
Audit of the Department of Health's Administration of A Statewide Solid Waste Program and Assessment of Related Land Use Policies

A Report to the
Governor
and the
Legislature of
the State of
Hawaii

Report No. 04-01
January 2004



THE AUDITOR
STATE OF HAWAII

Office of the Auditor

The missions of the Office of the Auditor are assigned by the Hawaii State Constitution (Article VII, Section 10). The primary mission is to conduct post audits of the transactions, accounts, programs, and performance of public agencies. A supplemental mission is to conduct such other investigations and prepare such additional reports as may be directed by the Legislature.

Under its assigned missions, the office conducts the following types of examinations:

1. *Financial audits* attest to the fairness of the financial statements of agencies. They examine the adequacy of the financial records and accounting and internal controls, and they determine the legality and propriety of expenditures.
2. *Management audits*, which are also referred to as *performance audits*, examine the effectiveness of programs or the efficiency of agencies or both. These audits are also called *program audits*, when they focus on whether programs are attaining the objectives and results expected of them, and *operations audits*, when they examine how well agencies are organized and managed and how efficiently they acquire and utilize resources.
3. *Sunset evaluations* evaluate new professional and occupational licensing programs to determine whether the programs should be terminated, continued, or modified. These evaluations are conducted in accordance with criteria established by statute.
4. *Sunrise analyses* are similar to sunset evaluations, but they apply to proposed rather than existing regulatory programs. Before a new professional and occupational licensing program can be enacted, the statutes require that the measure be analyzed by the Office of the Auditor as to its probable effects.
5. *Health insurance analyses* examine bills that propose to mandate certain health insurance benefits. Such bills cannot be enacted unless they are referred to the Office of the Auditor for an assessment of the social and financial impact of the proposed measure.
6. *Analyses of proposed special funds* and existing *trust and revolving funds* determine if proposals to establish these funds are existing funds meet legislative criteria.
7. *Procurement compliance audits* and other *procurement-related monitoring* assist the Legislature in overseeing government procurement practices.
8. *Fiscal accountability reports* analyze expenditures by the state Department of Education in various areas.
9. *Special studies* respond to requests from both houses of the Legislature. The studies usually address specific problems for which the Legislature is seeking solutions.

Hawaii's laws provide the Auditor with broad powers to examine all books, records, files, papers, and documents and all financial affairs of every agency. The Auditor also has the authority to summon persons to produce records and to question persons under oath. However, the Office of the Auditor exercises no control function, and its authority is limited to reviewing, evaluating, and reporting on its findings and recommendations to the Legislature and the Governor.



THE AUDITOR

STATE OF HAWAII

Kekuanao'a Building
465 S. King Street, Room 500
Honolulu, Hawaii 96813

OVERVIEW

Audit of the Department of Health's Administration of A Statewide Solid Waste Program and Assessment of Related Land Use Policies

Report No. 04-01, January 2004

Summary

Landfills are nearing capacity throughout the country, yet few viable alternative sites exist. Responding to the concern that present land use planning issues do not adequately address all concerns in siting new landfills, the Legislature, through Senate Concurrent Resolution No. 153 concluded during the 2003 Regular Session that the State must reassess its solid waste management and landfill policies.

Basically, the audit was to include an assessment of existing policies and the adequacy of fees charged for solid waste programs. To assist with this review, we hired the consultant firm of MACTEC Engineering and Consulting, Inc., through a competitive procurement process. Our office, however, was unable to obtain a consultant to assess the adequacy of fees charged for solid waste programs.

In 1991, the Department of Health was assigned to administer the Hawaii Solid Waste Management Act, Chapter 342G, Hawaii Revised Statutes (HRS). The department is required to promote the development of coordinated statewide solid waste management, including identifying and monitoring related environmental and public health issues. The department is responsible for permitting, monitoring, and enforcement for landfills and solid waste disposal systems under Chapter 342H, HRS.

We found that the Department of Health is not carrying out its solid waste management responsibilities for public health and environmental protection. Prior audits pointed out management problems that continue to exist; for example the department is still not properly monitoring, inspecting, or enforcing solid waste regulations, particularly for landfills.

The Department of Health takes an unreasonable amount of time to review permit applications. In our sample of four landfills and one incinerator, the department averaged a little over three years to review each application and issue a permit. In one case, the department has still not issued a permit for an application received in 1997.

Other examples of the department's lax oversight include the department's failure to issue notices of violation for offenses and not ensuring that solid waste facilities submit required reports. Between 1998 and 2003, ten out of the 45 (22 percent) facilities regulated under state laws we reviewed were, or had been, operating without having submitted an application prior to their permit expiration. The department failed to issue notices of violation for these ten offenses (at \$10,000 for each offense), which could have lead to a minimum of \$100,000 in fines.



These and all other solid waste facilities must submit reports as stated in their permits. However, between 1998 and 2002, the department failed to collect 171 of 353 (48 percent) reports from the 50 solid waste facilities in our review. A section planner acknowledged there is no tracking system for reports nor does the branch ask for reports if they are not turned in on time.

The department also has failed to ensure compliance with statutory planning requirements. The original state plan was completed in March 1991 and the deadline to submit the county plans was two years later, however, every county took more than three years to submit an original management plan. Moreover, plan revisions should have been done on July 1, 1995 and July 1, 2000. Only Hawaii County submitted a revised plan, but even this was seven years late. The Department of Health's lack of oversight has resulted in outdated solid waste management plans that cannot guide the effective development and implementation of its solid waste programs.

We also found that the department does not have current and reliable estimates of remaining volume capacities and expected operating lives for landfills. The department could not provide justifiable estimates for any of Hawaii's 13 landfills. Current and reliable information can be found at the county level; however, the department failed to collect this information from the counties.

Along with our audit findings, we provide information on landfill siting and other related issues and information on fees.

Recommendations and Response

We recommend that the Department of Health fulfill all of its responsibilities under Chapter 342G and Chapter 342H, HRS, by pursuing such activities as inspecting facilities on a regular basis, pursuing enforcement action when necessary, and ensuring that the state and county integrated solid waste management plans are revised and submitted as required. We also recommend that the department develop a database or other tracking system so it can better maintain files and keep track of deadlines. Remaining capacities of all landfills should also be monitored by the department, and both the department and counties must initiate the process of siting, planning, and permitting a new landfill many years before the facility is actually needed.

The Department of Health and all the counties, except for Kauai County, provided responses to our draft report. The department agrees that there are problem areas in its solid waste program that it is working to improve. However, it disagrees with parts of the audit and asserts that the audit is misleading in some respects. Both the department and the counties focused on funding issues as a means to explain shortcomings raised in the report. Finally, both entities provided additional background information, some of which was included in the final report upon discussion with our consultant.

Marion M. Higa
State Auditor
State of Hawaii

Office of the Auditor
465 South King Street, Room 500
Honolulu, Hawaii 96813
(808) 587-0800
FAX (808) 587-0830

Audit of the Department of Health's Administration of A Statewide Solid Waste Program and Assessment of Related Land Use Policies

A Report to the
Governor
and the
Legislature of
the State of
Hawaii

Submitted by

THE AUDITOR
STATE OF HAWAII

Report No. 04-01
January 2004

Foreword

This is a report of our audit of the Department of Health's administration of a statewide solid waste program and our assessment of related land use policies. The audit and assessment were conducted pursuant to Senate Concurrent Resolution No. 153 of the 2003 Regular Session.

We wish to express our appreciation for the cooperation and assistance extended to us by officials and staff of the Department of Health, the counties of Honolulu, Kauai, Maui, and Hawaii, and others whom we contacted during the course of this audit.

Marion M. Higa
State Auditor

Table of Contents

Chapter 1 Introduction

Background	1
Previous Audits	8
Objectives of the Audit	9
Scope and Methodology	9

Chapter 2 The Department of Health’s Approach to Solid Waste Management Needs Refocusing To Establish Program and Funding Priorities

Summary of Findings	11
The Department of Health Is Not Carrying Out Its Solid Waste Management Responsibilities for Public Health and Environmental Protection	12
The Department of Health Does Not Have Current and Reliable Estimates of Remaining Volume Capacities and Expected Operating Lives for Landfills	19
Recommendations	22

Chapter 3 A Number of Policies and Issues Complicate Solid Waste Management

Summary of Conclusions	23
Establishing New Landfills Is Complicated and Needs Sustained Effort to Satisfy Numerous Requirements	23
Other Issues Are Potentially Related to Landfill Siting	27
Determining Adequacy of Solid Waste Management Fees Is Controversial	30
Overall Conclusion	33

Responses of the Affected Agencies	35
---	-----------

List of Exhibits

Exhibit 1.1	Department of Health Environmental Management Division Organizational Chart	5
Exhibit 1.2	Environmental Management Special Fund Revenues and Expenditures, FY1998-99 to FY2002-2003 (in thousands)	7
Exhibit 2.1	Frequency of Landfill Inspections, FY1998 to FY2002	14
Exhibit 2.2	Frequency of Transfer Stations, Recycling Facilities, and Convenience Center Inspections, FY1998 to FY2002	15
Exhibit 2.3	County Integrated Solid Waste Management Plan Submissions and Deadlines	18
Exhibit 2.4	Remaining Landfill Capacities in Hawaii	21
Exhibit 3.1	Land Use and Zoning Districts in Which Landfills Are Allowed	24
Exhibit 3.2	Best, Average, and Worst Case Schedules for Establishing a Landfill	26
Exhibit 3.3	Solid Waste Management Tipping Fees by County	30
Exhibit 3.4	Advantages and Disadvantages of Solid Waste User Fees	33

List of Photos

Photo 3.1	City and County of Honolulu's H-POWER	32
-----------	---	----

Chapter 1

Introduction

Background

Proper trash disposal is a nationwide issue. Landfills, the mainstay of most waste management programs, are nearing capacity throughout the country, yet few viable alternative sites exist. Although other options, such as recycling and incineration, reduce the amount of waste, there will always be a need for landfills. Hawaii's Legislature noted similar concerns that the existing Oahu landfill is at its capacity and the state lacks a viable broad-scale recycling program.

Responding to the concern that present land use planning issues do not adequately address all concerns in siting new landfills, the Legislature concluded during the 2003 Regular Session that it is necessary for the State to reassess its solid waste management and landfill policies. To address this, the Legislature passed Senate Concurrent Resolution No. 153, Senate Draft 1.

Recognizing that solid waste management is primarily a state planning issue that must be addressed comprehensively, the resolution requests that the Auditor include in its study:

- An assessment of the state and counties' existing total landfill capacity, the criteria used to determine such capacity, and whether the state and counties' integrated solid waste management programs accurately depict future landfill needs;
- An assessment of the urgency of establishing another landfill on Oahu;
- Whether the state and counties comply with their respective duties under Chapters 340A and 342G, Hawaii Revised Statutes (HRS);
- An assessment of human health impacts of siting landfills above public underground drinking water sources;
- An assessment of the fees charged for landfill use and how those moneys are used, with a view toward recommending a fee structure that ensures continuing study and implementation of state-of-the art technology and practices to effectively manage solid waste;

- Provisions of the federal Safe Drinking Water Act, including the Underground Injection Control Program, the Hawaii Source Water Assessment and Protection Programs, wellhead protection areas, and citizen suit provisions;
- Provisions of state and county codes focusing on the siting of landfills;
- The potential risk to siting landfills over sole-source aquifers;
- The compliance record of public and private waste disposal programs; and
- Issues of environmental justice, that is, no community should shoulder more than its fair share of landfills because of lack of political or economic power or influence.

Basically, the resolution asked that the audit include an assessment of existing policies and the adequacy of fees charged for solid waste programs. To assist with this review, we hired the consultant firm of MACTEC Engineering and Consulting, Inc., through a competitive procurement process. Our office, however, was unable to obtain a consultant for professional services to assess the adequacy of fees charged for solid waste programs. Instead, we provide an explanation of the amount and manner in which these fees are calculated and collected.

Solid waste legislation

The evolution of solid waste management in the United States is primarily tied to public health and environmental protection. In the late 1940s, the impacts of open burning dumps became a public health concern. As a result, the U.S. Public Health Service aimed to eliminate open-burning dumps and to replace them with sanitary landfills.

In 1961, the service developed a set of recommended standards for sanitary landfill operations, and in 1965, the Solid Waste Disposal Act was passed. The purpose of the act was to assist states, local governments, and interstate agencies to plan, develop, and implement solid waste disposal programs.

In 1970, the Public Health Service's solid waste program was moved to the newly created Environmental Protection Agency (EPA). By 1976, Congress recognized that disposal practices were not improving and increased federal attention to solid waste issues was needed.

Federal Resource Conservation and Recovery Act

Realizing that unplanned and unmanaged disposal of solid waste posed a threat to human health and the environment, and that federal rules and regulations were needed as a framework for states, Congress passed the Resource Conservation and Recovery Act. Specifically, Congress found the following:

While the collection and disposal of solid wastes should continue to be primarily the function of State, regional, and local agencies, the problems of waste disposal . . . necessitate Federal action through financial and technical assistance and leadership. . .

Under the federal act, the EPA set minimum guidelines governing the location, design, and construction of solid waste landfills and provide guidelines for development and implementation of state solid waste management plans. The act also calls for federal financial and technical assistance to the states or regional authorities to achieve both proper solid waste disposal and recovery of valuable resources before landfill disposal.

The act requires states to obtain approval from the EPA to implement a municipal solid waste landfill permit program. To obtain approval, states must certify that all relevant state laws, regulations, and guidance comply with the Resource Conservation and Recovery Act, and are enacted and effective. Hawaii completed its permit program approval process in May 1994.

Hawaii Integrated Solid Waste Management Act

In 1991, the Legislature found that improper solid waste practices create public health hazards; irreparable harm to public health, safety, and welfare; environmental pollution; and economic loss. It also found that parts of the state had inadequate and rapidly diminishing disposal capacity for municipal solid waste, and the state should strive to minimize the amount of waste generated. As a result, the Legislature passed the Hawaii Integrated Solid Waste Management Act, codified as Chapter 342G, HRS.

The Department of Health was assigned responsibility for administering the act. Among other things, the department is required to promote the development of coordinated statewide solid waste management; identify and monitor environmental and public health issues relating to solid waste management; comply with the federal Resource Conservation and Recovery Act of 1976; assess the feasibility of employing disposal fees; coordinate with the Department of Land and Natural Resources to incorporate solid waste management and processing concerns into land

use planning and development efforts; and cooperate with appropriate federal, state, and county agencies in carrying out its responsibilities.

Under the act, the State approves county integrated solid waste management plans. Each county plan must contain two primary elements: a program element and a facility capacity and siting element. The program element must include components for program implementation, program funding, landfill and incineration, waste stream assessment, source reduction, and public education and information. The facility capacity and siting element must include components for existing capacity, future needs, and facility implementation.

Under Section 342G-29, HRS, the Department of Health's Office of Solid Waste Management is responsible for preparing revisions to the state's integrated solid waste management plan following approval of the county plans.

While Chapter 342G, HRS is silent on the required components of the state's integrated solid waste management plan, the Hawaii State Planning Act (Chapter 226, HRS) provides guidance on the preparation, submittal, and implementation requirements for all state functional plans.

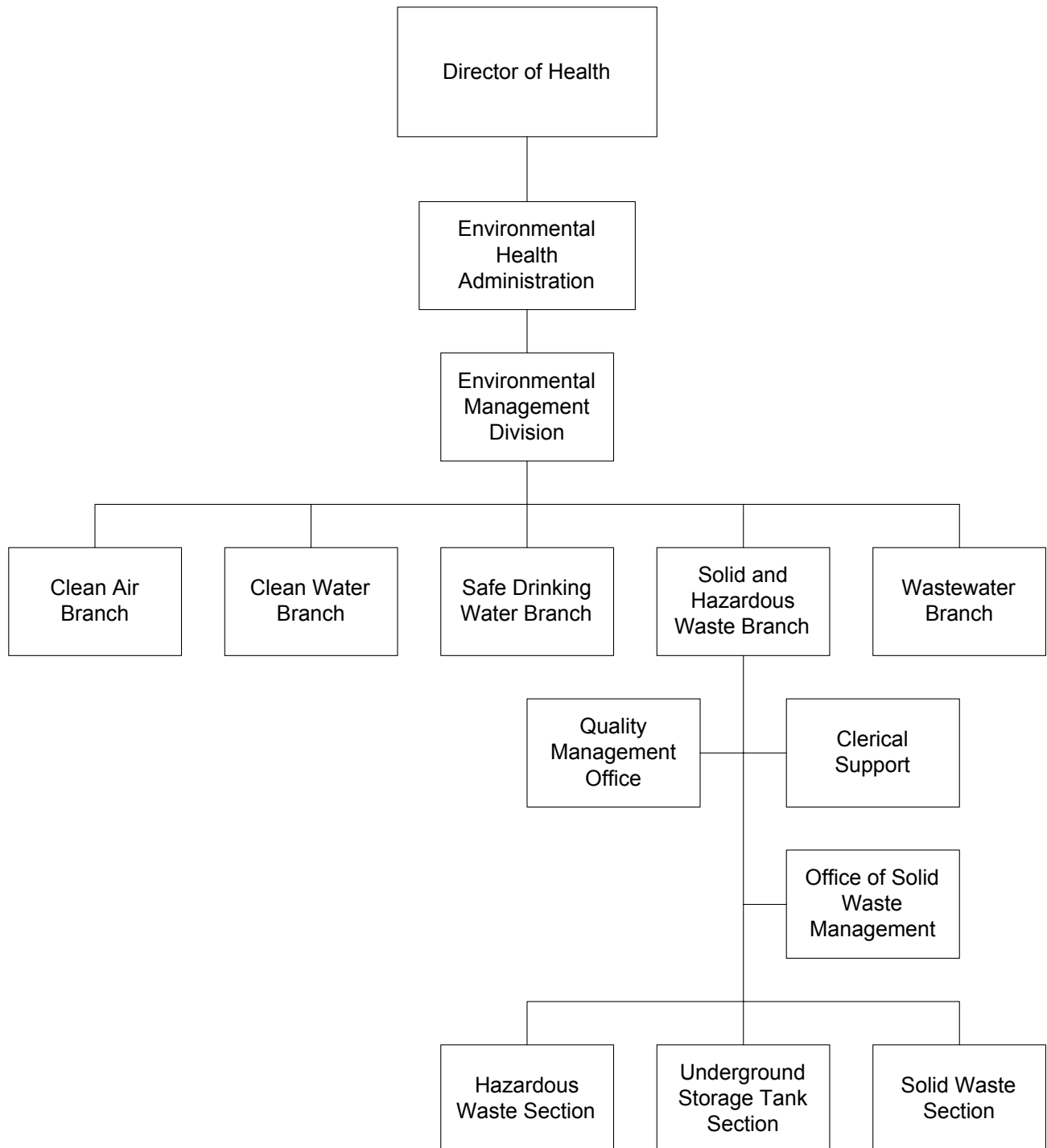
These plans identify priority issues in the functional area and contain statewide objectives, policies, and actions to address those issues. In preparing the plans, the state agency head primarily responsible for a given functional area must take into consideration county plans. Chapter 226, HRS specifically notes that functional plans are used to guide resource allocation for the implementation of state policies adopted by the Legislature.

***Department of Health
Solid and Hazardous
Waste Branch***

The department's Solid and Hazardous Waste Branch, under the Environmental Management Division, implements and maintains statewide regulatory programs for solid waste, hazardous waste, and underground storage tanks. The branch's solid waste responsibilities are primarily carried out through the Solid Waste Section and the Office of Solid Waste Management. The Environmental Management Division's organizational chart is shown in Exhibit 1.1.

The branch's Solid Waste Section, which employs three environmental health specialists and three engineers, develops and implements rules on solid waste management activities; implements Resource Conservation and Recovery Act requirements; reviews proposed land use changes, zoning applications, and environmental impact statements; reviews and approves permit applications for solid waste management; inspects and ensures compliance of permitted waste management facilities; and investigates and initiates enforcement actions against violators.

Exhibit 1.1
Department of Health Environmental Management Division Organizational Chart



Source: Department of Health

The branch's Office of Solid Waste Management, which consists of two planners, reviews and approves county integrated solid waste management plans, develops a technical database, and coordinates statewide education and outreach programs.

Although the Integrated Solid Waste Management Act leaves the respective roles of landfilling and incineration to each county's discretion, Chapter 342H, HRS assigns permitting, monitoring, and enforcement responsibility for landfills and solid waste disposal systems to the Department of Health. Section 342H-52, HRS prohibits the state, any federal agency, or county from constructing, operating, modifying, expanding, or closing a municipal solid waste landfill unit without obtaining a permit from the department. Permits must include detailed facility plans and specifications, certification of compliance with local ordinances and zoning requirements, an operations report, and other specific requirements for each facility.

To ensure compliance with all laws, rules, standards, and permits adopted and awarded by the department, the health director may enter and inspect any facility, building, or place to investigate an actual or suspected source of solid waste pollution. The director may assess an administrative penalty, require compliance immediately or within a specific time, and/or commence a civil court action on any person who has violated a solid waste law, rule, or term or condition of a permit. The director may also suspend, modify, or revoke solid waste landfill unit permits.

The department's financial activities

The Solid and Hazardous Waste Branch is partially funded through the State's general fund and the Environmental Management Special Fund. The special fund receives revenue from three primary sources: 1) the solid waste disposal surcharge, set at 35 cents per ton of solid waste disposed within the state, 2) the glass advance disposal fee, set at 1.5 cents per glass container, and 3) the motor vehicle tire surcharge, set at \$1 per tire imported into the state.

Solid waste facility owners and operators transfer quarterly surcharge collections to the department. During FY2002-03, the department collected over \$5 million in solid waste revenues from its three primary sources. The special fund's revenues and expenditures for the past five fiscal years are shown in Exhibit 1.2.

Exhibit 1.2**Environmental Management Special Fund Revenues and Expenditures, FY1998-99 to FY2002-03 (in thousands)**

	<u>FY98-99</u>	<u>FY99-00</u>	<u>FY00-01</u>	<u>FY01-02</u>	<u>FY02-03</u>
Beginning fund balance	\$1,344	\$860	\$1,133	\$2,164	\$3,966
Revenues	2,705	3,058	3,894	4,418	5,023
Expenditures	(2,994)	(2,595)	(2,671)	(2,383)	(3,385)
Transfers – administrative expenses	(195)	(189)	(192)	(232)	(257)
Ending fund balance	\$860	\$1,133	\$2,164	\$3,966	\$5,348
Encumbrances	547	718	495	665	1,486

Source: Department of Health

Section 342G-63, HRS requires the Department of Health to use the special fund to partially fund the solid waste program's operating costs; pay for statewide education, demonstration, and market development programs; and provide annual training for municipal solid waste operators.

The department's relationship to the counties

Section 340A-3, HRS assigned responsibility for solid waste collection and disposal to each county agency. This responsibility includes the transportation of solid waste to designated facilities by the county agency, collectors, businesses, or individuals to support the public's best interest. Each county operates and manages solid waste disposal facilities such as landfills, transfer stations, and convenience centers to minimize the costs and effort to dispose of solid waste.

Currently across the State, there is 1 incinerator and 13 landfill sites where solid waste is buried without creating a nuisance or hazard to public health or safety. A transfer station is an intermediate disposal area used by both the commercial sector and the public where solid waste is collected and transported to the landfill for burial. Convenience centers are for public use only; there are 31 such centers throughout the state. Solid waste collected at convenience centers is transported either to transfer stations or directly to designated landfills.

Another integral part of the solid waste program is recycling centers. Solid waste is separated, recovered, sold, or reused at collection points,

which reduce the stream of waste deposited at landfills. Incineration and composting are two other methods of reducing the volume of solid waste reaching landfills.

County funding for solid waste management programs is derived from disposal fees assessed to commercial haulers at transfer stations, landfills, and in Honolulu, from the H-POWER waste-to-energy facility. The City and County of Honolulu also collects revenues from the sale of electric energy generated from H-POWER and ferrous and nonferrous metals recovered at the plant.

Other state agencies' roles and responsibilities

The State ensures that policies pertaining to land use are followed. The Department of Land and Natural Resources regulates the use of state-owned lands but generally limits its waste management involvement to landfills that impact state lands, particularly conservation lands. The department is also responsible for cleaning up any reported problems of illegal dumping on state lands.

The Department of Business, Economic Development and Tourism's administratively attached Land Use Commission is charged with setting boundaries for contiguous land areas suitable for inclusion in one of four major classification districts: urban, rural, agricultural, and conservation. The Land Use Commission and county planning commissions may grant special permits to use agricultural and rural district lands greater than 15 acres for purposes other than that for which the districts are classified. Therefore, a special permit is generally required from respective county planning commissions and the state Land Use Commission to use agricultural or rural land for landfill purposes.

Previous Audits

Our *Audit of the Hazardous Waste Management Program of the Department of Health*, Report No. 94-3, found that the department has not ensured orderly and efficient management of its solid waste management programs and did not initiate appropriate management controls for effective operations. We cited the department for not having standardized procedures for tracking landfill permit applicants or a central file system to track whether or not facilities had appropriate permits. Additionally, the department had struggled to obtain sufficient funding to operate its solid waste management programs.

In 1996, our *Follow-Up Audit of the Waste Management Programs of the Department of Health*, Report No. 96-11, found that the department's solid and hazardous waste programs continued to suffer from a lack of qualified staff. More importantly, the department was not properly

monitoring, inspecting, or enforcing solid waste regulations, particularly for landfills. We also found that the department did not conduct regular inspections, pursue enforcement actions against violators, or maintain its permit database for tracking permit applications, inspections data, and other facility information.

Report No. 01-12, *Update of the 1992 Summary of Special and Revolving Funds*, also contained information on state special and revolving funds related to solid waste management practices.

Objectives of the Audit

1. Assess whether the Department of Health has effectively and efficiently developed a coordinated statewide solid waste management program.
 2. Assess existing land use policies used to determine where landfills are sited, the state's current total landfill capacity, and future landfill needs.
 3. Assess the adequacy of fees charged for landfill use to ensure effective management of solid waste programs.
 4. Make recommendations as appropriate.
-

Scope and Methodology

We assessed whether the Department of Health's Office of Solid Waste Management and Solid Waste Section has effectively developed a coordinated statewide solid waste management program focused on the department's planning, regulatory, monitoring, and enforcement efforts. We determined whether the department has ensured that each county prepared timely and adequate solid waste management plans and revisions to those plans. We also assessed the adequacy and timeliness of the department's preparation of and revisions to the state integrated solid waste management plan.

Our review of the department's permitting, inspection, and enforcement focused on activities from FY1998-99 through FY2002-03 and previous years as necessary. Our review also included inspections and visits to solid waste facilities statewide to test compliance with applicable federal, state, and county laws, rules, and regulations.

We utilized the consulting firm of MACTEC Engineering and Consulting, Inc. to assess existing land use policies for determining where landfills are sited, the state's current total landfill capacity, and the state's future landfill needs. We were unable to obtain a consulting

firm to assess the adequacy of fees charged for landfill use; we did, however, provide information on the management and fees charged for landfill use at each of the counties.

We also reviewed a variety of federal and state laws, rules, and regulations to assess the department's progress in implementing an integrated solid waste management program.

Our work was conducted from May 2003 to November 2003 in accordance with generally accepted government auditing standards.

Chapter 2

The Department of Health's Approach to Solid Waste Management Needs Refocusing To Establish Program and Funding Priorities

A decade ago, in 1994, we reviewed the Department of Health's solid waste management program and found numerous management problems that were at least partly grounded in poor organizational skills. Two years later, we found in our 1996 follow-up audit that very little had changed. Our current audit revealed that the department continues to face the same issues.

The department is still not properly monitoring, inspecting, or enforcing solid waste regulations, particularly for landfills. Landfills continue to be inspected less than annually even though the department's own policy indicates that one to two inspections should occur per facility per year. The department not only remains lax about pursuing enforcement, it has not completed its planned permit database to track permit applications and inspection data.

The department's inability to fix these long-standing problems only postpones the inevitable. The state has reached a critical point and is now faced with making last-minute decisions to address pressing solid waste issues. Ultimately, the department has failed in its duties to the public and the environment.

Summary of Findings

1. The Department of Health is not carrying out its solid waste management responsibilities for public health and environmental protection.
2. The department does not have current and reliable estimates of remaining volume capacities or expected operating lives for currently operating landfills in the state.

The Department of Health Is Not Carrying Out Its Solid Waste Management Responsibilities for Public Health and Environmental Protection

The department takes an inordinate amount of time to review permit applications

The urgency of dealing with solid waste management issues appears lost on the Department of Health. Our fieldwork at the department's Office of Solid Waste Management and Solid Waste Section allowed us to view the disorder that characterizes the department's approach to its responsibilities. Volumes of paperwork were piled high on some desks with no apparent organization. When we asked for files or information, staff often did not know the documents' location. Critical information related to solid waste facilities was not organized to allow the department to identify or track needs and deadlines. Hampered by this disarray, the department has been failing in its solid waste management duties.

The Department of Health takes an unreasonable amount of time to review permit applications. In our 1994 audit, we found the department did not have a central file system to track permit applications. The department hoped to have such a system operational by 1994, but a decade later the system is still not completed. Consequently, processing takes a little over three years for municipal solid waste landfill applications.

Under Chapter 342H, HRS, the department authorizes permits for solid waste facilities, including those that are federally regulated. Federally regulated facilities include municipal solid waste landfills; facilities regulated under state laws consist of transfer stations, recycling facilities, and convenience centers.

We reviewed 50 files out of 101 solid waste facilities in the state, including four of 13 active landfills, one incinerator, all ten transfer stations, 19 of 46 recycling facilities, and 16 of 31 convenience centers. We developed checklists based on the requirements of Section 11-58.1, Hawaii Administrative Rules (HAR).

Municipal solid waste landfill applications average over three years to process

In our sample of four landfills and one incinerator, the department averaged a little over three years to review each application and issue a permit. In one case, the department has still not issued a permit for an application received in 1997. In another case, a landfill was constructed prior to departmental approval. Although the application for this facility was submitted in June 1998, approval was still pending at the time of our audit. One county reported to us that further permit approval delays would hamper its efforts to meet important deadlines for starting operation of its landfill.

Other states have adopted criteria for processing permit applications. For example, California's Environmental Protection Agency recognized the need to make its permitting process more efficient to ensure those seeking permits receive timely responses. Its "Bill of Rights for Environmental Permit Applications" requires that agencies notify the applicant within 30 days of any deficiencies or determine that the application is complete. Another precept recognizes that permit applicants have the right to timely decisions on their permit application and the agency is to establish time limits for permit reviews.

Pennsylvania statutes require the Department of Environmental Protection to rule on whether a municipal solid waste landfill application is approved or disapproved within nine months. The state of Washington requires every completed solid waste permit application to be approved or disapproved within 90 days of receipt.

Application reviews for state-regulated facilities exceed the 180-day review period

The department failed to review 16 out of 45 (36 percent) of the applications for facilities regulated under state laws within the established deadline. Within this regulatory function, the department has 180 days to act on an application. In one case, the department took over 18 months to review an application. In another case, the department received an application in October 1998 and issued a permit in October 2001, exceeding the 180-day review period by nearly two and a half years.

The supervising engineer for the Solid Waste Section attributed delays in processing applications to a vacant engineering position that has only recently been filled. Due to the section's disorganization, however, we question whether delays can be attributed solely to a single position vacancy. When applications are not processed and reviewed in a timely manner, facilities can continue to operate under the conditions of the older permit. Applications should therefore be reviewed in a timely manner to ensure that facilities are held to current health and safety standards as required by state and federal laws.

Monitoring efforts are lacking

The department still does not adhere to its inspection procedures. In our 1996 follow-up audit, the department's procedures indicated that inspections for larger facilities (e.g., landfills and incinerators) are to occur four times per year. At the time, we found inspections occurred less than annually on average. Since 1996, the department has amended its inspection procedures so that larger facilities are inspected once or twice a year. However, the department still falls short of inspecting facilities even once a year. In fact, the department did not conduct any inspections in 1998 for the five facilities as shown in Exhibit 2.1.

**Exhibit 2.1
Frequency of Landfill Inspections, FY1998 to FY2002**

Inspections (Larger Facilities)	FY1998	FY1999	FY2000	FY2001	FY2002
Central Maui	0	2	0	0	1
Kekaha Phase II (Kauai)	0	0	0	0	1
Waimanalo Gulch (Oahu)	0	4	0	3	0
South Hilo (Hawaii)	0	0	0	2	1
H-Power (Oahu)	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>
Total number inspections for five facilities	0	6	2	5	3

Source: Office of the Auditor, based on information from Solid Waste Section files.

As established in Section 342H-6, HRS, the department has the right to enter and inspect any facility, building, or place to investigate an actual or suspected source of solid waste pollution. These inspections are essential in determining compliance with any solid waste rule or standard adopted by the department or listed in the permit.

According to departmental enforcement procedures, large facilities should be inspected once or twice a year, and smaller facilities (transfer stations, convenience centers, and recycling facilities) should be inspected less frequently or as needed.

Although there is no set standard regarding the frequency of inspections for smaller facilities, it appears that inspections were also infrequent between 1998 to 2002. For example, in 2001, the department conducted only seven inspections out of the 45 facilities we reviewed, as indicated in Exhibit 2.2.

Furthermore, when the department did conduct an inspection, the inspection reports indicated follow-up was needed on possible violations of the permit conditions. Although follow-up inspections would have helped identify both new and recurring violations, in many cases such inspections were not conducted.

A supervising engineer acknowledged the branch not only does not have the opportunity to conduct as many inspections as preferred, it does not even have an inspection schedule as required by departmental procedures. One staff member attributed lack of inspections to the shortage of inspectors (environmental health specialists). Although the department has the funding to fill three inspector positions, at the time of our audit only two were filled.

**Exhibit 2.2
Frequency of Transfer Stations, Recycling Facilities, and Convenience Center
Inspections, FY1998 to FY2002**

Inspections (Smaller Facilities)	FY1998	FY1999	FY2000	FY2001	FY2002
10 Transfer stations	4	6	4	4	8
19 Recycling facilities	0	2	3	3	1
16 Convenience centers	<u>7</u>	<u>8</u>	<u>1</u>	<u>0</u>	<u>8</u>
Total number inspections for 45 facilities	11	16	8	7	17

Source: Office of the Auditor, based on information from the Solid Waste Section files.

Inspections are the most critical step in the enforcement process. Without them, it is difficult for the department to ensure facilities are complying with federal, state, and administrative rules, thereby protecting the health and safety of the environment and public.

***Enforcement has not
been pursued***

The Office of Solid Waste Management and the Solid Waste Section were created to oversee and regulate solid waste in Hawaii. Laws that govern solid waste were created to protect citizens from improper solid waste practices, environmental pollution, economic loss, and irreparable harm to public health, safety, and welfare.

In 1996, we found that the department had problems enforcing regulations. Today we found the department still fails to take appropriate enforcement actions when violations are found, thereby falling short in its duty to the public. Our review found several instances where facilities were allowed to operate without permits, and numerous instances where required reports were late or not submitted at all.

Under Section 342H-7, HRS, the department may take enforcement action against any person or facility violating solid waste pollution regulations or permit conditions. The department can issue a notice for corrective action, letter of concern, warning letter, or notice of violation order. Although Section 342H-9(a), HRS allows civil penalties of up to \$10,000 a day for each separate solid waste offense (each day constitutes a separate offense) to be imposed, the department has not pursued many penalties.

Facilities are operated without permits

Between 1998 and 2003, ten out of the 45 (22 percent) facilities regulated under state laws we reviewed were, or had been, operating without having submitted an application prior to their permit expiration, as required by law. The department could have issued notices of violation for these ten offenses, leading to a minimum of \$100,000 in fines. However, we found no such notices for the ten facilities.

Required reports are not submitted

Each facility is required to submit reports as stated in its permit. For example, all solid waste facilities must submit annual operating reports; landfills are required to submit semi-annual or annual ground water reports and quarterly tonnage reports. However, we found the department has not been enforcing these reporting requirements.

The department failed to collect 171 of 353 (48 percent) reports between 1998 and 2002 from the 50 solid waste facilities in our review. In several instances, reports that should have been submitted annually were submitted collectively in 2003. Yet the department did not penalize any of the facilities for noncompliance or the late submittal. There were also instances where facilities submitted reports but the department either lost or was unable to locate them during our review.

A section planner acknowledged there is no tracking system for reports nor does the branch ask for reports if they are not turned in on time. Staff felt that other duties were more immediate and took priority.

Annual training has not been provided

Annual training for municipal solid waste operators has not been provided as required by Section 342G-63, HRS. This section allows the department to use moneys from the environmental management special fund to provide annual training for municipal solid waste operators in compliance with 40 Code of Federal Regulations Part 258 and Chapter 11-58, HAR.

Landfill operators and staff from four counties agreed that the department does not provide annual training, although some said they would like to see more training offered. At the time of our audit, the department could not provide evidence that training actually took place in previous years but was planning some for landfill operators by the end of 2003. A section engineer who helps coordinate training believes that a lack of time and resources contributes to the deficiency in training.

The department did not monitor, enforce, or ensure county plans were developed and revised in a timely manner

The Department of Health has failed to ensure compliance with planning requirements established by Chapter 342G, HRS. The chapter establishes the department as responsible for planning, enforcing, coordinating, and supporting statewide solid waste programs and laws. However, the department and counties have not met timelines set forth in the chapter, resulting in noncompliance with implementation and revision requirements. Inadequate funding has also made implementation and enforcement efforts difficult for the department to achieve. Moreover, the department does not enforce penalties for noncompliance and fails to sufficiently communicate statutory requirements to the counties.

County solid waste plans were submitted late

Chapter 342G, HRS, requires the department and each county to compile an integrated solid waste management plan that outlines future actions for achieving effective solid waste programs. However, the department did not ensure that counties' planning documents were developed on a timely basis as mandated by statute.

The original state plan was completed in March 1991 to meet federal regulations and was intended to guide the counties in developing their own solid waste plans. The deadline to submit the county plans was two years later, in January 1993; however, every county took more than three years to submit an original solid waste management plan. One county took about four years to complete its original plan. Exhibit 2.3 illustrates submittals of county solid waste management plans.

The county solid waste plans should have been revised by July 1, 1995 and again by July 1, 2000. Only Hawaii County submitted a revised plan, but even this was seven years late. However, because the department failed to ensure county planning documents were revised on a timely basis, counties now lack up-to-date solid waste management plans to guide the effective development and implementation of their solid waste programs.

County plans are outdated and not properly monitored

The counties do not have adequate guidance or support for solid waste management planning and continue to operate with outdated plans that are not properly monitored and that do not ensure county goals are achieved.

The department has not actively ensured that counties update their integrated solid waste management plans and does not formally communicate or enforce plan revisions. Instead, the department works with county directors only as needed, on a case-by-case basis. For example, Hawaii, Honolulu, and Maui counties have never received

**Exhibit 2.3
County Integrated Solid Waste Management Plan Submissions and Deadlines**

County	HRS Deadline (Original Plan)	Date Original Plan Submitted	No. Years Late	HRS Deadline (Revised Plan)	Date Revised Plan Submitted	No. Years Late
Hawaii	January 1, 1993	October 5, 1994	1.8	July 1, 1995	2002	7
Honolulu	January 1, 1993	March 1995	2.2	July 1, 1995	None	>8
Kauai	January 1, 1993	April 4, 1994	1.3	July 1, 1995	None	>8
Maui	January 1, 1993	June 1994	1.4	July 1, 1995	None	>8

Source: Office of the Auditor based on Solid Waste Section data

correspondence from the department regarding upcoming or late deadlines, and both Hawaii and Honolulu counties indicated they do not currently coordinate with the department to revise their plans.

The department has placed a low priority on completion of solid waste planning documents. As long as counties inform the department they are working on plans, the department does not take action. For example, Kauai County verbally informed the department it was updating its 1994 integrated solid waste management plan; since then, the department has not communicated that penalties for late plans are enforceable and has continued to allow the county to delay completion of its plan.

The department failed to adequately provide funding for plan revisions

Although the Department of Health is responsible for providing funding for integrated solid waste management plans, it has failed in its duties. The State and counties still have insufficient funding to revise their plans. The State appropriated around \$125,000 to each county to develop initial county plans, but that money covers only about half the total cost to complete the plans.

For instance, Honolulu County contacted the department one year prior to submittal of the revised plan (in 1995) to request funds. The department indicated there was no money available. Nevertheless, two years later, the department required the county to submit a revised integrated solid waste management plan. The county informed the department that funding had not been provided for revision, and again did not receive funding. Because the counties lacked adequate funding to revise the outdated original plans, they must plan for revision in their budgets.

Funding for planned revisions is available within the department's expenditure ceiling, but the department did not give priority to completing solid waste plans. It focused instead on county operations and relied on verbal reports of developments and strategies for meeting county goals. It now plans to fund counties' revisions beginning July 2004.

One of the most significant problems arising from the department's failure to ensure county plans are updated is the lack of current, reliable estimates regarding landfill capacities. As illustrated by recent events surrounding the Waimanalo Gulch Landfill and as discussed later in this report, a sense of urgency should drive the department to find methods and alternatives for dealing with what could result in a solid waste crisis.

The Department of Health Does Not Have Current and Reliable Estimates of Remaining Volume Capacities and Expected Operating Lives for Landfills

We found that the Department of Health lacks current and reliable estimates of remaining volume capacities and expected operating lives for landfills. The department could not provide justifiable estimates of volume capacities or remaining operating lives for any of Hawaii's 13 landfills. Although we were provided estimates of remaining operating lives for 11 landfills, we were told they were from various unnamed sources and unsupported by hard data.

Chapter 342G, HRS assigns statewide duties for oversight and planning of solid waste programs to the Office of Solid Waste Management. These responsibilities include identifying and monitoring environmental and public health issues relating to solid waste management, reviewing county integrated solid waste management plans, and preparing revisions to the state integrated solid waste management plan. A critical component of solid waste systems is the set of county landfills. Thus, the Office of Solid Waste Management should know the current and remaining capacities of landfills in the state to properly plan for future landfill siting.

We also searched the department's administrative files for estimates of remaining volumes and operating lives supported by field measurements (topographic surveys), data, solid waste permit applications, and landfill operational manuals required by solid waste permits. We found estimates supported by credible data for only three of the 13 landfills.

The department's estimates are inaccurate, unreferenced, and unsubstantiated

Compounding the lack of information in its files, the department does not have updated information on landfill capacities in existing plans. The most recent departmental information dates to 2000. Estimates of remaining volume capacities and expected operating lives were reported in *Hawaii 2000, Plan for Integrated Solid Waste Management*, the health

department's most recent integrated solid waste management plan for the state. But that document does not contain detailed references or other data to support reported estimates. We cannot comment on the accuracy of those estimates. Although there are no statutory or administrative requirements for the department to provide detailed references, industry practice encourages technical professionals to cite sources of data.

The counties have reported estimates of remaining volume capacities and expected operating lives in their integrated solid waste management plans and environmental impact statements for new county solid waste management facilities. However, those documents also do not contain detailed references or other supporting data. Moreover, although the County of Hawaii's plan was updated in 2002, none of the integrated solid waste management plans for other counties have been updated for more than eight years, making the information outdated and of little use. The department's oversight appears questionable.

***Current and reliable
landfill capacity
estimates are available***

Despite the department's inability to do so, we were able to locate current and reliable landfill capacity estimates. Upon our request, all four counties or their landfill operators provided estimates of volume capacities and expected landfill lives based on recent field measurements (topographic surveys), several years of recorded weights of waste crossing the scales at the landfills (weight records), and projections of future waste streams considering population growth and other expected changes. The department could have easily obtained this information by contacting the counties in the same manner we did.

The department's estimates for remaining capacities at Kekaha Phase II Landfill on Kauai, Waimanalo Gulch Sanitary Landfill on Oahu, Central Maui Sanitary Landfill, and South Hilo Landfill are two, six, one, and one year(s) compared with recent county estimates of two, eight, one, and three years, respectively. The department also estimates the remaining capacity at West Hawaii Landfill as 50 years compared to the county estimate of 42 years. Exhibit 2.4 shows estimated capacities of selected landfills around the state (expressed in years from 2003).

Waimanalo Gulch Sanitary Landfill has enough permitted volume capacity for eight years (about 2011). However, the facility's solid waste permit expires in 2008, and the special use permit from the state Land Use Commission (Docket No. SP87-362) does not allow it to receive additional waste beyond May 1, 2008. The special use permit also contains requirements that, if not met, cause the permit to immediately expire, namely:

**Exhibit 2.4
Remaining Landfill Capacities in Hawaii**

County	Landfill	Unsupported estimates from Office of Solid Waste Management	Estimates from <i>Hawaii 2000 Plan for Integrated Solid Waste Management</i>	Estimates from latest County Integrated Solid Waste Management Plans	Estimates from Environmental Impact Statements	Latest estimates from counties or landfill operators
Kauai	Kekaha Phase II Sanitary Landfill	<2	2	-	-	2
	Princeville Landfill	-	-	-	-	-
Honolulu	Waimanalo Gulch Sanitary Landfill	6	12	0	5	8
	PVT Construction and Demolition Landfill	20	12	-	-	-
	Marine Corps Base Hawaii, Kaneohe Bay	20	22	-	-	14
Maui	Central Maui Sanitary Landfill, Maui	1	27	0	3	1
	Maui Demolition Construction Landfill, Maui	10	12	-	-	-
	Hana Sanitary Landfill Maui	3	52	1	-	40+
	Naiwa Landfill Recycle, Molokai	10	17	-	-	15
	Lanai Sanitary Landfill Lanai	-	5	-	-	50+
Kalawao	Kalaupapa Landfill	5	17	-	-	-
Hawaii	South Hilo Landfill	<1	1	1	2	3
	West Hawaii Sanitary Landfill	50	22	39	12	42

Note: Hyphen indicates information was not available

Source: MACTEC compilation based on personal communications, state and county integrated solid waste management plans, and environmental impact statements.

1. The City and County Blue Ribbon Site Selection Committee must recommend a new landfill site by December 1, 2003; and
2. The City Council must select a new landfill site by June 1, 2004.

On December 1, 2003, the Blue Ribbon Site Selection Committee identified four potential sites from 44 possible sites and made its recommendations to the City Council. After some controversy regarding excluding Waimanalo Gulch Landfill as a potential site, the committee recommended Kapaa Quarry in Kailua and three Leeward locations (Makaiwa Gulch, Nanakuli B, and a quarry in Maili) as possible future Oahu landfill sites. However, during our audit, the City Council had not decided on the specific location for the next landfill. These events in selecting landfill sites exemplify the difficulties the State faces with regard to solid waste management.

Recommendations

1. The Department of Health should fulfill all of its responsibilities under Chapter 342G and Chapter 342H, HRS, by:
 - a. Inspecting facilities on a regular basis;
 - b. Developing a training program for landfill operators, as well as its own employees;
 - c. Ensuring that the state and county integrated solid waste management plans are revised and submitted as required;
 - d. Ensuring that required facility reports are submitted on time; and
 - e. Pursuing enforcement action when necessary.
2. The department should develop a database or other tracking system that will assist it in maintaining facility files, enforcing permit and report deadlines, and allowing for the easier and faster exchange of information within the department and between the department and the counties.
3. The department should also monitor remaining capacities of all landfills in the state through enforcement of solid waste permit requirements and enforcement of requirements for integrated solid waste management planning by the counties.
4. The department and the counties must initiate the process of siting, planning, and permitting a new landfill many years before the facility is actually needed.

Chapter 3

A Number of Policies and Issues Complicate Solid Waste Management

Senate Concurrent Resolution (SCR) No. 153, Senate Draft 1, further requested that our office study and report on other issues pertaining to state and county land use policies with regard to solid waste management programs. In this chapter, we report on the complex and lengthy process of landfill selection and other siting issues such as the Safe Drinking Water Act and environmental justice. Because we were unable to obtain a consultant to determine the adequacy of solid waste management fees, we instead provide information on the management of and fees charged for the use of landfills in the state.

Summary of Conclusions

We present conclusions rather than findings in this chapter since the information provided is primarily descriptive in nature.

1. The process of siting and establishing new landfills in Hawaii is complex and lengthy, and sustained effort is needed to satisfy requirements for land use policies, environmental impact statements, and various permits.
2. Other issues may be potentially related to landfill siting, depending on the situation.
3. Despite our being unable to assess the adequacy of fees charged for solid waste programs, we note that determining the adequacy of solid waste management fees is a controversial endeavor.

Establishing New Landfills Is Complicated and Needs Sustained Effort to Satisfy Numerous Requirements

The process of siting and establishing new landfills is complex and lengthy, and sustained effort is needed to satisfy the large number of requirements. Below we describe the various requirements and how they impact the process.

Land use requirements start the complex and lengthy process

Selecting a site for a new landfill, called siting, is a lengthy process that can take four to seven years. The following requirements must be met:

1. A special permit must be granted by the State Land Use Commission for either rural or agricultural land use districts, and
2. Use permits must be issued by the counties, and in most cases they also require:
 - a. a zoning change, and
 - b. a community plan amendment.

Exhibit 3.1 lists the State Land Use Districts and county zoning districts in which landfills are allowed.

**Exhibit 3.1
Land Use and Zoning Districts in Which Landfills Are Allowed**

LAND USE REQUIREMENTS				OTHER STATE PERMITS/APPROVALS
STATE LAND USE DISTRICTS IN WHICH LANDFILLS ARE ALLOWED				
<ul style="list-style-type: none"> • Urban (as determined by county zoning) • Rural (with Land Use Commission Special Permit) • Agricultural (with Land Use Commission Special Permit) 				<ul style="list-style-type: none"> • Environmental Impact Statement (if use of State funds or lands or a district boundary amendment from the conservation district is needed) • Department of Health Solid Waste Permit • Department of Health Covered Source Air Permit • National Pollutant Discharge Elimination System Permit (Federal permit administered by Department of Health)
COUNTY ZONING DISTRICTS IN WHICH LANDFILLS ARE ALLOWED				
KAUAI	OAHU	MAUI	HAWAII	OTHER COUNTY PERMITS/APPROVALS (all counties)
<ul style="list-style-type: none"> • Limited Industrial • General Industrial (both with a Use Permit)	<ul style="list-style-type: none"> • Preservation-2 • Agricultural-2 • Industrial-2 • Industrial-3 (all with a Conditional Use Permit)	<ul style="list-style-type: none"> • Agricultural (with a Special Use Permit)	<ul style="list-style-type: none"> • Agricultural • General Industrial 	<ul style="list-style-type: none"> • Environmental Impact Statement (if use of County funds or lands or a community plan amendment is needed) • Community Plan Amendment (if not already designated on the Community Plan or if zoning does not match) • Special Management Area (if in SMA) • Grading & Building

Source: PBR-Hawaii compilation based on Chapter 205, Hawaii Revised Statutes, and county codes.

Special permits and environmental impact statements add to the length of the process

In addition to proper land use designations, specific permits and environmental impact statements add to the lengthy process. Permits required for landfills include the:

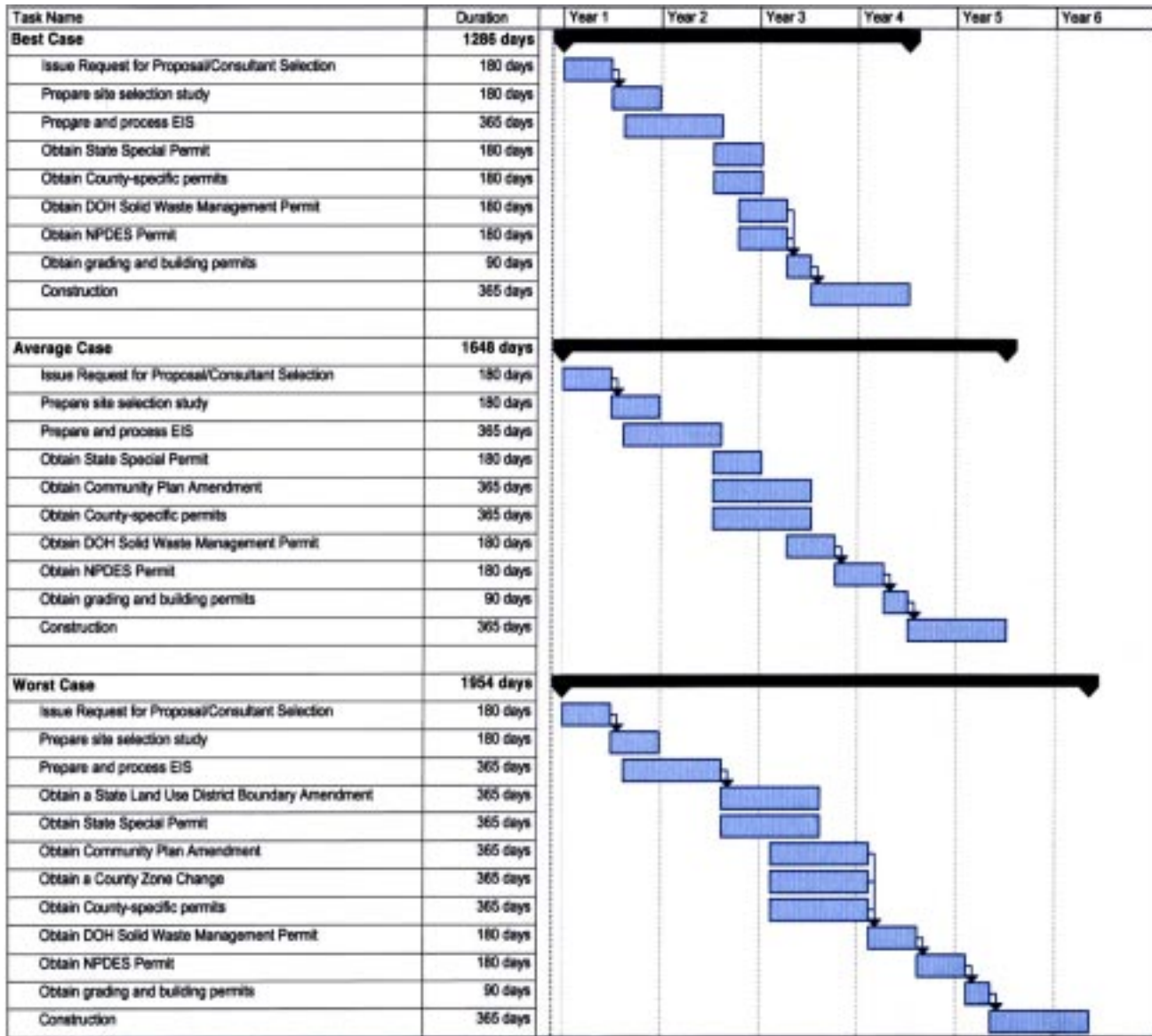
- State of Hawaii Department of Health, Solid Waste Management Permit;
- State of Hawaii Department of Health, Covered Source Air Permit; and
- National Pollutant Discharge Elimination System (NPDES), Notice of Intent (NOI) for Discharges of Storm Water Associated with Industrial Activities.

Environmental impact assessments are also needed. The potential impacts of a landfill necessitate the preparation and processing (including a public comment period) of an environmental impact statement for proposed sites.

New landfills take four to seven years to establish

We estimate the time it takes to establish a new landfill can take from four to seven years. Excluding legal challenges, the time required to obtain all permits and land use designations can still vary depending on a potential site's location and existing land use designation. Exhibit 3.2 shows best, average, and worst case schedules for establishing a landfill.

Exhibit 3.2
Best, Average, and Worst Case Schedules for Establishing A Landfill



Source: PBR-Hawaii compilation based state land use law, county zoning codes, administrative rules, and professional experience

Other Issues Are Potentially Related to Landfill Siting

Safe Drinking Water Act programs do not restrict landfills siting

The resolution asked us to review a number of additional issues, some of which are only indirectly related to landfill siting. However, we present the following discussion for the Legislature's information.

Several provisions of the Safe Drinking Water Act are aimed at protecting sources of drinking water from contamination. However, the act does not restrict the siting of landfills. For instance, Title 40 of the Code of Federal Regulations, Part 144.12 authorizes the director of the U.S. Environmental Protection Agency to take emergency action upon receipt of information that a contaminant is likely to enter an underground source of drinking water and may present an imminent and substantial danger to the public's health. Theoretically, the director could take action if the siting of a landfill were construed to present such a danger. However, the scenario would be unlikely because U.S. landfill regulations protect against groundwater contamination.

Other provisions of the act also have nominal relation to landfills:

- The Safe Drinking Water Act established the Underground Injection Control Program, which mandates that states control the injection of *liquid waste* into groundwater. One feature of this program is the establishment of boundaries between areas overlying aquifers with drinking quality water and those that do not overlie such areas. These lines have been established for all of the islands in the State of Hawaii.
- Under 1986 amendments to the Safe Drinking Water Act, state water suppliers are required to develop wellhead protection programs to protect public water supply wells from harmful contaminants. The Hawaii Wellhead Protection Program received approval in 1995.
- The 1996 amendments to the Safe Drinking Water Act introduced the Source Water Assessment Program to assess vulnerability to contamination of drinking water sources. The purpose of the program is to identify potential locations to reduce the risk of contamination to drinking water. The Hawaii Source Water Assessment Program was scheduled to be completed by the University of Hawaii in late 2003. Hawaii does not have a Source Water Protection Program.
- Section 1424(e) of the Safe Drinking Water Act authorized the Sole Source Aquifer Protection Program. The EPA defines a sole or principal source aquifer as an aquifer which supplies at

least 50 percent of drinking water consumed in the area overlying the aquifer. Two sole source aquifers have been designated in Hawaii, the Southern Oahu Basal Aquifer and the Molokai Aquifer.

When making decisions about siting landfills, the department may use the Safe Drinking Water Act programs to restrict the siting of landfills. However, that is not the primary purpose of the Underground Injection Control, sole-source aquifer, or wellhead protection programs.

The department and counties comply with environmental justice requirements

Environmental justice issues are becoming more prominent nationally. We found the department is duly concerned about environmental justice and its application in Hawaii, and that its employees are knowledgeable about the concept.

The Legislature has raised concerns about environmental justice, particularly in relation to landfills in the state. Specifically, the Legislature is concerned that some communities shoulder more than their fair share of landfills because of lack of political or economic power. The EPA's definition of environmental justice is:

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

The department developed an environmental policy document

In January 2002, the Department of Health approved an internal environmental justice policy document based on the EPA's definition. The policy statement lists the department's environmental justice goals, including education of its staff, cooperation with other federal, state, and local agencies, and encouragement of public involvement in the department's activities and operations. That policy statement, along with Chapter 11-58.1, HAR, provides a basis for the department's approach to environmental justice in Hawaii.

We note that the department complies with Chapter 343, HRS and Chapter 11-58.1, HAR. According to the branch chief, solid waste employees are all familiar with public notice and hearing requirements because of their involvement in the permitting process. The department also offers workshops to supervisors during which they review case studies from other states and the EPA and discuss how other communities have dealt with environmental justice issues. Overall, the department is aware of the importance of environmental justice and has formulated its own policy for incorporating the concept into its

programs. The department should continue to educate both its employees and the public about its activities and all opportunities for public involvement.

Both the department and counties comply with public notice requirements

According to Section 11-58.1-12, HAR, the Department of Health is responsible for ensuring that the public receives notice of, and is given at least 30 days to comment on, permit applications for new landfills and renewals or modifications of existing landfills. Specifically, a form is completed by the department and submitted to the county for issuance in the local newspaper or other media outlet.

Our review of state and county landfill files showed the department has prepared required public notices for the County of Kauai and the City and County of Honolulu and that the counties have placed these notices in appropriate media outlets. Other landfills have not applied for new permits since the effective date of the rules.

The department may also choose to schedule a public hearing if public comments indicate one is warranted. Typically, the department assumes a public meeting will be warranted and issues notice for the meeting at the same time as the permit notice.

Not issuing required public notices would cause the public to be uninformed of action on solid waste facilities that could affect people's health or environment. Because of this, it is important the department continue to assist counties in issuing required public notices, maintain records of public notices, and provide regular training opportunities for both supervisors and employees who will be involved in the permitting process. The Department of Health's Solid and Hazardous Waste Bureau must ensure the public has the opportunity to participate in solid waste management planning and permitting processes.

We also note that counties are meeting the requirements of Chapter 343, HRS, which state that the public must be notified of all completed Environmental Impact Statements and Environmental Assessments. Based on our landfill file review and interviews with county officials, counties are aware of the public participation requirements of Chapter 343, HRS and are meeting these requirements.

Determining Adequacy of Solid Waste Management Fees Is Controversial

Fee amounts vary by county

We attempted to engage a consultant to assess the adequacy of fees charged for landfill use but were unable to obtain one to complete this objective. Therefore, we provide a brief narrative describing solid waste management fees and their surrounding controversy.

The method of fee determination is generally the same regardless of county: each county passes an ordinance that sets the fee amount or tipping fee. Disposal fees are “tonnage” fees charged for dumping trash at a landfill facility and are used to cover landfill operational costs. Residential user fees are charged for home (residential) pick up. When determining the tipping fee, both operational costs and political feasibility are taken into account. Fee amounts are dependent, then, on factors like type of services provided (e.g., curbside collection and disposal, disposal only, or extras like recycling or composting) and whether or not the county subsidizes its solid waste program with general county taxes. Differences in tipping fees across counties are shown in Exhibit 3.3.

Exhibit 3.3 Solid Waste Management Tipping Fees by County

County	Fee
Honolulu	\$ 72.25 per ton
Kauai	\$ 56.00 per ton
Maui	\$ 47.00 per ton
Hawaii*	\$ 45.00 per ton

*The County of Hawaii’s fee will increase by \$10 per year until 2007 when it reaches \$85 per ton.

Source: County Ordinances

The County of Hawaii has the lowest tipping fee, and it is the only county that does not provide curbside collection—all residents must take their garbage to the landfill or a transfer station. On the other hand, the City and County of Honolulu has the highest tipping fee and it includes curbside collection and other services like recycling centers and H-POWER.

Kauai county has detailed calculations to determine its fee amount

The County of Kauai provided us with detailed calculations for its fee structure. They include calculating:

1. The estimate of the total tonnage received at its landfill in an average year,
2. The total operating expenses for the landfill,
3. The estimated commercial burden on the landfill for both tonnage and expenses, and
4. The commercial expenses divided by the commercial tonnage to reach \$56 per ton.

Residential expenses not covered by this fee are funded through the general fund subsidy. If commercial fees supported all solid waste operating expenses, the amount would be \$90 per ton.

Maui county also has detailed calculations

The County of Maui calculates operating, land, construction, closure, post-closure monitoring and maintenance, and administrative costs in order to determine its tipping fee. The county also calculates its total landfill tonnage and divides total costs by total tonnage to determine how much to charge per ton. The final fee decision is left up to the County Council, but the Solid Waste Division recommends a calculated tipping fee to the council. Additionally, the general fund subsidizes approximately 30 percent of solid waste tonnage, which is residential waste and is not charged a tipping fee.

Honolulu city and county uses H-POWER calculations to determine minimum tipping fee

The City and County of Honolulu bases its tipping fee on the amount of money needed to balance the H-POWER independent enterprise account. The county calculates all revenues and expenditures of H-POWER, subtracts them to find the difference, and divides the difference by the annual tonnage to calculate the minimum tipping fee needed to balance the account. The City Council sets the final tipping fee with this minimum in mind.

A final note: the tipping fee for Waimanalo Gulch would be lower than H-POWER if calculated, but a policy decision was made to make the fees the same. Otherwise, there would be no incentive to take waste to H-POWER, and the landfill would reach its capacity much sooner.

Photo 3.1
City and County of Honolulu's H-POWER



H-POWER is located at Campbell Industrial Park in Kapolei and is designed to handle in excess of 2,000 tons of municipal waste per day, providing about 6 percent of Oahu's power needs.

Hawaii county could not provide calculations for determining its fee amount

The County of Hawaii passed an ordinance earlier this year to increase its fee from \$35 to \$45 per ton. The county was unable to provide us with information on how the original \$35 per ton fee was determined. The \$10 per year increases over the next four years represent the county's effort to move towards funding half of the department's costs with fees and the other half through the general fund subsidy. This arrangement would be more representative of a desired 50-50 commercial-residential levels of solid waste disposed of in the landfill. Therefore, the general fund subsidy would pay for residents and the commercial sector would pay for itself.

Fee amounts are a controversial issue

The other reason for fee variation among the counties is the nature of the controversial issue. Some counties, like Kauai and Hawaii, choose to subsidize their solid waste programs with general fund revenues. Honolulu, on the other hand, is trying to fully fund its solid waste program through its tipping fee. It will be difficult for counties to increase their commercial fees or start collecting fees from residents because of political ramifications.

Counties should consider implementing and increasing fees over time to reduce the expected voter backlash. According to a user fee study conducted by R.W. Beck, Inc. for the City and County of Honolulu, there are advantages and disadvantages to implementing a solid waste user fee,

as seen in Exhibit 3.4. As counties move forward, they will have to consider these points because it appears likely solid waste expenses will continue to rise, and counties will eventually need to consider alternate funding sources for their solid waste programs.

**Exhibit 3.4
Advantages and Disadvantages of Solid Waste User Fees**

Advantages	Disadvantages
<ul style="list-style-type: none"> • User fees send price signals that solid waste collection and disposal are not free. • User fees are an alternate revenue source. • User fees provide more equitable funding because fees are based on services provided, not property value. 	<ul style="list-style-type: none"> • Potentially high administrative and billing costs. • Perception by public as a new tax. • Fixed user fees do not encourage waste reduction (i.e., when there is same fee for 1 bag or for 8 bags of garbage).

Source: *Long-Range Financial Plan and Solid Waste User Fee Study* (R.W. Beck, April 1999)

**Overall
Conclusion**

Although the Department of Health is faced with the complex and technical issues of managing the statewide comprehensive solid waste management program, it has not fulfilled its responsibilities to the public and the environment. We note the lengthy process of landfill selection and other siting requirements delay the development of new landfills. Despite these challenges, the department has the responsibility to the residents of Hawaii of protecting their health and environment and should intensify its efforts to carry out those duties.

We found that the department’s solid waste programs have not made significant improvements from our previous audits. In fact, since our first audit of the department’s solid waste activities ten years ago, very few, if any, improvements have been made. Given the growing pressure to find alternatives to current solid waste management practices, the department should heed this audit as a call to action. The state is facing a potential solid waste crisis, and the department is responsible for ensuring that such risks are minimized to protect the safety of the public and environment.

This page intentionally left blank.

Responses of the Affected Agencies

Comments on Agency Responses

We submitted draft copies of this report to the Department of Health and each of the four counties on January 9, 2004. A copy of the transmittal letter to the department and the counties is included as Attachment 1. The department's response is included as Attachment 2. All counties, except for Kauai County, provided responses. The responses from Honolulu, Hawaii, and Maui counties are included as Attachments 3, 4, and 5, respectively.

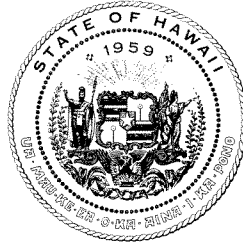
The Department of Health agrees that there are problem areas in its solid waste program that it is working to improve. However, it disagrees with parts of the audit and asserts that the audit is misleading in some respects. Additionally, the department expressed disappointment in what it felt were areas that it would have liked presented in the report. For example, the department stated that it was "very disappointed" that the audit did not address all of its objectives and did not provide any recommendations that the department felt were useful for the department to execute its duties, or for the other agencies involved with the siting of new landfills. The responding counties took issue with some of the findings and recommendations, but largely provided additional information they felt would clarify some of the points raised in the report.

Both the Department of Health and the responding counties focused on funding issues as a means to explain some of the shortcomings discussed in the report. Although a lack of funding may be partly to blame, we emphasize that the department must run its operations in a more organized manner so it can better carry out its duties. The department must also take a stronger lead in coordinating its efforts with the counties and other state entities involved with solid waste issues.

Finally, both the department and the responding counties provided additional information and points of clarification, some of which was included in the final report upon discussion with our consultant.

ATTACHMENT 1

STATE OF HAWAII
OFFICE OF THE AUDITOR
465 S. King Street, Room 500
Honolulu, Hawaii 96813-2917



MARION M. HIGA
State Auditor

(808) 587-0800
FAX: (808) 587-0830

January 9, 2004

COPY

The Honorable Chiyome L. Fukino
Director of Health
Department of Health
Kinau Hale
1250 Punchbowl Street
Honolulu, Hawaii 96813

Dear Dr. Fukino:

Enclosed for your information are three copies, numbered 6 to 8, of our confidential draft report, *Audit of the Department of Health's Administration of A Statewide Solid Waste Program and Assessment of Related Land Use Policies*. We ask that you telephone us by Tuesday, January 13, 2004, on whether or not you intend to comment on our recommendations. If you wish your comments to be included in the report, please submit them no later than Friday, January 16, 2004.

The City and County of Honolulu, County of Hawaii, County of Maui, County of Kauai, Governor, and presiding officers of the two houses of the Legislature have also been provided copies of this confidential draft report.

Since this report is not in final form and changes may be made to it, access to the report should be restricted to those assisting you in preparing your response. Public release of the report will be made solely by our office and only after the report is published in its final form.

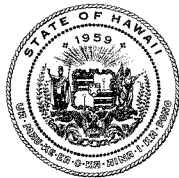
Sincerely,

A handwritten signature in cursive script, appearing to read "Marion M. Higa".

Marion M. Higa
State Auditor

Enclosures

LINDA LINGLE
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
File:

January 16, 2004

Ms. Marion M. Higa
State Auditor
Office of the Auditor
465 South King Street, Room 500
Honolulu, Hawaii 96813-2917

RECEIVED
JAN 20 9 01 AM '04
OFF. OF THE AUDITOR
STATE OF HAWAII

Dear Ms. Higa:

Thank you for the opportunity to comment on your *Audit of the Department of Health's Administration of A Statewide Solid Waste Program and Assessment of Related Land Use Policies*, which we received on January 9, 2004. We agree that there are problem areas in our Solid Waste Program that we are working to improve. However, we disagree with parts of the audit and find that the audit was misleading in some respects. We would like to respond to some of the major issues identified in your report.

The department's solid waste program:

- 1) is working on improvements;
- 2) is in fact protecting public health and the environment by focusing on open dumps, which the audit does not address;
- 3) has only \$500,000 per year from the Environmental Management Fund for the solid waste program, not the millions that the audit asserts;
- 4) monitors landfill capacity; and
- 5) is not responsible for landfill siting.

We are also very disappointed that the audit did not address all of its objectives and did not provide any recommendations that are useful to the program in executing its duties, or to the other agencies involved with the siting of new landfills.

1. The Department is Working on Improvements

The program has been developing a new computer tracking system that should help track permit and report requirements for facilities that the program regulates, among other things. The department will soon start an information system improvement

project that will include program process improvements and better coordination with other programs. The department will review the options for getting inspection help for the program.

2. The Department Protects Public Health and the Environment

Contrary to the audit's assertion, the department does protect public health and the environment. This statement implies that it performed a complete evaluation of all program activities. The audit, however, was limited to a small portion of the solid waste program's total responsibilities. For example, there was no discussion of the program's concerted efforts to address complaints or its enforcement against illegal operations such as open dumps. There is a greater potential for harm at these open dumps through the release of unmanaged contaminants into the environment than at many permitted facilities. In addition, the audit looked at only a fraction of the solid waste facilities regulated by the department. This resulted in the limited examination of 101 facilities without recognizing that the department currently regulates approximately 270 facilities.

The Department Performs Monitoring and Enforcement

The audit's review was limited in evaluating the program's monitoring and enforcement responsibilities. The audit examined the compliance inspections of less than 20% of permitted solid waste facilities, ignoring all complaint inspections and their related enforcement actions. Because the solid waste program currently has just two inspectors for the entire state, the program has prioritized its use of resources. The department's policy is to respond to all complaints received. Additionally, the program's current enforcement priority is of illegal facilities, including open dumps. We believe that there is a greater potential for harm at these illegal sites than at those facilities the auditors considered.

Complaints Received

FY	98-99	99-00	00-01	01-02	02-03	03-04
	183	186	158	192	165	164*

*July through December 2003

Enforcement Actions

FY	98-99	99-00	00-01	01-02	02-03
Formal	no data available	6	8	6	5
Informal	no data available	44	52	70	41

Beginning FY1999-2000, data collection increased to include, among other items, the

number of enforcement actions taken. Based on the number of complaints received, the department's monitoring and enforcement efforts have been focused on complaints and illegal facilities. Prior to FY2000-2001, and since mid-FY2002-2003, the program has been operating primarily with only two solid waste inspectors. The audit noted that the inspector vacancy could have been filled with the available funding; however, the program is currently under a hiring freeze due to the state's financial situation. In addition, the funding available is not as abundant as stated by the audit, which poses additional problems.

The Department Permits More Facilities Than the Audit Considered

The audit states that the department permits landfills, incinerators, transfer stations, convenience centers and recycling facilities, and that 50 of 101 solid waste facilities were reviewed. In reality, the solid waste program also regulates recycle drop-off, salvaging, composting, remediation, and special waste facilities such as landfills and medical waste and foreign waste treatment. We currently have approximately 270 facilities rather than 101 cited in the audit. A distribution of the types of facilities that the program permits are listed below. This list contains only active facilities and does not include sites pending closure or closed landfills.

Active Solid Waste Facilities

Facility Type	Number Reviewed by Auditor	Total Permitted or Application Received
Landfills (MSW, C&D, Inert, Special Waste)	5	14
Incinerators	1	1
Transfer Stations	10	10
Convenience Centers	16	43
Recycling	19	50
Recycling Drop-off	0	99
Salvaging/Storage	0	22
Composting	0	22
Remediation	0	2
Medical/Foreign Waste Treatment	0	8
Total:	51	271

The audit's limited review of our solid waste permitting activities did not include an evaluation of the number of applications received versus the number of permits issued. The following tables illustrates more accurately the program's overall accomplishments regarding permit issuance.

Applications Received and Permit Issuance

FY	98-99	99-00	00-01	01-02	02-03
Applications Received	58	73	85	48	47
Permits Issued	25	11	62	69	44

Permit Related Correspondences
 (i.e. Request for Information, Incomplete Applications, etc.)

FY	98-99	99-00	00-01	01-02	02-03
	79	28	24	48	99

Significant items to note during this time period is that we filled one engineer vacancy during FY2000-2001, and had another engineer vacancy between late FY01-02 and mid-FY02-03. Based on this data, the Solid Waste Program has shown significant improvement in permit application response. It is also important to note that permit applications are often received incomplete, which extends the permit issuance date, often beyond 180 days; not all permit applications result in permit issuance.

In addition to reviewing and issuing permits, our permitting staff is also responsible for overseeing facility closures, and providing technical assistance to the regulated community and the general public. Many of these activities are unrelated to permitted facilities.

The audit notes permit response requirements for other states are shorter than ours. However, the audit ignores the fact that these states have greater resources. For example, California has one engineer assigned to each landfill. Hawaii has one engineer assigned to all 13 active landfills and one incinerator, in addition to all of the closed landfills.

3. The Department has only \$500,000 per year from the Environmental Management Fund for the Solid Waste Program

The audit noted that the Solid Waste Program’s Environmental Management Special Fund (EMF) has three funding sources: 1) the solid waste disposal surcharge; 2) the glass advance disposal fee (ADF); and 3) the motor vehicle tire surcharge. **EMF does fund of the solid waste program; statewide education, demonstration and market development programs; and provide annual training for municipal solid waste operators. However, by only citing HRS 342G-63, as the authority to expend EMF funds, the audit ignored other statutory limits on use of the fund.** The audit should

have also pointed out that HRS 342G-84 requires the department to utilize revenues from the glass ADF to fund county glass recovery programs, and HRS 342I-29 requires the department to utilize the revenues from the motor vehicle tire surcharge to regulate the waste tire industry, develop waste tire markets, and cleanup illegal tire sites. This exclusion is terribly misleading with regards to the financial resources of the program.

Therefore, as further described in the following sections, the department has approximately \$500,000 per year to fund the majority of the solid waste program's administrative costs. This represents slightly more than 10% of the funds collected by the program in FY2002-03.

Solid Waste Management Surcharge

The audit states that solid waste facility owners and operators transfer quarterly surcharge collections to the department. However, HRS 342G-62 only requires disposal facilities to pay the surcharge. The surcharge is the primary funding source pays for the majority of Solid Waste Program expenses, including 10 positions, development of the state's integrated solid waste management plan, and funding to counties for their solid waste plans.

Tip Fee Surcharge Revenue

FY	1999	2000	2001	2002	2003
	\$509,481	\$449,885	\$527,968	\$506,775	\$511,870

Glass Advance Disposal Fee (ADF)

The state, through the department, collects the ADF, which is deposited into the EMF. One-and-a-half cents is collected for each glass container imported into the state. The funds are then distributed to the counties (as specified in statute) based on de facto population. Each county is then responsible for structuring its own glass recycling programs. This affords each county the needed flexibility in designing and operating programs that address their unique circumstances. In accordance with HRS 342G-84, the department may only expend up to 10% by aggregate on administrative or educational purposes for glass recovery.

Glass Advance Disposal Fee Program Revenue

FY	1999	2000	2001	2002	2003
	\$2,208,482	\$2,634,186	\$2,665,120	\$2,753,631	\$3,076,701

Motor Vehicle Tire Surcharge

Established under HRS Ch. 342I-27 in 2000, the Motor Vehicle Tire Surcharge Program assesses a \$1 surcharge on each motor vehicle tire imported into the state. The program took effect on October 1, 2000, and was originally intended to sunset on December 21, 2005. Since then, Act 191, Hawaii Session Laws 2002 was signed into law, and capped the amount the department is able to collect at \$3,000,000. Act 191 also required the department to waive collection of the \$1 surcharge whenever the funds collected exceeded the \$2,750,000 mark. This mark was reached on June 30, 2003. The fund's primary purpose is for the cleanup of illegal tire dump sites.

The department is currently managing a \$1.2 million contract to cleanup one of the largest known used tire piles in the state located in Maile on Oahu. The cleanup is scheduled to be completed by the summer of 2004. The department also provided funding to the counties to properly dispose of tires that were an issue during the Dengue Fever outbreak. Since January 1, 2000, the department received 46 tire-related complaints. For 33 of these sites, approximately 7,500 tires were removed and/or the complaints were resolved. The department is aware of other tire pile sites and is working with responsible parties in potential remedies before utilizing this fund.

Motor Vehicle Tire Surcharge Revenue

FY	2001	2002	2003
	\$897,463	\$1,093,517	\$1,091,047

4. The Department Monitors Landfill Capacity

The department does have knowledge of remaining landfill capacity. While the report states that the department didn't possess this information, the department did provide capacity information to the auditor's contractor. The information was accompanied with a caution that caveats should be given to the numbers, as estimates can change on a monthly to a weekly basis. The data provided to the contractor was provided to the department by the counties. The department has similar access to data that was gathered by the auditor directly from the counties.

The larger issue is the accuracy of existing landfill capacity estimates. The report cites the disparity of estimates culled from various sources for any given landfill. The table illustrating this point (Exhibit 2.4) provides an example of the complex nature of the deceptively simple concept of "capacity." First, there are different types of capacity estimates. Physical capacity refers to how much waste a given site may ultimately hold based on the owner/operator's long-term plan, while design capacity refers to how much capacity is available given the current design, which can be modified.

Many factors are considered when estimating the remaining capacity of a landfill. Estimates are affected by landfill operations (e.g. degree of compaction, type of daily cover, etc.), disposal rates, diversion activities, and natural disasters. All of these variables change over time resulting in changing estimates of remaining capacity. Finally, political factors may come into play in determining landfill capacity. Pressure to close an existing facility, or resistance to a proposed facility can affect the viability of a landfill, independent of physical or permitting considerations.

The Waimanalo Gulch Landfill is an example that brings many of these factors into focus. While the original landfill expansion provided for an additional 15 years of capacity, plans were revised down to a five-year capacity (the present permitted capacity). The permitted capacity was in effect established when Mayor Harris responded to strong community opposition by declaring that landfill operations at Waimanalo Gulch will cease in 2008.

To further illustrate the point, we note that as the landfill was reaching its previous permitted capacity limit, the landfill operator revised their full-capacity estimates numerous times during an eight month period. Operational factors, such as H-Power shutdowns, affected the volumes of waste handled at the landfill during that period.

5. The Department is not Responsible for Landfill Siting

The report is misleading in its recommendation that the state should initiate the landfill siting process well in advance of the actual need for new landfills. While the solid waste program is responsible for evaluating and permitting landfill sites and operations and receiving county plans, the responsibility of landfill siting lies primarily with the counties and/or private entities looking to construct the landfill. The department is able to provide technical assistance during the selection process to ensure protection of public health and the environment. The department does not have a statutory mandate to select specific landfill sites for the counties.

We acknowledge that regular updates of county Integrated Solid Waste Management (ISWM) plans would serve to facilitate regular evaluations of the county's solid waste management program and serve as the impetus for early planning of large scale projects such as a new landfill. We also agree that the submission of County's Solid Waste Management plans are not timely. The department has informally discussed this matter with the counties, who have previously stated that our requirement for such plans without funding is essentially an "unfunded mandate" and, therefore, unconstitutional.

In order to provide partial funding to the counties for development of ISWM plans, the program needs to save funds over several fiscal years. The program plans to provide the counties this partial funding this fiscal year. As discussed above, this funding can

only come from the solid waste management surcharge as these plan updates do not qualify for use of either glass ADF or tire surcharge funds. Because the audit did not identify the statutory limitations on the use of the EMF, the audit erroneously stated that the department has adequate funding to pay for these plan revisions.

The audit also said that the department should enforce its plan submission regulations to ensure the counties submit plans on time. However, such action is problematic considering the department cannot meet its financial obligations to the counties in a timely manner to avoid the unfunded mandate criticism. The department's actions are also limited by the fact that our previous requests for increasing the tip fee surcharge have been denied by legislature, with the City and County of Honolulu testifying that the department should not have its increase.

6. The Audit Could Have Been More Helpful

The department is disappointed that the auditor was not able to address all objectives established by the legislature's resolution requesting the audit. Senate Concurrent Resolution 153, SD1 primarily requests that the Auditor assess the adequacy of existing land use policies that are used to determine where landfills are sited. Five of the ten items that the legislature specifically requested the Auditor to look at were related to siting. We believe that this is the most important issue facing our state in terms of solid waste management. Instead of conducting an assessment and providing recommendations for improvement, the audit only acknowledges that "the process of siting and establishing new landfills in Hawaii is complex and lengthy..."

We already understand the complexity involved in siting a new landfill. A case in point is the Waimanalo Gulch Sanitary landfill. There is design and physical "capacity" remaining at the site as the original landfill expansion design was for 15 years. The City's decision to close the landfill in five years was not based on any Department of Health regulation. As noted in the audit, the Mayor's Blue Ribbon Committee selected Waimanalo Gulch landfill as the "best" site for the "new" landfill based on criteria the committee felt were important. But the committee later withdrew their selection after they found out that their selected site was the existing Waimanalo Gulch landfill. Now the City Council must choose a site.

The audit says that the department should enforce the requirements for county integrated solid waste management planning and initiate the process of siting, planning and permitting a new landfill many years before the facility is actually needed. This recommendation misunderstands who has the primary responsibility to site landfills and to plan for the county's solid waste management needs. We note that current landfill siting policies have not limited or defended the selection of sites to those that can be accepted by political leaders and affected communities. Therefore, to say that the department should enforce these planning issues without assessing the existing

Ms. Marion M. Higa
January 16, 2004
Page 9

planning polices is irresponsible. We sympathize that this is a difficult task; however, an independent assessment of these overarching policies and development of recommendations would likely benefit the state of Hawaii by providing the counties a stronger and perhaps an acceptable basis for their decisions.

Summary

The Department's Solid Waste Program, has made significant improvements in its permitting, monitoring, and enforcement activities and intends to make further improvements. Due to the short time given to us to respond to your audit, we did not provide all of our comments. However, we believe that the comments provided here give a greater understanding of our Program's responsibilities, problems and accomplishments. While we agree that there is much room for improvement, we strongly believe that we have made significant improvements since 1999, especially in the areas of permit and complaint response.

Given the state's current financial outlook, we will fulfill our responsibilities within our current resources and in accordance with our program priorities.

Should you have any questions regarding this letter, please feel free to call Mr. Laurence Lau, Deputy Director for Environmental Health at 586-4424.

Sincerely,

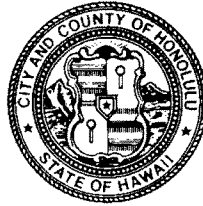


Chiyome Leinaala Fukino, M.D.
Director of Health

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU

1000 ULUOHIA STREET, SUITE 308, KAPOLEI, HAWAII 96707
Phone: (808) 692-5159 Fax: (808) 692-5113

JEREMY HARRIS
MAYOR



FRANK J. DOYLE, P.E.
DIRECTOR

TIMOTHY A. HOUGHTON
DEPUTY DIRECTOR

IN REPLY REFER TO:
RE 04-001

January 16, 2004

**VIA FACSIMILE (808) 587-0830
AND U.S. MAIL**

Ms. Marion M. Higa, State Auditor
Office of the Auditor
465 South King Street, Room 500
State of Hawaii
Honolulu, Hawaii 96813-2917

RECEIVED
JAN 21 2 12 PM '04
OFFICE OF THE AUDITOR
STATE OF HAWAII

Dear Ms. Higa:

Thank you for affording us the opportunity to comment on the draft report, Audit of the Department of Health's Administration of a Statewide Solid Waste Program and Assessment of Related Land Use Policies.

Despite the highly critical nature of the audit conclusions and despite their severe understaffing, the City and County of Honolulu has found Department of Health Office of Solid Waste Management staff very responsive to our inquiries and requests for clarification of regulations and with their overall guidance with respect to our operations. The City and others in the regulated community continually strive to comply with all applicable laws and regulations, regardless of the level of oversight provided by regulatory agencies. Further comments are grouped by report subtitle.

Background

1. Viable landfill sites abound. That is, from an engineering, economic, or public health and safety perspective, many sites are suitable. It is usually sociological factors and/or the "not in my backyard" syndrome that severely limit the choices.
2. The existing Oahu landfill is nearing its permitted capacity. There is ample physical space to expand the landfill.

The department's relationship to the counties

3. The word "incinerator" should precede "landfill sites" in the second paragraph for clarity. Solid waste is buried at landfills, not incinerators.
4. The last sentence should be modified to read: "The City and County of Honolulu also collects revenues from the sale of electrical energy generated at H-POWER and ferrous and nonferrous metals recovered at the plant."

Monitoring efforts are lacking

5. Are State employees under travel restrictions due to budgetary constraints? Was this factored into the audit's conclusions? We also note that most inspections were at Oahu facilities, which do not require interisland travel.

County plans are outdated and not properly monitored

6. Solid waste management strategies can change annually. Lack of an up-to-date, approved plan does not necessarily mean solid waste is not being managed effectively or in accordance with long-term established goals and objectives. Recognizing that annual, perhaps even 5-year, updates are impractical, the City suggests that 10-year updates would be more reasonable. Please note that the City and County of Honolulu staff continues to work closely with the Department of Health staff and collaborates with them on major changes in its solid waste management strategies.

The department failed to adequately provide funding for plan revisions

7. Counties will continue to need funding assistance to meet State-imposed requirements.
8. The "recent events surrounding the Waimanalo Gulch Landfill" were largely focused on the time required to continually address community concerns and to move through the permitting process. There was not and is not a "crisis," except for those that would use this term to suit their particular agenda. Does the audit suggest that the Department of Health step into such situations to prevent similar situations?

Current and reliable landfill capacity estimates are available

9. Landfill "life," measured in years, is subject to too many variables and interpretations to be meaningful, except in gross terms. A more accurate measurement of landfill capacity is volume, expressed in cubic yards.

Recommendations

10. Item 4 mentions the "department and the counties." Was this intentional?

Safe Drinking Water Act programs do not restrict landfills siting

11. We are disappointed that the audit does not take a stronger stand on protecting drinking water sources from contamination. While it is true that federal regulations do not restrict landfill siting, the situation in Hawaii, and particularly on Oahu, differs from mainland municipalities that can draw water from several sources above and below the ground surface, including pipelines and aqueducts hundreds of miles long. Here, our sole source is the Basal Aquifer, and contamination from a landfill sited above it could be catastrophic. There was an attempt during the last legislative session to site a landfill in Central Oahu, and we expect that effort to be renewed this year. Despite state-of-the-art geotextiles and stringent landfill regulations, no one can absolutely guarantee the long-term integrity of a landfill liner. Pollution of the Basal Aquifer would be difficult or impossible to clean up and could add immeasurably to the debt of future generations.

Fee amounts are a controversial issue


12. Honolulu does not, and is not trying to, fully fund its solid waste program through its tipping fee. Like Kauai and Hawaii, Honolulu partially supports its solid waste programs with a substantial subsidy from the general fund (FY04 \$18,603,242; FY03 \$24,073,548).
13. "Counties should consider implementing and increasing fees over time to reduce the expected voter backlash." Is it the intent of the audit to prescribe county behavior? The City's position is that setting tipping fees is a county home-rule issue.

Overall Conclusion

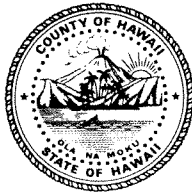
14. We do not believe the state is facing a potential solid waste crisis, unless the crisis stems from a lack of our collective will to act in the interest of the greater public good. Nor do we believe that the Department of Health can head off such a crisis unless it is willing to step into such an emotionally-charged situation.

If we may be of further assistance or if you desire clarification of our comments, please contact Ms. Wilma Namumnart of the Refuse Division at 692-5378.

Sincerely,


FRANK J. DOYLE, P.E.
Director

Harry Kim
Mayor



Barbara Bell
Director

County of Hawaii
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
25 Aupuni Street, Room 210 • Hilo, Hawai'i 96720-4252
(808) 961-8083 • Fax (808) 961-8086

January 20, 2004

Ms. Marion Higa, State Auditor
Office of the Auditor
465 South King Street, Suite 500
Honolulu, HI 96813-2917
Fax: (808)587-0830

RECEIVED
JAN 21 2 12 PM '04
OFFICE OF THE AUDITOR
STATE OF HAWAII

Dear Ms. Higa,

As you state in the audit, landfill tipping fees, and the setting of rates, is a controversial issue. It is unfortunate that you were unable to assess these fees and a calculation process. As the County of Hawai'i increased our landfill tipping fees in 2003, for the first time since 1994 when they were initially established, we certainly could have made use of objective information. I hope this aspect of your audit will be re-visited sometime soon.

Regarding fines, funding is tight for all solid waste programs in Hawai'i County. If we are fined excessively, it puts a very real burden on addressing a problem. The problems are often generated from too little funding in the first place. If there is no fine, the importance of the violation may be lost.

Your audit states that the first County of Hawai'i Integrated Solid Waste Management Plan was due in January, 1993. You also state that all Counties were at least three years behind schedule. To clarify, Hawai'i County compiled its original plan in 1993 and it was adopted by the Hawai'i County Council on October 4, 1994. Our revision, definitely behind schedule, is dated December 31, 2002. However, from our experience, 5 years is too soon for a revision. It makes more sense to us to require a new plan every 10 years. We found so many issues in the original plan were the same, needing the same solutions. Also, Hawai'i Revised Statutes, when referring to requirements of a revised plan, was unclear. When in doubt, we followed the requirements of the original plan.

I'm not sure why the comment is made that Hawai'i County "does not currently coordinate with the department to revise their plans". I personally communicated with the department on many occasions regarding our revised plan. Gretchen Ammerman, State Department of Health, attended a meeting with Hawai'i County Department of Environmental Management, a member of our advisory Commission, and our consultants in the early phase of developing the plan. It was extremely helpful.

I'm concerned about the data presented in Exhibit 2.4. I have no idea when South Hilo Landfill had an estimate of 14 years of life. Perhaps this is a typographical error. If it was taken from our Update to the Integrated Solid Waste Management Plan, it should say one or two years. The estimate throughout that document is December, 2004.

Your statement that Hawai'i County could not provide calculations for determining its fee amount is misleading. Perhaps it could be changed to "determining its original fee amount" as we did provide significant data for calculations which were used when our County Council approved a new fee in June, 2003. It is an accurate statement that we would need to do more research to provide calculations of the original \$35/ton tipping fee which was established in 1994. If you need this information, please let us know as I'm confident it can be provided.

Thank you for this opportunity to comment.

Sincerely,

A handwritten signature in cursive script, appearing to read "Barbara Bell", with a long horizontal flourish extending to the right.

Barbara Bell
DIRECTOR

ALAN M. ARAKAWA
Mayor

GILBERT S. COLOMA-AGARAN
Director

MILTON M. ARAKAWA, A.I.C.P.
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955



COUNTY OF MAUI
**DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL MANAGEMENT**
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

TRACY TAKAMINE, P.E.
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

JOHN D. HARDER
Solid Waste Division

January 20, 2004

VIA FACSIMILE: (808) 587-0830

Ms. Marion M. Higa
State Auditor
465 South King Street, Room 500
Honolulu, Hawaii 96813-2917

RECEIVED
JAN 22 2 23 PM '04
OFFICE OF THE AUDITOR
STATE OF HAWAII

Dear Ms. Higa:

**SUBJECT: AUDIT OF THE DEPARTMENT OF HEALTH'S
ADMINISTRATION OF A STATEWIDE SOLID WASTE
PROGRAM AND ASSESSMENT OF RELATED LAND USE
POLICIES**

We have reviewed the draft audit of the above noted program. Our comments for your information and consideration are enclosed. We apologize for the late reply.

If you have any questions, please feel free to call me.

Sincerely,


GILBERT S. COLOMA-AGARAN
Director

GSCA:MA:jso
Enclosure

xc: Alan M. Arakawa, Mayor
John Harder, Solid Waste Division Chief
s:\milton\sw audit

**SOLID WASTE DIVISION - COUNTY OF MAUI
COMMENTS ON DRAFT AUDIT OF THE STATE'S
SOLID WASTE MANAGEMENT PROGRAM**

1. **(Pg. 1, Para. 3)** Solid Waste Management is not primarily a State planning issue; it is primarily a County operational issue and responsibility. The Counties look to the State and the Environmental Protection Agency (EPA) for technical and planning assistance, but the responsibility for insuring adequate and environmentally sound disposal capacity rests with the Counties.

2. **(Pg. 3, Para. 2)** While the Resource Conservation Recovery Act (RCRA) calls for EPA to provide “. . . financial and technical assistance to the states or regional authorities . . .”, neither the State nor the County Solid Waste programs have ever received the degree of assistance needed. This is probably one of the major issues responsible for the State Solid Waste program's shortfall. The other environmental media regulatory programs under the Department of Health (Clean Air, Wastewater, Clean Water, Hazardous Waste, Underground Storage tanks, etc.) receive as much as 75 percent (75%) of their operational funding from the Federal Government in the form of annual operational grants. This money allows them to cover the costs of the necessary engineers and inspectors, purchase equipment and cover travel costs. The Solid Waste program does not receive any operational support from the Feds.

In addition, the Federal Government, under EPA, has established and funded Wastewater and Drinking Water grant and loan programs which provide much needed capital improvement funding for County Wastewater and Drinking Water facilities. Again, there has never been any Federal support for local Solid Waste capital construction.

Finally, the EPA provides a wide range of technical training and support for professional associations for Clean Air, Wastewater and Drinking Water programs. Both regulators and operators in Hawaii have taken advantage of locally available technical assistance. Technical assistance from EPA for Solid Waste programs is essentially nil. State and County Solid Waste staff must use local funding to attend what limited training opportunities there are on the mainland.

3. **(Pg. 4, Para. 3)** Is the State Integrated Solid Waste Management (ISWM) Plan considered to be a State Functional Plan? Neither the original plan nor the update were presented to the Legislature for approval, and to my knowledge, the Plan does not determine legislative funding priorities, especially for major Capital Improvement Program (CIP) project such as landfills. Also if the ISWM Plan were a functional plan, then wouldn't the legislature be involved in ensuring that there is adequate funding for the required County updates?

4. **(Pg. 6, Para. 4 and 5/Pg. 7, Exhibit 1.2 and Para. 1)** The discussion of funding sources for the solid waste program fails to clarify the specific requirements of the use of the various funds. This leads to the conclusion that the program has a significant amount of unexpended funds which could be used to address the identified deficiencies.

The Solid Waste Disposal Surcharge is the primary source of funding for State Solid Waste program operations and is limited to roughly \$600,000 per year. The monies in the glass advanced disposal fee (ADF) are essentially distributed to the Counties to manage their glass recovery programs and do not adequately cover local costs. The tire surcharge amounts to the largest portion of the unexpended funds and is limited in its use to the clean up of illegally dumped tires. While it cannot be used for other solid waste functions, we do feel that a more effective means of getting the tire money to the Counties would result in far fewer tires piles around the State. However, that would still not solve the bigger funding issues.

Exhibit 1.2 should be revised to indicate the source of the various funds, the program expenditures from each source, and unexpended balance in each sub-category.

5. **(Pg. 8, Para. 4 and 5)** Following the earlier audits, the Solid Waste program did attempt to address the identified deficiencies by proposing the establishment of the Solid Waste Disposal Surcharge and the creation of the additional positions necessary to meet the program demands. The original proposal by the Solid and Hazardous Waste Branch was for a fee of \$1.00 per ton, which would have been adequate to provide the staff resources required for adequate management of the statewide program and facilities. That proposal was reduced to 75 cents per ton in the Administration's budget request and further cut to 25 cents per ton by the Legislature, a level that barely allowed the program to meet the minimum federal requirements necessary for EPA approval. This was primarily due to a lack of understanding by decision makers of the costs of solid waste management, and the limited availability of other funding sources (see Fed support). Again in 1996, the Department requested an increase of the Disposal Surcharge to 50 cents per ton which was reduced by the Legislature to 35 cents per ton. During that time, the Department of Health (DOH) developed a needs assessment for the program that justified the need for nearly doubling the staff to meet the wide range of program needs. That request was rejected by the Budget and Finance Committee and the Legislature.
6. **(Pg. 11, Para. 1)** The statement that the management problems were "at least partly (my emphasis) grounded in poor organizational skills" leads the reader to believe that "poor organizational skills" were the main problem. If "poor organizational skills" were only "partly" responsible then the other significant issues such as lack of adequate resources should be stated in the report. With adequate administrative, planning and technical staff, many of the organizational issues would

have been moot. Issues such as the lack of financial and technical support from the Federal Government during the program's start up, inadequate staffing, and the continued expansion of solid waste responsibilities all had a major impact on program performance.

7. **(Pg. 13, Para. 5/Pg. 14)** In discussing the lack of facility inspections, it should be noted that the Solid Waste program is one of the few State regulatory programs without Neighbor Island staff. This directly relates to the funding issues, both lack of Federal funds and limited funding from the State, discussed above.
8. **(Pg. 16, Para. 5 and 6)** The Office of Solid Waste Management did provide annual landfill operator training from roughly 1994 through 1998 using the limited funds available from the Disposal Surcharge. However, as the range of responsibilities of the Solid Waste program grew, and Department budgets were continually cut, training programs were discontinued. The need for landfill operators training was a major justification for funding requests during nearly every budget submittal during the late 90's. Again, there was never the level of technical support from the EPA that other regulatory and operational programs receive.
9. **(Pg. 18, Para. 2 and 3/Pg. 19 Para. 1)** The discussion of the State's failure to provide funding for County ISWM Plans does not accurately depict the program's fiscal balance. The Solid Waste program cannot use a portion of the glass ADF or tire surcharge to fund the County ISWM Plan updates. The need for a stable funding source was discussed in the requests to the Legislature for the original Disposal Fee surcharge and the later request for an increase, but were not considered priorities at that time (see proposed Disposal Fee). If the State is to provide planning assistance to the Counties, then adequate funds must be allocated to meet those needs (see funding recommendations).
10. **(Pg. 21, Exhibit 2.4)** It should be noted that the estimates for remaining capacity of the Central Maui Landfill (CML) have been conservatively limited to "permitted capacity". The County of Maui has developed an Environmental Impact Statement and obtained State and County Land Use approval for a new 70 acre facility adjacent to the existing landfill. As the first Phase of that project, the County has purchased the initial 30 acres of the site from A&B, and has constructed a new Entry Facility and the initial ten (10) acres of what will ultimately be a 60 acre, fully lined waste receiving area.

In addition, the County is in the final stages of permitting for the initial Phase (Phase IVA) CML and is initiating the design of the second ten (10) acre cell (Phase IVB). The remaining Phases (Phases V & VI - 40 acres) are currently leased by A&B to Ameron for a quarry, and all parties have agreed they will be purchased by the County once Ameron finishes the excavation. Thus a more realistic estimate of capacity is either ten (10) years (Phase IV, now owned by the County and having

land use designation as a landfill) or 35 years (Phases IV, V, & VI - see the CML Master Plan). We request that should the limited definition of "permitted capacity" be retained in the report, that a note be added to Exhibit 2.4 indicating that the County has finalized site selection and initiated construction of a new landfill with an ultimate capacity of 35 years.

11. **(Pg. 22, Para. 3 - 7)** While the basic recommendations contained in the audit address the major deficiencies in the State's Solid Waste program, there is no discussion of how they could be remedied. If the Auditor truly wishes to facilitate the improvement in solid waste management in the state, then the recommendations should include a discussion of the means of obtaining the adequate funding for the increased work load. This is not something that will happen simply by getting the existing staff to work harder!

Some of the options that should be proposed for consideration by the legislature include:

Increasing the Disposal surcharge to \$1.00 per ton.

Establishing a Recycling Surcharge to be used solely to fund diversion start up.

Establishing a Solid Waste Impact Fee on all goods entering the State (.025% of wholesale value ??).

Establishing dedicated ADFs for appliances, batteries, junk cars and other problem wastes.

Increased funding from the General Fund.

Increasing permit fees to adequately cover the costs of permitting and enforcement.

Establishing an "Illegal Dump" clean up fund funded through a litter tax.

12. **(Pg. 29)** There are no recommendations relating to the streamlining of the complex landfill siting requirement. That seemed to be the point of the whole resolution. Does the Auditor feel that the current system does not need improvement?
13. **(Pg. 30 - 33)** There is a misunderstanding, in the discussion of the various County program solid waste fees, of the difference between disposal fees (used to operate landfills) and residential user fees (used to cover the costs of trash collection).

While most County programs have a tipping fee structure that adequately funds landfill operations, Maui County is the only County which charges residents for the cost of collecting their trash. All other Counties providing residential collection completely subsidize those costs from the General Fund. Even in Maui, our fees are well below actual costs and do not include the disposal cost (i.e., tipping fee) portion of collection. This is an area that truly needs some recommendations and legislative direction, beyond the brief discussion of the pros and cons of user fees in Exhibit 3.4.