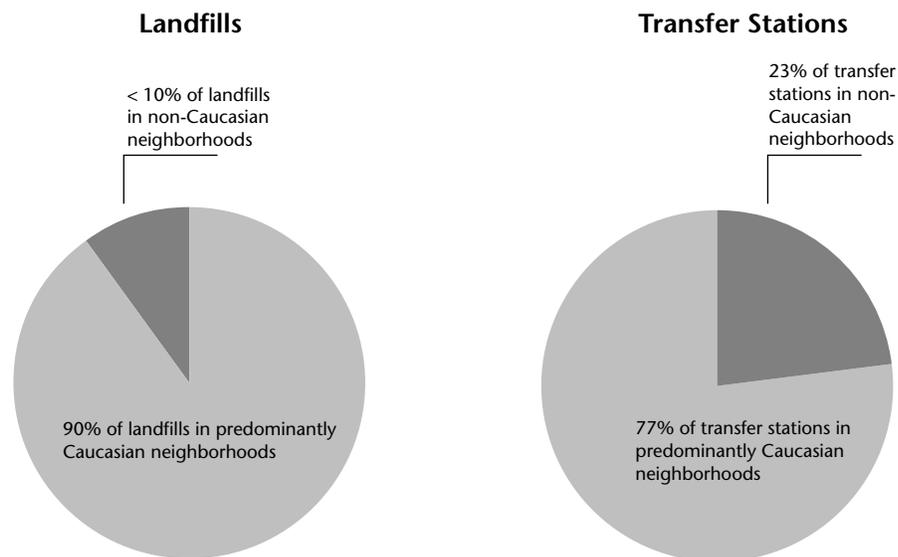


Source: U.S. Census Bureau's Topologically Integrated Geographic Encoding and Referencing System Mapping Service, 1990 data.

As Figure 2 shows, we also found that 77 percent of the transfer stations and 90 percent of the landfills in our sample are located in areas in which 60 percent or more of the residents are Caucasian. These figures indicate that transfer stations and landfills are not disproportionately located in minority communities.

FIGURE 2

Percentage of Caucasian Residents in Areas in Which Landfills and Transfer Stations Are Located



Source: U.S. Census Bureau's Topologically Integrated Geographic Encoding and Referencing System Mapping Service, 1990 data.

A March 2000 report issued by the U.S. Environmental Protection Agency states that transfer stations are a concern because they affect not only people's quality of life with noise, odor, litter, and traffic but also the environment with poor air quality and disease-spreading pests such as rodents and roaches. Similar situations can exist at landfill sites.

In its November 2000 meeting, the board discussed options for developing policies, procedures, or other actions to incorporate environmental justice concerns into its programs but did not establish timelines for accomplishing this task. The board did direct board staff to provide it with data that quantifies the extent of the problem and to continue to work with Cal EPA in its effort to address environmental justice concerns. However, if the board fails to incorporate environmental justice concerns in its permitting process, it cannot ensure that it complies with federal and state laws prohibiting discrimination.

SOME BOARD POLICIES CONFLICT WITH STATE LAWS AND REGULATIONS

The board has policies that conflict with state laws and regulations governing landfill activities and as a result, some landfills are not operating in accordance with state law. Initially, its 1990 policy was to allow sufficient time for landfills to come into compliance with state and federal regulations in effect at that time. However, the board is continuing to use this policy for other situations that the original policy did not intend to cover. The board also has a 1994 policy that allows landfill operators to continue to violate standards under certain circumstances. The board's actions may be harmful to the environment as well as public health. For example, the board concurred with a permit revision for one landfill operator that has consistently failed to meet state minimum standards for explosive gas control for 10 years.

The Board's Permit Policy Does Not Ensure That Landfill Operators Comply With State Minimum Standards

State law requires the board to object to provisions of a permit revision that are not consistent with state minimum standards for solid waste handling, transferring, composting, and disposal, and to return any such proposal to the LEA. However, in 1994, the board adopted a policy that it would concur with a permit revision even though violations of state minimum standards might

exist. The policy allows landfill owners or operators with long-term violations—those that take longer than 90 days to correct—to continue to operate so long as they demonstrate that the LEA has issued a Notice and Order, the violations do not pose an imminent threat to public health and safety and to the environment, and the operators are making a good faith effort to correct the violations. We estimate that 66 landfill expansions were approved between March 1995 and April 2000. Despite the board

stating that the policy would only apply to long-term violations with no threat to the environment or public health and safety, it has concurred with expansions for four landfills with long-term explosive gas violations that have the potential to harm public health and safety and the environment.

For example, on numerous occasions since 1986, board inspectors have found that the gas monitoring wells on the boundary of the Highway 59 Landfill were registering readings well above the 5 percent concentration of methane gas allowable in the air. In some instances, the readings for methane gas in the gas monitoring wells ranged from about 6 percent to 63 percent. Concentrations of methane gas ranging between 5 percent and 15 percent can create an explosion hazard for employees, facility users, and occupants of nearby structures. It can also migrate into the atmosphere and contribute to local smog and global climate changes.

In 1998, the landfill's operator, Merced County's Department of Public Works, requested an expansion of landfill capacity from 600 to 900 tons per day. The board initially refused to concur with the permit request until the landfill's LEA, Merced County's Division of Environmental Health, issued an order to ensure compliance with the State's gas control requirements. The LEA issued an

order, and the board concurred with the permit in March 1998. The order gave the landfill operator an October 15, 1999, deadline to correct the gas problem by purchasing property adjacent to the northern boundary line at the landfill or install a gas collection system by January 1, 2001. The operator chose the option of purchasing property. State regulations require an owner or operator to ensure that the lower explosive limit for methane is not exceeded at the boundary of the landfill property.

A Notice and Order directs an owner or operator of a landfill to perform one of the following:

- Cease and desist from continuing the specified violations by a specified date.
- Clean up, abate, or otherwise remedy the violation by taking specified actions by a specified date.

Or a Notice and Order informs the owner or operator that the LEA may, on or after a specified date, perform one of the following:

- Petition the hearing panel for authority to clean up, abate, or otherwise remedy at the expense of the owner, operator, or both.
- Petition the superior court to enjoin the violations and declare that continued violation after the granting of an injunction may be punishable as contempt of court.
- Bring an action in the superior court to impose on the owner, operator, or both civil penalties in an amount not to exceed \$1,000 for each day of violation occurring after the specified date.
- Petition the hearing panel to suspend, revoke, or modify the permit for the facility.

Therefore, extending the boundary allows the landfill owner or operator to correct the problem, because the new boundary should not register gas readings at explosive levels.

However, in September 1999, the LEA issued a new order because of the operator's delays in acquiring the property and subsequent gas problems on the east and south boundaries of the landfill. The new order extended the due date for purchasing the property to April 1, 2000. The landfill operator purchased the land on the northern boundary in May 2000, more than two years after the order to do so was issued in March 1998, but is still in the process of addressing the most recent gas problems on the east and south boundaries. According to the board, the LEA has not issued any penalties. The board also has not taken any enforcement action because it believes that the landfill is still trying to comply with the order and there has been no demonstration of an imminent threat to public health or safety or to the environment to prompt it to exercise its authority.

It is particularly important that the board take a strong stance on ensuring that landfill owners and operators comply with state minimum standards and issue penalties because it is highly unlikely that local enforcement agencies will do so.

This policy is inconsistent with state law and does not yield results that are in the State's best interest because it allows long-term violations that affect the environment or public health to go uncorrected for extended periods. The policy also does not provide any incentive for owners or operators to correct their violations promptly. In some instances, it can take an operator two to three years to correct a violation. Moreover, it is particularly important for the board to take a firmer stance in ensuring that landfill owners or operators comply with state minimum standards and issue penalties for noncompliance, because it is highly unlikely that LEAs will enforce civil penalties against a county owner or operator of a landfill. The board recognizes that this policy is controversial and has directed board staff to provide it with further details, such as how they determine that a threat to the public health and safety and the environment exists and that the operator is doing all it can to address the violation. Board staff are also to report on specific options and recommendations for the board to consider by February 2001.

The Board's Enforcement Policy Allows Operators to Circumvent the Law

In 1990, the board adopted a permit enforcement policy to resolve a statewide problem with out-of-date permits. The policy required LEAs to issue Notice and Orders to landfill owners or operators to bring landfills into compliance with the terms and conditions of their existing permits no later than August 1, 1992.

Terms and conditions generally specify daily tonnage limits, height limits, and the types of solid waste a landfill can receive. However, since August 1, 1992, the board has continued this policy and has allowed owners and operators of 56 landfills to violate their terms and conditions while seeking approval for revised permits from the LEAs and the board to address the violations. For example, one of the landfills in our sample was given permission by the LEA to dry sewage sludge on an unlined area of the landfill without first securing a permit revision. This same operator was also granted permission for more than four years to violate asbestos tonnage limits specified on the landfill's permit.

The board follows a policy that does not require landfill owners or operators to comply with certain California Environmental Quality Act requirements.

State law prohibits a landfill owner or operator from making significant changes in the design or operation of the facility if these changes are not a condition of the existing permit. If an operator wishes to make a significant change, it must file an application with the LEA for revising the existing permit within 150 days of the date the proposed modification is to take place. The board recognizes that this policy is controversial and plans to evaluate the appropriateness of the policy in February 2001. However, if the board does not discontinue the use of its 1990 policy, it will continue to allow operators to circumvent the law. For example, as part of the permit application process, a landfill owner or operator must provide evidence that it has complied with the California Environmental Quality Act, which requires the preparation of an environmental analysis and proper disclosure to decision makers and the public. However, because the 1990 policy does not require landfill owners or operators to file permit applications, they also do not prepare environmental analyses or seek comments from the public.

Moreover, the board does not have a thorough understanding of whether its 1990 and 1994 policies significantly affect the environment. In June 2000, the board signed a two-year contract with a consultant to perform a study of, among other things, the environmental impacts of landfills on air, water, and gas. In approving this contract, the board stated that no one in the State has a complete picture of the environmental impacts resulting from landfills. In the meantime, however, the board's continuing use of these two policies may be harmful to the environment or place public health at risk.

THE BOARD'S OVERSIGHT OF THE LOCAL ENFORCEMENT AGENCIES IS WEAK

The board did not effectively inspect landfills, as state law requires, to ensure that LEAs were noting violations of the terms and conditions of permits and state minimum standards. In addition, the board has not taken steps to ensure that LEAs take proper enforcement action to require the operators to correct the violations. By failing to ensure proper enforcement by the LEAs, the board runs the risk of allowing these violations to grow into serious threats to the public and the environment. It is particularly important that the board strengthen its oversight of the LEAs' monitoring and enforcement efforts to mitigate potential conflicts of interest. Conflicts of interest can occur because LEAs are often part of the same local governments that receive revenue from the landfills they own or operate.

Although state law requires inspections every 18 months, for three of the four landfills we visited, the elapsed time between inspections ranged from 21 to 44 months.

State law requires the board to inspect each landfill every 18 months to ensure that the LEAs are adequately enforcing state minimum standards. Since 1995, the board was between 1 month and more than 4 years late in performing inspections at 132 of the 176 active landfills. Board staff attribute these delays to a misinterpretation of the law. However, in the last year, they have made significant strides toward reducing the number of overdue inspections. Nevertheless, at three of the four sites in our sample, we found instances where the board allowed between 21 and 44 months to elapse between its inspections. Board staff stated that delays in allocating staff and scheduling conflicts prevented them from inspecting 2 of the landfills on time. Board staff also told us that its inspection of the third landfill was delayed 26 months because the landfill was seeking a permit revision and it wanted its inspection to coincide with its on-site pre-permit inspection. However, state law clearly directs the board to conduct its reviews every 18 months and does not allow it to deviate from this schedule. Moreover, the board's inspections are critical for identifying any significant violations of state minimum standards that have not been resolved through previous inspections by the LEAs.

The board can also improve its efforts to ensure that LEAs enforce landfill violations promptly and effectively. According to the board's database, for 68 percent of the Notice and Orders that specify dates by which the landfills must come into compliance, compliance is overdue by almost 3 years. Penalties are practically nonexistent. Specifically, state law requires an LEA to conduct monthly inspections of each landfill within its jurisdiction. If an

For 43 enforcement orders, operators exceeded their deadlines for complying with such orders by an average of 1,058 days or almost 3 years.

LEA finds that a landfill operator is violating the terms and conditions of the landfill permit or state minimum standards for the storage and removal of waste, or causing or threatening to cause an immediate harm to public health or safety, the LEA shall issue a Notice and Order as it deems appropriate and submit a copy of the order to the board within 5 days. The board tracks the orders in its database. As of August 31, 2000, the database contained 64 active orders that LEAs had issued to 47 landfill operators. Our analysis shows that for 43 of these orders, the operators have not met their deadlines and are overdue from 114 to 2,710 days. On average, the operators exceeded the order deadlines by 1,058 days, or almost 3 years. The overdue orders had been issued for state minimum standard violations relating to explosive gas, disease-spreading insects and animals, and open burning of waste.

The board states that its database is not up-to-date on the current status of these Notice and Orders because state law does not require LEAs to report on the final compliance deadlines or expiration dates of orders. State law requires the board to maintain an inventory of those landfills that violate state minimum standards and to update and publish the inventory twice a year. The board uses inspection reports to compile the inventory and to monitor LEA enforcement performance. However, in preparing the inspection reports, LEAs may not include sufficient information for the board to ascertain the full extent of owners' or operators' compliance with the orders. For example, using the board's method, we were unable to verify the status of 31 of the 43 overdue orders. The board recognizes that a better method of tracking the status of the orders exists and is in the process of revising its regulations to require LEAs to provide it with notification of the compliance status of their orders.

Once its regulations are approved, the board will be better able to ensure that LEAs are requiring operators to comply with their orders and are issuing penalties to operators that have not complied with order deadlines. Board staff told us that only one monetary penalty has been assessed in the past 10 years. By not assessing penalties against operators that fail to comply with orders, the board and LEAs allow them to continue violating standards without consequences. The board believes that the statutory process for imposing civil penalties is cumbersome and that it often takes several years to resolve. However, even though the board recognizes the need to seek revisions to the statutes and modify its regulations to address this issue, it has yet to do so.

The structure of the landfill monitoring process gives rise to a potential conflict of interest because public and privately owned landfills provide a revenue stream to cities and counties who have enforcement responsibilities.

We believe the structure of the landfill monitoring process gives rise to a potential conflict of interest. In fiscal year 1998-99, Sacramento and Merced counties, the owners and operators of their landfills, received between 12 percent and 15 percent of their total net incomes from landfill revenues. Even privately owned landfills provide a revenue stream to the cities and counties in which they reside in the form of franchise fees. For example, if the Sunshine Canyon Landfill expansion is approved, the city of Los Angeles will receive 12 percent of the landfill's gross profit, less taxes and fees, as a franchise fee. Because an LEA is part of a city or county's jurisdiction, it is important that the board strengthen its oversight of LEAs' monitoring and enforcement efforts.

CURRENT LAWS AND REGULATIONS ALLOW LANDFILLS TO REMAIN OPEN FOR LONG PERIODS

California's regulations relating to closed landfills are vague and allow landfill operators to delay closure for extended periods. The U.S. Environmental Protection Agency requires closure activities to be performed within set timelines because landfills that are not adequately closed may pose a continuing threat to public health and safety and the environment. Nonetheless, the board has not made modifications to its regulations, nor does it adequately enforce existing federal closure requirements. As a result, operators are delaying closures, using a variety of mechanisms such as taking long periods to submit final closure plans and slowing waste acceptance to very low levels, a process known as "trickling waste." Moreover, some operators do not have enough funds to cover closure costs, and the board does not have grant and loan programs specifically designed to help with those costs. Because the board does not have an understanding of the environmental impacts that may result from allowing landfills to delay closure, it does not know whether these landfills are posing threats to public health and safety, and the environment.

Federal regulations require the owner or operator of a landfill to prepare a written closure plan describing the measures necessary to close the landfill and a schedule for completing all activities. Closure activities include requiring a final cover for waste containment, a drainage and erosion control system, and site security, all of which can cost a landfill operator anywhere from several thousand dollars to several million dollars depending on the size of the landfill. In general, federal regulations require a landfill operator to begin closure activities no later than 30 days

after the landfill receives the final volume of waste. However, the operator must complete all closure activities within 180 days after they begin the closure.

State regulations are similar to federal regulations but also require a landfill operator to submit final closure plans to the LEA, the Regional Water Quality Control Board, and the local air pollution control district two years before the anticipated closure date. In addition, state regulations do not allow closure activities to begin unless the board has approved a final closure plan. We found, however, that of 289 landfills tracked by the board's closure unit, 36 landfills submitted closure plans after the landfills ceased taking waste. For example, the city of Los Angeles operates a portion of the Sunshine Canyon Landfill. The city ceased accepting waste in 1991 but, as of November 2000, has yet to have a final closure plan approved. In the meantime, final cover has not been placed on the landfill. Final covers keep liquid away from the buried waste and prevent the waste from leaking into the groundwater. Our review of inspection reports prepared by city inspectors between November 1997 and June 2000 also indicates that a frequent area of concern has been inadequate drainage and erosion control.

Although state and federal regulations governing closure activities exist, neither the board nor any other entity serves as the coordinating agency to ensure that closure activities occur properly.

The board is aware that some landfill operators are not submitting final closure plans when due. Before regulatory changes made in 1997, the board was responsible for coordinating the review and approval of closure plans. However, currently, neither the board nor any other entity serves as the coordinating agency, and the board has limited authority in directly ensuring that closure plans are submitted and implemented as required. Consequently, the board believes that the lack of coordination, consistency, and cooperation with other agencies on certain issues hinders effective closure activities. However, the board has taken no action to change the regulations to prevent the LEAs from extending deadlines for closure plan submission indefinitely or to take on the role of coordinating agency. Further, although the board has statutory authority to impose penalties on landfill operators that do not submit closure plans promptly, it rarely uses this authority. It believes that penalties of \$5,000 per violation and \$15,000 per year, the maximum amounts allowed by law, are not enough to deter landfill operators' noncompliance.

Although neither state law nor regulations allow it, landfill operators will often trickle waste—that is, accept extremely small amounts of waste to demonstrate that the landfill is still operating—to avoid final closure. Trickling waste to delay the closure of

Of the 38 landfill operators surveyed, 9 indicated they want to close their site but cannot do so because they lack financial resources to pay closure costs.

a landfill could lead to serious environmental consequences, such as groundwater contamination or air quality issues. The board is aware that some landfills are trickling waste and knows that it needs to address this issue; however, as of October 2000, it had not made any strides in stopping this practice. Moreover, our telephone survey of landfill operators for 38 landfills in the State revealed that operators for 9 of the landfills want to close down but are unable to do so because they lack the financial resources they need to pay closure costs. These landfills were located predominantly in small rural counties with limited resources. According to the board's records, all 9 of these landfills had numerous citations for violations of state minimum standards or the terms and conditions of their permits over the past five years. The board does not have the authority to offer funds from several grant and loan programs it administers to landfill operators to assist with closure of the landfills. Until the board takes action, it will continue to allow landfill operators to trickle waste and delay submitting closure plans, both of which can cause harm to the environment and public health.

RECOMMENDATIONS

To ensure that the board can fully achieve its mission to protect public health and safety and the environment, the board should take the following actions:

- Explore its options for taking into account the necessity for increased landfill capacity as a factor in granting permits.
- Update its database and require local governments to report accurate landfill capacity information on an annual basis in a consistent manner.
- Develop a proposal for incorporating environmental justice into its permitting process and submit the proposal to the Cal EPA for its approval. If the proposal is approved, the board should seek legislative authority to object to permit proposals if environmental justice concerns exist.
- Track demographic information on the communities in which solid waste facilities are located, and make this information available to the public.

- Discontinue the use of its 1994 policy that allows it to concur with permit revisions for landfills that have long-term violations of state minimum standards. If the board believes this policy is necessary, it should request the Legislature to grant it the authority to issue permits to long-term violators under defined circumstances.
- Discontinue the use of its 1990 enforcement policy that allows operators to violate the terms and conditions of their permits without first obtaining permit revisions.
- Continue to improve its performance in conducting landfill inspections every 18 months, as state law requires.
- Continue its efforts to modify regulations relating to tracking compliance with Notice and Orders.
- Ensure that LEAs require operators to comply with Notice and Orders by the date specified in the order, and issue penalties to those that do not comply.
- Seek legislation to streamline the current process for imposing civil penalties.
- Modify its regulations to prevent LEAs from indefinitely extending deadlines for submitting closure plans.
- Modify its regulations to reestablish its role as the coordinating agency for the review and approval of closure plans.
- Seek legislation that will allow it to offer loans or grants to landfill operators in need of financial assistance to close landfills.
- Complete its study of environmental impacts of landfills in the State. ■

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CHAPTER 2

Local Governments' Reported Diversion Rates May Be Inaccurate and the Board Has Not Provided Consistent Guidance to Them

CHAPTER SUMMARY

Local governments' reporting of solid waste diversion rates might be inaccurate because their calculation method uses numbers that might be flawed. Moreover, the California Integrated Waste Management Board (board), which oversees the State's solid waste diversion efforts, has been unable to give consistent guidance to local governments on how to meet the State's diversion goals. In 1988, each Californian disposed of more than 2,500 pounds of solid waste, more than any other state and twice that of most industrialized countries. It was estimated that at this rate, California would exhaust most of its remaining landfill space by the mid-1990s. To address this issue, the Legislature passed the Integrated Waste Management Act of 1989 (act), which mandated that local governments divert 25 percent of waste away from landfills by 1995 and 50 percent by 2000. Although most local governments reached the initial mandated goal of 25 percent in 1995, the State may find it has not met its 50 percent goal in 2001 when local governments report their 2000 diversion rates.

PAST PERFORMANCE INDICATES LOCAL GOVERNMENTS MAY NOT REACH 50 PERCENT BY 2000

Based on the overall diversion rate of 37 percent that local governments reported in 1999, it is questionable whether the State will attain an overall 50 percent diversion rate by the end of 2000. In the past decade, according to the board's data, the statewide diversion rate has never increased more than 4 percentage points annually, so increasing 13 percent in one year seems unlikely.

The act required each city or county (local government) to divert 25 percent of all solid waste from landfill disposal by January 1, 1995, through source reduction, recycling, and

composting activities. According to the board's 1995-96 biennial review, a majority of local governments achieved at least 25 percent of their solid waste diversion, which resulted in an estimated statewide diversion rate of 28 percent. The statewide diversion rate was 11 percentage points higher than the board's 1990 estimate of 17 percent, as shown in Table 1. However, California's progress toward achieving a diversion rate of 50 percent statewide for 2000 has been slow. As Table 1 also shows, California has taken nine years to increase its statewide diversion rate by 20 percentage points.

TABLE 1
Solid Waste Diversion Rates

Year	Estimated Statewide Rate (%)	Increase Between Years (%)
1990	17	–
1991	20	3
1992	21	1
1993	24	3
1994	25	1
1995	28	3
1996	31	3
1997	32	1
1998	33	1
1999	37	4

Source: California Integrated Waste Management Board

As of July 2000, board staff were continuing to work with 51 of the 64 local governments that failed to meet the first goal of 25 percent diversion by January 1, 1995, and to which it issued compliance orders requiring completion of new base-year studies or improved implementation of their diversion programs. The board has only fined three local governments for failure to submit plans outlining how they intend to meet the mandate. To attain a statewide diversion rate of 50 percent for 2000, California would have to increase its diversion efforts by 13 percentage points in one year, more than triple any past annual increases. State law permits the board to grant extensions that allow local governments an opportunity to achieve the 50 percent mandate

prior to January 1, 2006. The board anticipates that about 60 percent of local governments in the State will not achieve the 50 percent mandate by 2000 and will request extensions.

LOCAL GOVERNMENTS' DIVERSION RATES ARE QUESTIONABLE

Diversion rates local governments reported to the board may not be accurate because estimates of the amount of solid waste generated have been incorrect and the waste stream constantly changes.

The Legislature and the public may not be able to rely on the diversion rates that local governments report to the board because those reported figures might not be accurate. The formula local governments use to calculate their diversion rates requires a reliable estimate of the amount of solid waste generated in a base year. However, the amounts of solid waste generated have been inaccurate in the past because of erroneous estimates in the base-year numbers as well as a waste stream that constantly changes as population and economics vary. If local governments are reporting inaccurate diversion rates, the board cannot tell if they are complying with the law and cannot project California's future needs for landfills.

The act required local governments to develop waste measurements using 1990 as the base year. Local governments must prepare studies that will assist in determining an estimate of the quantity of solid waste they generate, dispose of, and divert from their landfills. Local governments use the following formula to calculate their solid waste generation:

$$\text{Base-Year Generated} = \text{Amount Disposed in Landfills} + \text{Amount Diverted From Landfills}$$

Originally, local governments were to compute solid waste generation by quantifying their actual diversion and disposal amounts. However, they expressed concerns that it was difficult and costly to obtain accurate information on quantities and types of recycled waste and to calculate source reduction. Legislation enacted in 1992 revised the law to allow local governments to adjust figures for solid waste generation for annual increases or decreases in population and other factors affecting the waste stream. The legislation then allows local governments to derive the amount they divert from landfills by simply subtracting the amount they dispose in landfills from their solid waste generation figure. The board, using a team of researchers from the

University of California, Los Angeles, and a working group made up of representatives from government, industry, and the public, identified taxable sales, employment, and inflation as the other factors to consider when adjusting solid waste generation figures.

Many local governments have found that original studies of solid waste generation were flawed. In fact, without new studies, 36 local governments would have incorrectly reported negative diversion rates.

Many local governments have found that the original studies of solid waste generation used to determine their base-year amounts were flawed. For example, errors arose from their failure to track large segments of the waste stream and adequately account for the absence of scales necessary to establish and accurately track tonnage, as well as the lack of statewide conversion factors relating volume to weight. Since 1995, according to the board's data, 136 local governments have made corrections to their base-year amounts, and another 62 have completed new generation studies. The results of the new generation studies indicate that 36 local governments would have incorrectly reported negative diversion rates if they had not revised their base-year solid waste generation figures, and that the diversion rates for 25 other local governments were actually greater, with increases in their rates ranging from 5 percent to 59 percent. Consequently, we question the accuracy of the diversion rates of those local governments that have not performed new generation studies.

REVISIONS TO THE BOARD'S DIVERSION STUDY GUIDELINES CAN CREATE INCONSISTENCIES IN LOCAL GOVERNMENTS' DIVERSION RATES

Although the board did create a guide that contains various tools, strategies, and indicators for local governments to use in their efforts to meet the State's diversion goals, some suggestions outlined in the guide have received criticism. The act provides a broad definition of diversion to allow local governments flexibility to develop their own data for managing their programs and meeting diversion goals. In providing guidance to local governments, the board identified the types of materials they may count as diversion and have outlined some simple methods to quantify the amounts. When some board members and others expressed concern about the appropriateness of some of these methods, the board made revisions to its guide, but the result of these revisions can lead to inconsistent reporting of diversion data by local governments.

Recognizing that local governments were in need of information and tools to help them develop cost-effective methods for conducting their new base-year generation studies, the board

developed a Diversion Study Guide (guide). Although board members have not formally approved the guide, many local governments used it between January 1999 and August 2000 to help them conduct their diversion studies. The guide describes the types of activities local governments can include in their diversion programs, such as selling reusable materials at residential garage sales and thrift stores, horse manure composting, and diaper recycling. It suggests calculating the amount diverted through garage sales by multiplying the number of garage sales by a factor of 0.35 tons per garage sale. Also, the guide provided local governments with three different methods to estimate amounts diverted through thrift stores, depending on the store's operating hours. These methods were developed through studies performed by a consultant from the University of California, Los Angeles.

In recent meetings the board has criticized the inclusion of certain items in calculations of diversion rates.

However, the inclusion of certain items in diversion calculations has not been without criticism from board members, and we question whether the inclusion of these items meets the original intent of the act. In fact, during recent meetings, board members expressed concerns about the method used to estimate diversion rates and the impact of source reduction activities on the amount of diversion being reported, and they postponed the approval of the guide at the September, October, and November board meetings. To attempt to address the concerns of board members, local governments, consultants, and other interested parties, board staff made changes to the guide in November 2000. One change was the deletion of most of the suggested weight conversions to address concerns that a standard weight conversion formula would not necessarily apply to every local government. The guide now suggests that each local government conduct a statistically significant survey to calculate diversion tonnage for thrift store and garage sale activities. However, many local governments have already performed diversion studies using the guide and may have inappropriately used these weight conversions. In October 2000, the board directed staff to refrain from bringing forward any request for its approval of new base years until its concerns have been satisfactorily addressed. Until this is done and the board can agree on the appropriate methods that can be used to meet the State's diversion goals, the board cannot provide sufficient guidance to the local governments.

RECOMMENDATIONS

To ensure that reported diversion rates are accurate, the board should modify its regulations to require local governments to revise their base-year figures at least every five years. Then, it should identify local governments that need to perform new base-year solid waste generation studies and require them to do so.

To ensure that the board provides consistent guidance to local governments on how to meet the State's diversion goals, it should take these steps:

- Decide on the appropriate types of materials local governments can count as diversion and the methods to quantify those amounts.
- Seek concurrence from the Legislature as to whether its approach meets the original intent of the mandate.

We conducted this review under the authority vested in the California State Auditor by Section 8543 et seq. of the California Government Code and according to generally accepted government auditing standards. We limited our review to those areas specified in the audit scope section of this report.

Respectfully submitted,



ELAINE M. HOWLE
State Auditor

Date: December 11, 2000

Staff: Joanne Quarles, CPA, Audit Principal
Denise L. Vose, CPA
Peter A. Foggiato, III
Celina M. Knippling
Karen R. Peterson
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APPENDIX

Sunshine Canyon Landfill Expansion Chronology

Sunshine Canyon is located in the northwest Los Angeles region on the border of the city and county of Los Angeles. Sunshine Canyon currently contains two landfills, an inactive landfill located in the city of Los Angeles (city) and an active landfill located in Los Angeles County (county).

In February 1991, the county board of supervisors approved an Environmental Impact Report (EIR) and a Conditional Use Permit that allowed Browning Ferris Industries (BFI), the landfill's owner, to operate a landfill in a portion of Sunshine Canyon located in the county. In March 1991, the city and the North Valley Coalition, a nonprofit organization, filed lawsuits challenging certain county approvals related to the project and the sufficiency of the EIR. After making revisions to the EIR as requested by a trial court, the county approved a revised EIR in November 1993. One year later, in November 1994, the California Integrated Waste Management Board (board) concurred with a permit for a 17-million-ton landfill. The county landfill began accepting waste in 1996.

The inactive city landfill ceased accepting waste in 1991 after more than 30 years of operation. However, in December 1999, the city council approved an EIR for a 55-million-ton expansion adjacent to and above the inactive part of the site. If the board concurs with the extension, the new city landfill would be combined with the existing county landfill vertically and horizontally to create a single facility. The portion of the site connecting city and county operations would provide an additional 18 million tons of capacity to the county landfill. When combined with the county landfill's existing capacity of 17 million tons, the total capacity of the site would be 90 million tons.

In January 2000, the North Valley Coalition filed a lawsuit against the city and BFI for its approval of the city expansion. The lawsuit charges that the city violated the California Environmental Quality Act (CEQA) as well as the local government land use approval process. In November 2000, the superior court ruled in favor of the city and BFI, stating that the city's subsequent EIR complies with CEQA and is consistent with its general plan and

policies. To date, BFI has not submitted to the local enforcement agency or to the board an application for a solid waste facilities permit for the city expansion. Table 2 provides a timeline for the Sunshine Canyon Landfill expansions.

TABLE 2

Sunshine Canyon Landfill Expansions

Date	Event
1950s	Sunshine Canyon is used illegally as a dump.
1958	The city grants a 10-year zone variance allowing the landfill to operate on 45 acres of land.
1966	The city extends the zone variance for 25 years.
1978	BFI acquires all of Sunshine Canyon, which consists of acreage in both the city and county.
February 1991	The county approves an EIR for a 17-million-ton landfill on the county side.
March 1991	The city and the North Valley Coalition file separate lawsuits against the county and BFI.
September 1991	The city landfill ceases accepting waste after its zone variance expires.
November 1993	The county approves a revised EIR for its landfill after making changes as requested by a trial court.
October 1994	The city and the BFI settle the lawsuit over the county landfill.
November 1994	The board approves a permit for a 17-million-ton county landfill.
August 1996	Landfill operations begin at the county landfill.
December 1999	The city council approves an EIR for a 55-million-ton expansion of the landfill adjacent to and above the inactive city landfill.
January 2000	The North Valley Coalition files a lawsuit against the city and BFI.
November 17, 2000	The court rules in favor of the city and BFI.

Agency's comments provided as text only.

California Integrated Waste Management Board
1001 I Street
Sacramento, CA 95812

December 1, 2000

Elaine M. Howle, State Auditor*
555 Capitol Mall, Suite 300
Sacramento, CA 95814

Dear Ms. Howle:

Thank you for the opportunity to review and comment on the draft report prepared in response to the request made by the Joint Legislative Audit Committee. This report comes at a critical time. With the recent filling of all six member seats, the Integrated Waste Management Board (Board) has taken on a comprehensive review of its policies as well as the existing regulatory framework to ensure that the highest measure of public and environmental protection possible is provided. Many changes have already occurred through the adoption of enforcement regulations designed to strengthen the state's ability to protect the public and the environment that we serve. There is still much to be done as we work with local government, industry partners, environmental groups and members of the public in a public setting to provide the fullest measure of protection to the environment and the citizens of California.

Attached is a response prepared by Board staff, designed to present factual information related to the statements, issues contained in the report. Due to the confidential nature of the document and the fact that the board may not deliberate except in a noticed public meeting, the Board has not been able to discuss this response. In order to ensure sufficient time for public comment and Board discussion, I have directed staff to prepare an item to be heard at the public meeting scheduled in January. This will provide the opportunity to have a full discussion of the issues presented as well as give the Board the opportunity to take action as deemed appropriate by the Board.

I would like to commend you and your staff on the professional way the information for the report was gathered and prepared. Please contact me or Karin Fish, Acting Executive Director or Julie Nauman, Deputy Director for Permitting and Enforcement if you have any questions concerning the response.

Sincerely,

(Signed by: Linda Moulton-Patterson)

LINDA MOULTON-PATTERSON
Chair

Attachments

*California State Auditor's comments appear on page 43.

Response of the California Integrated Waste Management Board

Summary

In response to this report, it is important to fully understand the functions and responsibility of the Integrated Waste Management Board (Board). The Board's mission is to reduce the generation and improve the management of solid waste in California to conserve resources, develop sustainable recycling markets, and protect public health and safety, and the environment. We do this in partnership with public agencies, industry, business, and the public we serve.

The Board, as prescribed by law, works in partnership with many agencies to ensure that landfills are designed and operated in a manner that is protective of public health, safety, and the environment. To accomplish this, the Board oversees the local and regional review, approval, and monitoring of landfills.

In the past year, the Board has undertaken a comprehensive study to investigate, identify, and improve upon the environmental performance of landfills. Our goal is to provide the fullest measure of protection to the environment, and the people of California.

By statute, the Board's landfill permit, inspection and enforcement responsibilities must focus on protection of the public health, safety, and the environment by ensuring that the local enforcement agencies (LEAs) continue to effectively perform their duties and responsibilities.

In support of this objective, the Board's programs emphasize LEA oversight, evaluation, training, guidance, and assistance. The Board determines the effectiveness of these programs by monitoring the compliance status of all solid waste facilities.

The Integrated Waste Management Act (Act) provides the statutory authority under which the Board operates. The Act took effect January 1, 1990. During the last 10 years, the Board has worked in partnership with local governments, industry, environmental advocates, the Legislature, and others to reduce waste and assure that California landfills present no threat to public health and safety or to the environment.

Members of the Board have recently begun a full examination of all policies of the Board with an eye towards lessons learned in the last 10 years. A full evaluation of these policies is underway and will result in a full review of all recommendations made in this report.

Below are the issues and recommendations raised in the report and a response to each of these.

Capacity

Recommendations: Explore options for taking into account the necessity for increased landfill capacity as a factor in granting permits.

Update its database and require local governments to report accurate landfill capacity information on an annual basis in a consistent manner.

Response: The report bases its conclusions and recommendations on an estimate of statewide landfill capacity. It does not reflect the fact that when capacity is more carefully examined, it is evident that capacity is not evenly distributed across the state. In addition, although the report acknowledges that the Board has no authority to utilize capacity information in the concurrence of facility permits, the report does not adequately reflect the extensive history of the Board in addressing this issue. Policy based on specific provisions of AB 939 (Sher) related to landfill capacity where the Board was authorized to object to a permit if the Board determined that issuance of a permit would prevent or substantially impair achievement of diversion requirements. AB 2009 (Cortese), 1996 deleted this authority (PRC 44009). Additionally, determination of local landfill needs has been an decision of local authority.

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Environmental Justice

Recommendations: Develop a proposal for incorporating environmental justice into its permitting process and submit the proposal to the California Environmental Protection Agency for its approval. If the proposal is approved, the Board should seek legislative authority to deny permit proposals if environmental justice concerns exist.

Track demographic information on the communities in which solid waste facilities are located, and make this information available to the public in the form of an interactive mapping system.

Response: The Board has been proactive in addressing environmental justice issues relative to solid waste facilities. The Board has completed or continues to work toward completion of the following tasks.

③

- The Board is developing a mission statement and strategic plan that will incorporate environmental justice considerations into all programs and activities as mandated by SB 115 (Solis). The Board is also actively complying with all requirements of SB 89 (Escutia).
- At its November 2000 meeting, the Board directed staff to prepare maps which correlate the locations of solid waste facilities with the locations of low-income and minority populations.
- Participated with Cal EPA in commenting on the draft Title VI guidance for recipients of federal financial assistance circulated by US EPA.
- Conducted several workshops for LEAs and industry representatives designed to foster greater awareness and facilitate discussions among these groups relative to environmental justice issues.

Long Term Violation Policy

Recommendations: Discontinue the use of its 1994 policy that allows it to concur with permits for landfills that have long-term violations of State minimum standards. If the Board believes the policy is necessary, it should request the Legislature to grant it the authority to issue permits to long-term violators under defined circumstances.

- ④ Response: As indicated in the report, the Board directed staff in November 2000 to develop recommendations relative to several issues within the policy. The Board directed staff to address how a threat to public health and safety and the environment should be defined within the policy, and how to identify criteria to be used in determining whether a solid waste facility operator is doing all that could be done to address the compliance problems. In addition, the Board directed staff to contact experts in the area of landfill gas monitoring and control and to develop a presentation for the Board on issues relative to compliance with landfill gas control requirements. The Board will again address this issue in February 2001.

Additionally, the Board is also implementing a \$2.8 million facility compliance loan program that will make interest-free loans available to facility owners and operators to assist them in making improvements that will bring them into compliance. This program will shorten the timeframes for operators to come into compliance with state requirements.

Permit Enforcement Policy

Recommendations: Discontinue the use of its 1990 enforcement policy that allows operators to violate the terms and conditions of their permits without first obtaining a permit revision.

Response: Earlier this year, the Board expressed concern about practices stemming from this policy and has initiated a process to identify and implement appropriate change. In August 2000, the Board directed staff to form a workgroup of all stakeholders to examine the practice described below and develop recommendations. Staff has conducted focus group meetings within the larger workgroup. Staff will be meeting with the larger workgroup in December 2000 and January 2001. Recommendations relative to this policy will be brought to the Board for consideration in February 2001.

- ⑤ Additionally, the Board recently adopted enforcement regulations that will require the LEAs to take appropriate enforcement action and sets out how the Board will determine appropriate enforcement action. The clarity provided in these enforcement regulations will enable the Board to better direct LEAs in this area.

18 Month Inspections

Recommendations: Perform its landfill inspections every 18 months, as law requires.

Response: Since 1999, the Board has modified the inspection program so that every solid waste landfill is inspected within 18 months of the last inspection, with allowances for seasonal variation. To allow inspections to occur during different seasons that may affect operations, inspection dates are allowed to shift one to two months over time.

LEA Enforcement Orders

Recommendations: Continue its efforts to modify enforcement regulations relating to tracking compliance Notice and Orders.

Ensure that operators comply with Notice and Orders by the date specified in the order, and issue penalties to those who do not comply.

Seek legislation to amend its current process for imposing civil penalties.

Response: The Board has revised and will continue to monitor the effectiveness of its regulations concerning Notice and Orders. Recently adopted enforcement regulations will require the LEAs to report the status of their enforcement orders to the Board within 30 days of the compliance date included in the order. LEA compliance with this requirement will be an aspect of their evaluation. With this change in regulation, the Board expects that problems associated with tracking the status of the enforcement orders will be greatly reduced. (6)

Statute requires LEAs to provide the Board with copies of all enforcement orders when they are issued. There is no statutory or regulatory requirement to provide the Board with status reports relative to the orders.

Of the 57 facilities with enforcement orders noted in the report with expired compliance dates, 49 have either received new enforcement orders or have come into compliance as indicated by recent LEA inspection reports. The remaining eight facilities continue to have expired compliance dates without the operator coming into compliance. The situation with these eight facilities will be a part of the LEA performance reviews during the next statutorily prescribed LEA evaluations. (7)

Landfill Closure Plan Review and Delayed Closure

Recommendations: Modify regulations to prevent LEAs from extending deadlines for closure plan submission indefinitely.

Modify regulations to reestablish role as the coordinating agency for closure plans.

Seek legislation that will authorize loans or grants to landfill operators in need of financial assistance to close landfills.

Response: While it is true that some landfill operators did not submit final closure and postclosure maintenance plans two years prior to the anticipated date of closure, this was unavoidable in some instances. For example, some rural jurisdictions were faced with deciding to pursue early closure because of the prohibitive cost to line and operate landfills in response to federal RCRA Subtitle D. In addition, landfill operators have decided to close landfills early (with capacity remaining) for economic reasons. In these instances, the two-year advance submittal requirement could not be complied with because of required early closure not anticipated by the operator. In other cases, approval of closure and postclosure plans may be delayed for a variety of factors, including lack of consensus and litigation among local citizens groups and local governments concerning the appropriate closure and postclosure alternatives.

The Board is continuing to explore potential loan or grant programs to assist in the closure of landfills, primarily those owned and operated by rural jurisdictions that have the highest financial needs. Such a program would enable these jurisdictions to prepare closure plans in a timely manner.

Meeting the Diversion Mandate

Recommendations: To ensure that reported diversion rates are accurate, the board should modify its regulations to require local governments to revise their base-year figures at LEAs every five years. Then, it should identify local governments that need to perform new base-year solid waste generation studies, and require them to do so.

To ensure that the Board provides consistent guidance to local governments on how to meet the State's diversion goals, it should take these steps:

- Decide on the appropriate types of materials local governments can count as diversion and the methods to quantify those amounts.
- Seek concurrence from the Legislature as to whether its approach meets the original intent of the mandate.

⑧ Response: The Board cannot comply with the first recommendation without prior Legislative authorization. The Board has endeavored to provide consistency guidance to local governments regarding diversion calculations. Any changes regarding what materials can count would require statutory changes.

While diversion progress has steadily increased, the state will most likely not reach 50%. In 1989, the year the Act was signed, diversion was estimated to be 10%. Ten years later that rate is estimated to be 37%, which shows significant progress.

The Legislature realized that many jurisdictions would not meet the 50% diversion mandate (note: mandate only applies to local jurisdictions not the overall state). As a result SB 1066 was authorized and signed by the Governor, which extended the compliance date of the 50% mandate until 2006 for those jurisdictions that meet the Board's approval. The Board, in response approved the process for jurisdictions to submit SB 1066 petitions.

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COMMENTS

California State Auditor's Comments on the Response From the California Integrated Waste Management Board

To provide clarity and perspective, we are commenting on the California Integrated Waste Management Board's (board) response to our audit report. The numbers below correspond to the numbers we have placed in the response.

- ① Currently, the board does not have the information or statistics to conclude that capacity is not evenly distributed across the State. As we note on page 13, the board is unable to track capacity because its database is incomplete and often contains erroneous data. In fact, the board had to hire a contractor to report on the remaining capacity of California's landfills.
- ② We are unclear as to the point the board is trying to make. The board is accurate in stating that it has no express authority to consider capacity in concurring with or objecting to the issuance of a proposed permit. However, the board did not provide us evidence to demonstrate how its past authority to object to a permit that prevents or substantially impairs the achievement of diversion requirements related to landfill capacity.
- ③ Although the board states that it has been proactive in addressing environmental justice issues, as we discuss on page 14, as of October 2000, the board was unable to provide any data relating to how it enforces environmental justice when approving permits for landfills and transfer stations. Nevertheless, we encourage the board to continue with its efforts to incorporate environmental justice issues into its permitting process.
- ④ The board fails to address our concern that its policy conflicts with state law. On page 18, we acknowledge that the board recognizes its policy is controversial and plans to address the issue in future board meetings.

- ⑤ The board's enforcement regulations are pending final approval by the Office of Administrative Law. However, we concur with the board that these new regulations will enable it to better direct local enforcement agencies (LEAs) in this area.
- ⑥ The board's enforcement regulations are pending final approval by the Office of Administrative Law. As we state on page 21, once its regulations are approved, the board will be better able to ensure that LEAs are requiring operators to comply with their orders and are issuing penalties to operators that have not complied with order deadlines.
- ⑦ We disagree with the board's characterization of the status of active Notice and Orders issued by LEAs. As discussed on page 21, the board is relying on inspection reports that do not always contain sufficient information for it to ascertain the full extent of owners' or operators' compliance with these orders. While the board believes that 49 orders have come into compliance, using the board's method, we were unable to verify the status of 31 of these orders.
- ⑧ Although state law does not explicitly address whether the board can require local governments to revise their base-year figures every five years, it does give the board authority to develop a standard methodology and guidelines for use by local governments when adjusting disposal projections. We believe that the board has sufficient authority to require this change. However, if the board believes it needs to seek legislative authorization, then it should do so.

cc: Members of the Legislature
Office of the Lieutenant Governor
Milton Marks Commission on California State
Government Organization and Economy
Department of Finance
Attorney General
State Controller
State Treasurer
Legislative Analyst
Senate Office of Research
California Research Bureau
Capitol Press