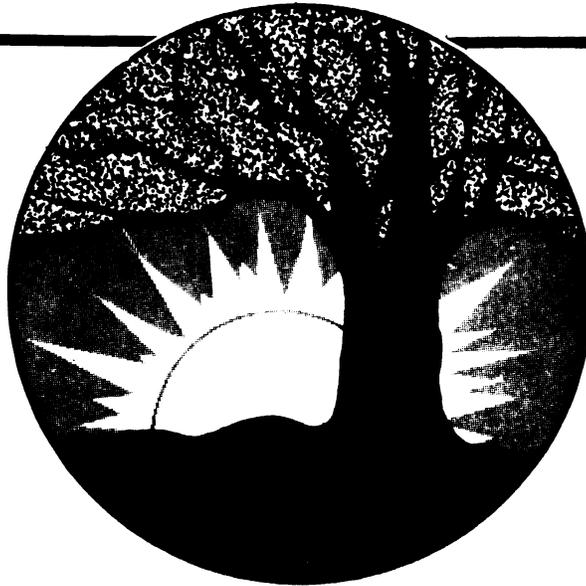


PERFORMANCE AUDIT

Department of Environment and Conservation
and
Related Environmental Boards
November 2005



John G. Morgan
Comptroller of the Treasury



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John G. Morgan
Comptroller

November 17, 2005

The Honorable John S. Wilder
Speaker of the Senate
The Honorable Jimmy Naifeh
Speaker of the House of Representatives
The Honorable Thelma M. Harper, Chair
Senate Committee on Government Operations
The Honorable Mike Kernell, Chair
House Committee on Government Operations
and
Members of the General Assembly
State Capitol
Nashville, Tennessee 37243

Ladies and Gentlemen:

Transmitted herewith is the performance audit of the Department of Environment and Conservation and Related Environmental Boards. This audit was conducted pursuant to the requirements of Section 4-29-111, *Tennessee Code Annotated*, the Tennessee Governmental Entity Review Law.

This report is intended to aid the Joint Government Operations Committee in its review to determine whether the department and the boards should be continued, restructured, or terminated.

Sincerely,

John G. Morgan
Comptroller of the Treasury

JGM/dlj
04-080

State of Tennessee

Audit Highlights

Comptroller of the Treasury

Division of State Audit

Performance Audit
**Department of Environment and Conservation
and Related Environmental Boards**

November 2005

AUDIT OBJECTIVES

The objectives of the audit were to (1) determine the department's timeliness in initiating enforcement actions against environmental violators and in resolving environmental violation cases; (2) to determine the boards' and the department's effectiveness in monitoring and regulating the individuals or entities that receive licenses or permits from the boards or operate under the boards' regulatory authority; (3) to determine the department's effectiveness in monitoring solid waste landfills in Tennessee; (4) to determine the department's progress in correcting several problems identified in the March 2000 Sunset audit of the department and related boards; (5) to review the actions taken by the department to comply with Title VI requirements; and (6) to develop possible alternatives for legislative and administrative actions that could result in more efficient and effective operation of the department and the boards.

FINDINGS

Environmental Regulatory Divisions Did Not Always Initiate Enforcement Action in a Timely Manner, and Cases Initiated Sometimes Remained Open With the Department's Office of General Counsel for Extended Periods of Time

The department's environmental regulatory divisions are responsible for enforcing state and federal environmental laws. A review of case information from five environmental regulatory divisions (Air Pollution Control, Solid Waste Management, Underground Storage Tanks, Water Pollution Control, and Water Supply) revealed that the divisions did not always initiate enforcement action against violators in a timely manner. In addition, cases that divisions sent to the department's Office of General Counsel for further action sometimes remained in process for years. Timely and consistent enforcement can

help to prevent and reduce pollution and act as an incentive for violators to comply with Environmental Protection Agency or state requirements (page 18).

The Department Has Still Not Developed an Integrated System to Collect Enforcement Data and Track Enforcement Activities

The March 2000 performance audit found that the department did not have written policies and procedures for the regulatory divisions specifying the data staff should use when recording enforcement activities or the method to be used to communicate the data to the enforcement coordinator. In its response to the audit, the department stated it was developing an Integrated Resource Information System (IRIS) which would integrate all of the environmental program's enforcement tracking needs and allow

management to analyze the data on a continual basis as required by the *Strategic Business Plan* (effective January 1999). Work performed during the current audit indicates, however, that the problems identified in the prior audit still exist to some extent (page 34).

The Department Has Only Limited Information on Old Landfills Closed Before Permitting Regulations Were Enacted, and Many Landfills Closed After Permitting Began Have Not Been Inspected Since 1998

In the late 1960s, the department conducted a survey to identify landfills prior to the enactment of permitting regulations in 1972. In 1997 and 1998, the division conducted a survey and documented 115 old closed landfills in 72 Tennessee counties that had been granted a permit (i.e., to operate a landfill) prior to closure. (The 1997-1998 survey did not include landfills closed before the permitting process began. According to staff, some of the old pre-permit sites have been inspected since the 1960s because of known problems, but others have not been because the division believes problems are unlikely, e.g., because hazardous waste was reportedly not buried at the site.) In September 2003, division staff began revisiting the 115 cataloged sites to assess site conditions and surrounding land usage. As of late July 2004, 48 of the 115 sites (42%) had been revisited. Inspection of older landfills is particularly important because those that began operation prior to permitting regulations most likely did not have safety measures in place, such as lining the landfills to prevent seepage to groundwater sources, groundwater monitoring to detect harmful chemicals released from the landfills, and monitoring for methane gas coming from the landfills (page 37).

The Department Has Not Developed and Consistently Applied a Comprehensive Matrix for Calculating the Economic Benefits of Noncompliance

According to Environmental Protection Agency (EPA) penalty policies, every effort should be made to calculate and recover the economic benefit of noncompliance. The EPA's reasoning is that a company that violates pollution laws is likely to have obtained an economic benefit as a

result of delaying or avoiding pollution-control expenditures during the period of noncompliance. During fieldwork for the March 2000 performance audit, the department stated that it was developing a comprehensive penalty assessment matrix to calculate economic benefits when assessing civil penalties. (The August 1997 audit found that there were no formal policies for calculating the economic benefit of noncompliance.) The matrix was to be complete and implemented by the end of calendar year 1999. Based on information obtained during the current audit, although a few divisions consider the economic benefit of noncompliance in assessing penalties in some cases, no comprehensive matrix has been implemented (page 40).

Participants in the Voluntary Cleanup, Oversight and Assistance Program (VOAP) Did Not Give Timely Public Notice for Some Cleanup Agreements Reviewed

The Commissioner of Environment and Conservation can enter into voluntary agreements or consent orders for the investigation and/or remediation of Brownfield sites (property whose expansion, redevelopment, or reuse is complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant). The Voluntary Cleanup, Oversight and Assistance Program is designed to attract applicants to work proactively with state government to address needed cleanup of such sites to return them to productive use. The VOAP statute requires that certain public notice requirements be fulfilled (notice requirements vary depending on the specifics of the agreement or order). Based on our file review of a sample of cases, however, we identified two cases that did not have timely public notice given (page 43).

Well Drillers Do Not Always Submit Reports in Compliance With Department Rules

As part of its responsibilities focused on protecting the state's water supply, the department's Division of Water Supply monitors the drilling of wells. According to Rule 1200-4-9-.10 (1)(b), a driller is to submit to the department a report summarizing the construction or reconstruction of a well within

30 days of completing the project. Such reports could provide important information to the state and affected members of the public in the event of contamination or other problems with (or affecting) the well. Our file review of a sample of well drillers, however, indicated that 55% of the drillers reviewed submitted required reports in a less than timely manner (page 45).

The Department Has Not Completed the Surveys of State Parks Required Under the 1999-2009 Tennessee State Parks Master Plan

Both the August 1997 and March 2000 performance audits of the department raised concerns about the need for surveys to establish and mark park boundaries and aid staff in identifying and dealing with encroachments on state land. In its response to the March 2000 performance audit of the department, management stated that the Master Plan, approved May 1999, required the completion of boundary surveys on 15 parks by June 30, 2003, and an additional 10 parks by June 30, 2008. The department has completed only five (33%) of the 15 surveys that were scheduled to be completed by June 30, 2003. One survey (7%) was completed later than scheduled, in August 2004. Seven parks (47%) had no survey, and two parks (13%) had old surveys, completed in 1990 and 1973 (page 48).

The Department Failed to Submit a Statutorily Required Update of the 1999-2009 Tennessee State Parks Master Plan

Section 11-3-120(b), *Tennessee Code Annotated*, requires the Department of Environment and Conservation to complete a ten-year State Parks Master Plan by March 1, 1999, and to submit to the General Assembly an updated Master Plan every five years. Prior to submitting the update to the Senate Environment, Conservation and Tourism Committee and the House Conservation and Environment Committee, the department is to hold public hearings statewide and submit the proposed update to the Tennessee Environmental Council and the Tennessee Recreation and Parks Association for review and comment. Although the plan update was due by March 1, 2004, no update has yet been submitted for review by parties outside the department (page 50).

The Department Has Not Established a State Compliance Advisory Panel on Air Pollution, as Required by Federal Law

Pursuant to Title V, Section 507, of the Clean Air Act, the department was to establish a State Compliance Advisory Panel as part of Tennessee's revised State Implementation Plan, approved effective July 1995. According to department staff, however, the department has never established the required panel (page 51).

OBSERVATIONS AND COMMENTS

The audit also discusses the following issues: the solvency status of the Tennessee Underground Storage Tank Fund, the lack of verification of well driller/pump installer applicants' experience information, status of the cleanup of the Oak Ridge Reservation, improvements in the X-ray inspection process and in inspections of underground storage tanks, revisions in the method for allocating indirect costs at state parks, and an update on Environmental Protection Fund balances (page 8).

**Performance Audit
Department of Environment and Conservation
and Related Environmental Boards**

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Performance Audit
Department of Environment and Conservation
and Related Environmental Boards

INTRODUCTION

PURPOSE AND AUTHORITY FOR THE AUDIT

This performance audit of the Department of Environment and Conservation and related regulatory boards was conducted pursuant to the Tennessee Governmental Entity Review Law, *Tennessee Code Annotated*, Title 4, Chapter 29. Under Section 4-29-226, the Department of Environment and Conservation was scheduled to terminate June 30, 2005. The Air Pollution Control Board, Board of Groundwater Management, Petroleum Underground Storage Tank Board, Solid Waste Disposal Control Board, and Water Quality Control Board were also scheduled to terminate June 30, 2005. On May 25, 2005, the General Assembly passed House Bill 2191, which extended these and other entities in the 2005 Sunset Cycle that had not yet been heard, for one year or until a public hearing can be held. The Comptroller of the Treasury is authorized under Section 4-29-111 to conduct a limited program review audit of the department and the related regulatory boards and to report to the Joint Government Operations Committee of the General Assembly. The audit is intended to aid the committee in determining whether the department and related boards should be continued, restructured, or terminated.

OBJECTIVES OF THE AUDIT

The objectives of the audit were

1. to determine the department's timeliness in initiating enforcement actions against environmental violators and in resolving environmental violation cases;
2. to determine the boards' and the department's effectiveness in monitoring and regulating the individuals or entities that receive licenses or permits from the boards or operate under the boards' regulatory authority;
3. to determine the department's effectiveness in monitoring solid waste landfills in Tennessee;
4. to determine the department's progress in correcting several problems identified in the March 2000 Sunset audit of the department and related boards;
5. to review the actions taken by the department to comply with Title VI requirements;
and

6. to develop possible alternatives for legislative and administrative actions that could result in more efficient and effective operation of the department and the boards.

SCOPE AND METHODOLOGY OF THE AUDIT

We reviewed the activities and procedures of the Department of Environment and Conservation and related regulatory boards during calendar years 2000 through 2004. The audit was conducted in accordance with standards applicable to performance audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. The methods included:

1. review of applicable statutes and rules and regulations;
2. examination of the department's files, documents, policies, and procedures;
3. reports from the federal Environmental Protection Agency (EPA);
4. review of prior performance audit and financial and compliance audit reports, audit reports from other states, and reports from the Tennessee Comptroller of the Treasury's Offices of Research and Education Accountability; and
5. interviews with department staff, staff of the federal Environmental Protection Agency, and advocacy groups.

ORGANIZATION AND RESPONSIBILITIES

The Tennessee Department of Environment and Conservation (TDEC) was created when Executive Order Number 42, dated February 4, 1991, joined the Department of Health's Bureau of Environment with the Department of Conservation. The organization of the department and the authority of the commissioner are contained in Section 11-1-101, *Tennessee Code Annotated*. The department is staffed by nearly 2,900 employees located across Tennessee. (See page 58.)

The department's mission includes protecting the health and safety of Tennessee citizens from environmental hazards, managing the Tennessee State Parks system, and protecting and improving the quality of Tennessee's air, land, and water. The department has delegated responsibility from the U.S. Environmental Protection Agency (EPA) to regulate sources of air pollution, water pollution, and solid and hazardous waste; radiological health issues; underground storage tanks; water supply; groundwater; oil and gas exploration and drilling; inactive hazardous substance sites; and other environmental issues.

An organization chart of the Department of Environment and Conservation is presented on page 4. The department is organized into three bureaus, all reporting to the commissioner: State Parks and Conservation, Finance and Business Services, and Environment. The

department's Public Affairs Office, Homeland Security, Internal Audit, Legislative Liaison, and Office of General Counsel also report directly to the commissioner.

State Parks and Conservation

The Bureau of State Parks and Conservation is headed by a Deputy Commissioner and includes Tennessee State Parks, Recreational Educational Services, and the Tennessee Historical Commission. The bureau has a small central office staff in Nashville and includes staff in state parks and other facilities all across Tennessee.

Natural Heritage. This division is responsible for protecting the state's natural biological diversity through identification, conservation, and communication. The division manages a database on the distribution and ecology of rare plants, animals, and ecological communities.

Recreational Educational Services. The division administers technical, planning, and financial assistance services to state, local, and private providers of public recreation, as well as encouraging the development of recreation systems across the state. The division also manages the State Land Acquisition Program.

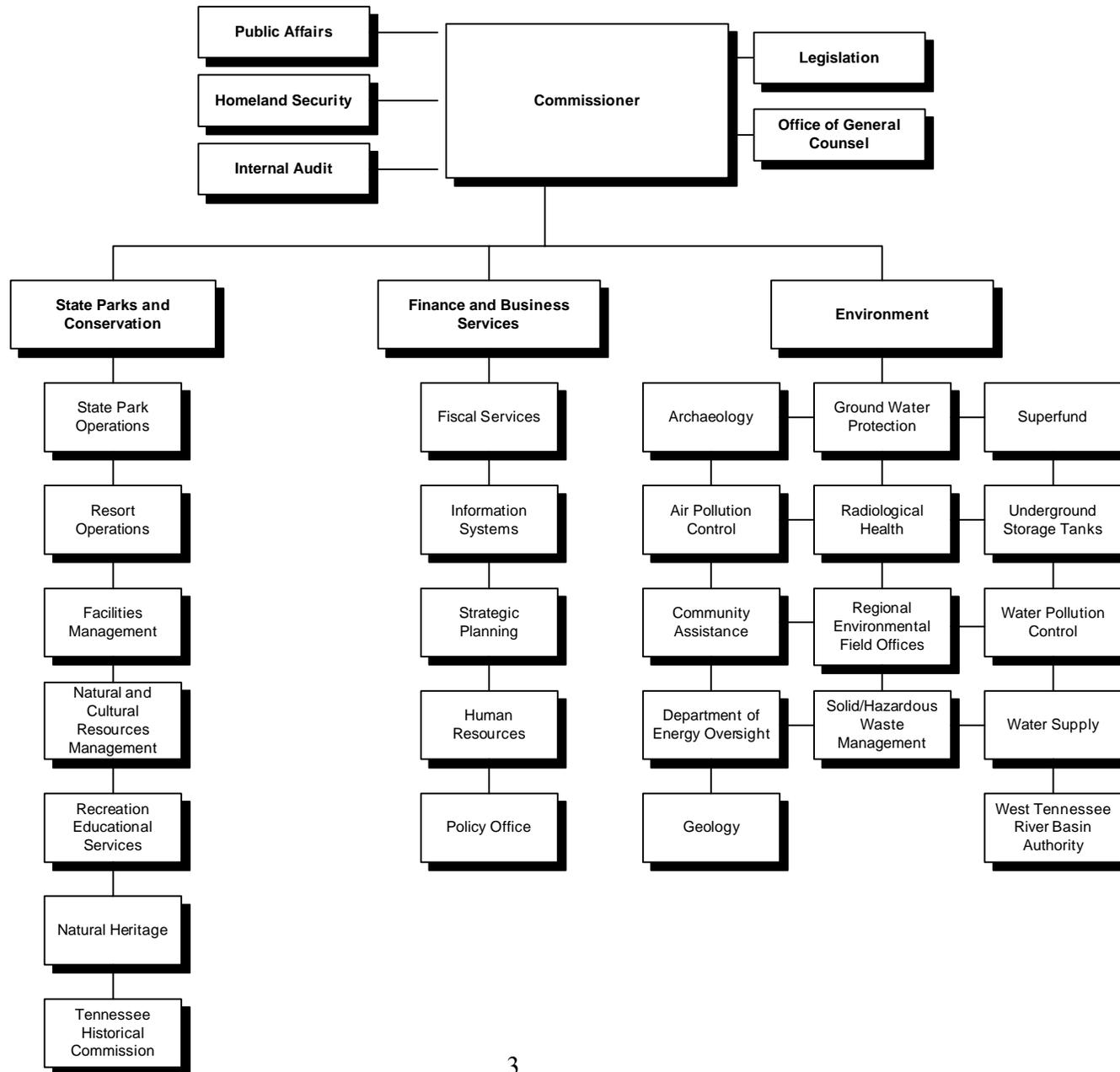
Tennessee Historical Commission. The commission encourages the study of Tennessee's history; protects, preserves, interprets, operates, maintains, and administers historic sites; and marks important locations, persons, and events in Tennessee history. The commission is also responsible for locating, identifying, recording, and nominating to the National Register of Historic Places all properties that meet National Register criteria.

Tennessee State Parks. Tennessee's 53 state parks offer diverse recreational opportunities for individuals, families, businesses, and professional groups. State parks also protect and provide educational information on Tennessee's plants and wildlife, as well as countless unique natural features.

Tennessee State Parks Resort Operations. This program manages retail operations in Tennessee State Parks including seven resort parks—Fall Creek Falls, Henry Horton, Montgomery Bell, Natchez Trace, Paris Landing, Pickwick Landing, and Reelfoot Lake. These parks provide restaurants, cabins, group lodges, conference centers, marinas, recreational rooms, swimming pools, outdoor sporting facilities, and inns. Resort Operations also manages eight golf courses in Tennessee State Parks.

Facilities Management. This section has 29 staff positions located in four regional offices at Natchez Trace, Montgomery Bell, and Norris Dam State Parks, as well as in Nashville. Its main responsibilities include completing the annual facility assessment inspections of all park facilities to determine their condition and estimate the cost of needed repairs and renovations; assembling and implementing the yearly major maintenance work program; and submitting the State Parks' annual capital budget request to the Department of Finance and Administration.

Department of Environment and Conservation Organization Chart August 2004



Natural and Cultural Resources Management. This section is responsible for protecting the natural and cultural resources of the state's park system through the integration of conservation and human use. Section staff are responsible for coordinating the efforts of the ranger program, park maintenance, planning and development, interpretive and resource-based recreation programming, and resort and other state park operations to improve compatibility of the various activities and limit possible adverse effects.

Finance and Business Services

Finance and Business Services provides support and technical assistance for the daily operations of the department. Under the direction of an Assistant Commissioner, Finance and Business Services programs include Fiscal Services, Human Resources, Information Systems, the Policy Office, and Strategic Planning.

Fiscal Services. The division is responsible for preparing the department's budget; procuring goods and services; managing the department's property and fleet of motor vehicles; accounts payable; cash management; records and forms management; and for accounting and reporting for general fund revenues and expenditures, special revenue funds, federal grants, and retail operations for state parks.

Human Resources. The division is responsible for managing all department personnel transactions, classification and compensation issues, training, recruitment and placement, insurance, and employee relations.

Information Systems. The division is responsible for providing technical services and solutions in support of the department's business strategies. Services fall into five categories: project management for software development and implementation for both small and enterprise-wide systems; technology maximization research and planning; hardware/software acquisition management; liaison work with the Department of Finance and Administration's Office for Information Resources network oversight staff; and customer support.

Policy Office. This office provides strategic policy recommendations and research support to the Commissioner's Office. Duties include conducting high-level policy research including detailed briefings for the commissioner, external outreach coordination for environmental policy issues, and coordination of policy initiatives with the Governor's Policy Office.

Strategic Planning. With the enactment of the Tennessee Government Accountability Act of 2002, the Office of Strategic Planning and the Division of Fiscal Services administer the performance-based budgeting initiative. For Fiscal Year 2004-2005 and each fiscal year thereafter, the office and the Division of Fiscal Services will coordinate the development of an annual operational plan and a performance-based budget for the department. The office also oversees additional planning functions that include the Master Plan for State Parks, the Tims Ford Land Management and Disposition Plan implementation process, parks management plans, and the Business Resumption Plan.

Environment

The Bureau of the Environment is composed of 14 divisions under the direction of a Deputy Commissioner. Bureau staff are located in the central office in Nashville, as well as in eight Environmental Field Offices (EFOs) across Tennessee.

Air Pollution Control. This division is directed by state law (Section 68-201-101 et seq., *Tennessee Code Annotated*) to maintain the purity of Tennessee's air resources consistent with the protection of normal health, general welfare, and physical property of the people while preserving maximum employment and enhancing the industrial development of the state. The division's responsibilities include monitoring air quality, testing emissions, enforcing state law and regulations, establishing emission standards and procedure requirements, and issuing construction and operating permits to industry. The Tennessee Air Pollution Control Board, appointed by the Governor and representing industry, environmental, and community interests, adopts regulations, holds hearings, and initiates court actions to enforce regulations.

Archaeology. The division is responsible for protecting and keeping accurate records on all archaeology sites and artifacts on all state lands.

Community Assistance. This division manages revolving loan programs to provide low-interest loans to cities, counties, and utility districts for the planning, design, and construction of wastewater and drinking water facilities. The division also administers the solid waste assistance grant program to help communities better manage waste and support reuse and recycling.

DOE Oversight. The division is responsible for ensuring Tennesseans that their health, safety, and environment are being protected during environmental restoration and ongoing activities at the Department of Energy's Oak Ridge Reservation and for assisting in cleanup decisions. Division staff monitor environmental quality and cleanup activities at the Oak Ridge Reservation to ensure compliance with state and federal standards.

Geology. This division encourages and promotes the prudent development and conservation of Tennessee's geological, energy, and mineral resources by developing and maintaining databases, maps, and technical services; providing accurate geological hazard assessments; promulgating rules and regulations; and disseminating geologic information through publications and educational outreach activities.

Groundwater Protection. The division regulates subsurface sewage disposal to ensure that the groundwaters of Tennessee are maintained in a safe and usable condition. The division permits, constructs, inspects, and approves underground septic systems for wastewater disposal in areas lacking wastewater treatment plants. The division also permits construction and inspects repairs made to systems that fail. Staff collect water samples and respond to complaints associated with private water supplies such as springs and wells. The division also performs soil evaluations in order to determine suitability for subsurface sewage systems and provides consultation and project approval for subdivision developments that are to be served by subsurface sewage systems.

Radiological Health. The division is responsible for protecting Tennesseans and the environment from the hazards associated with ionizing radiation. Its duties include licensing medical, academic, and industrial facilities that possess x-ray equipment; inspecting licensed and registered facilities; performing environmental monitoring; and providing emergency response training.

Regional Environmental Field Offices. The department has eight environmental field offices across the state to carry out regional duties and provide assistance and information to the public and the regulated community. This assistance includes a program of grants and loans to help local communities develop and maintain drinking water and wastewater infrastructure, as well as solid waste disposal, waste prevention, and recycling programs.

Solid and Hazardous Waste Management. The division regulates the processing and disposal of non-hazardous solid waste and the generation, recycling, storage, transportation, treatment, and disposal of hazardous waste in Tennessee. The division issues permits for different classes of landfills and ensures their safe management. The division also regulates hazardous waste under the federal Resource Conservation and Recovery Act. This includes permitting and inspecting hazardous waste storage, recycling, treatment, and disposal facilities and registering hazardous wastes, such as household hazardous waste, batteries, used oil, and oil filters.

Superfund. The division is responsible for cleaning up inactive hazardous substance sites, administering a fund to clean up contaminated drycleaning sites, and working to identify and clean up sites listed on the National Priority List of hazardous waste sites. The division identifies inactive hazardous waste sites, works to identify liable parties, and requires cleanup by those parties of inactive sites. When there is no one willing or able to clean up a site, the division uses the Hazardous Waste Remedial Action Fund (funded by remedial action fees and by cost recovery from responsible parties) to perform the cleanup. Under the Voluntary Cleanup Oversight and Assistance Program, parties may voluntarily enter into consent agreements to conduct investigations and cleanups of inactive hazardous substance sites with departmental oversight.

Underground Storage Tanks. The division is responsible for preventing future petroleum underground storage tank releases and remediating existing storage tank contamination. The division manages the Tennessee Petroleum Underground Storage Tank Fund, which is intended to enable tank owners and operators to satisfy federal financial responsibility requirements.

Water Pollution Control. This division is responsible for protecting the quality of Tennessee's 60,000 stream miles and almost 540,000 lake acres. The division monitors and issues permits for municipal, industrial, and other discharges of wastewater to ensure water quality protection. The division inspects facilities, samples discharges for compliance, and pursues enforcement as necessary. Activities such as stream channel modifications, wetland alterations, or gravel dredging are also regulated by the division. The division also reviews wastewater construction plants and specifications for municipal and industrial facilities.

Water Supply. The division regulates the quality and quantity of drinking water, the construction of non-federal dams, transfers of water from one river basin to another, water withdrawal

registration, and the licensing of well drillers and pump setters. The division is also responsible for supervising construction and operation of public water supplies. It conducts an enforcement program that requires water suppliers to meet requirements of the Safe Drinking Water Act with respect to water quality and information reporting. It certifies labs and water suppliers that test drinking water samples, conducts technical surveys of public water supply systems, tests and trains water supply system operators, and maintains an accurate database of water supply information. The division also certifies, inspects, and approves dams and reservoir projects.

West Tennessee River Basin Authority. The Obion-Forked Deer River Basin Authority was established by statute as an agency of state government in 1972. On July 1, 1996, the authority was attached to the Department of Environment and Conservation and the name was changed to the West Tennessee River Basin Authority. The authority is charged with water resource management in the 17-county area drained by the Obion, Forked Deer, and Hatchie River systems.

REVENUES AND EXPENDITURES

For the year ended June 30, 2004, the Department of Environment and Conservation had expenditures of \$269.4 million. Revenues included \$126.9 million in state appropriations, \$61.1 million in federal funds, and \$81.4 million from other sources such as fees, penalties, licenses, and permits. (These totals include expenditures and revenues for several funds administered through the department, including the Land and Water Conservation Fund, the Local Parks Acquisition Fund, the State Lands Acquisition Fund, the Tennessee Dry Cleaners Environmental Response Fund, the Hazardous Waste Remedial Action Fund, the Solid Waste Assistance Fund, and the Environmental Protection Fund.)

OBSERVATIONS AND COMMENTS

SOLVENCY STATUS OF THE TENNESSEE UNDERGROUND STORAGE TANK FUND

Under Section 68-215-111, *Tennessee Code Annotated*, underground storage tank owners who pay the annual registration fee and comply with division rules and regulations may apply to the fund for reimbursement of cleanup costs. Tank owners may also apply to the fund for reimbursement for third-party claims, which are civil actions charging damages to persons or property as a result of contamination from leaking tanks. The August 1997 performance audit of the department projected that the Tennessee Underground Storage Tank (UST) Fund could become insolvent if fund revenues did not increase. The March 2000 performance audit found that, for fiscal years 1998 and 1999, the fund had a larger amount of claims pending processing than fund balance. The audit recommended that the Underground Storage Tank Board, in conjunction with the department, propose a long-term solution that would maintain the solvency of the fund and provide for a regulatory program to ensure ongoing compliance.

According to minutes from the April 15, 2004, Tennessee Petroleum Underground Storage Tank (UST) Board meeting, the board was informed by the deputy commissioner that the UST fund was insolvent and that there was nearly \$21 million in claims waiting to be paid for corrective actions already taken. Chapter 925, Public Acts of 2004, which took effect on July 1, 2004, contained the following provisions to help achieve fund solvency:

- A one-time special assessment (during fiscal year 2005) on all tank owners. Tank owners with one to five tanks at a single facility were assessed \$400 per tank; tank owners with one to five tanks at multiple facilities, \$710 per tank; local governments, \$710 per tank; and tank owners with six or more tanks, \$710 per tank. (According to Underground Storage Tanks Division staff, the division billed approximately \$9.74 million for this assessment and, as of June 21, 2005, had collected over \$9.54 million.
- An advisory committee to advise the commissioner concerning the fund and to make recommendations by December 1, 2004, regarding fund revenues and expenditures.
- Increased criminal penalties for knowingly causing or allowing a petroleum release in violation of Underground Storage Tank laws, rules, regulations, or orders. The list of unlawful actions detailed in Section 68-215-104 was also revised to include (1) receiving or attempting to receive reimbursement from the fund in a fraudulent manner and (2) refusing or failing to comply with any final order of the commissioner or the board.

In addition, the fund received a \$10 million one-time appropriation to help pay the claims for corrective actions already taken.

The State of Tennessee's *Comprehensive Annual Financial Report – June 30, 2004* shows that the fund had assets and liabilities of \$9.42 million (therefore, a zero fund balance). The notes to the financial statements include, under Changes in Long-Term Obligations, a \$93.5 million liability for future payments resulting from tank releases known as of June 30, 2004. Additional financial information provided by the department indicated the following activity for the fund from July 1, 2004, to March 31, 2005:

Revenues Collected	Amount		Expenditures	Amount
Gasoline Tax	\$11,682,299		Administration Costs	\$ 4,114,966
Tank Fees	2,159,231		Claims Paid	24,115,337
Special Assessment	9,182,519		Claims in Process	10,315,233
Special Appropriation	10,000,000		Total	\$38,545,536
Interest	135,535			
Civil Penalties	1,059,089			
Departmental Revenue	36,157			
Federal Revenue	467,118			
Total	\$34,721,948			

The advisory committee, set up as required by Chapter 925, Public Acts of 2004, developed recommendations as required and presented those recommendations to the Senate

Environment, Conservation, and Tourism Committee in February 2005. The funding-related recommendations included increasing the annual tank fee, revising the deductibles for cleanups and third-party claims, and creating incentives to encourage compliance and use of best management practices by tank owners/operators. Legislation incorporating some of these recommendations was passed by the General Assembly and codified as Chapter 283, Public Acts of 2005. Major changes included:

- Increasing the annual fee from \$125 per tank to \$250 per compartment in a tank. (Division staff estimate this change will result in an additional \$2.4 million annually in fees.)
- Establishing a flat deductible of \$20,000 to be paid in full before any reimbursement from the fund occurs. (Division staff estimate this change will result in reduced reimbursements of \$3.1 million over a two-year period.)
- Establishing a voluntary registry to which owners of an interest in petroleum sites could pay \$500 per year per site and in return receive all notifications (e.g., notices concerning fees, violations, or loss of fund eligibility) from the department regarding those sites.

Division staff also reported additional changes related to fund activities:

- Calculating the risk from petroleum releases earlier in the release response and corrective action process (staff expect this change to save about \$4 million over the next two fiscal years).
- Increasing enforcement activities (as of June 21, 2005, staff reported over \$1.1 million in penalties collected in fiscal year 2005).
- Implementing an employee suggestion expected to save at least \$300,000 per year.
- Accelerating review and payment of claims against the fund (staff report that, as of June 21, 2005, the number of unreviewed claims had decreased to 229 claims for \$2.57 million).

NEITHER THE BOARD OF GROUNDWATER MANAGEMENT NOR THE DIVISION OF WATER SUPPLY STAFF VERIFY APPLICANTS' EXPERIENCE INFORMATION WITH SUPERVISORS OR EMPLOYERS PRIOR TO LICENSURE

Part of the application process for licensure as a well driller or pump installer is to submit listings of ten installations or drillings performed, to assure the Division of Water Supply and the Board of Groundwater Management that the applicant has professional experience to support his or her licensure request. Although our file reviews indicate that applicants are submitting the information as required, staff take no action to determine that the ten drillings or installations are valid (i.e., actually occurred). Board staff also conduct interviews with applicants that, according

to applicable rules, are to address the “quality and quantity of the applicant’s experience.” Again, however, specific experience information provided is not verified.

According to Rules 1200-4-9-.02 and .03, applicants for licensure as a well driller or pump installer must (1) be 18 years of age; (2) have a minimum of two years experience working in the occupation for which licensure is being sought; (3) have completed grade 10 in high school or submit proof of equivalent achievement; and (4) pass an examination prescribed by the Board of Groundwater Management. Satisfactory proof of experience consists of either (1) copies of relevant occupational licenses or certificates covering two years and indicating that the applicant has been engaged in the relevant occupation or (2) a list of 10 wells the applicant has constructed or worked on during a minimum of the last two years prior to the application date. The well experience information submitted should include (a) the name and addresses of the well owners; (b) location and intended use of the well; (c) major construction features (e.g., depth, water quality, etc.); (d) date of completion; and (e) work performed and the approximate customer cost.

All persons applying for licensure must submit completed applications to the Division of Water Supply. The information submitted is reviewed by division staff for completeness and content and is then presented to the Board of Groundwater Management for further action. At least three members of the board interview each applicant, and rules require that the interview questions address the following:

- where and when the applicant’s experience was obtained;
- types of equipment used by the applicant;
- the applicant’s level of responsibility;
- the applicant’s familiarity with how to address certain common situations; and
- the applicant’s knowledge of state well-construction standards and a licensee’s responsibilities to the well owner and the state.

Given the board’s interview with each applicant, division staff do not believe that additional verification of work and education experience is necessary. It seems, however, that contact with at least a few former employers or supervisors would help ensure that an applicant meets experience requirements and is an appropriate candidate for licensure. A well driller or pump installer who has little real experience (despite being able to answer questions about process, etc.) or who has other work-related problems that only former employers or supervisors would have knowledge of, could place the general public and the environment at increased risk of a contaminated water supply.

The Division of Water Supply should consider developing procedures to confirm that an applicant has been employed and supervised by the referenced businesses. This could be done by selecting a random number of a few listings of installations or drillings performed and requesting the referenced business owners or supervisors to submit a confirmation letter to the division to be placed in the applicant’s file.

STATUS OF CLEANUP OF THE OAK RIDGE RESERVATION

Cleanup of radioactive and hazardous wastes on the Oak Ridge Reservation near Oak Ridge, Tennessee, is mandated by the federal Comprehensive Environmental Response, Compensation, and Liabilities Act. The Federal Facility Agreement is an agreement among the State of Tennessee, the U.S. Department of Energy (DOE), and the U.S. Environmental Protection Agency to ensure that the environmental impacts resulting from past DOE activities at the Oak Ridge Reservation (ORR) are thoroughly investigated and that appropriate remedial action is taken to protect the public's health and the environment. The Tennessee Oversight Agreement between the State of Tennessee and DOE, signed in 1991, provides for state oversight to help assure Tennessee citizens that the DOE is cleaning up the environmental hazards on and around the Oak Ridge Reservation. The Tennessee Department of Environment and Conservation oversees DOE cleanup activities and does its own monitoring of air, water, and soil quality.

According to *Status Report to the Public: Fiscal Year 2004*, from the Tennessee Department of Environment and Conservation's DOE Oversight Division, the U.S. Department of Energy undertook a number of new high-risk projects in 2004 and completed several projects begun in prior years. DOE is attempting to accelerate cleanup on the Oak Ridge Reservation, with a goal of achieving several site closures by 2008. According to the report, however, "delays and problems have already begun to surface. If cleanups fail to progress as promised or if shortcuts are taken due to funding shortfalls or schedule constraints, then there is potential for harm to the public or the environment."

The status report concluded that "overall, there have been no major changes, either positive or negative, to the quality of air, surface water or groundwater leaving the ORR over the past year." The division found no immediate threats to public health from current activities on the Oak Ridge Reservation, despite two DOE emergencies—a radioactive spill on State Highway 95 in May 2004 and a sodium metal fire at the East Tennessee Technology Park. According to division staff, in response to the May 2004 radiation spill, staff interviewed eight DOE and contract staff with responsibilities related to the spill and used the resulting information to enhance state oversight and provide feedback to the U.S. Department of Energy. The division has also designated a technical staff person to track processing and distribution of sodium and other recyclable hazardous materials on the Oak Ridge Reservation.

IMPROVEMENTS IN THE DIVISION OF RADIOLOGICAL HEALTH'S X-RAY INSPECTION PROCESS

According to the March 2000 performance audit of the department, the Division of Radiological Health estimated that it did not complete 29 percent of the scheduled inspections for 1998, and the division had not implemented changes recommended in the August 1997 audit to plan for more efficient and effective use of staff resources. The August 1997 audit recommended that changes be made to the registered inspector program and the division's database in order to improve the inspection process and to plan for more efficient and effective use of staff resources. The recommended changes included:

- requiring X-ray facilities to indicate the use of a state inspector or a registered inspector when paying annual registration fees on April 1 of each year;
- setting a deadline for registered inspectors to submit reports of their inspections and specifying the number of days owners have to submit corrective actions; and
- providing software that would track historical data (dates of inspections, corrective actions, etc.) and would analyze trends in compliance for all X-ray inspections.

Audit work performed during the current audit indicates that the division has made several improvements to the program and the database.

According to Division of Radiological Health staff, the division has implemented a new computer tracking system that was designed to meet the prior audit recommendations. In 2001, the department's Information System section began developing the DRH (Division of Radiological Health) Track system, and the department began putting current inspection information into the database in calendar year 2004. The new system is an improvement over the prior system because the division will now be able to track registered tubes rather than just facilities that have X-ray tubes, and the system is able to indicate whether the X-ray tube owner has used a state or registered inspector. Also, in 2002, the General Assembly passed legislation (codified as Section 68-202-503, *Tennessee Code Annotated*) to address the problem of untimely submission of registered inspectors' inspection reports. The new statute requires that the owner/operator of the X-ray tube submit the inspection report, including any necessary corrective action taken, within 60 days of the inspection or forfeit the opportunity to pay the discounted fee for using a registered inspector.

We obtained inspection information for calendar years 2000 through 2003. (See Table 1.) Estimated past-due inspection rates ranged from 0 in 2000 and 2003 to 7% in 2002, significantly less than the 1998 rate of 29%. The information in Table 1, which was generated prior to the implementation of the new, improved database, has a number of limitations because of weaknesses in the old database and the estimates and assumptions made by division staff in making their calculations. However, after reviewing the division's processes and the new database, we concluded that the numbers provided do show significant improvement from the 2000 audit and that the new database addresses concerns raised in that audit.

IMPROVEMENTS IN INSPECTIONS OF UNDERGROUND STORAGE TANKS

Both the August 1997 and March 2000 performance audits cited problems in inspections of underground storage tanks. The March 2000 audit found that the Division of Underground Storage Tanks had not met its goal of 1,500 inspections per year and had not completed the compliance verification surveys to determine how many tanks were not meeting December 1998 federal and state leak-detection requirements. Inspection information obtained from the division during the current audit indicates improvement in these inspection activities.

Table 1
Division of Radiological Health
X-Ray Inspections—Calendar Years 2000 Through 2003

	Classes*							
Year: 2000	I	II	III	IV	V	VI	VII	Totals
Number of registered tubes	7,410	2,437	3,205	27	514	83	98	13,774
Average workload (based on inspection cycle)	1,853	1,219	3,205	27	257	83	98	6,741
State inspections due (estimated)	1,300	1,145	496	2	145	37	19	3,144
State inspections performed	1313	942	216	19	100	28	9	2,627
Mammography inspections performed			323					323
Inspections by registered inspectors	1,253	317	2,330	6	192	29	64	4,191
Total inspections performed	2,566	1,259	2,869	25	292	57	73	7,141
Estimated past due (Average workload–total inspections)								0
	Classes							
Year: 2001	I	II	III	IV	V	VI	VII	Totals
Number of registered tubes	7,500	2,466	3,230	13	524	90	97	13,920
Average workload (based on inspection cycle)	1,875	1,233	3,230	13	262	90	97	6,800
State inspections due (estimated)	857	864	244	0	93	32	10	2,100
State inspections performed	1,255	948	170	0	64	21	3	2,461
Mammography inspections performed			323					323
Inspections by registered inspectors	1,097	260	2,169	10	224	35	66	3,861
Total inspections performed	2,352	1,208	2,662	10	288	56	69	6,645
Estimated past due (Average workload–total inspections)								155
Percentage past due								2%
	Classes							
Year: 2002	I	II	III	IV	V	VI	VII	Totals
Number of registered tubes	7,726	2,547	3,381	13	591	97	92	14,447
Average workload (based on inspection cycle)	1,932	1,274	3,381	13	296	97	92	7,084
State inspections due (estimated)	1,402	1,360	725	1	208	51	21	3,768
State inspections performed	935	920	235	0	144	39	5	2,278
Mammography inspections performed			323					323
Inspections by registered inspectors	891	1,152	2,646	16	94	36	75	3,990
Total inspections performed	1,826	1,152	3,204	16	238	75	80	6,591
Estimated past due (Average workload–total inspections)								493
Percentage past due								7%
	Classes							
Year: 2003	I	II	III	IV	V	VI	VII	Totals
Number of registered tubes	7,868	2,605	3,398	13	607	93	96	14,680
Average workload (based on inspection cycle)	1,967	1,303	3,398	13	304	93	96	7,173
State inspections due (estimated)	1,615	1,075	310	0	153	42	9	3,204
State inspections performed	1,341	856	261	0	106	30	5	2,599
Mammography inspections performed			323					323
Inspections by registered inspectors	1,521	358	2,791	7	367	39	93	5,070
Total inspections performed	2,862	1,214	3,375	7	367	69	98	7,992
Estimated past due (Average workload–total inspections)								0

* Class I–Dental
Class II–Medical Diagnostic X-ray, Medical or Veterinary, Priority 2 Mammography
Class III–Radiologist’s Office, Hospitals, Orthopedic Surgeon’s Office, Priority 1 Mammography
Class IV–Therapy Medical Radiation, Medical and Veterinary Therapy
Class V–Priority 2 Industry and Education (closed beam)
Class VI– Priority 1 Industry and Education (open beam)
Class VII–Accelerator

As of June 1, 2005, the division had 13 inspectors statewide in eight Environmental Field Offices. According to staff, each year the division has met or exceeded the goal of 1,500 inspections since developing and implementing a Comprehensive Inspection Plan in fiscal year 2001. The division's specific goals change each year, however, based on priorities and workload distribution. Based on a review of fiscal year 2004 inspection information, staff conducted 2,007 total inspections, well over the 2004 goal of 1,744 inspections. Division management generates a quarterly report to monitor progress toward the goals and discusses problems and solutions with any office that may not be meeting its goals. An annual report is also presented to the Underground Storage Tank Board.

In an update provided in June 2005, division management stated that the division was on track to again exceed established goals, having conducted a total of 1,861 inspections as of the third quarter of fiscal year 2005, as compared to a total commitment of 1,598 inspections. According to management, the division recently evaluated its ability to comply with a proposed federal mandate that would require all active facilities to be inspected every three years. The evaluation indicated that six of the eight field offices would be able to meet the proposed requirement, but that the Nashville and Knoxville field offices would require additional staff. Management is currently implementing a risk-based corrective action process that might allow some shifting of resources from corrective action to compliance inspections.

DEPARTMENT ACTIONS TO REVISE THE METHOD FOR ALLOCATING INDIRECT COSTS AT PARKS

The March 2000 performance audit recommended that the department account for all costs when assessing the financial condition of state parks and determining the costs of retail operations. Although some costs are direct and can be easily identified, it is important to account for related indirect costs to assess the condition of the park system. The audit also recommended that the department develop a method to assign or allocate indirect costs incurred by other divisions on behalf of the parks.

Effective July 1, 2004, the department changed its cost allocation methodology. Under the new methodology, the individual park administration (the park manager, office support staff, etc.) and the individual park maintenance costs are no longer allocated to each operation as overhead, but are now free-standing operations or programs. The only overhead costs that will be allocated to the individual park operations will be the central office costs. Central office costs will be summarized into two categories: (1) the cost related to resort operations and (2) all other central office costs. The resort operation costs will be allocated only to the resort operations (restaurants, inns/cabins, golf, marinas, and gift shops). The allocation percentage will be based on the percentage of total direct expenditures in each of those resort operations. (For example, if total restaurant expenditures represent 35% of the total resort operations, then the restaurants will be allocated 35% of the central office resort operations costs.) All other state parks central office costs will be allocated to the remaining non-resort operations—camping, safety and security, park maintenance, park administration, and all other non-resort operations. The allocation basis will be total direct expenditures in each of those non-resort operations.

Because the changes in cost allocation methodology are a recent development, we were unable to review the process in depth. Based on the initial information provided, however, the new cost allocation methodology appears to be a reasonable approach to the allocation of indirect central office costs.

UPDATE ON ENVIRONMENTAL PROTECTION FUND BALANCES

The Environmental Protection Fund, established in 1991 by statute (Section 68-203-101, *Tennessee Code Annotated*), provides funding for administration of the regulatory programs. It is supported through fees and penalties charged to regulated entities and by interest income. There are ten subaccounts within the fund: Air Pollution Control, Title V Clean Air, Radiological Health, Water Pollution Control, Water Supply, Solid Waste Management, Ground Water Protection, the Fleming Training Center, Hazardous Waste Management, and Lead-Based Abatement. Funds remaining in each subaccount at the end of a fiscal year are carried forward and expended for the program's use. As of June 30, 2004, the subaccounts for Groundwater Protection and Hazardous Waste Management had zero balances (see Table 2). Bureau of Environment management indicated that the department has completed a resource analysis for the Groundwater Protection program, which resulted in some staffing changes and reallocations. In addition, the department is in the process of completing an analysis of all program costs. Based on that analysis, the program's fee structure will be changed as needed to cover the cost of providing services.

Fiscal Services staff prepare a monthly report that is sent to the appropriate Bureau of Environment division heads. According to department management, both Fiscal Services staff and the division directors monitor subaccount balances to maintain a level of expenditures within the amount of available revenues. Statutes do not allow the transfer of money between funds. At the end of the year, however, if there is a fund shortage, the department will take remaining appropriations to cover the shortage.

Table 2
Environmental Protection Fund Activity
June 30, 2002, Through June 30, 2004
(Expressed in Thousands)

Fiscal Year	Air Pollution Control	Title V Clean Air	EPF Admini- strative*	Radiological Health	Water Pollution Control	Water Supply	Solid Waste Management	Ground Water Protection	Fleming Training Center	Hazardous Waste Management	Lead-Based Paint Abatement	Total
2002 Ending Balance	\$451	\$1,774	\$2,768	\$1,778	\$2,046	\$1,366	\$50	\$0	\$0	\$0	\$165	\$10,398
2003 Collections	\$1,816	\$5,632	\$0	\$4,154	\$4,500	\$2,481	\$2,158	\$5,499	\$177	\$2,739	\$117	\$29,273
2003 Penalties	\$224	\$0	\$0	\$14	\$556	\$55	\$42	\$0	\$0	\$392	\$0	\$1,283
2003 Interest	\$8	\$25	\$44	\$29	\$42	\$27	\$2	\$0	\$0	\$4	\$3	\$184
2003 Expenditures	\$1,913	\$6,044	\$341	\$4,204	\$4,678	\$1,767	\$2,132	\$5,499	\$152	\$3,134	\$59	\$29,923
2003 Ending Balance	\$586	\$1,387	\$2,471	\$1,771	\$2,466	\$2,162	\$120	\$0	\$25	\$1	\$226	\$11,215
2004 Collections	\$1,834	\$5,781	\$0	\$4,280	\$5,168	\$2,554	\$2,524	\$5,717	\$182	\$2,541	\$102	\$30,683
2004 Penalties	\$328	\$0	\$0	\$12	\$598	\$135	\$52	\$0	\$0	\$336	\$0	\$1,461
2004 Interest	\$5	\$17	\$26	\$19	\$22	\$24	\$3	\$0	\$0	\$0	\$3	\$119
2004 Expenditures	\$2,317	\$5,299	\$0	\$4,226	6,499	\$2,542	\$2,312	\$5,717	\$192	\$2,878	\$53	\$32,035
2004 Ending Balance	\$436	\$1,886	\$2,497	\$1,856	\$1,755	\$2,333	\$387	\$0	\$15	\$0	\$278	\$11,443

* The federal law for issuing Title V permits was effective 8/28/96. States that collected fees prior to that time were allowed to use them for administrative purposes related to air pollution programs.

Source: Tennessee Department of Environment and Conservation.

FINDINGS AND RECOMMENDATIONS

1. Environmental regulatory divisions did not always initiate enforcement action in a timely manner, and cases initiated sometimes remained open with the department's Office of General Counsel for extended periods of time

Finding

The department's environmental regulatory divisions are responsible for enforcing state and federal environmental laws. A review of case information from five environmental regulatory divisions (Air Pollution Control, Solid Waste Management, Underground Storage Tanks, Water Pollution Control, and Water Supply) revealed that the divisions did not always initiate enforcement action against violators in a timely manner. In addition, cases that divisions sent to the department's Office of General Counsel (OGC) for further action sometimes remained in process for years. Timely and consistent enforcement can help to prevent and reduce pollution and act as an incentive for violators to comply with Environmental Protection Agency (EPA) or state requirements. Compliance with environmental laws and timely enforcement of noncompliance is important to help ensure that public health and the state's air, water, and land resources are protected.

From the Department of Environment and Conservation's Enforcement Section, we obtained a listing of assessments that were issued during calendar years 2000 through 2003. We then chose a random sample of enforcement cases from each regulatory division for each calendar year (for a total of 302 cases). We reviewed each case selected to determine:

- the number of days from the issuance of a notice of violation to the request for an enforcement action, as compared to division standards;
- the number of days from the submission of a request for enforcement action to the issuance of a signed order, as compared to division standards;
- the number of days cases were with the OGC, if applicable; and
- additional case information, including demand letters sent and penalties assessed, collected, and sent.

Exhibit 1 contains a description of the enforcement process and the time guidelines used by the various divisions. Table 3 summarizes the results of our review of enforcement actions by the various divisions, and Table 4 summarizes our review of cases sent to OGC.

Overall Results

The data reviewed showed that the number of days from the issuance of a notice of violation to an enforcement action request ranged from an average of 62 to 153 days per division/program. The percent of cases that exceeded the standard number of days for submission of an enforcement action request ranged from 35% to 41% (for the two divisions that recorded such information and had set a standard). In some divisions, the number of days could not be determined because notice of violation information was not recorded. In other divisions, the number of days was tracked, but no standard had been set for this portion of the process. Without such information, department management may be hindered when tracking cases or attempting to evaluate staff's effectiveness. In addition, the lack of standards for individual parts of the process may make it more difficult to ensure that overall standards set by the department or the Environmental Protection Agency are met. (See Finding 2 for additional information.)

The data also indicated that the number of days between the submission of an enforcement action request to the division office and the issuance of a signed Director's Order ranged from an average of 17 to 180 days per division/program. The percent of cases that exceeded the division standards for Director's Orders ranged from 0% to 42% for the different divisions/programs. The average number of days from the submission of an enforcement action request to the issuance of a signed Commissioner's Order ranged from 64 to 164 days per division/program. The percent of cases that exceeded the division standards ranged from 20% to 100% for Commissioner's Orders.

Of the cases reviewed, 152 were forwarded to the department's Office of General Counsel (OGC). Cases are forwarded to the OGC when (1) the violations exceed the authority of the division's director and a Commissioner's Order is required, (2) the recipient of a Director's Order fails to respond within the 30-day time period and the order becomes final, or (3) the recipient appeals the Director's Order. An analysis of the time OGC had the cases (from receipt of case to date of case closure) indicated cases were with the OGC an average of 333 days.

Results by Division

Air Pollution Control

We randomly selected 40 case files from a population of 1,910 signed orders issued during calendar years 2000 through 2003. Overall, the cases reviewed averaged 62 days from the date of the notice of violation to the date of the enforcement action request. (See Table 3.) The division had set no standard for this portion of the process. Three cases (8%) exceeded the division's standard of 180 days from receiving an enforcement action request to issuing a signed order, and three cases also exceeded the EPA's 270-day time threshold from notice of violation to signed order.

Eight (20%) of the 40 cases we reviewed were sent to the OGC. (See Table 4.) Seven cases (one was retracted) were with the OGC an average of 476 days. As of December 31, 2004,

the five open cases had been with the OGC an average of 636 days. The two closed cases were with the OGC an average of 76 days.

We also reviewed the EPA's Clean Air Act High Priority Violation report for each quarter from calendar years 2000 through 2003 (see Appendix 2). The report identifies the high-priority violations that are beyond the EPA's timely and appropriate guidance of 270 days for enforcement. For calendar year 2000, the division had 18 instances of high-priority violations from six different companies. The number of days the violations went unaddressed or without enforcement by the division ranged from 293 to 477 days. In calendar year 2001, the division had 29 violations from nine different companies, with violations unaddressed for 271 to 758 days. In calendar year 2002, the division had 29 violations from 11 different companies with the unaddressed days ranging from 271 to 999 days (the report stops at 999 days, and thus some cases may have been unaddressed for more than 999 days). In calendar year 2003, the division had 15 violations from ten different companies with the unaddressed days ranging from 281 to 999 days. Over the time period reviewed, there were 91 instances (on a quarterly basis) where the violation had surpassed 270 days without being addressed by the department. This included 25 businesses, of which 8 (32%) were included in the quarterly reports three or more times.

Solid Waste Management

We randomly selected 38 case files from a population of 60 signed orders issued during calendar years 2000 through 2003. Because of incomplete information, we were able to determine the number of days from the notice of violation date to the enforcement action request date for only 8 of the 38 cases (21%). For the eight cases, the average number of days from the notice of violation to the enforcement action request was 135 days. The division had set no standard for this portion of the process.

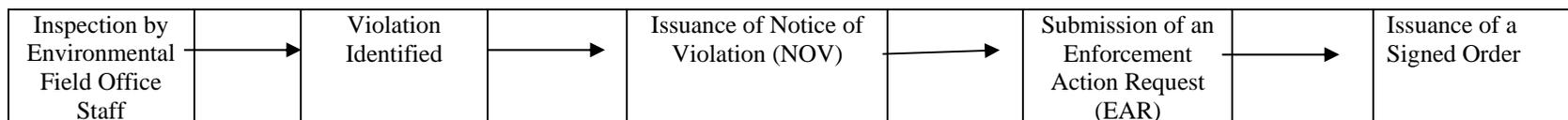
The division issued 27 Director's Orders for the cases reviewed in our sample. The cases averaged 51 days from the submission of an enforcement action request to issuance of the Director's Order. In one instance, the number of days exceeded the division's standard of 180 days. The division also issued ten Commissioner's Orders—the average time to issue a Commissioner's Order was 137 days. There were two cases that exceeded the 180-day division standard.

Twenty-five of the 38 cases reviewed were sent to the OGC. The 24 cases for which complete information was available were with the OGC an average of 410 days. As of December 31, 2004, the 11 cases that were still open had been with the OGC an average of 690 days. The 13 closed cases were with the OGC an average of 174 days.

Hazardous Waste Management (Program of Solid Waste Management)

We randomly selected 40 case files from a population of 102 signed orders issued during calendar years 2000 through 2003. For the 34 cases for which complete information was available, the average number of days from the notice of violation to the enforcement action request was 65 days (i.e., greater than the 30-day standard). In 14 cases (41%), the number of days from the notice of violation to the enforcement action request exceeded 30 days.

Exhibit 1
Department of Environment and Conservation
Enforcement Process and Time Guidelines for Environmental Regulatory Sections



Regulatory Division		Time Guidelines Number of Days From Violation to NOV		Time Guidelines Number of Days From NOV to EAR		Time Guidelines Number of Days From EAR to Signed Order
Air Pollution Control		No Standard		No Standard		180 days(a)
Solid Waste Management		15 days		No Standard		180 days(b)
Hazardous Waste Management		45 days		30 days		135 days (c)
Underground Storage Tanks		7 days		120 days		180 days
Water Pollution Control		No Standard		No Standard		180 days
Water Supply Water Environmental Health Wells and Ground Water Safe Dam Section		No Standard		No Standard		45 days

Notes:

- a. EPA standard is 270 days from NOV to Signed Order. Source: Tammy Medlen, APC Enforcement Manager, TDEC.
- b. Division standard is 180 days from EAR to Signed Order. Case is opened when EAR is submitted. Source: Teresa Boyer, SWM/HWM Manager, TDEC.
- c. EPA standard is 210 days from NOV to Signed Order. Source: Teresa Boyer, SWM/HWM Manager, TDEC.

Table 3
Summary of Regulatory Enforcement Actions
Calendar Years 2000 Through 2003

Division/Program	Cases Open	Cases Closed	Number of Days NOV to EAR	Number of Days EAR to Director's Order	Number of Days EAR to Commissioner's Order	Amount Assessed	Amount Collected	Contingent & Stipulated Penalties and Work Offs	Amount Dismissed	Amount Uncollected
Air Pollution Control	16	24	40 Cases Total=2,475 days Average=62 days No standard	40 Cases Total=2,399 days Average=60 days >180 days= 3 (8%)	0	\$61,300	\$21,300 (35%)	\$26,500 (43%)	\$4,000 (7%)	\$9,500 (15%)
Solid Waste Management	13	25	8 Cases (30 could not determine*) Total=1,081 days Average=135 days No standard	27 Cases (1 dismissed without an order) Total=1,386 days Average=51 days >180 days= 1 (4%)	10 Cases Total=1,372 days Average=137 days >180 days= 2 (20%)	\$968,445	\$64,276 (7%)	\$635,324 (65%)	\$14,877 (2%)	\$253,968 (26%)
Hazardous Waste Management	5	35	34 Cases (6 could not determine) Total=2,201 days Average=65 days >30 days=14 (41%)	34 Cases Total=2,683 days Average=80 days >135 days=7 (21%)	5 Cases (1 could not determine) Total=818 days Average=164 days >135 days =3 (60%)	\$1,461,250	\$188,104 (13%)	\$354,000 (24%)	\$821,596 (56%)	\$97,550 (7%)
Underground Storage Tanks	16	28	40 cases (3 could not determine) (1 EAR requested without NOV) Total= 6,121 days Average=153 days >120 days= 14 (35%)	43 cases (1 no order signed) Total=7,729 days Average=180 days >180 days= 18 (42%)	0	\$277,700	\$21,530 (8%)	\$87,300 (32%)	\$14,145 (5%)	\$154,725 (55%)
Water Pollution Control	11	29	Could not determine (Needed information not available)	40 Cases Total=2,261 days Average=57 days >180 days= 3 (8%)	0	\$371,200	\$112,237 (30%)	\$215,000 (58%)	\$23,963 (7%)	\$20,000 (5%)

Table 3 (Continued)
Summary of Regulatory Enforcement Actions
Calendar Years 2000 Through 2003

Division/Program	Cases Open	Cases Closed	Number of Days NOV to EAR	Number of Days EAR to Director's Order	Number of Days EAR to Commissioner's Order	Amount Assessed	Amount Collected	Contingent & Stipulated Penalties and Work Offs	Amount Dismissed	Amount Uncollected
Water Supply	2	35	Could not determine (Needed information not available)	36 Cases Total = 838 days Average = 23 days >45 days = 5 (14%)	1 Case Total= 67 days >45 days = 1 (100%)	\$252,250	\$105,078 (42%) (Includes \$35 interest paid)	\$111,700 (44%)	\$32,807 (13%)	\$2,700 (1%)
Water Environmental Health	2	17	Could not determine (Only 2 of 19 cases had needed information)	14 Cases Total= 247 days Average = 18 days >45 days= 2 (14%)	5 Cases Total = 426 days Average = 85 days >45 days = 5 (100%)	\$61,000	\$43,100 (71%)	0	\$9,800 (16%)	\$8,100 (13%)
Wells & Ground Water	3	32	Could not determine (Only 3 of 35 cases had needed information)	34 Cases Total = 788 days Average = 23 days >45 days= 4 (12%)	1 Case Total = 86 days >45 days = 1 (100%)	\$39,275	\$30,675 (78%)	\$700 (2%)	\$2,700 (7%)	\$5,200 (13%)
Safe Dam Section	1	8	Could not determine (Only 1 of 9 cases had needed information)	7 Cases Total = 117 days Average = 17 days >45 days= 0 (0%)	2 Cases Total = 128 days Average = 64 days >45 days = 2 (100%)	\$31,300	\$8,536 (27%) (Includes \$11 interest paid)	\$14,300 (46%)	\$2,675 (8%)	\$5,800 (19%)
Overall Totals	69	233	122 Cases Total = 11,878 days Average = 97 days	275 Cases Total = 18,448 days Average = 67 days	24 Cases Total = 2,897 days Average = 121 days	\$3,523,720	\$594,836 (17%)	\$1,444,824 (41%)	\$926,563 (26%)	\$557,543 (16%)

*According to Division of Solid Waste Management staff, the trigger date for beginning Solid Waste Management enforcement action is not the date of NOV issuance but the date of the Enforcement Action Request.

Table 4
Violation Cases Submitted to the Office of General Counsel
Calendar Years 2000 Through 2003

Division/Program	Cases Sent to OGC	Number of Days With OGC as of December 31, 2004	Closed Cases (with complete info)	Closed Cases Average Number of Days With OGC	Open Cases (with complete info)	Open Cases Average Number of Days With OGC as of 12/31/04	Cases Appealed	Cases With Agreed Order	Demand Letters Issued by OGC	Evidence of Board Hearing Date
Air Pollution Control	8 (1 retracted)	3,335 Avg. 476 Days (based on 7 cases)	2	76	5	636	7	0	0	0
Solid Waste Management	25 (1 missing info)	9,843 Avg. 410 Days (based on 24 cases)	13	174	11	690	12	14	7	0
Hazardous Waste Management	17	4,104 Avg. 241 Days	14	187	3	493	17	10	2	11
Underground Storage Tanks	28 (1 to AG 1 missing info)	10,895 Avg. 419 Days (for 26 cases)	12	227	14	584	16	11	4	5
Water Pollution Control	23 (4 missing info)	5,943 Avg. 313 Days (based on 19 cases)	13	146	6	675	18	13	0	2
Division of Water Supply	26 (1 missing info)	6,196 Avg. 248 Days (based on 25 cases)	23	181	2	1,022	17	16	1	14
Water Environmental Health	9	2,001 Avg. 222 Days	7	139	2	515	4	4	0	2
Wells and Ground Water	7 (1 missing info)	2,070 Avg. 345 Days (based on 6 cases)	6	345	0	0	2	2	1	0
Safe Dam Section	9 (1 missing info)	2,564 Avg. 320 Days (based on 8 cases)	7	274	1	644	5	5	0	0
Overall Totals	152	46,951 Avg. 333 Days (based on 141 cases)	97		44		98	75	15	34

The division issued 34 Director's Orders for the cases in our sample. The average number of days from the submission of an enforcement action request to issuing the Director's Order was 80 days per case. There were seven instances (21%) where the number of days exceeded the division's standard of 135 days. The division also issued six Commissioner's Orders—the average time to issue the Commissioner's Order was 164 days (based on five cases because of missing information for one case). Three cases exceeded the 135-day division standard.

Seventeen of the 40 cases reviewed were sent to the OGC; these cases were with the OGC an average of 241 days. As of December 31, 2004, three of the cases were open and had been with the OGC an average of 493 days. Fourteen of the cases were closed after being with the OGC for an average of 187 days.

Underground Storage Tanks

We reviewed a random sample of 44 Underground Storage Tank cases from a population of 506 orders issued during calendar years 2000 through 2003. For the 40 cases with complete information, the average number of days from the initial notice of violation to a request for an enforcement action request was 153 days. Fourteen cases exceeded the 120-day time guideline for this process (times ranged from 142 to 1,075 days). The average number of days from the submission of an enforcement action request to the issuance of a signed order was 180 days, which equals the 180-day time guideline. Eighteen cases (with times ranging from 242 days to 846 days) exceeded the 180-day time guideline for getting out the order.

We identified 21 businesses in our sample of 44 cases that had multiple violations (a possible indication of a disregard for the regulatory authority). Three of the businesses had more than ten cases (open and closed) in the division. One business had 21 cases (18 open and 3 closed), of which 4 cases exceeded the 120-day time period for submitting an enforcement action request after issuing a notice of violation and 6 cases exceeded the 180-day time period for issuing a signed order. The division had collected only \$250 of the \$137,243 in assessed penalties. Underground Storage Tank staff indicated that, as of August 20, 2004, these cases have all been forwarded to the Attorney General's Office to combine into one court case.

Twenty-eight of the 44 cases reviewed were sent to the OGC. One case was forwarded to the Attorney General's Office, and one case had incomplete information. The 26 remaining cases were with the OGC an average of 419 days. As of December 31, 2004, the 14 open cases had been with the OGC an average of 584 days. The 12 closed cases were with the OGC an average of 227 days. Seven of the respondents associated with the cases reviewed received demand letters from the department—three letters were from the Underground Storage Tank Division and four were from the OGC. (See Table 5.) One violator responded within 12 days, and six did not respond to the demand letters.

Table 5
Summary of Demand Letters Issued by the Office of General Counsel
Calendar Years 2000 Through 2003

Case Number	Date to OGC	Date of Appeal	Date of Agreed Order	Date of Demand Letter	Number of Days to Issue Demand Letter	Status of Case
Solid Waste Management						
Case 8	11/23/98	No Date	2/05/02	4/08/04	1,963	Open
Case 16	1/14/02	None	None	3/13/02	58	Open
Case 18	11/21/01	11/21/01	12/03/02	6/24/03	580	Open
Case 31	11/13/02	2/11/03	6/03/03	8/12/03 9/16/03	272 Second Letter	Open
Case 32	5/12/03	None	None	7/24/03	73	Open
Case 37	12/04/02	None	None	1/9/04	401	Open
Hazardous Waste Management						
Case 21	4/04/03	3/24/03	None	8/05/03	123	Closed 9/17/03
Case 34	6/25/03	None	None	8/12/03	48	Closed 1/2/0/04
Underground Storage Tank						
Case 8	1/31/01	None	None	1/31/01	0	Open
Case 12	4/17/01	No Date	1/31/02	6/17/02	426	Closed 8/6/04
Case 18	12/10/01	None	None	1/04/02	25	Open
Case 32	1/03/03	None	None	1/27/03	24	Open
Water Supply						
Case 32	7/15/03	None	None	8/01/03	17	Closed 9/18/03
Wells & Ground Water						
Case 14	1/08/01	None	None	5/08/01	120	Closed 2/18/03
Total					4,130	
Average					295	

Water Pollution Control

We randomly selected 40 case files from a population of 449 signed orders issued during calendar years 2000 through 2003. Because a company may receive multiple notices of violation before division staff issue an enforcement action request, staff do not record the notice of violation date in the Water Pollution Control enforcement database. Therefore, we could not analyze the time elapsed from the notice of violation to the issuance of an enforcement action request. The division issued 40 Director's Orders for the cases in our sample. The number of days from the submission of an enforcement action request to issuing the Director's Order ranged from 0 to 298 days, and averaged 57 days per case. Three cases exceeded the division's standard of 180 days.

Twenty-three of the 40 cases reviewed (58%) were sent to the OGC. Four cases lacked complete information; the remaining 19 cases were with the OGC an average of 313 days. As of December 31, 2004, the 6 open cases had been with the OGC an average of 675 days. The 13 closed cases were with the OGC an average of 146 days.

In addition to the file review, we also reviewed reports submitted from Water Pollution Control to the U.S. Environmental Protection Agency (EPA). The division reports quarterly on

major facilities that are not in compliance with the terms and conditions of their permit. According to EPA guidance, a significant noncompliance (SNC) generally indicates a violation which is of sufficient magnitude and/or duration to be considered among the agency's priorities for regulatory review and/or response. States are expected to prioritize rapid enforcement action against all SNC violations by the time they appear on the first Quarterly Noncompliance Report. Prior to a facility appearing on the subsequent quarterly report for the same instance of SNC, the facility should either be in compliance or the administering agency should have initiated an appropriate formal enforcement action to achieve final compliance. If the facility is still considered in significant noncompliance after two quarters and no formal enforcement action has been taken, the facility is placed on the Exceptions list. Although there are (according to the EPA guidance) some legitimate justifications for facilities appearing on the Exceptions list, the exceptions list generally indicates facilities for which the administering agency failed to handle enforcement in a timely and appropriate manner.

We reviewed the Exceptions lists to identify facilities that had been placed on the list for two or more quarters and also reviewed Water Pollution Control's enforcement database, to determine if formal enforcement actions had been taken. In our review, we focused on effluent violations designated as TRC (Technical Review Criteria), defined as those in which 33 percent or more of all of the measurements for each pollutant parameter taken during a 6-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC. We identified 26 different facilities that had been in noncompliance for two or more quarters but had had no formal enforcement action taken for the violation dates listed. A majority of the facilities had been in noncompliance for only two quarters; several, however, were in noncompliance for more than two quarters. A few examples are included in Table 6. (There were also some facilities that were listed as being in noncompliance for more than two quarters but for which incomplete information was available. Therefore, we did not include these cases in our analysis.)

Water Supply

We randomly selected 37 case files from a population of 65 signed orders issued during calendar years 2000 through 2003. For the division (and its three programs discussed below), we were unable to determine the number of days from the issuance of a notice of violation to the submission of an enforcement action request by the field staff because the division does not record the notice of violation date in the database. For the cases reviewed, the average number of days from the submission of the enforcement action request to issuing a Director's Order was 23 days, which was below the division's 45-day standard. Five cases (14%) exceeded the division's 45-day standard (from enforcement action request to issuance of a Director's Order), and one case exceeded the standard for issuance of a Commissioner's Order.

Twenty-six of the 37 cases reviewed were sent to the OGC. Twenty-five cases (one case had incomplete information) were with the OGC an average of 248 days. As of December 31, 2004, there were two open cases that had been with the OGC an average of 1,022 days. The 23 closed cases were with the OGC an average of 181 days.

Table 6
Water Pollution Control
Facilities in Noncompliance for More Than Two Quarters

Facility	Last Quarter on SNC Quarterly Report	Number of Quarters on SNC Report	Violation (1)	Severity (2)	Dates of Violations, As Noted on SNC Report
1	9/30/00	5	CBOD 5-day	TRC	09/99, 10/99, 02/00–06/00
2	9/30/01	5	Total Residual Chlorine	TRC	07/00, 08/00, 12/00, 04/01–06/01
3	9/30/01	3	Total Suspended Solids	TRC	04/01, 06/01
4	9/30/02	3	Total Residual Chlorine	TRC	02/02, 03/02
5	6/30/03	3	Settleable Solids	TRC	09/02, 12/02, 01/03, 02/03
6	9/30/03	3	Settleable Solids	TRC	03/03, 06/03 ,08/03
7	9/30/03	3	Settleable Solids	TRC	03/03–06/03, 08/03, 09/03,
7	9/30/03	3	CBOD 5-day	TRC	05/03, 08/03
7	9/30/03	3	Total Suspended Solids	TRC	03/03, 05/03, 06/03, 08/03
8	9/30/03	5	Total Ammonia Nitrogen	TRC	06/02, 07/02, 05/03–07/03

Notes:

- (1) CBOD 5-day – The amount of dissolved oxygen consumed in 5 days from the carbonaceous portion of biological processes breaking down in an effluent.
 Total Residual Chlorine – Residual chlorine left after a treatment process.
 Total Suspended Solids – A measure of the suspended solids in wastewater, effluent, or water bodies, determined by using tests for "total suspended non-filterable solids."
 Settleable Solids – Material heavy enough to sink to the bottom of a wastewater treatment tank.
 Total Ammonia Nitrogen – Ammonia.
- (2) TRC–indicates that 33 percent or more of all of the measurements for each pollutant parameter taken during a 6-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC.

Water Environmental Health (Program of the Division of Water Supply)

We reviewed 19 case files (all 18 cases with a signed order during calendar years 2000 through 2003 plus one case that did not have a signed order date in the database but was identified with a related Division of Water Supply case and was eventually determined to have a signed Commissioner's Order). The time from submission of an enforcement action request to issuance of a Director's Order was an average of 18 days, well below the 45-day standard. Two of the 14 cases (14%) with a Director's Order did, however, exceed the division's 45-day standard. All five cases with a Commissioner's Order exceeded the 45-day standard, averaging 85 days in process.

Nine of the 19 cases reviewed were sent to the OGC and were with the OGC an average of 222 days overall. The two open cases had been with the OGC an average of 515 days as of December 31, 2004, and the seven closed cases were with the OGC an average of 139 days each.

Wells and Ground Water (Program of the Division of Water Supply)

We selected 35 case files from a population of 53 signed orders issued during calendar years 2000 through 2003. (Because there were only four cases and seven cases, respectively, in calendar years 2002 and 2003, we included all of those cases in our sample.) Five of the cases reviewed (four resulting in a Director's Order and one resulting in a Commissioner's Order) exceeded the 45-day standard for submission of an enforcement action request to issuance of a signed order. The average for all 35 cases reviewed was, however, only 25 days, well below the standard. Seven of the 35 cases reviewed were sent to the OGC. Six closed cases were with the OGC an average of 345 days (the other case had incomplete information).

Safe Dam Section (A Program of the Division of Water Supply)

We reviewed all nine cases with a signed order issued during calendar years 2000 through 2003. Two cases (both resulting in Commissioner's Orders) exceeded the 45-day standard.

All nine cases were sent to the OGC. Eight cases (one had missing information) were with the OGC an average of 320 days. The seven closed cases were with the OGC an average of 274 days. The one open case had been with the OGC a total of 644 days as of December 31, 2004.

Office of General Counsel

The department's timely pursuit of legal action helps ensure that violators have the necessary incentive to respond appropriately, by correcting their actions or paying the required fines. As of December 31, 2004, 44 of the cases in our file review were still open with the OGC—the average numbers of days with OGC ranged from 493 to 1,022 days for the eight divisions/programs with open cases. (See Table 4.) In many instances, open cases indicate that either the violator has not paid the appropriate fines and/or the violator has not taken the appropriate action to return to compliance. For the cases we reviewed, the OGC sent out 15 demand letters to violators indicating that legal action would be pursued unless the violator paid the appropriate fine and/or took action to become compliant with state laws and regulations. Table 5 shows that 9 of the 14 cases (one case had two demand letters issued) were still open as of December 31, 2004. The cases that were issued demand letters were with the OGC an average of 295 days (ranging from 0 to 1,963 days) before the office issued a demand letter.

The OGC does not have standard guidelines for the amount of time that should be required to resolve a case. OGC staff stated that developing such guidelines would be difficult because each case is different and there are a number of factors (see below) that are out of OGC staff's control. As a general guideline, staff indicated they should be able to resolve a simple

case within one year, a case of medium complexity within two years, and more complex cases (e.g., those that involve more than just the collection of a fine) within three to four years. Factors contributing to the amount of time needed to resolve and close a case include:

- priority level of the case (for example, in the Underground Storage Tank division, a case that involves fund eligibility takes priority over other cases);
- amount of staffing in the OGC office (in 2003 the office was able to add three attorneys);
- time needed to schedule the Administrative Judge and acquire a court reporter for the hearing (according to OGC staff, for a period of time the office had problems obtaining court reporters because the payment cap was so low that the reporters were unwilling to come);
- when a violator changes his/her attorney, time required for the new attorney to become familiar with the case; and
- other violator-related delays (violators request continuances, decide to represent themselves, file for bankruptcy, etc.).

Recommendation

Department management should work with field and central office staff to improve the timeliness of enforcement actions (e.g., reducing the number of cases that exceed the standard number of days from the notice of violation to the enforcement action request and from the enforcement action request to the issuing of a signed order). Management should consider adopting the EPA policy allowing inspectors to use Expedited Compliance Orders/Field Citations, thereby reducing the need for the issuance of signed orders in cases where violators are willing to return to compliance and pay a reduced penalty. (The field citation offers the violator the opportunity to settle with the regulatory agency by correcting the violations and paying a penalty within 30 days. The penalty is set lower than that associated with traditional enforcement so that it is in the best interest of the violator to quickly settle, yet high enough to discourage further non-compliance. If the violator challenges or declines the settlement agreement proposed by the field citation, the offer is withdrawn and a formal action may be initiated. If the owner or operator agrees to the field citation, it is signed and returned to the regulatory agency with the penalty payment. Signing the citation is certification by the owner or operator of a return to compliance). Divisions that have not set time guidelines for each of the major steps in the enforcement process (e.g., from issuance of a notice of violation to an enforcement action request) should develop such interim standards to help ensure that overall standards set by the EPA or the department are met.

Department management should work with information systems staff to develop a tracking system that could provide reports concerning the status of cases and the number of days that the case has been in various stages of the enforcement process. As part of this process,

management should review the various enforcement databases in use by the environmental regulatory divisions, determine the types of information needed to adequately track enforcement cases and evaluate staff's performance, and require staff to enter that information into the electronic database. (We believe this information should include the dates of the Notice of Violation, Enforcement Action Request, and signed orders. Additional information that should be entered into the database includes the date the case is sent to the Office of General Counsel, date of any Agreed Orders, date of correspondence with the violator, amount of penalty that is collected and the date the payment is made, and the date the case is closed.) As part of its review of enforcement databases, management should consider whether one enforcement database, used by all regulatory divisions and allowing access across divisions, could help the department better accomplish its goals.

The Office of General Counsel should develop policies and procedures that will help reduce the amount of time that cases remain in the office. The office should develop a tracking system that will inform attorneys how long cases have been open and alert them when they need to take additional action (e.g., when a violator has failed to respond properly to department correspondence or directives).

Management's Comment

We concur in part. Since the audit findings were set forth by division/program, the Department's response will be by division/program.

Air Pollution Control

The Division of Air Pollution Control concurs. The Division has initiated a number of improvements in its enforcement order processing procedures that have resulted in an overall improvement in the efficiency of enforcement actions. These procedures are discussed below. The Division is appreciative of the fact that order processing timelines are presented in the audit as both a range and an average. There will always be a few unique cases that are particularly difficult to resolve, and we feel that an average is the best indicator of an environmental division's performance. Often times, cases that take a long period of time to issue an order can involve bankruptcy, change of ownership, negotiating creative settlement options known as supplemental environmental projects or simply locating a person who resists or evades dialogue with a division that is needed to finalize the order. The supplemental environmental project process is a worthy effort that allows environmental divisions to obtain environmental improvements that are above and beyond their regulatory authority through the voluntary consent order process.

The Division utilizes its tracking system to quickly identify cases that are approaching an unacceptable period of time to process and places those cases in red file folders. The red folders immediately alert all of the persons in the enforcement order processing chain that the case is in need of top priority to get it issued or risk going over the processing time goal. The Division learns more about factors surrounding a particular type of noncompliance as it handles more

cases of that type. This knowledge is used to compile precedents and to standardize the evaluation of the degree of enforcement needed to respond to that class of noncompliance. This knowledge allows the Division to move away from the more laborious custom order to a schedule/formula driven response that reduces time to issue an order. Finally, it is worth noting that the overall efficiency of issuing orders is improving. The number of orders the Division issues annually has almost doubled, and the current staffing levels in the Enforcement Program have remained the same despite an increasing workload. See the following statistics:

Calendar Year	Number of Orders Issued	Average Number of Day to Issuance of Order
2000	432	56
2001	483	97
2002	473	91
2003	466	105
2004	703	138
2005 to date	310	152

Solid Waste Management

We concur in part. We disagree with the statement that the information was incomplete. Unlike the Hazardous Waste Programs and other programs in the Department, the trigger date for Enforcement Action in the Division of Solid Waste Management (SWM) is not the Notice of Violation (NOV), but is instead the submittal date for the Enforcement Action Request. For this reason SWM does not routinely enter the date an NOV is issued into the Bureau of Environment Enforcement Tracking Database. Furthermore, the NOV date is not relevant for measuring the amount of time required from the time an administrative order for a violation is requested until the administrative order is issued. All NOV's can, however, be found in the file and are incorporated as part of the facts in any orders issued by the department.

Hazardous Waste Management (Program of the Division of Solid Waste Management)

We concur with the findings under this portion of the audit.

Underground Storage Tanks

Division of Underground Storage Tanks concurs. However, the Division does wish to make note of efforts to improve its performance in the audited area. In July 2004, the Division evaluated its backlog of enforcement action requests. In response to the findings, the Division approached the backlog by determining if the responsible party cooperated with the inspection and corrected any violations discovered. If the responsible party had one or more significant operational compliance violations (as identified by the Environmental Protection Agency) but cooperated by taking corrective action, the Division issued an order using an expedited process. In this process, 50% of the penalty was assessed up front and the remaining 50% of the penalty was contingent based on the violator (1) agreeing to waive their right to appeal and (2) having no significant operational compliance (SOC) violations for a period of one year. (As of April 14,

2005, this proportion of the penalty assessment was revised such that 40% of the penalty is assessed up front with the remaining 60% contingent.) If the responsible party had no SOC violations and cooperated by taking corrective action, the division issued an order using an expedited process. In this process, 100% of the penalty was contingent based on the violator (1) agreeing to waive their right to appeal and (2) having no significant operational compliance (SOC) violations for a period of one year. If the responsible party had violations but did not cooperate by taking corrective action, the Division issued a standard order with up-front penalties, contingent penalties, and certificate revocation.

Use of the expedited process has helped to reduce the number of appeals to the orders issued by the Division. Since inception of the process, the Division has issued 459 expedited orders of which only 14 (3%) have been appealed. The Division has also collected more penalty dollars. As of June 21, 2005, the Division has collected \$1,119,377.50.

The Division resolved its backlog of enforcement action requests received before July 14, 2004, by December 2004. The Division continues to utilize the expedited enforcement with current enforcement action requests received. Since July 15, 2004, the database shows that from 7/15/04 to 6/10/05, 486 enforcement action requests have been received. The Division has processed 336 of that total.

A revised enforcement policy is being formed and will be issued to the central and field offices. This policy is intended to streamline the decision making process and shorten the time from inspection to order issuance. Additionally, other divisions are reviewing the expedited enforcement policy utilized by the Division of Underground Storage Tanks in order to determine the feasibility of utilizing that same or similar policy within their respective divisions' enforcement processes.

Water Pollution Control

The Division of Water Pollution Control (WPC) concurs in part. Of the 40 cases sampled, 3 exceeded the division goal of issuance within 180 days from EAR date. This means roughly 93% of orders were issued within the target timeframe, which is nearly identical to the percentage for all orders issued in the 2000-2003 timeframe. While WPC's goal is to have 100% of orders issued within 180 days of EAR date, sometimes delays (additional inspections to document new violations, etc.) are necessary. Without knowing which specific cases were reviewed, we cannot provide any details in this regard. Overall, we believe WPC is generally on target with this goal.

The finding states that 26 facilities were in significant noncompliance (SNC) for 2 or more quarters. It is only after 2 consecutive quarters in SNC that EPA expects an enforcement response from the state. It is relatively common for facilities that have two consecutive quarters in noncompliance to return to compliance after those two quarters. If the facility returns to compliance after two quarters of noncompliance, no further action is required by EPA. Further, after an enforcement action has been issued by the state, a facility can continue to be in SNC. Where design/construction is needed to address a problem at a facility, the necessary correction

to a problem may take some time. The Division would like to point out that TRC (technical review criteria) are not based on pollution impacts to waters of the State of Tennessee. Violations of total suspended solids and settleable solids may not reflect an appreciable impact to the receiving stream.

Water Supply (including Water Environmental Health and the Safe Dam Section)

The Division of Water Supply concurs in part. The Division did not always meet its self-imposed guideline of processing a case within 45 days from the receipt of a completed EAR to issuance of an order. It must be understood that this is a self-imposed guideline and not mandated by statute, regulation, or the Environmental Protection Agency. The Division of Water Supply fully meets the EPA mandate of timely and appropriate enforcement action by addressing significant noncompliers (SNCs) within 6 months of the system becoming a SNC.

The report did not take into account that the issuance of a notice of violation (NOV), a notice of noncompliance, or a letter of agreement are considered appropriate enforcement actions by the state and the EPA. The audit finding also fails to accept that a single NOV does not necessarily trigger a formal enforcement action, which the audit implies. The Division's enforcement procedure calls for escalating enforcement action for multiple violations. A single NOV can trigger enforcement action depending on the seriousness of the violation.

The report stated that the initial NOV date is not tracked and available to management. The dates of all NOVs are maintained in the individual program tracking systems within the Division and are available to management.

Office of General Counsel

We concur that prompt legal action is imperative both in correcting and deterring environmental violations. As is noted in the finding, many of the reasons why cases stay open in the Office of General Counsel are not within our control.

We concur, as the report recommends, that a case tracking system would be beneficial in case management. We have begun the development of such a system. It will inform attorneys how long cases have been open and alert them as to when additional action is necessary.

2. The department has still not developed an integrated system to collect enforcement data and track enforcement activities

Finding

The March 2000 performance audit found that the department did not have written policies and procedures for the regulatory divisions specifying the data staff should use when recording enforcement activities or the method to be used to communicate the data to the enforcement coordinator. In its response to the audit, the department stated it was developing an

Integrated Resource Information System (IRIS) which would integrate all of the environmental program's enforcement tracking needs and allow management to analyze the data on a continual basis as required by the *Strategic Business Plan* (effective January 1999). Work performed during the current audit indicates, however, that the problems identified in the prior audit still exist to some extent.

According to the department's former Information System Director, implementation of IRIS began in 2002 and was scheduled to be completed in 2006. However, because of a variety of problems including technical problems, lack of support from the divisions, and increasing costs, IRIS was put on hold in late 2003 and then canceled. As of May 2005, Information System Division staff are looking at an off-the-shelf system with permitting, inspection, and compliance/enforcement functions. Staff believe they have found a system that would work and are completing an analysis (as approved by the Department of Finance and Administration's Office for Information Resources), including a cost-benefit analysis.

In the absence of an integrated system, the department's enforcement divisions have developed alternative data collection methods. Several divisions (Air Pollution, Underground Storage Tanks, and Water Pollution) have developed their own programs for maintaining enforcement information. Other regulatory divisions (Solid Waste Management and Water Supply) are using a data collection program developed by the department's enforcement director. (See Finding 1, however, for a discussion of some divisions' failure to enter all relevant enforcement information into the database.)

All of the individual data collection systems provided information helpful (to varying extents depending on the amount and types of information entered) in tracking and analyzing enforcement activities. However, it seems that an integrated system, used by all enforcement staff within the Environment Bureau, would facilitate department management's tracking and analysis of enforcement activities and would help coordinate enforcement efforts across divisions (for example, in cases where companies have violated water quality standards, as well as solid waste or air quality regulations). In addition, an integrated system with standard procedures and controls regarding system operation, data integrity, and security would help ensure data consistency and reliability. Central office staff in the individual divisions believed that the data in their systems were generally reliable, and we found only minor inconsistencies in our limited testing (comparisons of information in the database to information in enforcement files). The divisions, however, had done very little testing of their systems' data reliability and had varying procedures and controls.

Recommendation

Department management should continue efforts to develop an integrated system to collect enforcement data and track enforcement activities. In implementing such a system, management should ensure that appropriate procedures and controls related to data security and integrity are developed and that regulatory staff are adequately trained to use the system. (Also see page 30 for additional recommendations regarding the system.)

Management's Comment

We concur in part. The tracking system currently in place has, since the 2000 performance audit, been networked allowing the Enforcement Managers or their designees in each of the environmental divisions to enter data remotely and view that data and summaries in real time. The degree of integration is limited, however, to approximately twelve users. It does not currently have the ability to track individual Notices of Violation (NOVs), but does track the "Trigger NOV." This trigger NOV designates the NOV that initiates escalating enforcement activities leading to issuance of an administrative order. If a timely return to compliance is achieved as a result of a NOV, often no further action is necessary or appropriate. All administrative orders, including Director's Orders, Technical Secretary Orders, and Commissioner's Orders are tracked in this system.

As acknowledged in the finding, however, TDEC Information Systems Division (ISD) is in the process of completing the analysis for an integrated system that addresses permitting, compliance, and enforcement activities of TDEC's regulated entities. The Office for Information Resources approved this project through the analysis phase for Fiscal Year 2004/2005. Currently ISD is preparing a complete project proposal and cost benefit analysis for this integrated system and is submitting that proposal with the Information Systems Plan (July 2005) with the highest priority (#1). Through this project, ISD is proposing to acquire tools to automate the TDEC work processes that are related to permitting, compliance, and enforcement activities. This project would be implemented in a phased manner; the first phase would go into production in 2007. The integrated system would comply with all the standard procedures and controls of system operation, data security, and data integrity and will be tested by ISD. The system would enforce role-based security (administrator/users, etc.) and provide an audit trail.

Following are some of the identified benefits of implementing this system that would facilitate TDEC in addressing the above audit finding:

- **Provides centralized source of comprehensive information.** The new system allows coordination of work within the divisions and standardization of the work done within all TDEC locations across the state. With this new web-based system, all TDEC locations will have real-time data access.
- **Increases accuracy in data.** Improve the quality of information and associated legislation, regulations, and rules (business rules saved as metadata). By integrating the core data, redundancy across divisional boundaries in TDEC would be reduced. The system would reduce manual data entry errors.
- **Provides greater accountability and audit trails.** Provides greater accountability by tracking TDEC's business processes through workflow automation. The workflow automation helps management to find the backlogs and allows reassigning tasks to complete the compliance and enforcement activities in a timely manner.

- **Provides efficient reporting.** Provides more efficient reporting capabilities for divisions. Easier support for management reports, ad hoc questions, and planning activity.
 - **Enhances trend tracking.** Provides ability for management to detect, track, and analyze trends and enables timely decision making.
-

3. The department has only limited information on old landfills closed before permitting regulations were enacted, and many landfills closed after permitting began have not been inspected since 1998

Finding

According to Solid Waste management staff, the majority of the counties in Tennessee have an old landfill. In the late 1960s, the department conducted a survey to identify landfills prior to the enactment of permitting regulations in 1972. In 1997 and 1998, the division conducted a survey and documented 115 old closed landfills in 72 Tennessee counties that had been granted a permit (i.e., to operate a landfill) prior to closure. (The 1997-1998 survey did not include landfills closed before the permitting process began. According to staff, some of the old pre-permit sites have been inspected since the 1960s because of known problems, but others have not been because the division believes problems are unlikely, e.g., because hazardous waste was reportedly not buried at the site.) In September 2003, division staff began revisiting the 115 cataloged sites to assess site conditions and surrounding land usage. As of late July 2004, 48 of the 115 sites (42%) had been revisited. (See Exhibit 2.)

Inspection of older landfills is particularly important because those that began operation prior to permitting regulations most likely did not have safety measures in place, such as lining the landfills to prevent seepage to groundwater sources, groundwater monitoring to detect harmful chemicals released from the landfills, and monitoring for methane gas coming from the landfills. Leachate from a landfill is a thick liquid that forms when garbage decomposes. It may carry hazardous waste material that can dissolve from the waste into the groundwater, causing contamination. Newer landfills have synthetic liners above a clay-like soil to help prevent leachate from leaking into the groundwater. Another potential problem is methane gas, a colorless, odorless gas produced in a landfill by anaerobic decomposition. The gas can be used as a source of energy if collected using current technology but can be flammable or explosive if allowed to accumulate without proper safety measures.

Revisiting of Closed Permitted Landfills

According to division staff, because of a lack of resources, they are conducting the site visits of the 115 landfills in conjunction with other division business. For example, central office staff may be able to include a visit to an old closed landfill while they are conducting business at

one of the field offices in the same area. The division considers these inspections to be a “prescreening” process to assess the physical condition of the closed sites. Site condition is evaluated by

- the presence of leachate seeps,
- the presence of stressed vegetation (indicative of landfill gas impact),
- the condition of the cap (cover over the landfill), and
- the proximity of the landfill to population (land use).

The division hoped, subject to the availability of resources and staff’s schedules, to complete the prescreening process by December 31, 2004. (According to updated information from the division, staff had visited 52 of the 115 sites as of December 31, 2004.) Once prescreening is completed, the division will prioritize the sites based on problems/potential problems identified and attempt to find the resources needed to deal with problems identified and monitor potential problems.

According to division records, 49 of the 115 sites have groundwater monitoring systems on site, one landfill never received waste, and another site had the waste removed and was closed as being clean. Sixty-four of the sites do not have groundwater monitoring, even though they still contain waste that could potentially cause contamination. The division is trying to determine how many of the 64 sites are located next to landfills equipped with groundwater monitoring wells. Division staff believe that if an unmonitored landfill is upstream from a landfill with a monitoring well, that monitoring well could possibly be used to monitor the unmonitored landfill because groundwater passing beneath the unmonitored landfill will reach (and affect the readings at) the monitored landfill. The division had not yet conducted any analyses, however, to test if such a process would be effective.

Pre-permit landfills

The potential for problems at landfills, particularly those in operation before safety measures were required, has become a greater concern since the issues of contamination from the Dickson County landfill have surfaced. The industries in the Dickson County area buried toxic waste in the Dickson County landfill before July 1972, when the state enacted policies regulating landfills and limiting the type of waste allowed.

Once old pre-permit landfills are located, the responsibility of cleanup, if necessary, lies with the Superfund program, which provides remediation of contaminated sites through tracking down those responsible for contributing to the contamination and using funds provided by the federal and state government. According to division staff, the Dickson County landfill would have been the responsibility of the Superfund program because the source of contamination came from a pre-permit landfill. However, the old landfill was expanded vertically under new permitting regulations, which kept the responsibility of monitoring and sampling the landfill with the Solid Waste Management division. While the new expanded landfill has groundwater monitoring under permitting regulations, it is also being used for the old pre-permit landfill.

(The division's assumption, discussed earlier, is that the monitoring stations for the new section, which are downhill from the old landfill, will also capture needed data from the old pre-permit landfill.)

According to Solid Waste Management staff, the division has spent an estimated \$240,000 for sampling and investigation issues surrounding the Dickson County landfill. These funds were not budgeted for but have had to come from supplemental programs and monetary penalties assessed violators of landfill permits.

No specific federal or state regulations address pre-permit landfills or landfills beyond post-closure care. Post-closure care can last 30 years for facilities closed under the current regulations. In 2003, the division decided that facilities which had closed and were in the post-closure care phase could, under existing regulations, be assessed fees to cover inspection costs. The division promulgated rules to assess \$1,000 per year per site; the rules, however, were subsequently vetoed by the General Assembly's Government Operations Committee, which viewed the fee as being a tax rather than a fee for services rendered.

Recommendation

Solid Waste Management staff should strive to complete the prescreening process for the 115 landfills documented during the 1997-1998 survey as soon as practicable. In addition, the division should review available information on pre-permit sites and conduct inspections as needed to ensure all potential problem sites are reviewed. Whenever possible, the division should use inspection/monitoring methods that will fully assess the risk the landfills pose to the surrounding community and the environment (i.e., using information from groundwater monitoring wells and methane monitors in addition to visual inspections).

Solid Waste Management staff should obtain additional information/data as needed to determine the feasibility of using monitoring wells from adjacent landfills to monitor sites without groundwater monitoring wells. If such a strategy appears to provide reliable information regarding contaminants at both sites, the division should expand its use of this monitoring method.

The department should assess Solid Waste Management's costs to adequately inspect and monitor landfills and the resources currently available for that process. If appropriate, the department should present to the General Assembly proposed legislation to provide adequate funding (e.g., the addition of a post-closure fee) for landfill inspections and monitoring.

Management's Comment

We concur in part. The Division of Solid Waste Management concurs that it has only limited information on landfills closed before permitting regulations were enacted. However, a number of these sites are adjacent to monitored sites, and may in fact have some monitoring coverage. Additionally, a small number of landfills received a waiver from portions of the new standards in order to complete landfill cells they had started. These facilities with waivers could

close after 1990 without being subject to new standards, provided the facility did not start a new cell or expand. Currently, operating Class I landfills are inspected at least monthly, and closed Class I landfill in the Post-Closure Care period are inspected at least semi-annually.

The division will continue its efforts to complete the prescreening process for the 115 landfills documented during the 1997-1998 survey. The division will continue to review available information on pre-permit sites, conduct inspections as needed, and use the data gathered during the prescreening process to prioritize these old sites for further investigation (e.g., sampling, etc.) as resources allow. The division is in the process of performing a workload analysis as are all the other divisions within the Bureau of Environment for the department. The analysis is designed to identify each program's required responsibilities and determine the amount of work needed to meet those responsibilities. The division can then compare staffing patterns with current service demands across the state resulting in a shift of resources to areas of need from areas of surplus. The workload analysis should be completed in the summer of 2005.

4. The department has not developed and consistently applied a comprehensive matrix for calculating the economic benefits of noncompliance

Finding

According to Environmental Protection Agency (EPA) penalty policies, every effort should be made to calculate and recover the economic benefit of noncompliance. The objective of the calculation is to place a violator in the same financial position the violator would be in had the violator complied with requirements on time. The EPA's reasoning is that a company that violates pollution laws is likely to have obtained an economic benefit as a result of delaying or avoiding pollution-control expenditures during the period of noncompliance. During fieldwork for the March 2000 performance audit, the department stated that it was developing a comprehensive penalty assessment matrix to calculate economic benefits when assessing civil penalties. (The August 1997 audit found that there were no formal policies for calculating the economic benefit of noncompliance.) The matrix was to be complete and implemented by the end of calendar year 1999. Based on information obtained during the current audit, although a few divisions consider the economic benefit of noncompliance in assessing penalties in some cases, no comprehensive matrix has been implemented.

To estimate the total economic savings a violator may have obtained because of noncompliance, the EPA uses the BEN model. The model calculates the costs a firm or municipality would have incurred assuming the entity had complied on time and subtracts from that value the costs that actually resulted from delayed compliance. The difference between the present value of on-time compliance and delayed compliance is assumed to be the economic savings resulting from noncompliance. The EPA also uses the ABEL model to help ensure that the regulator will not request penalties beyond the means of the violator. The ABEL model analyzes three to five years of a business's federal tax returns and produces two types of outputs:

- a financial profile based on commonly used financial ratios that determine liquidity, solvency, tendency toward bankruptcy, and the general health of the firm; and
- a probability-based forecast of the firm's likely future cash flows, which is used to assess the likelihood of the entity's ability to pay fines, cleanup costs, and other types of incremental environmental expenditures.

In March 2002, a few staff members from the various environmental regulatory divisions, as well as Office of General Counsel and Finance Division staff, received EPA training on the BEN and ABEL models. Finance Division staff are available to assist the regulatory divisions (if requested) in using the models. Although the Finance Division does not track who receives assistance with the model, staff estimated they assist one division every two weeks. According to Finance Division staff, there is a need for additional training of regulatory staff on the models' use. Some persons initially trained may no longer be employed by the department or may be in a different position because of departmental restructuring. In addition, staff who use the models infrequently may need retraining. Some regulatory division staff expressed concerns about the models' usefulness. For example, enforcement staff in the Air Pollution Control Division raised concerns that the models require too much information (e.g., tax rates for businesses) and make potentially misleading assumptions, and stated that the division had only used the models once since the 2002 training.

Environmental regulatory staff have access to (and have received limited training on) models that address the economic benefit of noncompliance. It appears, however, that these models, or any alternative method of addressing the economic benefit of noncompliance, are not used consistently. Without a standard, consistently applied method to calculate and recover the economic benefit of noncompliance, a violator has less incentive to comply with federal and state environmental requirements and may gain an economic advantage over competitors who have taken the necessary steps to comply on time.

Recommendation

Bureau of Environment management should take action (e.g., developing formal written policies or guidelines) to ensure that the regulatory divisions consistently include as part of their penalty assessment the calculation and recovery of the economic benefit of noncompliance. If EPA models continue to be used, management (or their designated representatives) should work with EPA staff to address regulatory division staff's concerns and to ensure that staff understand and are adequately trained to use the models.

Management's Comment

We concur. The determination of the economic benefit of noncompliance has traditionally been a difficult process at best. EPA's BEN model has been used sporadically due to the fact that it makes numerous assumptions based upon data that must be furnished in part by the subject of the enforcement action. Additionally, the BEN model continues to be challenged

in federal court. [*United States v. Allegheny Ludlum Corporation*, 366 F.3d 164, 180-184 (3rd Cir. 2004); *Student Pub. Interest Research Group of New Jersey, Inc. v. Hercules, Inc.*, 19 E.L.R. 20903, 20905 (D.N.J.1989); and *Proffitt v. Lower Bucks County Joint Municipal Auth.*, 1988 WL 48552 at *6 (E.D.Pa. May 12, 1988)]

To address the calculation of economic benefit, a work group had been brought together consisting of each of the program's Enforcement Managers to arrive at a consistent methodology to recover the economic benefit component of civil penalty assessments. The work group has already begun meeting to discuss the appropriate processes and methodologies for the department.

5. Participants in the Voluntary Cleanup, Oversight, and Assistance Program (VOAP) did not give timely public notice for some cleanup agreements reviewed

Finding

Pursuant to Section 68-212-224, *Tennessee Code Annotated*, the Commissioner of Environment and Conservation can enter into voluntary agreements or consent orders for the investigation and/or remediation of Brownfield sites (property whose expansion, redevelopment, or reuse is complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant). The Voluntary Cleanup, Oversight, and Assistance Program is designed to attract applicants to work proactively with state government to address needed cleanup of such sites to return them to productive use. A voluntary agreement would involve, for example, a landowner who was not responsible for the contamination or a prospective owner, while a consent order would be used for an applicant who was responsible at least in part for some of the contamination. The VOAP statute requires that certain public notice requirements be fulfilled (notice requirements vary depending on the specifics of the agreement or order). Based on our file review of a sample of cases, however, we identified two cases that did not have timely public notice given.

Because of the program's voluntary nature, the department employs a flexible attitude as a selling point to influence participants to clean up the sites. For example, in comparison to the Superfund program, the VOAP program is more lenient on the amount of time it takes to enter a voluntary or consent agreement, and the fees associated with the process are typically less. (The entrance fee may be decreased or waived to persuade individuals to enter the program.) As of mid-October 2004, there were 162 VOAP sites, with 47 of the sites completed.

We reviewed a sample of ten cases from calendar years 2000 through 2004. During our review, we found two third-party liability-protection cases with public notice dates occurring after the participants signed consent orders with the division to clean up a site. Third-party liability protection means that the party who enters a cleanup agreement will not be liable to third parties for contribution regarding matters addressed in the agreement. (The concept of contribution applies to a situation where more than one person is potentially at fault. For

example, a site over time has been owned by three different companies. Each company has used the property in ways that have polluted the soil, but to differing degrees. If one company enters into a consent order with the state, that company is not subject to a third-party contribution claim regarding matters contained in the order. This can protect that company from third-party claims that the company involved in the cleanup contributed more contamination than it is required to clean up under the order.) In such cases, actual or constructive notice must be given so that impacted third parties have an opportunity to comment. If constructive notice is used, such notice may be accomplished by publishing a summary of the agreement in a newspaper of general circulation within the geographic area of the site, at least 30 days prior to the effective date of the agreement or order. If, however, the participant requesting third-party liability protection does not give the required public notice, then that participant, not the state, assumes the risk of third-party liability.

In both consent orders for which we found a lack of timely notice, the department stated that the participants had demonstrated to the department that constructive notice was accomplished by publishing a summary of the order in an appropriate newspaper. However, in both cases the date of the newspaper notice was substantially (18 months and 21 months) after the dates the orders were signed. Notices to owners of adjoining properties and to local governments with jurisdiction were also given at about the same time as the constructive notice. (There are no specific statutory requirements regarding the timing of these notices.)

Department staff indicated that the VOAP agreement/order format is being continuously reviewed and improved. More recent versions were revised to clarify that the date the agreement/order is signed and the effective date of the agreement/order are different dates, and that the agreement/order becomes effective 30 days after public notice has been given. It seems, however, that the agreement/order could be further improved if, rather than stating that appropriate notice has been given before it actually has been, the department attached a rider or amendment to the agreement/order once it has evidence that notice has been given and an effective date can be identified. This would help the department ensure that appropriate notice and opportunity for comment regarding cleanup agreements have been provided where necessary.

Recommendation

Division of Superfund management should review the Voluntary Cleanup, Oversight, and Assistance Program agreement to ensure that the agreement/order format (1) spells out clearly for participants what their responsibilities are and the potential impact if they do not follow the terms of the agreement/order and (2) makes it easier for division staff to track and document that statutory requirements, particularly public notice requirements, are carried out in a timely manner. Management should consider revising the VOAP agreement/order format so that statements regarding the accomplishment of public notice are only included after such notice has actually been given.

Management's Comment

We concur. We concur that in order for a person to establish constructive notice under Section 68-212-224(a)(3), public notice must be made 30 days prior to the effective date of a voluntary or consent agreement. Recent voluntary agreements recognized that it is appropriate to have both a date an agreement was signed and a separate date for the effective date of the agreement. The following language is now included: "The Effective Date of this Agreement is the thirtieth (30th) day after the publication of the notice described in Section F of this Agreement." Section F in this case contains the requirement for public notice.

6. Well drillers do not always submit reports in compliance with department rules

Finding

As part of its responsibilities focused on protecting the state's water supply, the department's Division of Water Supply monitors the drilling of wells. According to Rule 1200-4-9-.10 (1)(b), a driller is to submit to the department a report summarizing the construction or reconstruction of a well within 30 days of completing the project. Such reports could provide important information to the state and affected members of the public in the event of contamination or other problems with (or affecting) the well. Our file review of a sample of well drillers, however, indicated that 55% of the drillers reviewed submitted required reports in a less than timely manner.

From a population of 259 well drillers, we reviewed the reporting practices of 20 well drillers for the time period 2000 through 2003. As shown in Table 7, the file review included a total of 3,785 well driller reports submitted to the Division of Water Supply. A total of 1,285 reports in our sample were submitted late, with 503 of those reports submitted over 60 days late. Eleven (55%) of the 20 well drillers submitted more than 10% of their required reports to the division more than 30 days after completion of the well. Four drillers were responsible for 76% of the late reports.

The department's Environmental Field Offices (EFOs) are responsible for reviewing completed driller reports and taking the necessary informal enforcement actions when needed. For our file review, 45% of the late reports came from the Knoxville EFO, 43% came from Chattanooga, 11% came from Nashville, and 1% came from Jackson. Late submissions can trigger informal actions such as warning letters and notices of violations (NOVs). Nine NOVs were issued for the 1,285 late reports in our sample—4 from the Knoxville EFO, 4 from the Nashville EFO, and one from the Chattanooga EFO.

If informal efforts fail to accomplish reductions in late report submissions, formal alternatives can be pursued, e.g., compliance review meetings, the issuance of Administrative Orders (Director's and Commissioner's Orders), and the issuance of civil penalties. For our sample, three Director's Orders were issued to one well driller for late reporting. Division civil

penalty assessment schedules and the Tennessee Water Well Act of 1963 indicate that well drillers having reports submitted beyond 90 days or having more than 15 late reports may be subject to a civil penalty of \$500, should the case reach the Director's level. If the well drillers in our sample had been fined \$500 per late report after they reached the 15 late reports milestone, the department could have assessed over \$550,000 in civil penalties.

**Table 7
Reports Submitted by Well Drillers
Calendar Years 2000 Through 2003**

File	Number of Reports	Number of Days Past Due				Total Number of Reports Late	Percentage of Reports Submitted Late	Percentage of Total Late Reports	Enforcement Action	EAC Office
		31 to 60	61 to 90	91 to 120	Over 120					
1	0	0	0	0	0	0	0%	0%	0	NA
2	840	52	33	19	14	118	14%	9%	2 NOVs, Compliance Review Meeting on 2/15/96	N
3	280	40	20	0	19	79	28%	6%	0	C
4	0	0	0	0	0	0	0%	0%	0	NA
5	389	5	7	2	7	21	5%	2%	2 NOVs	N
6	0	0	0	0	0	0	0%	0%	0	NA
7	10	6	0	0	0	6	60%	1%	0	C
8	260	173	74	7	3	257	99%	20%	0	K
9	125	0	0	0	1	1	0%	0%	0	C
10	36	2	0	0	0	2	6%	0%	0	K
11	146	53	14	1	8	76	52%	6%	0	C
12	839	98	56	48	36	238	28%	19%	2 NOVs	K
13	65	29	0	0	2	31	48%	2%	0	C
14	576	258	104	0	2	364	63%	28%	1 NOV	C
15	0	0	0	0	0	0	0%	0%	0	NA
16	0	0	0	0	0	0	0%	0%	0	NA
17	107	16	0	0	0	16	15%	1%	0	J
18	59	37	1	0	2	40	68%	3%	0	K
19	53	13	3	5	15	36	68%	3%	2 NOVs, 3 DOs	K
20	0	0	0	0	0	0	0%	0%	0	NA
Total	3,785	782	312	82	109	1,285		100.0%		
%		60.9	24.3	6.4	8.4	100.0				

NOV – Notice of Violation
DO – Director's Order
NA – Not Applicable (No reports submitted)
EAC – Environmental Assistance Center
C- Chattanooga J - Jackson
K - Knoxville N - Nashville

Source: Division of Water Supply Well Driller Files.

Recommendation

Division of Water Supply management should take action to improve timely reporting by well drillers. Management should work with EAC staff and well drillers to ensure that drillers understand the reporting requirements and the reasons for those requirements, focusing first on those areas of the state with high levels of noncompliance. Management should develop guidelines to aid EAC and central office staff in determining when (under what circumstances) informal actions need to be taken and when formal enforcement actions need to be considered. Finally, once management has set parameters, enforcement actions (penalties, etc.) should be assessed when appropriate, and assessed consistently throughout the state.

Management's Comment

We concur. We concur with the finding that well drillers do not always submit reports in compliance with department rules. Driller reports are important in providing valuable construction and historical information on the well and allowing division staff to schedule an after-the-fact inspection. Letters have been written to drillers, informal meetings have been held with the drillers, presentations have been made at the annual association meeting and enforcement action has been taken against drillers. While the division has addressed this issue many times over the years, some drillers continue to submit late reports.

Because of the limited staff in the water well program and vacancies in the program, a decision had to be made to prioritize activities. It was determined that licensing drillers and installers, ensuring that construction standards are followed, eliminating unlicensed drillers and installers, and working with homeowners to solve water quality issues were more important than addressing late well completion reports until it became a major problem.

Since the Comptroller's Office has deemed this a priority, the Division of Water Supply has established the following procedure to address this deficiency. After being informed of this deficiency in the field exit conference, central office staff (using the Well Logging Tracking System database to identify well drillers submitting late reports) notified each driller about the reports submitted late. Every three months, the central office will use this system to identify the reports submitted and will send each licensed driller a listing of water wells reported. Those drillers submitting late reports will be sent a notice of violation (NOV). A third NOV for late reporting within a 12-month period will result in the issuance of a director's order with a civil penalty being sent to the driller. Any subsequent late reports within 12 months of issuance of the director's order will result in additional enforcement action.

7. The department has not completed the surveys of state parks required under the 1999-2009 Tennessee State Parks Master Plan

Finding

Both the August 1997 and March 2000 performance audits of the department raised concerns about the need for surveys to establish and mark park boundaries and aid staff in identifying and dealing with encroachments on state land. In its response to the March 2000 performance audit of the department, management stated that the Master Plan, approved May 1999, required the completion of boundary surveys on 15 parks by June 30, 2003, and an additional 10 parks by June 30, 2008. The department has completed only five (33%) of the 15 surveys that were scheduled to be completed by June 30, 2003. One survey (7%) was completed later than scheduled, in August 2004. Seven parks (47%) had no survey, and two parks (13%) had old surveys (completed in 1990 and 1973). See Table 8.

**Table 8
State Park Surveys Scheduled to Be Completed by June 30, 2003**

State Parks	Date Survey Was Completed
1. Big Cypress Tree	August 2004
2. Burgess Falls	July 1990
3. Cumberland Mountain	August 2001
4. David Crockett State Park	May 2001
5. Dunbar Cave State Natural Area	No survey done
6. Fort Loudoun State Historical Area	No survey done
7. Harpeth River & Narrows	No survey done
8. Indian Mountain State Park	No survey done
9. Mousetail Landing	June 2001
10. Nathan Bedford Forrest State Park	No survey done
11. Pickwick Landing State Park	September 2001
12. Port Royal State Historic Area	No survey done
13. Red Clay State Historical Area	September 1973
14. T.O. Fuller State Park	April 2003
15. Tims Ford State Park	No survey done

Source: Information provided by Recreation Services, Division of State Parks, TDEC.

State Parks staff provided some explanations for the failure to complete all the park surveys. In recent years, the division has lost its licensed surveyors and, as of November 2004, had only one non-licensed surveyor on staff. Another limitation is the cost of performing field surveys, which can range between \$75,000 and \$100,000. The two most recent surveys (Big Cypress Tree and T.O. Fuller State Parks) were conducted by the non-licensed surveyor without going on site. Using deed information from the local courthouse, a software package defines the boundaries and displays the information on the computer screen. Although the cost of such a survey is less than an on-site field survey, current or potential encroachment situations cannot readily be identified using this method.

In November 2000 and March 2004, the department conducted training sessions for park staff to improve their ability to identify or inspect areas of potential encroachment. The training included topics such as the basics of researching tax maps and deeds, identifying property

boundaries, and locating boundary stakes. The idea was that staff could perform preliminary park inspections and, if potential problems are identified, gather additional information that could lead to a formal survey. Department management could not, however, provide information on how many such inspections had occurred.

Recommendation

State Parks management should develop and implement plans to proceed with the completion of state park surveys. If preliminary inspections have been completed by park staff, department management should use that information to prioritize surveys, focusing first on those parks with the most potential problems. Management should continue to provide appropriate training to staff at individual parks so that park staff can perform much of the information-gathering work. This strategy could help keep survey costs at a minimum while maximizing the amount of pertinent information available concerning actual or potential encroachments. Department management should assess whether, given other department requirements and needs, the need to complete state park boundary surveys is sufficient to warrant the hiring of at least one licensed surveyor.

Management's Comment

We concur. To complete surveys in the seven parks in question as well as other parks in dire need of surveys, funding must be appropriated through the annual capital budget process. Due to the extremely difficult financial status of state parks in recent years, no monies have been earmarked for park surveys. We will request \$100,000 per year beginning in FY 06-07 for boundary surveys in state parks.

We will require that each state park send a staff person with the responsibility of resource management to attend an updated boundary inspection workshop. At this workshop, each participant will learn the basics of Geographic Information Systems/Global Positioning Systems; tax map and deed research; and other principles of boundary inspection. Each participant will be required to return to their respective park and inspect their entire boundary. NOTE: Training each participant will not qualify them to confirm boundary lines. They will, however, have the capacity to confirm existing survey pins and markers and identify suspicious situations (suspected encroachments). Only certified surveys performed by a certified professional surveyor can confirm park boundaries. This mandatory training will be implemented in 2006.

In the past, training was provided but no provision was made to mandate that park staff inspect their boundaries.

8. The department failed to submit a statutorily required update of the 1999-2009 Tennessee State Parks Master Plan

Finding

Section 11-3-120(b), *Tennessee Code Annotated*, requires the Department of Environment and Conservation to complete a ten-year State Parks Master Plan by March 1, 1999, and to submit to the General Assembly an updated Master Plan every five years. Prior to submitting the update to the Senate Environment, Conservation and Tourism Committee and the House Conservation and Environment Committee, the department is to hold public hearings statewide and submit the proposed update to the Tennessee Environmental Council and the Tennessee Recreation and Parks Association for review and comment. Although the plan update was due by March 1, 2004, no update has yet been submitted for review by parties outside the department. Such an update is particularly important because leadership of the department and the administration has changed since the initial plan was developed, which may have resulted in changes in management's direction and priorities regarding the operation of Tennessee's state parks system and the allocation of resources for development, maintenance, and various operational activities (e.g., education, recreation).

State Parks management has taken some initial steps toward developing an updated Master Plan. Two planning documents are being used to help guide parks in developing their own individual park plans. Strategic direction documents (identifying how state parks should be moving both to protect and manage the use and enjoyment of our state parks) have been distributed to all park managers. Items in this document include enabling legislation, management values and a vision statement, core beliefs, and several strategic initiatives. Another planning document, the Management Direction Statement, was initially circulated to nine state parks basically requesting that park management address several enclosed questions. The parks are expected to describe (1) their individual mission statements, (2) key park background attributes, (3) current land use activities, (4) previous planning directions and preliminary zoning arrangements, and (5) park revenue and expenditure trends. Results of this document are the identification and development of management issue areas, park goals, and generic strategies for accomplishing each goal identified. Upon completing the Management Direction Statement, park managers were to forward the document to the central office by February 2005. As of May 20, 2005, the central office had received drafts of the completed document from eight of the nine parks. Once the process is completed for those parks, the Management Direction Statement will be sent to another group of parks until all parks have been covered.

Recommendation

State Parks management should complete a proposed update of the Master Plan, hold public hearings statewide, and submit the proposed update for review and comments by the Tennessee Environmental Council and the Tennessee Recreation and Parks Association, and then submit the resulting plan to the appropriate legislative committees. To facilitate the plan's completion, a formal schedule (showing the remaining phases of the project to be completed

along with estimated completion dates and responsible persons) should be developed and monitored periodically. Management should review the legislation concerning the Master Plan and propose changes as needed to facilitate the planning process (i.e., ensuring that future plans can be developed at a reasonable cost while still providing sufficient direction for staff and adequate information for external parties regarding management's overall vision for the parks and any changes in direction/priorities).

Management's Comment

We concur. Tennessee State Parks will develop a formal schedule to facilitate the master plan update process. One problem that we have had is that this is an unfunded mandate and during the recent budget crisis, State Parks has had to reduce staff, who would have been able to conduct the public hearings and develop the master plan update.

The audit finding recommendation is appropriate. Park management will review the legislation to determine if legislative changes should be recommended.

9. The department has not established a State Compliance Advisory Panel on air pollution, as required by federal law

Finding

Pursuant to Title V, Section 507, of the Clean Air Act, the department was to establish a State Compliance Advisory Panel as part of Tennessee's revised State Implementation Plan, approved effective July 1995. According to department staff, however, the department has never established the required panel.

Title V, Section 507, mandates (1) the establishment of a Small Business Assistance Program; (2) the establishment of a state Small Business Ombudsman to represent the interests of small businesses in the regulatory process; and (3) the creation of a Compliance Advisory Panel to determine and report on the overall effectiveness of the Small Business Assistance Program. The Small Business Assistance Program and the Ombudsman programs have been combined since July 2002 and are the responsibility of one staff person. The State Compliance Advisory Panel is to consist of at least the following:

- two members selected by the Governor who are not owners or representatives of small businesses;
- four members selected by the state legislature who are owners, or represent owners, of small businesses; and
- one member selected by the head of the state agency in charge of the Air Pollution permit program.

The panel's responsibilities are to

- provide direction and oversight to the Tennessee Division of Clean Air Assistance (i.e., the Division of Air Pollution Control) and the Ombudsman in their specific responsibilities;
- provide advisory opinions regarding the effectiveness of the assistance program, the challenges encountered, and the degree and severity of enforcement;
- review information for small business air pollution sources to ensure the information is understandable to the common citizen; and
- make periodic reports to the EPA administrator in accordance with requirements of the Paperwork Reduction Act, Regulatory Flexibility Act, and Equal Access to Justice Act.

Thus far, according to program staff, the state has experienced no loss of federal funding or other penalty for violating its implementation plan. In addition, the Small Business Ombudsman has conducted workshops and distributed information to help educate small businesses. Without the advisory panel, however, the state does not have easy access to the expertise and input that could have been provided by panel members. In addition, panel members from across the state could help increase awareness of the program and its assistance services throughout the state's small-business community. As separate entities, most small businesses do not produce a significant amount of pollution. Taken collectively, however, small businesses can affect the attainment and maintenance of national ambient air quality standards.

Recommendation

The department should establish the State Compliance Advisory Panel as required by federal law. The department should initiate communications with the Governor's office and the General Assembly to develop a list of individuals to serve on the panel. Although the law requires that the panel have at least seven members, the state should consider expanding that number to ensure adequate representation of small businesses of various types throughout the state, as well as others affected by or interested in clean air standards for their areas.

Management's Comment

We concur. The federal 1990 Clean Air Act Amendments (Act) and Tennessee's Air Quality State Implementation Plan (SIP) require the establishment of a Compliance Advisory Panel (CAP) to provide advice and guidance to the Small Business Assistance Program. A CAP has not been appointed.

The Act and SIP stipulate the number of Panel members and the appointing authority. Expanding the number of members may require legislation. The Department could appoint *ex*

officio members to increase the number of small businesses participating in the CAP's meetings and activities.

The following steps will be taken:

- July-August 2005: Conduct program and CAP orientation with potential nominating entities.
- October-December 2005: Seek CAP member appointments.
- January-February 2006: Seek appointment acceptance, send appointment letters, notify agencies and interested parties of appointments.
- March 2006: Schedule first meeting.

RECOMMENDATIONS

ADMINISTRATIVE

The Department of Environment and Conservation should address the following areas to improve the efficiency and effectiveness of its operations.

1. Department management should work with field and central office staff to improve the timeliness of enforcement actions (e.g., reducing the number of cases that exceed the standard number of days from the notice of violation to the enforcement action request and from the enforcement action request to the issuing of a signed order). Management should consider adopting the EPA policy allowing inspectors to use Expedited Compliance Orders/Field Citations, thereby reducing the need for the issuance of signed orders in cases where violators are willing to return to compliance and pay a reduced penalty. (The field citation offers the violator the opportunity to settle with the regulatory agency by correcting the violations and paying a penalty within 30 days. The penalty is set lower than that associated with traditional enforcement so that it is in the best interest of the violator to quickly settle, yet high enough to discourage further non-compliance. If the violator challenges or declines the settlement agreement proposed by the field citation, the offer is withdrawn and a formal action may be initiated. If the owner or operator agrees to the field citation, it is signed and returned to the regulatory agency with the penalty payment. Signing the citation is certification by the owner or operator of a return to compliance). Divisions that have not set time guidelines for each of the major steps in the enforcement process (e.g., from issuance of a notice of violation to an enforcement action request) should develop such interim standards to help ensure that overall standards set by the EPA or the department are met.
2. Department management should work with information systems staff to develop a tracking system that could provide reports concerning the status of cases and the number of days that the case has been in various stages of the enforcement process. As part of this process, management should review the various enforcement databases in use by the environmental regulatory divisions, determine the types of information needed to adequately track enforcement cases and evaluate staff's performance, and require staff to enter that information into the electronic database. (We believe this information should include the dates of the Notice of Violation, Enforcement Action Request, and signed orders. Additional information that should be entered into the database includes the date the case is sent to the Office of General Counsel, date of any Agreed Orders, date of correspondence with the violator, amount of penalty that is collected and the date the payment is made, and the date the case is closed.) As part of its review of enforcement databases, management should consider whether one enforcement database, used by all regulatory divisions and allowing access across divisions, could help the department better accomplish its goals.

3. The Office of General Counsel should develop policies and procedures that will help reduce the amount of time that cases remain in the office. The office should develop a tracking system that will inform attorneys how long cases have been open and alert them when they need to take additional action (e.g., when a violator has failed to respond properly to department correspondence or directives).
4. Department management should continue efforts to develop an integrated system to collect enforcement data and track enforcement activities. In implementing such a system, management should ensure that appropriate procedures and controls related to data security and integrity are developed and that regulatory staff are adequately trained to use the system.
5. Solid Waste Management staff should strive to complete the prescreening process for the 115 landfills documented during the 1997-1998 survey as soon as practicable. In addition, the division should review available information on pre-permit sites and conduct inspections as needed to ensure all potential problem sites are reviewed. Whenever possible, the division should use inspection/monitoring methods that will fully assess the risk the landfills pose to the surrounding community and the environment (i.e., using information from groundwater monitoring wells and methane monitors in addition to visual inspections).
6. Solid Waste Management staff should obtain additional information/data as needed to determine the feasibility of using monitoring wells from adjacent landfills to monitor sites without groundwater monitoring wells. If such a strategy appears to provide reliable information regarding contaminants at both sites, the division should expand its use of this monitoring method.
7. The department should assess Solid Waste Management's costs to adequately inspect and monitor landfills and the resources currently available for that process. If appropriate, the department should present to the General Assembly proposed legislation to provide adequate funding (e.g., the addition of a post-closure fee) for landfill inspections and monitoring.
8. Bureau of Environment management should take action (e.g., developing formal written policies or guidelines) to ensure that the regulatory divisions consistently include as part of their penalty assessment the calculation and recovery of the economic benefit of noncompliance. If EPA models continue to be used, management (or their designated representatives) should work with EPA staff to address regulatory division staff's concerns and to ensure that staff understand and are adequately trained to use the models.
9. Division of Superfund management should review the Voluntary Cleanup, Oversight, and Assistance Program agreement to ensure that the agreement/order format (1) spells out clearly for participants what their responsibilities are and the potential impact if they do not follow the terms of the agreement/order and (2) makes it easier for division staff to track and document that statutory requirements, particularly public notice requirements, are carried out in a timely manner. Management should

consider revising the VOAP agreement/order format so that statements regarding the accomplishment of public notice are only included after such notice has actually been given.

10. Division of Water Supply management should take action to improve timely reporting by well drillers. Management should work with EAC staff and well drillers to ensure that drillers understand the reporting requirements and the reasons for those requirements, focusing first on those areas of the state with high levels of noncompliance. Management should develop guidelines to aid EAC and central office staff in determining when (under what circumstances) informal actions need to be taken and when formal enforcement actions need to be considered. Finally, once management has set parameters, enforcement actions (penalties, etc.) should be assessed when appropriate, and assessed consistently throughout the state.
11. State Parks management should develop and implement plans to proceed with the completion of state park surveys. If preliminary inspections have been completed by park staff, department management should use that information to prioritize surveys, focusing first on those parks with the most potential problems. Management should continue to provide appropriate training to staff at individual parks so that park staff can perform much of the information-gathering work. This strategy could help keep survey costs at a minimum while maximizing the amount of pertinent information available concerning actual or potential encroachments. Department management should assess whether, given other department requirements and needs, the need to complete state park boundary surveys is sufficient to warrant the hiring of at least one licensed surveyor.
12. State Parks management should complete a proposed update of the Master Plan, hold public hearings statewide, and submit the proposed update for review and comments by the Tennessee Environmental Council and the Tennessee Recreation and Parks Association, and then submit the resulting plan to the appropriate legislative committees. To facilitate the plan's completion, a formal schedule (showing the remaining phases of the project to be completed along with estimated completion dates and responsible persons) should be developed and monitored periodically. Management should review the legislation concerning the Master Plan and propose changes as needed to facilitate the planning process (i.e., ensuring that future plans can be developed at a reasonable cost while still providing sufficient direction for staff and adequate information for external parties regarding management's overall vision for the parks and any changes in direction/priorities).
13. The department should establish the State Compliance Advisory Panel as required by federal law. The department should initiate communications with the Governor's office and the General Assembly to develop a list of individuals to serve on the panel. Although the law requires that the panel have at least seven members, the state should consider expanding that number to ensure adequate representation of small businesses of various types throughout the state, as well as others affected by or interested in clean air standards for their areas.

Appendix 1

Title VI Information

All programs or activities receiving federal financial assistance are prohibited by Title VI of the Civil Rights Act of 1964 from discriminating against participants or clients on the basis of race, color, or national origin. In response to a request from members of the Government Operations Committee, we compiled information concerning federal financial assistance received by the Tennessee Department of Environment and Conservation and the department's efforts to comply with Title VI requirements. The results of the information gathered are summarized below.

According to the State of Tennessee's *The Budget: Fiscal Year 2005-06*, the department received \$61.1 million in federal funding during fiscal year 2004. The majority of federal funding (\$41.3 million) was for environmental assistance to local communities, with the remainder primarily for other environmental or recreation programs.

The department submitted its most recent Title VI Compliance and Implementation Plan to the Comptroller of the Treasury by June 2005, as required. Copies were also submitted to the Title VI Compliance Commission and appropriate legislative committees. The department also submits information on disadvantaged business participation to the Environmental Protection Agency (EPA). For federal fiscal year 2003, the department reported expenditures of \$1.3 million for contracts, supplies, and equipment related to its EPA grants. Of that total, 8% went to women-owned businesses and 2.5% went to minority-owned businesses.

The department's Title VI activities are the responsibility of the Title VI Coordinator, the Title VI Complaint Officer, and the Director of Internal Audit. The coordinator is responsible for reviewing submitted data, making recommendations to enhance Title VI compliance, developing and implementing training programs, assembling the Title VI Implementation Plan, and representing the department at meetings addressing Title VI matters. The complaint officer is responsible for receiving complaints, conducting complaint investigations, facilitating remedies to Title VI concerns, and making recommendations to help resolve Title VI complaints. The department also has a toll-free hotline available for persons with complaints. During fiscal year 2003-2004, the department did not receive any Title VI complaints.

According to the department's Director of Internal Audit, the department conducts sub-recipient compliance reviews to ensure that contractors are in compliance with applicable laws and regulations, including Title VI requirements. If areas of non-compliance are identified, corrective action steps would be initiated to ensure that compliance is established. During fiscal year 2004, compliance reviews were performed on a sample of 21 sub-recipient contracts (from a total population of 353 contracts). The dollar amount of the 21 sub-recipient contracts reviewed was \$2.6 million. The sub-recipients reviewed included several city and county governments, development districts, and the University of Tennessee. No instances of discrimination were identified during the sub-recipient review.

Below is a breakdown of department staff by title, gender, and ethnicity. Department staff are 61% male, 92% White, and 6% Black.

**Employee Listing by Gender and Ethnicity
As of August 2004**

Title	Gender		Ethnicity				
	Female	Male	Asian	Black	Other	Spanish	White
Accounting clerk	25	2		1			26
Accounting manager		2		1			1
Accounting technician	18	2	1	7			12
Accountant	7	18	2	3	1		19
Assistant commissioner		1					1
Administrative analyst 3		1					1
Administrative assistant	8			2			6
Administrative services assistant	73	22	0	16	1	0	78
Administrative services manager	1						1
Administrative secretary	48			9	1		38
Architect		1					1
Archaeologist	2	5					7
Archaeologist supervisor		2					2
Archaeologist – state		1					1
Attorney	4	8					12
Audit director 1		1					1
Auditor	1	3		2			2
Automotive master mechanic		1					1
Budget analyst director 1		1					1
Biologist	7	6					13
Building maintenance worker		25		1			24
Botanist	1						1
Board member	3	34		1			36
Budget analyst 2	1	1	1				1
Business development consultant 2		2					2
Chemist 3	1	1					2
Chief Ranger		1					1
Clerk	102	17	1	13			105
Commissioner 2	1						1
Conservation area office assistant	3						3
Conservation maintenance administrator		1					1
Conservation planner 3	1	2					3
Conservation planner director	1	1					2
Conservation worker	38	239		10		1	266
Cook	34	10		4		2	38
Custodial worker	82	16		7			91
Database administrator		1	1				
Deputy commissioner 1	1	1					2
Director of state parks		1					1
Distributed programmer/analyst 4	2		1				1

**Employee Listing by Gender and Ethnicity (Cont.)
As of August 2004**

TITLE	Gender		Ethnicity				
	Female	Male	Asian	Black	Other	Spanish	White
Easement acquisition coordinator		1					1
Environmental assistant program director		2					2
Environmental assistant program manager	4	3		1			6
Environmental field office manager	5	40		2			43
Environmental investigator		1		1			
Environmental program administrator	1			1			
Environmental program director		10					10
Environmental program manager	13	52		1	1		63
Environmental protection specialist	40	138	20	20	15	1	122
Environmental specialist	92	323	4	10	2	2	397
Epidemiologist	1		1				
Equipment mechanic		12					12
Equipment operator		7		1			6
Equipment operator supervisor		3					3
Equipment service worker		1		1			
Executive administrative assistant	6	6					12
Executive secretary 2	1						1
Facilities construction specialist 2		1					1
Facilities manager 2		3					3
Facilities supervisor		8					8
Facilities surveyor	8					8	
Food service assistant manager 2	1	1					2
Food service supervisor 2	3	1		1			3
Food service worker	34	17		1			50
Fiscal director		2		1			1
General counsel 4		1					1
Geologist	7	47	1				53
Geologist – state		1					1
Golf course manager	1	7					8
Grants analyst		4					4
Grants program manager	1						1
Graphics designer	1	1					2
Greenskeeper		8		1			7
Grounds worker 1		8		2			6
Grounds worker 2		5					5
Historical preservation specialist 3		1					1
Historical commission director		1					1
Health physicist 3	12	12		5	1		18
Health physicist director		1					1
Health physicist field office manager		4					4
Health physicist program manager	1	5					6
Health physicist supervisor	4	11		1			14
Hospitality assistant	17	5					22

**Employee Listing by Gender and Ethnicity (Cont.)
As of August 2004**

Title	Gender		Ethnicity				
	Female	Male	Asian	Black	Other	Spanish	White
Hospitality manager	11	4		1			14
Hospitality manager 3		2					2
Hotel & restaurant management specialist	1	1					2
Historical preservation specialist 2	1	4					5
Historical preservation specialist supervisor		1					1
Information resource support specialist	7	13	1	4			15
Information officer	2						2
Information systems analyst	2	3					5
Information systems consultant	1	2		1			2
Information systems director 3		1					1
Information systems manager 1		1					1
Information systems manager 2	1	2					3
Laborer	103	184		8	2		277
Legal assistant	2	2		1			3
Legal services director		1					1
Lifeguard	64	83		4			143
Marina manager		2					2
Meteorologist	1	1					2
Museum chief per specialty		1					1
Museum program assistant	2						2
Obion Forked River Basin Authority director		1					1
Obion Forked River project manager		1					1
Office supervisor	3			2			1
Operations specialist		1					1
Park area manager		3					3
Park interpretive specialist	6	18					24
Park manager	4	49		2			51
Parks management administrator	1	1					2
Parks marketing manager	1	1					2
Park ranger 2	18	88		3	1	1	101
Personnel analyst	3			1			2
Personnel director 3	1						1
Personnel manager	3	2					5
Personnel technician	3			2			1
Personnel transactions supervisor	1						1
Programmer/analyst 3		2					2
Procurement officer	4						4
Publications editor 2	1						1
Recreation and interpretive program manager		1					1
Radio communication technician		7		1			6
Radio systems analyst		1					1

**Employee Listing by Gender and Ethnicity (Cont.)
As of August 2004**

Title	Gender		Ethnicity				
	Female	Male	Asian	Black	Other	Spanish	White
Recreation services assistant director		1					1
Recreation services coordinator	1						1
Recreation services director	1						1
Recreation services specialist		2					2
Room clerk	27	5					32
Seasonal interpreter/recreator	28	27					55
Secretary	58	1				1	50
Servitor	43	4					46
Soils consultant 2	1	3					4
Soils consultant regional supervisor		3					2
Storekeeper 1	2	3					5
Stores clerk	3	3					5
Training officer 1		1					1
Training specialist 2	1						1
Transportation assistant 2		1					1
Transportation technician 1		1					1
Treatment plant operator		2					2
Watchkeeper		1					1
Website developer 1	1						1
Website developer 2	1						1
Grand Total	1,124	1,734	34	168	25	8	2,623

As part of this audit, we also reviewed the activities of five boards administratively attached to the department. As of March 2005, 81% of all board members were male and 94% of all members were white. Only two of the boards reviewed had one or more minority members. (See below for a breakdown of board membership by gender and ethnicity.)

**Gender and Ethnicity Distribution for Department Boards Included in Audit
As of March 14, 2005**

Board	Female	Male	Black	Other Minority	White	Total
Air Pollution Control Board	5	9	1	1	12	14
Board of Ground Water Management	0	5	0	0	5	5
Petroleum Underground Storage Tank Board	1	7	0	0	8	8
Solid Waste Disposal Control Board	1	10	1	0	10	11
Water Quality Control Board	2	8	0	0	10	10
Grand Total	9	39	2	1	45	48
Percentages	19%	81%	4%	2%	94%	

Appendix 2

**U.S. Environmental Protection Agency
Clean Air Act High Priority Violation Quarterly Reports
Calendar Years 2000 Through 2003**

Facility	Quarter Ending	Unaddressed Days (1)	Summary Letters (2)
1	3/31/00	294	B
2	3/31/00	294	B
3	6/30/00	385	BK
4	6/30/00	385	BK
5	9/30/00	302	B
6	9/30/00	302	B
7	9/30/00	302	B
8	9/30/00	477	BK
9	9/30/00	477	BK
10	9/30/00	302	B
11	9/30/00	302	B
12	12/31/00	394	BK
13	12/31/00	394	BK
14	12/31/00	343	B
15	12/31/00	340	B
16	12/31/00	293	B
17	12/31/00	394	BK
18	12/31/00	394	BK
19	3/31/01	483	BK
20	3/31/01	483	BK
21	3/31/01	314	B
22	3/31/01	483	BK
23	3/31/01	331	B
24	3/31/01	483	BK
25	6/30/01	574	BK
26	6/30/01	574	BK
27	6/30/01	405	BK
28	6/30/01	574	BK
29	6/30/01	422	BK
30	6/30/01	574	BK
31	9/30/01	666	BK
32	9/30/01	337	B
33	9/30/01	666	BK
34	9/30/01	497	BK
35	9/30/01	666	BK
36	9/30/01	514	BK
37	9/30/01	360	B
38	9/30/01	666	BK
39	9/31/01	299	B
40	12/31/01	758	BK
41	12/31/01	758	BK
42	12/31/01	271	B
43	12/31/01	589	BK
44	12/31/01	758	BK
45	12/31/01	606	BK
46	12/31/01	758	BK
47	12/31/01	319	B

Appendix 2 (Cont.)

**U.S. Environmental Protection Agency
Clean Air Act High Priority Violation Quarterly Reports
Calendar Years 2000 Through 2003**

Facility	Quarter Ending	Unaddressed Days(1)	Summary Letters(2)
48	03/31/02	849	BK
49	03/31/02	276	B
50	03/31/02	358	B
51	03/31/02	849	BK
52	03/31/02	362	B
53	03/31/02	849	BK
54	03/31/02	849	BK
55	03/31/02	410	BK
56	03/31/02	305	B
57	06/30/02	940	BK
58	6/30/02	449	BK
59	6/30/02	940	BK
60	6/30/02	453	BK
61	6/30/02	940	BK
62	6/30/02	940	BK
63	6/30/02	501	BK
64	9/30/02	999	BK
65	9/30/02	999	BK
66	9/30/02	359	B
67	9/30/02	271	B
68	9/30/02	999	BK
69	9/30/02	999	BK
70	12/31/02	999	BK
71	12/31/02	292	B
72	12/31/02	999	BK
73	12/31/02	451	BK
74	12/31/02	363	B
75	12/31/02	999	BK
76	12/31/02	999	BK
77	3/31/03	999	BK
78	3/31/03	999	BK
79	3/31/03	336	B
80	3/31/03	540	BK
81	3/31/03	999	BK
82	3/31/03	999	BK
83	9/30/03	281	B
84	9/30/03	327	B
85	9/30/03	319	B
86	9/30/03	298	B
87	12/31/03	373	BK
88	12/31/03	419	BK
89	12/31/03	322	B
90	12/31/03	411	BK
91	12/31/03	390	BK

Notes:

- (1) The report did not identify specific days a facility went unaddressed past 999 days.
- (2) B – indicates High Priority Violations carried over from the prior quarter as unaddressed.
K – indicates High Priority Violations unaddressed for more than 365 days.