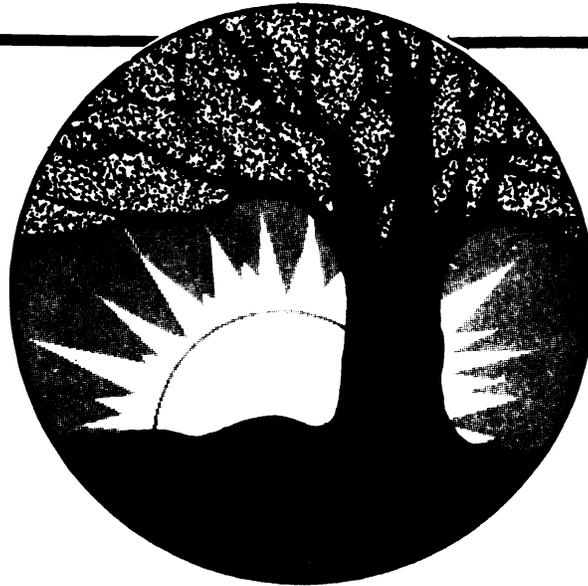


PERFORMANCE AUDIT

Department of Environment and Conservation
and
Related Environmental Boards
January 2010



Justin P. Wilson
Comptroller of the Treasury



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January 19, 2010

The Honorable Ron Ramsey
Speaker of the Senate
The Honorable Kent Williams
Speaker of the House of Representatives
The Honorable Bo Watson, Chair
Senate Committee on Government Operations
The Honorable Susan M. Lynn, 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 related boards should be continued, restructured, or terminated.

Sincerely,

Arthur A. Hayes, Jr., CPA
Director, Division of State Audit

AAH/dww
09-029

State of Tennessee

Audit Highlights

Comptroller of the Treasury

Division of State Audit

Performance Audit
**Department of Environment and Conservation
and Related Environmental Boards**
January 2010

AUDIT OBJECTIVES

The objectives of the audit were to assess the department's compliance with statute requiring revenue-generating facilities at state parks to be self-sufficient; to summarize the status of the boundary issues threatening the state parks and the efforts of the department to mitigate those risks; to assess the status of the master plan for state parks and the efforts of the department to comply with the statute requiring it; to determine the department's maintenance policies and procedures, the status of the maintenance backlog, the threat the backlog poses to state parks, and the efforts of the department to mitigate the risks; to assess the department's ability to track radiological inspections and timely submission of registered inspector reports; to determine whether the department is meeting federal requirements for underground storage tank inspections; to assess possible conflicts of interest in the Ground Water Management Board; to review the department's testing of controls as noted in the annual risk assessment by divisions of the department; and to review the department's actions to comply with the requirements of Title VI of the Civil Rights Act of 1964.

FINDINGS

Because the Division of Radiological Health Inspection and Enforcement Is Operating Under Policies Dating Back to 2001 That Are in Draft Form and Have Not Been Formally Approved by the Division, There Is No Assurance That Division Management Is Aware of and Supportive of Changes in Policies and Procedures

Division staff inspect facilities and radiologic machines to determine compliance with state regulations. Without formal policies, there is no assurance that management has approved the policies and that staff have proper direction for fulfilling their duties in compliance with state

and federal laws. Division management should ensure there is a clear, formal, and written process for final approval and implementation of policies and procedures within the division (page 13).

The Department of Environment and Conservation Did Not Monitor the Minimum Number and Dollar Amount of Its Subrecipient Contracts as Required by the Department of Finance and Administration

State agencies are required to monitor a sample of subrecipient contracts for compliance with program requirements, laws and regulations, and

stated results and outcomes. The department has not been able to complete all required reviews. Without this monitoring, the department's ability to ensure that contractors/service providers comply with program and financial requirements is hindered (page 15).

Management Is Taking Actions to Increase Parks' Self-Sufficiency, but Not All Park Facilities Are Self-Sufficient

As stated in *Tennessee Code Annotated*, Section 11-3-305, the General Assembly intended for revenue-generating facilities at state parks to be self-sufficient by FYE 2008. Two of the six facility types—restaurants and golf courses—were not self-sufficient in FY 2007, 2008, and 2009. Park management is implementing new ideas to attract more visitors; however, department and park management should review self-sufficiency requirements, identify ways to

increase revenues and/or decrease expenses, and continue to periodically analyze the parks' financial condition (page 18).

Although the Department Has Not Prepared a Master Park Plan Update, Due in March 2009, It Has Completed Management Direction Statements for Most Parks

Because of budget constraints, the department prepared individual park plans, called Management Direction Statements, for 51 of 53 state parks in lieu of a master plan update for 2009, as required by statute. The Management Direction Statements address the statutorily required elements of a park Master Plan with the exception of holding public hearings as required. Department management should consult with the General Assembly to determine whether amendments should be made to statute requiring a master plan update every five years (page 22).

OBSERVATIONS AND COMMENTS

The audit also discusses the following issues: in conjunction with the U.S. Environmental Protection Agency, the department is monitoring environmental damage from a coal ash spill at the Tennessee Valley Authority's Kingston Fossil Plant and the cleanup; the department has taken steps to mitigate damage to parks resulting from encroachments; annual maintenance funds are being applied appropriately, but insufficient funding—necessary to preserve and maintain the parks' infrastructure—has created a maintenance backlog that compromises the quality, safety, and prospect for long-term continuation of park services and facilities to the public; the Underground Storage Tank Division is on schedule to meet EPA-required on-site inspections for the first three-year cycle; the federally mandated Compliance Advisory Panel has been established but still lacks four member appointments; and Ground Water Management Board members approved current and former board members to provide continuing education instruction for licensed well drillers (page 27).

**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 Tennessee Department of Environment and Conservation and five related environmental boards was conducted pursuant to the Tennessee Governmental Entity Review Law, *Tennessee Code Annotated*, Title 4, Chapter 29. Under Section 4-29-231, the Tennessee Department of Environment and Conservation is scheduled to terminate June 30, 2010. The Air Pollution Control Board, Board of Groundwater Management, Petroleum Underground Storage Tank Board, Solid Waste Disposal Control Board, and Water Quality Control Board are also scheduled to terminate June 30, 2010. The Comptroller of the Treasury is authorized under Section 4-29-111 to conduct a limited program review audit of the entities 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 of Environment and Conservation and related boards should be continued, restructured, or terminated.

OBJECTIVES OF THE AUDIT

The objectives of the audit were

1. to assess the department's compliance with statute requiring revenue-generating facilities at state parks to be self-sufficient;
2. to summarize the status of the boundary issues threatening the state parks and the efforts of the department to mitigate those risks;
3. to assess the status of the master plan for state parks and the efforts of the department to comply with the statute requiring it;
4. to determine the department's maintenance policies and procedures, the status of the maintenance backlog, the threat the backlog poses to state parks, and the efforts of the department to mitigate the risks;
5. to assess the department's ability to track radiological inspections and timely submission of registered inspector reports;
6. to determine whether the department is meeting federal requirements for underground storage tank inspections;

7. to assess possible conflicts of interest in the Ground Water Management Board;
8. to review the department's testing of controls as noted in the annual risk assessment by divisions of the department; and
9. to review the department's actions to comply with the requirements of Title VI of the Civil Rights Act of 1964.

SCOPE AND METHODOLOGY OF THE AUDIT

The activities of the department were reviewed with a focus on procedures in effect at the time of fieldwork (January 2009 to September 2009). We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Methods used included

1. reviews of applicable legislation and department rules, policies, and procedures;
2. reviews of prior audit reports and documentation;
3. reviews of department files, documents, reports, and information summaries;
4. interviews with department staff and parks associations; and
5. site visits to environmental field offices and state parks.

ORGANIZATION AND STATUTORY RESPONSIBILITIES

The Tennessee Department of Environment and Conservation (TDEC) is responsible for protecting and improving the quality of Tennessee's land, air, and recreation resources. Through the Bureau of Environment, TDEC serves as the state's chief environmental regulatory agency. Through permit issuance, compliance monitoring, and enforcement, TDEC regulates sources of air and water pollution, solid and hazardous waste processing and disposal facilities, radiological health issues, petroleum underground storage tanks, drinking water supply, groundwater protection, oil and gas exploration and drilling, inactive hazardous substance sites, and other environmental issues, and provides geological services. Through the Bureau of Parks, TDEC manages 53 state parks and 80 state natural areas. State parks include (1) resort parks that provide conference centers, golf courses, and marinas; (2) rustic parks that provide swimming, rafting, cabins, and camping; and (3) day-use parks that provide enjoyment of the outdoors through hiking, fishing, and other activities. The parks are an asset of the state, and proper care and maintenance of the parks and their infrastructure is essential to the continued use and enjoyment by citizens. Tennessee's State Parks received the 2007 Gold Medal Award for Excellence in Park and Recreation Management from the National Recreation and Park Association (NRPA). The NRPA is a nonprofit organization dedicated to advancing park,

recreation, and conservation efforts. Tennessee's natural and cultural resources are also protected and conserved through the recognition of state natural areas and 13 state scenic rivers, activities of the Tennessee Historical Commission, and assistance to local governments for parks and recreation programs. These two bureaus provide community outreach and education activities to support department goals.

The department is staffed by over 3,200 employees located across Tennessee and is organized into four major sections:

Bureau of Environment,
Business Services,
Bureau of Parks - Operations and Conservation, and
Bureau of Parks - Hospitality and Special Events.

See organization chart on the following page.

In addition to these four major sections described in detail below, the department's Public Affairs Office, Recreation Education Services, Internal Audit, Legislative Liaison, and Office of General Counsel also report directly to the Commissioner.

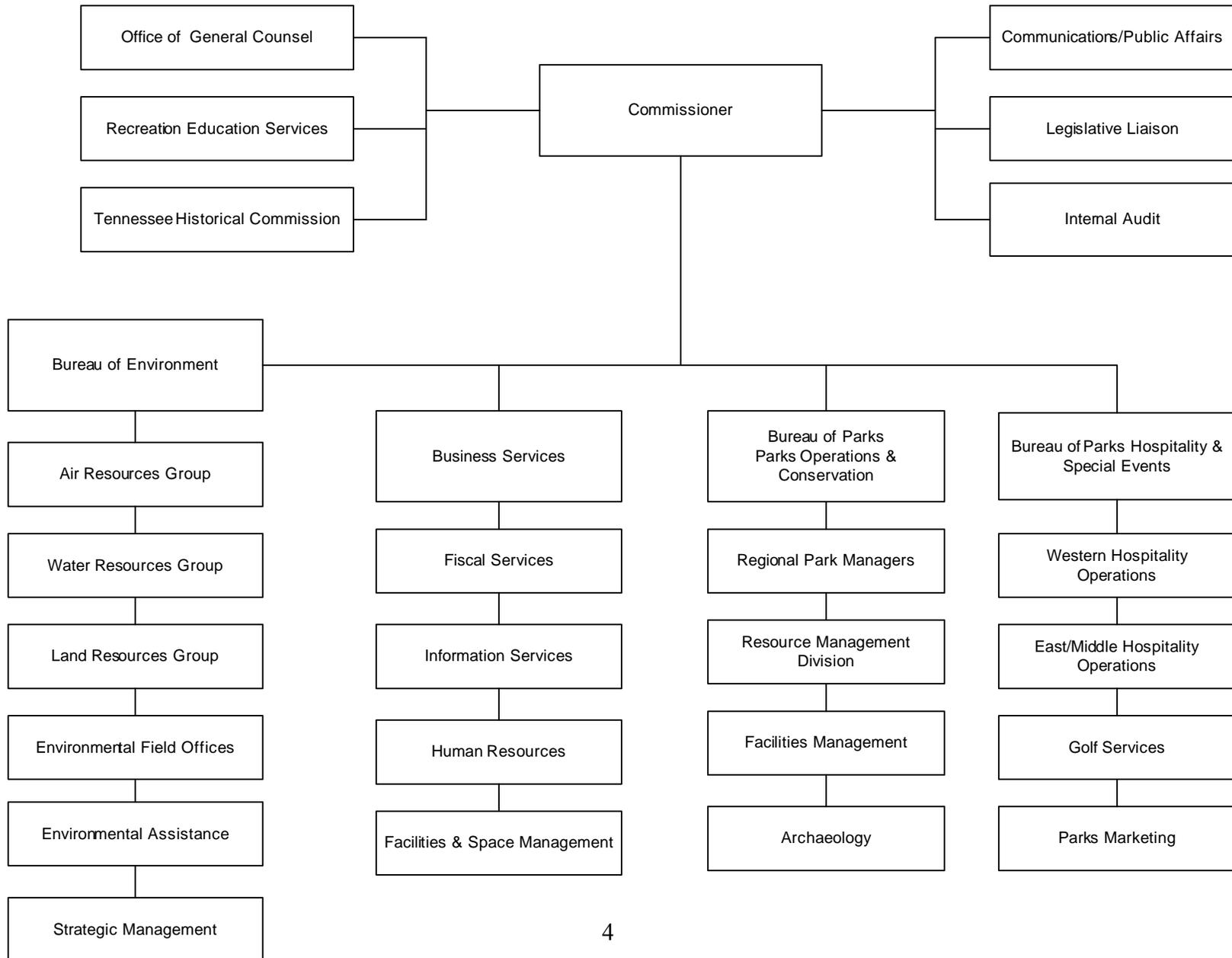
Bureau of Environment

Air Resources Group

The Division of Air Pollution Control is mandated 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 Division of Radiological Health 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.

Department of Environment and Conservation Organization Chart October 2009



Water Resources Group

The Division of Ground Water Protection regulates wastewater disposal to ensure that the groundwater of Tennessee is 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.

The Division of Water Pollution Control 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. In addition to regulating stream channel modifications, wetland alterations, and gravel dredging, the division also reviews wastewater construction plants and specifications for municipal and industrial facilities.

The Division of Water Supply 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.

The West Tennessee River Basin Authority is charged with water resource management in the 20-county area drained by the Obion, Forked Deer, Loosahatchie, and Hatchie River systems.

Land Resources Group

The Division of DOE Oversight is responsible for ensuring Tennesseans that their health, safety, and environment are being protected during environmental restoration and ongoing activities at the U.S. 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.

The Division of Geology 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.

The Division of Remediation 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.

The Division of Solid and Hazardous Waste Management 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.

The Division of Underground Storage Tanks is responsible for preventing future petroleum underground storage tank releases and remediating existing storage tank contamination.

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.

The *Office of Environmental Assistance* program provides information and non-regulatory support to businesses, schools, local governments, industries, organizations and individuals in order to prevent and reduce environmental impacts.

The primary purposes of the *Strategic Management Division* are to assist senior management to determine the priorities for the bureau and to manage the implementation of projects associated with those priorities.

There are five *environmental boards* attached to the Bureau of Environment included in this audit: the Air Pollution Control Board, Ground Water Management Board, Petroleum Underground Storage Tank Board, Solid Waste Disposal Control Board, and Water Quality Control Board.

The Air Pollution Control Board, authorized by Section 68-201-104, *Tennessee Code Annotated*, is comprised of 14 members, including the TDEC and Economic and Community Development Commissioners and 12 Governor-appointed members, and must hold at least two regular meetings each calendar year. The board is authorized by Section 68-201-105, *Tennessee Code Annotated*, to promulgate rules and regulations that define ambient air quality standards; emission standards; a system of permits; a schedule of fees for review of plans and specifications; general policies or plans; and issuance or renewal of permits or inspection of air contaminant sources. The board is also authorized to hold hearings and issue orders and determinations as may be necessary to enforce these rules and regulations.

The Ground Water Management Board, authorized by Section 69-10-107, *Tennessee Code Annotated*, is comprised of 5 members, 3 of whom are Governor appointed. The other two positions are ex-officio: the TDEC Commissioner and the TDEC Director of Water Supply or their designees. This board, required to meet at least once a year, was established to advise and assist the Commissioner in the preparation of rules and regulations for groundwater management.

The board is also required to review the application for a well driller or installer license and make a recommendation to the Commissioner either for or against issuance of the license.

The Petroleum Underground Storage Tank Board, authorized by Section 68-215-112, *Tennessee Code Annotated*, is comprised of 9 members, 8 of whom are Governor appointed; the ninth member, the TDEC Commissioner, is ex-officio. This board must hold at least two meetings each calendar year. Per Section 68-215-107, *Tennessee Code Annotated*, the board may promulgate and adopt rules and regulations associated with

- requirements for maintaining a leak detection system, inventory control system, and tank testing;
- requirements for maintaining records of petroleum delivery, monitoring or leak detection system, and inventory control system or tank testing;
- requirements for reporting releases;
- requirements for taking corrective action in response to a release from a petroleum underground storage tank (PUST);
- requirements for closure of PUSTs to prevent future releases;
- requirements that new PUSTs meet board-promulgated design standards prior to installation;

- requirements that existing PUSTs either be retrofitted to meeting new standards or replaced with new tanks;
- requirements for maintaining evidence of financial responsibility for taking corrective action as well as compensating third parties for sudden injury and property damage cause by accidental releases;
- requirements for providing the assessment and collection of fees; and
- requirements for certifications for installers, service providers, owners, and operators.

The Solid Waste Disposal Control Board, authorized by Section 68-211-111, *Tennessee Code Annotated*, is comprised of 11 members, 9 of whom are appointed by the Governor, and must hold at least four regular meetings each calendar year. The Commissioners of TDEC and Economic and Community Development or their designees serve as ex-officio members. The primary function of this board is to hear appeals of department actions in enforcement and permitting and to promulgate regulations in hazardous waste, solid waste, and the Superfund.

The Water Quality Control Board, authorized by Section 69-3-104, *Tennessee Code Annotated*, is comprised of 10 members, 7 of whom are appointed by the Governor. There are three ex-officio members: TDEC's Commissioner, who serves as chair; the Commissioner of Health; and Commissioner of Agriculture, or their designees. This board is required to hold at least two meetings each year, one in April and one in October. The board is required by Section 69-3-105, *Tennessee Code Annotated*, to classify all waters of the state and to adopt water quality standards pursuant to these classifications. The board may hear appeals on orders issued; penalties or damages assessed; and permit issuances, denials, revocations, or modifications by the Commissioner. The board may also hold contested case hearings concerning the Commissioner's issuance or denial of a permit.

Business Services

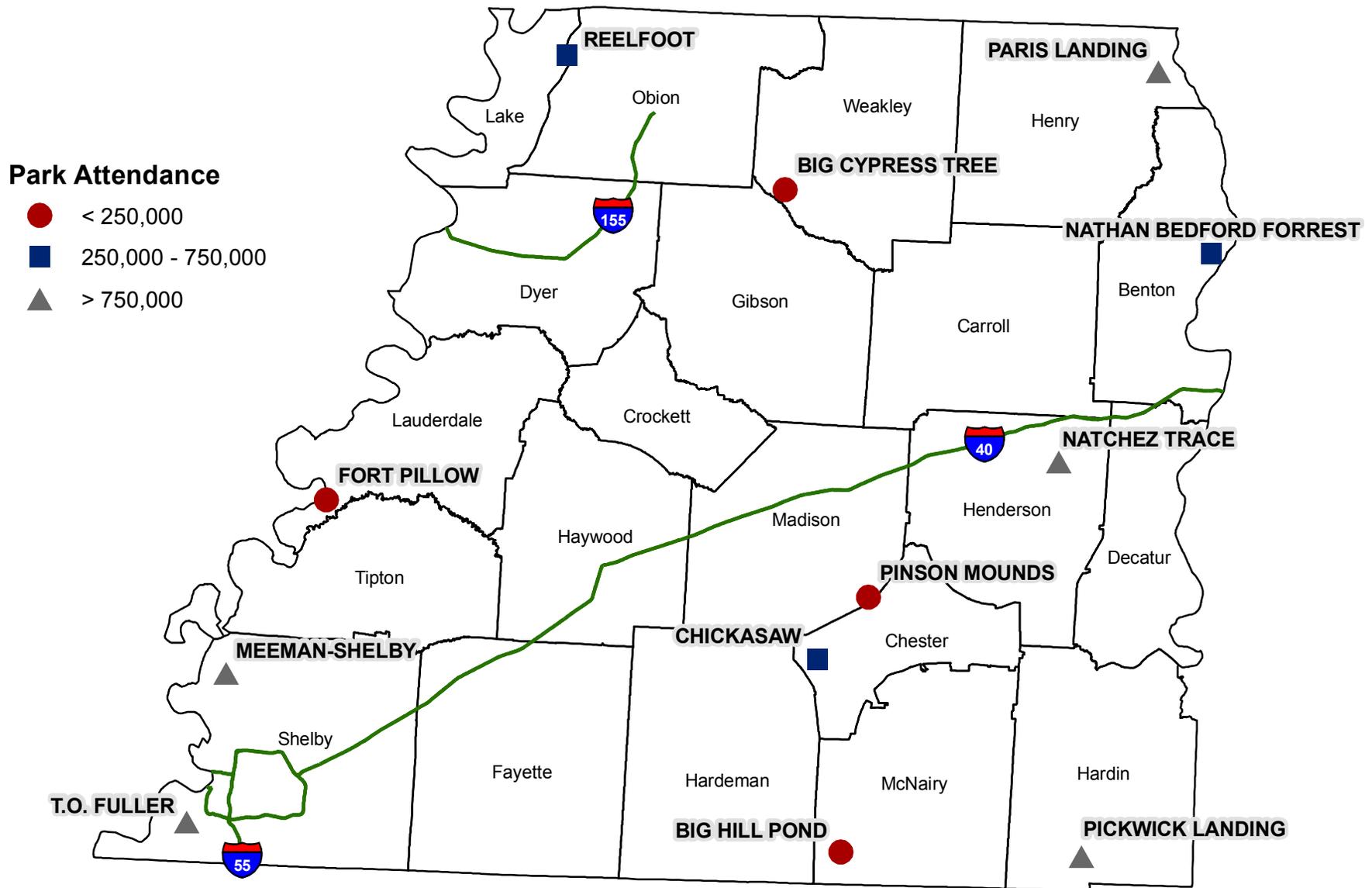
Finance and Business Services provides support and technical assistance for the daily operations of the department and includes Fiscal Services, Human Resources, Information Systems, and Facilities Management.

Bureau of Parks - Operations and Conservation

Parks and Park Management includes the regional park managers and the individual park managers who report to them. (See maps on the following pages showing the state parks for west, middle, and east Tennessee.)

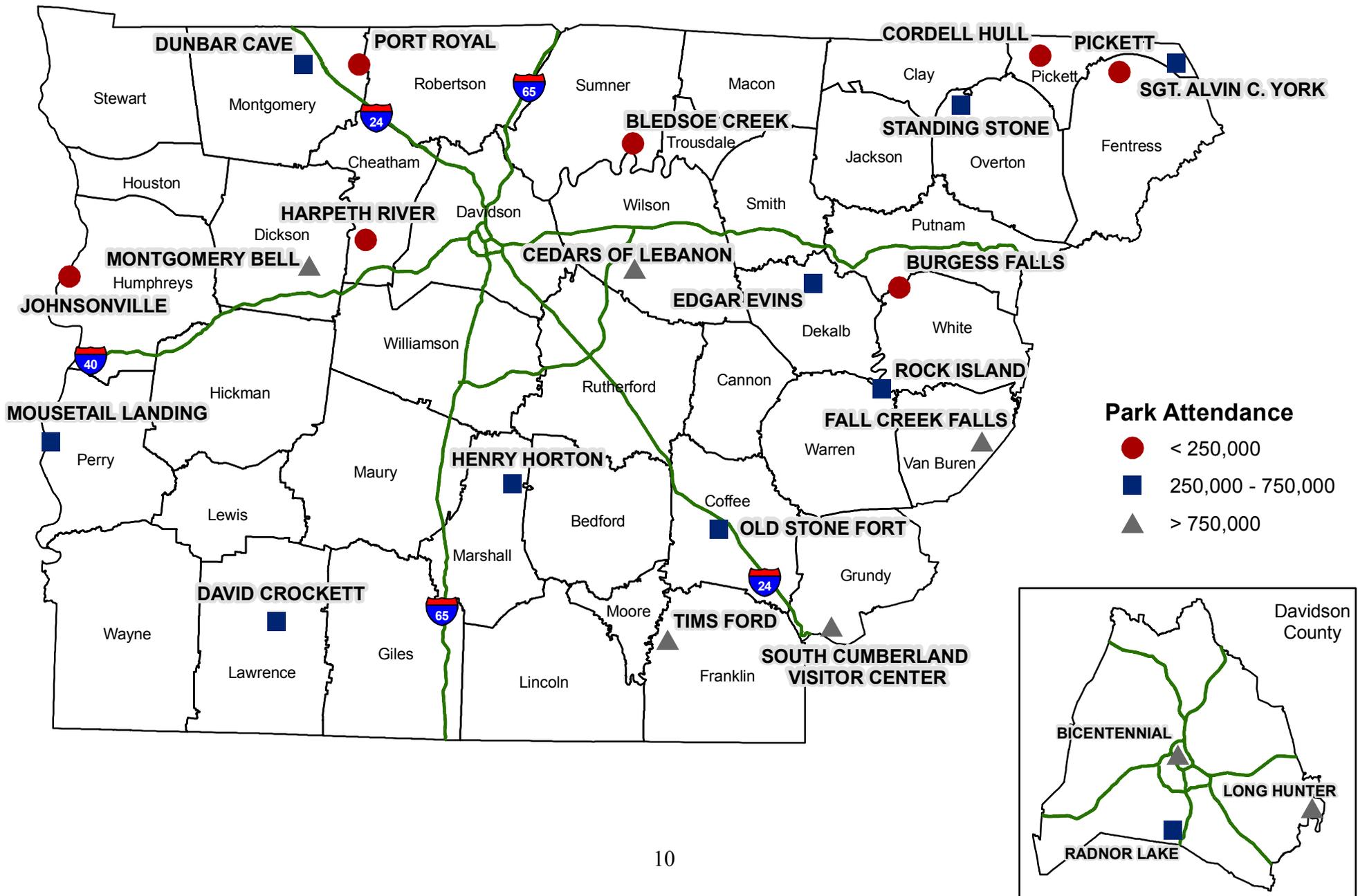
TDEC State Parks

Park Attendance - West
(2008 - 2009)



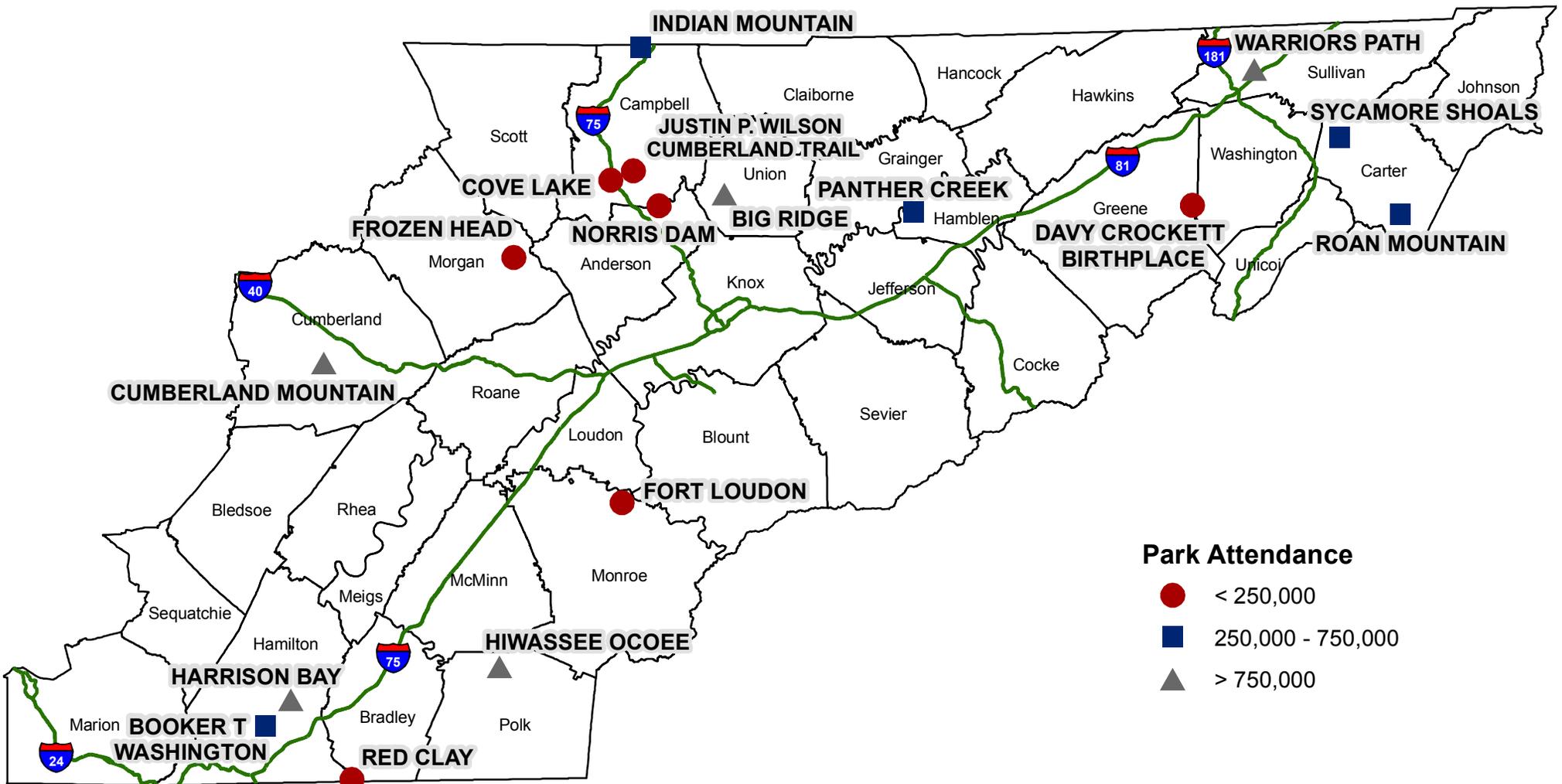
TDEC State Parks

Park Attendance - Middle
(2008 - 2009)



TDEC State Parks

Park Attendance - East
(2008 - 2009)



The Division of Archaeology is responsible for protecting and keeping accurate records on all archaeology sites and artifacts on all state lands. It fulfills this responsibility by surveying the state to identify archaeological sites, excavating prehistoric and historic sites, encouraging public cooperation and responsibility for site preservation, and working with other state agencies to protect and manage sites on state lands.

The Resource Management Division is responsible for protecting the natural and cultural resources of the state's park system and natural areas through the integration of conservation and human use. The division conducts a wide variety of programs and activities focused on the conservation, restoration, and management of Tennessee's vast diversity of natural resources. These activities include providing technical assistance and educational programs for governmental agencies, non-governmental organizations, industrial and other private landowners, and educational institutions, as well as managing a statewide system of state natural areas and scenic rivers.

Facilities Management completes an annual assessment of all park facilities to determine their condition and estimate the cost of needed repairs and renovations. Then it assembles and implements the annual major maintenance work program.

See Appendices 1 and 2 for listings of state parks and natural areas.

Bureau of Parks - Hospitality and Special Events

The Division of State Parks includes 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. This bureau includes Hospitality Operations, Golf Services, and Marketing.

REVENUES AND EXPENDITURES

For the year ended June 30, 2008, the Department of Environment and Conservation had expenditures of \$413.3 million. Revenues included \$251.3 million in state appropriations, \$58.4 million in federal funds, and \$103.6 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.)

FINDINGS AND RECOMMENDATIONS

- 1. Because the Division of Radiological Health Inspection and Enforcement is operating under policies dating back to 2001 that are in draft form and have not been formally approved by the division, there is no assurance that division management is aware of and supportive of changes in policies and procedures**

Finding

The policies and procedures for Radiological Health state inspectors are in draft form, and the manual has not been officially finalized since July 2001. Without formal policies, there is no assurance that management has approved the policies and that staff have proper direction for fulfilling their duties in compliance with state and federal laws.

Section 68-202-208(a), *Tennessee Code Annotated*, requires every person receiving ownership or possession of one or more radiation machines to register that machine within ten days. Staff of the Division of Radiological Health Inspection and Enforcement Section inspect registered facilities to determine compliance with state regulations and special conditions of their registration. There are seven classes of radiological machines with varying inspection time frames established by *Tennessee Code Annotated*. (See Table 1.)

Table 1
Division of Radiological Health
Schedule of Radiological Machine Classes and Inspection Cycles

| Class | Radiation Machine Description | Inspection Time Frame |
|--------------|---|------------------------------|
| 1 | Dental | Once every 4 years |
| 2 | Priority Two Medical | Once every 2 years |
| 3 | Priority One Medical | Annually |
| 4 | Therapy Medical | Annually |
| 5 | Priority Two Industrial and Educational | Once every 2 years |
| 6 | Priority One Industrial and Educational | Annually |
| 7 | Accelerators | Annually |

Source: Tennessee Department of Environment and Conservation Rules and Regulations.

Inspections of radiological machines may be performed by either registered or state inspectors following the same department rules. State inspectors are those working directly for the state. Registered inspectors are those persons who do not work for the state, but are approved by the Division of Radiological Health to perform inspections based on their education and experience. The incentive for facilities to hire a registered inspector is an 82% fee reduction if the inspection is timely. Any facility using state inspectors is not eligible for this fee reduction.

The Division of Radiological Health maintains four Inspection and Enforcement (I&E) area offices (Memphis, Nashville, Knoxville, and Chattanooga). Offices are set up in this manner to accommodate large cities and/or are in close proximity to a large number of nuclear facilities; these cities more easily provide the necessary services to maintain the division's program, and the natural geographic disposition of the state necessitates a number of area offices. Staff within these offices are primarily responsible for the inspection of x-ray registrants and radioactive material licensees. Additional duties involve responding to radiation incidents and participating in exercises with other division personnel for responding to an incident at a nuclear-powered reactor.

According to the Manager of Inspection and Enforcement, all policies and procedures are updated when needed and policies and procedures are in use while in draft form. According to staff, policies and procedures had not been finalized as of September 24, 2009; however, revisions in draft form to draft policies dated in 2001 were dated as far back as December 2003 and as late as June 2007.

The Manager of Radiological Health Inspection and Enforcement sends out changes to the inspection and enforcement personnel. The policy and procedure changes are called "draft" because he is unsure how to obtain approval of these changes.

Based on a file review of Radiological Health inspections for the Nashville and Knoxville field offices, auditors determined that state inspectors follow the same timeliness guideline as prescribed for registrants to receive an 82% discounted fee when using a registered inspector, which is plus or minus 30 days of a tube baseline date. Measured against this timeliness guideline, on average, inspections are 14 days beyond the baseline date, which is well within this guideline. To ensure state inspections are consistent with those of registered inspectors, the division should develop a policy stipulating state inspectors adhere to the same regulations.

Because there were no definitive approval dates for when policies and procedures were in effect, auditors were unable to assess inspection files for compliance with policies and procedures. Therefore, auditors could only review timeliness based on informal practice. With the policies and procedures for inspectors still in draft form, there is no assurance that division management has authorized the policy updates for use by inspectors.

Recommendation

Division management should ensure there is a clear, formal, and written process for final approval and implementation of policies and procedures within the division. All policies under which inspectors operate should be written and formally approved consistent with that process. For example, if personnel issues arose, it could be difficult to take actions against an employee for misconduct when the policies and procedures have not been formally approved and implemented, and the employee might be able to cite other informal practices that management has known about but not discouraged until this instance. Failing to have properly approved

policies leaves management subject to criticism for taking personnel actions against staff if the activities in question are outside the draft policies but have been known to some management without previous sanctions. Because there is no clear process, there is no assurance that division management is aware of and supportive of changes to policies and procedures. This approval process is important to ensure the department's compliance with current laws, rules, and regulations; ensure awareness of how changes affect other division operations; and ensure that staff know when changes become effective.

Management's Comment

The Division of Radiological Health Inspection and Enforcement (DRH) concurs with the finding. Policies and procedures for the Inspection and Enforcement Section of the DRH will be reviewed, signed, and dated by the Inspection and Enforcement Manager. The policies and procedures will then be sent to the Division Director, or designee, for approval. This approval will be confirmed by signature and date on a sign-off sheet associated with the policies and procedures. This will allow Division management to acknowledge approval of changes in policies and procedures. The date of implementation will be January 2, 2010.

2. The Department of Environment and Conservation did not monitor the minimum number and dollar amount of its subrecipient contracts as required by the Department of Finance and Administration

Finding

The Tennessee Department of Environment and Conservation (TDEC) did not monitor the required portion of subrecipient contracts to comply with the Department of Finance and Administration's (F&A) Policy 22 and TDEC's subrecipient monitoring plan.

F&A Policy 22 establishes contract monitoring requirements for state agencies to ensure subrecipient compliance with the requirements of state and/or federal programs, applicable laws and regulations, and stated results and outcomes. Beginning in 2004, all state agencies that fund subrecipients were required to develop and submit an annual monitoring plan, for review and approval, to F&A, by October 1 of each year. Per information from F&A Division of Resource Development and Support, TDEC did submit plans for FY 2007-08 and 2008-09 on time and the plans were subsequently approved by F&A. According to Policy 22, when developing their annual monitoring plan and choosing the population of contracts to be monitored each year, agencies must ensure the population meets two main criteria:

1. agencies must monitor a *minimum* of 1/3 of the total number of all subrecipient contracts executed by their agency.

2. the current year maximum liability value of these contracts *must be equal to or greater than 2/3* of the current year aggregate maximum liability value of the agency's entire subrecipient grant population.

The agency should assess each subrecipient and assign a risk of high, medium, or low. While the scope of a review may vary based on the perceived risk to the state agency, the review must include, at a minimum, the program specific monitoring requirements as well as the applicable core monitoring areas outlined in paragraph 14 of the *Policy 22 Monitoring Manual*. When choosing the population of contracts to be monitored, the agency should consider contracts which

1. based on the state agency assigned risk assessment, pose a greater risk to the state (programmatically and/or financially);
2. have not recently been monitored; and
3. have prior review findings that indicate serious deficiencies.

TDEC reported 736 subrecipients for fiscal year October 1, 2007, through September 30, 2008, with a total maximum current year liability of approximately \$89,779,717. Under Policy 22's requirements that agencies monitor one-third of the contracts and two-thirds of the dollar value of contracts, TDEC would need to monitor approximately 245 contracts with a maximum current year liability of approximately \$59,793,292. TDEC's proposed monitoring sample, which consisted of 245 subrecipients, with a total maximum liability of approximately \$69,770,839, met the Policy 22 requirements. All subrecipients in this sample were assessed risk in all three categories based on the contract liability.

However, of the 245 subrecipient contracts identified in the monitoring plan, TDEC Internal Audit completed reviews of only 32 subrecipients (13% of those required), representing \$11,245,976, or 16% of the sample maximum liability total. Of these, 15 (47%) were high risk; 8 (25%) were medium risk; and 9 (28%) were low risk. (See Appendix 3.) Records available from prior years show that Internal Audit completed 21 reviews during fiscal year ended June 30, 2004, for a total contract population of 353 (6%) and 54 reviews during fiscal year ended June 30, 2006. We were unable to determine most prior year monitoring numbers either from information available from the department or from yearly internal audit activities reported to State Audit.

The Internal Audit Director stated that staffing constraints made it impossible to complete the required number of reviews. Internal Audit has five auditors, two of whom perform Policy 22 reviews full-time. A third auditor and the Internal Audit Director work on Policy 22 as part of their overall duties. Per the director, he supplies the two dedicated internal auditors with the sample list and instructs them to choose contracts from each risk category, giving consideration to risk and time efficiency. The director never formally approves the auditor choices but does check their progress on a weekly basis. Although Internal Audit has failed to review the required number of contracts for four consecutive fiscal years, it would have been possible to review a higher percentage of the two-thirds of maximum liability requirement. For example, had the

department chosen the 32 highest maximum liability high-risk contracts in the sample for the period July 1, 2007, through June 30, 2008, which totaled \$59,793,292, the department could have reviewed approximately \$40,085,186 (67%) of the calculated two-thirds maximum liability requirement as opposed to the \$11,245,976 (16%) actually reviewed.

During discussions with the Title VI Director regarding subrecipient monitoring, the director stated she depends on the Policy 22 reviews conducted by Internal Audit to ensure subrecipient compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination against clients on the basis of race, color, or national origin. We reexamined working papers for all of the reviews conducted during the 2007-08 review cycle. All reviews did contain Title VI monitoring, and no problems were noted. However, due to significant and continual noncompliance with the Policy 22 monitoring requirement, TDEC is unable to ensure subrecipient compliance, not only with programmatic and financial aspects of the contract, but also with Title VI requirements as well. Therefore, it is imperative that TDEC ensures consistency in contract selection and covers the largest population possible when the full sample population is unattainable.

Recommendation

The Department of Environment and Conservation should implement written policies and procedures to prioritize subrecipient contract monitoring for internal audit review and require formal approval of contract selection by the Internal Audit Director to ensure audit resources are used most efficiently and effectively. (This is especially important when full sample population monitoring is unattainable.) The policies and procedures should include the Policy 22 stipulation that consideration be given to subrecipients that have not been recently monitored or have prior findings that indicate serious deficiencies. The department could also consider allowing individual divisions to conduct some monitoring, if there are personnel qualified to perform the required reviews. Also, the department should maintain records for reconciling audit activities to the appropriate monitoring sample list.

Management's Comment

We concur. Due to the department's large volume of subrecipient contracts and the staffing constraints of the Internal Audit staff, it has been impossible to meet the requirement imposed by Finance and Administration (F&A) to monitor one-third (approximately 245) of the department's subrecipient contracts.

The Division of Internal Audit (DIA) agrees with the recommendation to allow divisions to conduct Policy 22 monitoring. Implementing this process will require: (1) the approval of upper management and division directors; (2) researching the division's current monitoring activities; and (3) training division staff on F&A's Policy 22 contract monitoring requirements. This process will be implemented in 2010.

DIA has already implemented a new procedure to select and assign Policy 22 contract reviews to audit staff to ensure audit resources are used more efficiently and effectively.

During the coming years, TDEC will be responsible for allocating American Recovery and Reinvestment Act (ARRA) federal funds (more than \$77 million) to Tennessee communities and businesses. Due to the ARRA, the department's executive management has added a major responsibility to the DIA to comply with the additional audit requirements of the Act. Failure to comply with these additional audit requirements will be detrimental to the department. Reviews of ARRA contracts will take precedence over other DIA activities for fiscal years 2010 and 2011.

3. Management is taking actions to increase parks' self-sufficiency, but not all park facilities are self-sufficient

Finding

As stated in *Tennessee Code Annotated*, Section 11-3-305, the General Assembly intended for revenue-generating facilities at state parks to be self-sufficient by fiscal year ended June 30, 2008. The facilities specifically named in that statute are marinas, campgrounds, golf courses, cabins, gift shops, restaurants, and inns. The statute defines being self-sufficient as when "the revenue generated at all such facilities collectively is sufficient to cover all of the direct operational costs incurred at those facilities." A performance measure included in the department's 2008 Strategic Plan and Performance is for the revenue-generating facilities to be 100% self-sufficient in fiscal years 2008 and 2009. Section 11-3-306, *Tennessee Code Annotated*, says if "revenues are generated by the facilities named in 11-3-305, which exceed the needs for self-sufficiency, then they may be applied in priority order, first to other operations at the park where they are located, next to parks containing historic sites or museums or natural areas, and finally to other state parks."

Revenues, Direct Operational Costs, and Indirect Costs

State parks generate revenues through inn room and cabin rentals; restaurant and gift shop sales; and golf course, marina, and camping fees. Direct operational costs are the costs directly associated with operating parks: salaries and benefits for park management and staff, utilities and fuel, supplies and materials, maintenance, insurance, and communication expenses. There are also indirect costs associated with park operations such as central office staff who supervise park managers, direct maintenance projects, and manage hospitality operations. The department reports both types of costs in park financial reporting but only considers direct costs for the self-sufficiency calculation total it reports.

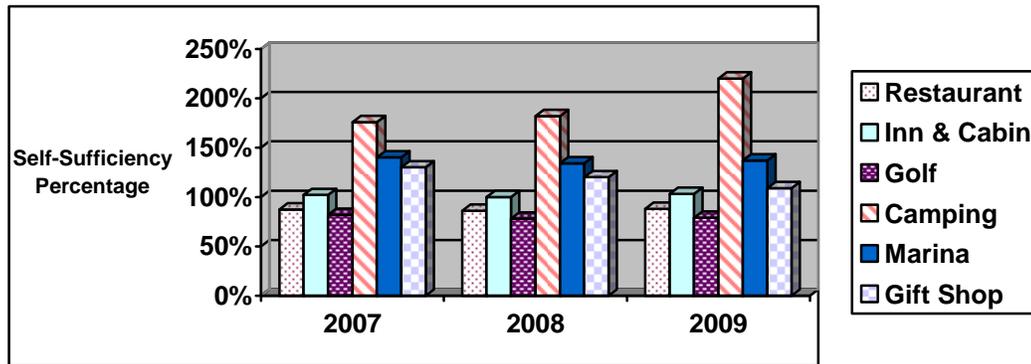
Reporting by the Department

Department management records results of park operations in two different reports. One report is by the six facility types, and the second is by resort and non-resort parks. The facility type report combines revenues and direct costs for the six facility types at all parks and calculates a total self-sufficiency percentage. See Table 2 for the percentages reported for 2007, 2008, and 2009. Two facility types—restaurants and golf courses—were not self-sufficient all three years. However, when combined with the remaining facility types, the department reported a 98.4%, 95.8%, and 99.6% total self-sufficiency percentage for those combined six facility types.

Table 2
Total Self-Sufficiency Percentage for Six Facility Types in All State Parks
Fiscal Years 2007 Through 2009

| Facility Type | FY 2007 | FY 2008 | FY 2009 |
|---------------|--------------|--------------|--------------|
| Restaurant | 87.3% | 86.0% | 88.1% |
| Inn & Cabin | 101.8% | 99.9% | 103.4% |
| Golf | 82.3% | 77.7% | 78.6% |
| Camping | 176.4% | 182.2% | 219.6% |
| Marina | 140.2% | 134.4% | 137.0% |
| Gift Shop | 130.1% | 120.4% | 109.1% |
| Total | 98.4% | 95.8% | 99.6% |

Self-Sufficiency by Facility Type



The second method used to report self-sufficiency calculates self-sufficiency by resort and non-resort parks and includes both direct and indirect costs, with a self-sufficiency percentage using both types of costs. We reviewed reports from the department’s Finance Division that list revenues and costs by individual resort parks and non-resort parks. Those results are shown in Table 3.

Table 3
Self-Sufficiency Percentages Using Only Direct Costs
Fiscal Years 2007 Through 2009

| Park / Facility | FY 2007 Percentage | FY 2008 Percentage | FY 2009 Percentage |
|-------------------------|---------------------------|---------------------------|---------------------------|
| Fall Creek Falls | | | |
| Restaurant | 95% | 94% | 95% |
| Inn & Cabin | 112% | 104% | 104% |
| Golf | 72% | 72% | 68% |
| Camping | 184% | 244% | 277% |
| Gift Shop | 151% | 143% | 173% |
| | | | |
| Henry Horton | | | |
| Restaurant | 61% | 60% | 63% |
| Inn & Cabin | 87% | 85% | 101% |
| Golf | 74% | 74% | 76% |
| Camping | 220% | 293% | 242% |
| Gift Shop | 247% | 204% | 160% |
| | | | |
| Montgomery Bell | | | |
| Restaurant | 95% | 94% | 92% |
| Inn & Cabin | 89% | 92% | 106% |
| Golf | 85% | 81% | 84% |
| Camping | 97% | 130% | 250% |
| Gift Shop | 138% | 170% | 151% |
| | | | |
| Natchez Trace | | | |
| Restaurant | 59% | 74% | 80% |
| Inn & Cabin | 106% | 91% | 107% |
| Camping | 142% | 135% | 151% |
| Gift Shop | 144% | 128% | 143% |
| | | | |
| Paris Landing | | | |
| Restaurant | 99% | 90% | 85% |
| Inn & Cabin | 91% | 94% | 91% |
| Golf | 85% | 88% | 91% |
| Camping | 238% | 250% | 309% |
| Marina | 124% | 139% | 131% |
| Gift Shop | 158% | 131% | 146% |
| | | | |
| Pickwick Landing | | | |
| Restaurant | 88% | 86% | 85% |
| Inn & Cabin | 114% | 108% | 107% |
| Golf | 64% | 45% | 78% |
| Camping | 122% | 130% | 132% |
| Marina | 142% | 127% | 145% |
| Gift Shop | 83% | 66% | 69% |
| | | | |

| Park / Facility | FY 2007 Percentage | FY 2008 Percentage | FY 2009 Percentage |
|----------------------------|---------------------------|---------------------------|---------------------------|
| Total Resort Parks | | | |
| Restaurant | 88% | 86% | 87% |
| Inn & Cabin | 102% | 98% | 102% |
| Golf | 76% | 72% | 79% |
| Camping | 152% | 183% | 216% |
| Marina | 134% | 132% | 139% |
| Gift Shop | 137% | 126% | 132% |
| | | | |
| Non-Resort Parks* | | | |
| Revenues Less Direct Costs | 37% | 35% | 35% |

Source: TDEC Division of Finance.

*Not categorized by facility.

The resort park restaurant facilities and golf facilities did not meet the self-sufficiency criteria for 2007, 2008, and 2009. During 2008, the inn and cabin facilities did not meet the self-sufficiency criteria. All six resort parks had some facilities that did meet the criteria while other facilities exceeded it, providing revenues to be applied to other facilities at the park that did not meet the criteria.

Marketing Efforts to Improve Self-Sufficiency

Park hospitality management said the downturn in the economy has resulted in the parks having less occupancy in the inns, which impacts sales in the restaurants and gift shops as well. Park management is implementing new ideas in order to attract more visitors to the parks and improve self-sufficiency. These ideas include selling alcohol at golf courses (a 2003 rule change permits this, and five courses are currently doing so with another course scheduled to begin soon), standardizing restaurant meals (which will permit contracting with one vendor for bulk sales to lower food cost), obtaining a contract with a soda vendor to supply soft drinks to all park venues, advertising in travel magazines, and implementing a frequent-visitor reward and a gift card program. Hospitality sales staff market the parks through sales calls and disseminating park event information through e-mails to state employees and previous state park guests.

Recommendation

Department and park management should review self-sufficiency requirements and identify ways to increase revenues and/or decrease expenses. Management should continue to periodically analyze the parks' financial condition and take actions to ensure that the parks meet the requirements for self-sufficiency.

Management's Comment

We concur with the audit finding. We are currently taking steps to increase revenues and reduce expenses in every park operation. Tennessee State Parks Hospitality Services had a self-sufficiency rating of 95.8% for FY 2007-2008. The nation's economy saw an unparalleled decline in 2008-2009 and Parks' revenues decreased accordingly. However, during FY 2008-2009, Tennessee State Parks Hospitality Services increased its self-sufficiency rating by 3.8% to 99.6% through effective management, creative marketing, and cost saving practices. (The 99.6% self-sufficiency rating is based on preliminary financial information due to the fact that the 2008-2009 financials have not been finalized.)

Tennessee State Parks Hospitality Services will continue to find ways to cut expenses and will implement new revenue generating measures to increase self-sufficiency to 100% by 2010. The new revenue generating measures scheduled for 2010 include: a statewide soft drink contract serving all state park venues, the sale of beer in four more golf course locations, the opening of seven new energy efficient L.E.E.D. certified cabins, and the implementation of (1) e-mail sales calls, (2) an online tee time reservation system for golf courses, (3) a visitor reward program, and (4) a computer based gift card program. The new cost saving measures for 2010 will include: securing one food vendor for all food purchases, installation of energy saving equipment, and creating a standard cycle menu for all state park restaurants.

4. Although the department has not prepared a master park plan update, due in March 2009, it has completed Management Direction Statements for most parks

Finding

The department complied with statutory requirements for a master park plan in 1999 with the *Master Plan for Tennessee State Parks*. The required 2004 update to that plan, *State Parks Strategic Direction*, was completed in 2005. Instead of a master plan update for 2009, the department has prepared individual park plans, called "Management Direction Statements," for 51 of the 53 state parks.

The purpose of a master plan is to establish a systematic approach for determining the future direction of the parks, assess the impact of park use and management, and formulate actions for management to address identified issues and problems. Updating and monitoring the plan is an important part of management's task to identify, mitigate, and monitor park needs and threats. Plan updates are important because leadership of the department may change with administrations, which may result in changes in management's direction and priorities regarding the operation of Tennessee's state parks system and the allocation of resources for the parks.

The Division of State Parks has developed Management Direction Statements in lieu of a March 2009 update to the *State Parks Master Plan*, which was required by statute. These Management Direction Statements identify issues that prevent the park from achieving its vision and mission. According to department and Division of State Parks management, these direction statements permit the department to fulfill the statutory mandate without taking funding from other areas within conservation.

Statutory Requirement for Plan

Section 11-3-120(b), *Tennessee Code Annotated*, required the Department of Environment and Conservation to complete a *State Parks Master Plan* by March 1, 1999, and to submit to the General Assembly an updated master plan every five years. The plan had to include the following elements:

- funding requirements for parks;
- facilities preservation, maintenance, and utilization;
- management and personnel staffing, training, compensation, and professional development;
- preservation, development, and expansion of existing and new park resources;
- educational programming; and
- land acquisition.

In addition, this statute instructs the department to hold public hearings in each of the state's nine development districts regarding the master plan, the five-year updates, and any major interim revisions to the plan.

Plan and Public Input – 1999

Management of the department and the Division of State Parks held public meetings in 1996, 1997, and 1998 to obtain input toward identifying issues related to the parks. Park users and conservation advocacy groups contributed as well. The division also asked for and received participation from state legislators. The information obtained was combined into the *1999 Master Plan*, which summarizes all of the public input and includes legislative history, the vision statement, mission statements, and goals and objectives for the parks.

2005 Performance Audit – The Five-Year Update Due March 1, 2004

Our November 2005 performance audit contained a finding that the department had not completed the statutorily required five-year update to the plan, due on March 1, 2004. The department responded to the finding by referring to the master plan as an unfunded mandate. Management said that due to budget constraints, state park staff had been reduced, resulting in a lack of personnel needed to conduct the public hearings or develop a master plan update. Department management also said it would review legislation to determine if legislative change should be recommended.

During this audit's fieldwork, we asked if department management had pursued those changes and were told that they had not.

Plan and Public Input - 2005

In September 2005, the Division of State Parks staff began work on the five-year update to the plan as required by statute. Again, they held public meetings at locations in each of the development districts. Public comments were taken and surveys were used. The public input and recommendations were used to assemble the *2005 State Parks Strategic Direction* issued after the November 2005 audit.

Current Process and Management Direction Statements

When we asked management about the status of the master plan update due March 1, 2009, management stated that a master plan update was not funded in the department's budget. The 1999 master plan was prepared with eight to nine staff. The 2005 update to that plan, *State Parks Strategic Direction*, was prepared with three to four staff. Presently, there is one full-time park planner and one person who works half of his time on park planning.

Because of budget constraints, the department and the Division of State Parks planning staff and park management are using a process called "Management Direction Statements" instead of developing a master plan update. This process is a collaborative effort of the park planner, park managers, and central office park maintenance management. These direction statements include a list of the natural and cultural resources of each park and a plan at the park level for managing these resources.

Because park managers are involved in their local communities and interact with visitors, they are aware of the public's wants and needs for the parks, according to the Director of Park Planning. Each Management Direction Statement contains the park's mission and vision statements and identifies management issues preventing the park from achieving its vision and mission; issues are grouped into one of ten categories. (See Table 4.) Three priority management issues identified for improvement that require funding and three priority issues that do not require funding are listed with a description of how the park will resolve the issue. Management believes these categories capture the statutorily mandated information of funding, preservation, maintenance, staffing, and land acquisition strategies.

Summary of Management Direction Statements

We reviewed Management Direction Statements for 51 parks (2 did not have statements). The Management Direction Statements were dated from April 2007 to April 2009. We compiled a list of the priority issues identified and the dollars needed to resolve them. (See Table 4.)

Table 4
Management Issues From State Park Management Direction Statements
2007-2009

| Category Name | Category Definition | Number of Parks With This Issue | Total Number of Issues Identified in the Category | Cost to Fund Each Park's Top Three Priorities |
|-------------------------------|---|--|--|--|
| Interpretation and Education | Includes exhibits, programming, staff, materials, equipment, and facilities that support telling the park's story. Also includes special events and other types of programming. | 51 | 215 | \$9 million |
| Land Management | Includes acquisition needs, boundaries, conflicting adjacent land uses, easements (mineral, highway, etc.), encroachments, zoning, GIS data management, mapping, etc. | 50 | 153 | \$11 million |
| Park Operational | Includes staffing, supplies, equipment, central office support, utilities, administrative facilities, operational budget, leases (who they are with, what they are for, when signed, expiration date), mowing, environmental management, website management, visitor center or park office issues, etc. | 51 | 278 | \$11 million |
| Visitor Use | Visitor use of park lands, facilities, and resources; visitor safety and security; visitation and demographic data; acceptable uses; use impacts, etc. | 49 | 184 | \$2.6 million |
| Retail Services or Facilities | Includes cabins, inns, group camps, campgrounds, golf courses, lodges, marinas, boat docks, restaurants or snack bars, catering, gift shops, operating costs, profit/loss, etc. | 42 | 145 | \$17 million |
| Marketing | Includes marketing activities, public relations, brochures, publications, direct mail, and promotional issues. | 39 | 102 | \$0 |
| Natural Resource Management | Includes flora, fauna, riparian, aquatic management and inventory, Iris Fund, exotic removal, native restoration, etc. | 50 | 197 | \$200 thousand |
| Cultural Resource Management | Includes historic and archeological resources, inventory, preservation, restoration, etc. | 50 | 155 | \$200 thousand |
| Recreational Use | Includes use and management of the park's recreational (non-retail) facilities and activities such as trails, picnic areas, playgrounds, mountain biking, boating, rock climbing, etc. | 51 | 220 | \$4 million |
| Maintenance | Maintenance needs, park infrastructure and visitor support facilities, expansion, renovation, reconstruction, removal or demolition, roads, utilities, new facilities feasibility, etc. | 50 | 257 | \$17 million |
| Total | | | | \$72 million |

Based on our review, it appears that department management complied with the statutory requirement to prepare a master plan in 1999, updated the plan in 2005 (one year late), and prepared individual park Management Direction Statements for a 2009 update. With one park planner, the department is working toward identifying and mitigating park needs with the resources available. However, as of November 2009, the department has not held public hearings on plan updates in the nine developmental districts or submitted plan updates to the House Conservation and Environment Committee and the Senate Environment, Conservation and Tourism Committee.

Recommendation

Department management should consult with the General Assembly to determine whether any amendments should be made to Section 11-3-120(b), *Tennessee Code Annotated*, which requires a master plan update every five years, public hearings in the nine developmental districts, and submission of plan updates to the House Conservation and Environment Committee and the Senate Environment, Conservation and Tourism Committee.

Management's Comment

We concur. Implementing the individual park management plans has been the response to planning needs of the state park system. Given the minimal staff within state parks that is capable of producing planning documents, it was ultimately our only option. The state park system, however, values the professional plan and public input outlined in this finding. If and when the state budget improves and personnel improvement requests are appropriate, we will request planning staff that will make us come into compliance with this finding.

OBSERVATIONS AND COMMENTS

The topics discussed below did not warrant a finding but are included in this report because of their effect on the operations of the Department of Environment and Conservation, related environmental boards, and on the citizens of Tennessee.

In conjunction with the U.S. Environmental Protection Agency, the department is monitoring environmental damage from a coal ash spill at the Tennessee Valley Authority's Kingston Fossil Plant and the cleanup

On December 22, 2008, a retaining wall failed at the Tennessee Valley Authority Kingston Fossil Plant in Roane County, Tennessee. More than 5.4 million cubic yards of coal ash spilled from an on-site holding pond to cover more than 300 acres of surrounding land and water. The resulting damage changed the adjoining physical and natural environment—impairing water quality and destroying aquatic habitat. The department issued an enforcement order January 12, 2009, requiring TVA to have independent assessment and inspections of the site and develop a corrective action plan. A corrective action plan was submitted March 2, 2009, and the department held a community meeting in Roane County on March 5, 2009.

The Department of Environment and Conservation has a web page on the department's website with information on the spill. Updates are made periodically that include environmental testing results and monitoring of the cleanup efforts. The department is sampling and analyzing public drinking water systems to assess whether they are meeting public health standards. The department is also assessing water quality of the major waterways impacted—Emory River, Clinch River, and Tennessee River. In addition, the department consulted with the Tennessee Department of Health to provide public health guidance and recommended precautions for citizens that come in contact with coal ash.

The Department of Environment and Conservation has developed and implemented a comprehensive sampling plan to address surface water, groundwater, drinking water, soil, and air monitoring to better inform communities and citizens while ensuring full, complete cleanup. All samples received to date indicate municipal water supplies are safe.

On May 11, 2009, the U.S. Environmental Protection Agency signed an agreement with TVA to oversee the removal of coal ash at the TVA Kingston Plant under the federal Superfund law, in consultation with the department. The removal is subject to review and approval by the agencies. Once the removal of ash is complete, TVA will be required to assess any remaining contamination so EPA and the department can determine whether additional actions may be needed.

Department of Environment and Conservation Monitoring

The department has been continually monitoring the environment around the spill. Results of the monitoring are posted online on the department's website. As of October 1, 2009, the air sample results were that air quality meets National Ambient Air Quality Standards. Although lab analysis detected some metals at very low levels, the Tennessee Department of Health said the levels do not cause health concerns. Additionally, there was deposition from the TVA Kingston facility on September 18, 2009, which was the result of a process problem at the plant and unrelated to the spill. While there was a spike in air quality levels, those levels did not exceed National Ambient Air Quality Standards.

The department has been conducting weekly sampling of the water supply since the spill occurred. As of October 1, 2009, all sample results indicate drinking water meets drinking water standards established by EPA for public health protection. As of June 23, 2009, the department had sampled private wells within a four-mile radius of the spill site for metals and none of the water wells had metals present above the primary drinking water standards. As of October 1, 2009, sample results of more than 100 private wells gave no indication of metals present above the primary drinking water standards.

Both the EPA and the department are monitoring water quality in the Emory, Clinch, and Tennessee Rivers. Metal levels were highest immediately following the spill and whenever the ash has been resuspended in the water column by heavy rainfall, such as the rain in early May 2009, or disturbances such as boat traffic. TVA collected samples on September 27, 2009, the day following an extended rain event. TDEC will review these results when they become available.

The Tennessee Wildlife Resources Agency collected fish in January, February, March, and April 2009 for fish tissue analysis by an EPA-certified laboratory for metals associated with coal ash. Two catfish samples were found to have metals present above human health protection standards for Mercury. Selenium levels in fish caught in the rivers are well below EPA's proposed toxicity standards for protection of fish and other aquatic life. TDEC has also reviewed additional in-depth analysis of fish health performed by the Oak Ridge National Laboratory on fish collected in the spring of 2009. This analysis found fish health below the spill site similar to that of fish collected at the reference site well above the spill area. The Department of Environment and Conservation issued advisories for consumption of certain species of fish from the rivers affected by the spill.

The department has also issued warnings to the public resulting from soil and ash testing and content. The public was advised to not walk through the ash or pick up/touch the ash. Although, according to the department, existing data indicate the ash does not pose an immediate health threat due to toxicity when it contacts the skin, it can be an irritant; the ash material is also slick when wet and can cause a safety hazard from slipping.

Cleanup and Continued Oversight

With EPA's oversight, the ash is dredged from the Emory River and temporarily stored on-site. The ash is then removed by rail to an off-site, out-of-state disposal site consistent with Subtitle D Class I landfill requirements.

Once the removal of ash is complete, TVA will be required to assess any remaining soil contamination and determine if additional corrective actions are required. Under the EPA administrative order, all coal ash must be disposed at RCRA Subtitle D Landfills that are in regulatory compliance. Out-of-state shipments require approval by EPA and the receiving state, while in-state disposal will require EPA and TDEC approval. Proposals to dispose of coal ash in existing Tennessee Class I landfills require department review and special waste approval. TDEC will contact the community prior to ash being shipped, and any receiving site must be equipped with liners and leachate collection systems. For any in-state site that requires a new permit or major permit modification, TDEC will provide public participation opportunities as outlined in the solid waste regulations.

TVA must assess the stability of the remaining ash in the failed landfill cell and submit a landfill closure plan to TDEC for consideration. The closure plan will be based on the results of remaining landfill structural integrity and stability analysis and may include a proposal to remove the remaining ash in the landfill off-site, or propose leaving ash in place. TDEC will not approve any final closure plan without providing for public participation.

Findings Related to the Cause of the Spill by Consultants and the TVA Inspector General

Consultants hired by the Tennessee Valley Authority reported that the "necessary systems, controls and culture were not in place" to properly manage coal ash sites at the authority's 11 coal-fired power plants. The report found the authority had no standard operating or maintenance procedures and failed to conduct annual training for engineers doing inspections. In July 2009, a TVA Inspector General report concluded that TVA could have prevented the spill if it had taken corrective actions; a consultant hired by TVA overemphasized a "slimes" foundation layer as a cause of the spill in its root-cause study; TVA's internal risk analysis process did not identify ash management as a risk; and TVA did not view coal ash as a risk to public health and the environment as it should have.

The department has taken steps to mitigate damage to parks resulting from encroachments

An encroachment is the unlawful, unauthorized, or unpermitted use of state park property. An encroachment may include a structure, such as a fence or retaining wall or part of a building, driveway, storage area, or garden, or it may be the removal of trees and plants native to the park land. Hunting on state property and grazing livestock or growing crops on state property are also encroachments. Without a plan to address these threats, parks are not fully prepared to preserve and protect their resources.

Park Plans and Boundaries

The department's mission, according to the *1999 Master Plan for Tennessee State Parks* and the 2005 *State Parks Strategic Direction* plan, is to protect and preserve the historical and cultural resources of the parks. The 1999 master plan contained performance measures based on completing a certain number of park boundary surveys by specified dates.

The Management Direction Statements of 11 parks list the need to purchase additional land for buffer zones to prevent encroachment and protect park boundaries as one of their top three priorities.

The department's 2008 strategic plan asserts that as communities around state parks continue to grow, there is an increasing potential for boundary problems and, if unaddressed, they could negatively impact the parks. That plan also reiterates the importance of preserving park resources.

Management Comments and Actions Related to the 2005 Performance Audit

Our November 2005 performance audit contained a finding that the department had not completed the boundary surveys on parks according to the schedule set in the 1999 master park plan (15 parks were to complete boundary surveys by June 30, 2003, and an additional 10 parks, by June 30, 2008).

In its management comments in that audit, the department said that funding was not appropriated for park surveys, but that it would request \$100,000 per year beginning in fiscal year ended June 30, 2007, for boundary surveys in state parks. The department also said it would require each state park to send one staff person to an updated boundary inspection workshop.

However, funds for boundary surveys have not been requested, although the department did hold boundary inspection workshops in 2005 and 2007 in each grand division, attended by 120 rangers. At the completion of that training, there was one person at each park who had attended the workshop.

Encroachment Documentation

The department did not provide a great deal of documentation of encroachment incidents or resolutions. Based on what we obtained, it would appear that encroachment is infrequent and most encroachment is identified after the fact—for example a pool, storage shed, etc., added by a homeowner.

We asked for documentation of park encroachments and their resolution for the prior three years. The department did not have a list of all reported encroachments, nor files for each incident. The department did not have written policies and procedures for reporting, investigating, and resolving encroachments. However, based on our interviews with management and staff and review of documentation, the same method is used to try to resolve all

problems. As park managers find and identify problems, they call the Real Property Coordinator, who researches the matter. This includes discussions with staff in the Recreation Services Division who refer to maps and deeds to identify boundaries. Then, the park manager and the Real Property Coordinator devise a solution to the problem. Sometimes owners are not aware of their encroachment and will stop, or in some cases, an exchange of property can be made.

We reviewed the cease and desist letters written to landowners about various boundary issues between October 2005 and October 2008. A cease and desist letter is a letter from the department to the property owner explaining the concern, instructing the owner to cease and desist the identified encroachment and explaining that the State of Tennessee is responsible for protecting public lands from encroachment. The following are examples of problems identified and resolved:

- A property owner cleared trees and shrubbery from adjacent state land; the problem was resolved by the owner planting trees and shrubs from a list provided by the department.
- A property owner was using adjacent state land for grazing livestock; further inspection found that the owner complied with the request to stop.
- A property owner cleared trees and built a trail; further inspection by park staff found that the owner complied with the request to stop.

Department staff said that the letters cover most boundary issues over those years, but that central office park staff can meet with the encroacher, discuss the issue, and come to a verbal agreement; therefore, a letter would not be written. The issue is then monitored by the park to confirm compliance. No letter is issued if compliance is met. Department staff did not know the number of times these cases were resolved without letters. They did say that most boundary issues are simple in nature, such as hunting on park land or having a driveway on park land.

Surveys

Twenty-one of the 53 state parks have been surveyed or partially surveyed (some of those surveys are old, dating back to 1966 and 1970). Department management and staff have said that the department does not have funds to complete field surveys and the department no longer has any employees who are licensed surveyors. Management estimated that the cost to survey all parks would be about \$20 million (cost per linear foot estimated to be about \$1.20). A 2008 partial survey of one park cost \$28,000. In addition, management pointed out that there is a cost to resolve encroachments because of long-standing disputes and the potential for lawsuits.

Based on the above, it appears that the department has taken some steps to mitigate risks associated with boundaries and encroachments on parks. Budget constraints have prevented hiring licensed surveyors, but the department has conducted boundary inspection workshops and, based on a review of documentation, has procedures in place that identify and resolve problems. Management said that newer encroachments are identified and resolved, but older encroachments are difficult to identify and costly to resolve. However, the lack of resources to pay for surveying and pursuing encroachments limits the department's ability to protect cultural and historical resources of the parks and preserve them for future generations.

Department management should continue its efforts to mitigate risks associated with encroachments at state parks. Addressing the lack of resources to survey parks means that the department will have to adopt methods other than surveyed boundaries to assess the extent to which boundaries may be encroached. For example, management should conduct boundary-inspection workshops periodically to ensure that current staff are trained in identifying encroachments.

Annual maintenance funds are being applied appropriately, but insufficient funding—necessary to preserve and maintain the parks’ infrastructure—has created a maintenance backlog that compromises the quality, safety, and prospect for long-term continuation of park services and facilities to the public

The Bureau of Parks Operations and Conservation oversees maintenance for all 53 state parks throughout Tennessee that include over 140,000 acres that span the state’s three grand divisions. State parks range from resort parks that provide conference centers, golf courses, and marinas; to more rustic parks that provide swimming, rafting, cabins, and camping; to day-use parks that provide enjoyment of the outdoors through hiking, fishing, and other activities. Section 11-3-123, *Tennessee Code Annotated*, encourages the department to maintain the state park system in a manner conducive to use by all persons and to provide easy access to areas within the parks.

Determining Park Maintenance Needs

Annual budgeted park maintenance appropriations are divided among the east, middle, and west regions. As outlined in Section 11-3-302, *Tennessee Code Annotated*, there is a special agency account in the state general fund to be known as the “state park fund.” “Any fund balance remaining unexpended at the end of a fiscal year in the fund shall be carried forward into the subsequent fiscal year.” Section 11-3-303 further states that the fund shall be used for expenditures for state parks, including but not limited to “the renovation, equipment, maintenance and upkeep of managed property and all buildings and structures related thereto.”

The Annual Unfunded Work Program (maintenance backlog) is the beginning for all park maintenance projects. The process begins with a park maintenance review whereby regional maintenance and park personnel inventory the entire park, compile all needed maintenance projects (cosmetic upgrades, repairs, safety issues), and estimate the cost of the projects based on their experience and knowledge of the process. Maintenance staff also use an estimating handbook that is an industry-wide standard for calculating project costs. The previous year’s maintenance checklist/inventory document (i.e., the unfunded work program) is used as a reference tool for the staff. The regional maintenance offices keep them on file to serve as a starting point for each year’s maintenance review. Upon completion of the park review, each regional manager decides which projects to complete in consultation with park managers who are asked to prioritize their top three to five projects. The Annual Unfunded Work Program may contain cosmetic upgrades, repairs, or safety issues. The annual maintenance funds—outlined in the budget under allotment code 327.15—are then distributed equally among the three grand divisions. For fiscal year 2010, \$2.2 million was appropriated for park maintenance.

FY 2010 Unfunded Maintenance Backlog

| Region | Amount |
|--------|---------------|
| East | \$44,407,950 |
| Middle | \$42,895,600 |
| West | \$17,994,961 |
| Total | \$105,298,511 |

Source: FY 2010 unfunded maintenance logs.

Deferred Maintenance

The unfunded maintenance list represents the total maintenance needs for all state parks—excluding capital projects costing over \$100,000. The \$2.2 million maintenance appropriations for FY 2010 represent only 2.08% of the unfunded work program’s total cost. Maintenance needs that outpace the availability of funding are not unique to Tennessee. As shown in the table below, surrounding states are experiencing funding problems as well. A 2008 survey conducted by the National Association of Park Directors revealed that the 18 states that responded had a combined maintenance backlog of over \$3.5 billion. Tennessee’s backlogged amount ranks eighth highest when compared against the other 18 surveyed states.

Estimated Maintenance Backlog Amount

Number of Parks

| | Estimated Maintenance Backlog Amount | Number of Parks |
|------------------|---|-----------------|
| California | \$1.2 billion | 280 |
| Ohio | \$526 million | 73 |
| Pennsylvania | \$450 million | 117 |
| Virginia | \$250 million | 36 |
| New Jersey | \$219.4 million | 50 |
| Missouri | \$173.7 million | 84 |
| South Carolina | \$136 million | 45 |
| Tennessee | \$100 million | 53 |
| Florida | \$96.8 million | 161 |
| Arkansas | \$77 million | 52 |
| Alaska | \$67 million | 32 |
| New Mexico | \$60 million | 35 |
| Kansas | \$41.9 million | 24 |
| Maryland | \$36.5 million | 45 |
| Idaho | \$30-40 million | 26 |
| Montana | \$25-35 million | 50 |
| Louisiana | \$19.5 million | 20 |
| North Dakota | \$14.5 million | 15 |
| West Virginia | \$14.3 million | 48 |

Effects of Deferred Maintenance

The backlog of code violations and Americans with Disabilities Act (ADA) projects presents an increasing risk to park safety and facility access. Code violations may include electrical or structural issues, impinging upon ADA regulations, and may pose either an immediate or non-immediate threat.

Title II of the ADA covers all activities of state and local governments regardless of the government entity's size or receipt of federal funding. The act requires that state and local governments give people with disabilities an equal opportunity to benefit from public programs, services, and activities. Such entities are also required to follow specific architectural standards in the new construction and alteration of their buildings. They also must relocate programs or otherwise provide access in inaccessible older buildings—but are not required to take actions that would result in undue financial and administrative burdens.

Complaints of Title II violations may be filed with the Department of Justice within 180 days of the date of discrimination. In certain situations, cases may be referred to a mediation program sponsored by the department, which may bring a lawsuit where it has investigated a matter and has been unable to resolve violations. TDEC is responsible for self-governing ADA code violations and uses a code specialist that reviews ADA complaints and assists to ensure that new construction and renovations meet ADA requirements. The failure to adhere to these regulations violates the rights of people with disabilities and may lead to injuries or litigation.

Title 68 of *Tennessee Code Annotated*—Health, Safety, and Environmental Protection—regulates building construction and fire safety codes. The Department of Commerce and Insurance oversees and administers fire prevention and electrical inspections. Electrical inspections are typically done for new construction while fire prevention inspections are completed annually. Public swimming pools, restaurants, snack bars, and campgrounds are inspected every year through the Department of Health. Park rangers who have been trained to identify safety issues are responsible for inspecting playground equipment due to the absence of any other regulatory authority.

Facilities and structures that pose an immediate health or safety risk must be closed or taken out of service for repair. If critical maintenance issues are not addressed immediately and if noncompliance with building and safety codes goes undetected, reduced public access, injury, and revenue loss may occur.

While safety issues take priority during the annual maintenance survey, the scarcity of funds prevents addressing all of the code violations and ADA compliance matters in any given year. Fiscal year ended June 30, 2009, yielded 51 unfunded code violation projects—37 were ADA-related; fiscal year ended June 30, 2010, accumulated 53 unfunded code violation projects—35 were ADA-related. Of the \$1,432,000 in unfunded code violations for fiscal year ended June 30, 2010—affecting 23 parks across the state—93% of the total costs are a carryover from the previous year. In terms of completed code violation projects, in fiscal year ended June 30, 2009, only 6.52% of the unfunded maintenance costs were addressed.

Unfunded Maintenance: Code Violations FY 2009 and 2010

| Region | Total Unfunded FY 2009 | Total Unfunded FY 2010 | FY 2009 Unfunded Carryover to FY 2010 | Actual Percentage of FY 2009 Funded |
|---------------|-------------------------------|-------------------------------|--|--|
| East | \$457,500 | \$417,500 | \$367,500 (88%) | 12% |
| Middle | \$91,000 | \$141,000 | \$91,000 (64.5%) | 0% |
| West | \$983,500 | \$989,000 | \$973,500 (98.98%) | 1.00% |
| Total | \$1,532,000 | \$1,547,500 | \$1,432,000 (93.47%) | 6.52% |

Types of Maintenance Projects

Maintenance needs throughout the park system are both varied and numerous. A breakdown of the 2009 maintenance projects and their accompanying costs can be seen in the table below. The projects are condensed into seven different categories and ten separate cost ranges. This reveals that nearly 40% of maintenance costs during fiscal year ended June 30, 2009, were devoted to structural repairs and upgrades to flooring, roofing, siding, windows, doors, paint, etc. Sewer and water-related projects constituted over 16% of maintenance costs while energy and electric-related issues made up over 15% of costs. Over two-thirds—67% of maintenance projects—during fiscal year ended June 30, 2009, cost less than \$5,000, and over 90% of maintenance projects cost less than \$20,000.

Repair Categories

| |
|--|
| A = ADA-related projects |
| E = Electrical & Energy (Electrical, Lighting, HVAC, Insulation) |
| M = Marina/Dock-related |
| P = Primary Structural Repairs (Flooring, Roofing, Siding, Paint, Windows, Doors, Columns) |
| R = Recreation (Outdoor Leisure, Pools, Golf Courses) |
| S = Secondary Structural (Auxiliary) Repairs (Parking Lots, Sidewalks, Paths, Gates, Bridges, Rails, Stone, & Other Non-Primary) |
| SW = Sewer & Water |

2008-2009 Maintenance Types

| Category | Cost | Percentage of Total |
|--------------------------|-----------------------|----------------------------|
| (A) ADA | \$39,990.00 | ~2.2% |
| (E) Energy & Electric | \$275,881.84 | ~15.8% |
| (M) Marina | \$106,345.56 | ~6% |
| (P) Primary Structural | \$683,102.62 | ~39.1% |
| (R) Recreation | \$47,376.76 | ~2.7% |
| (S) Secondary Structural | \$306,570.56 | ~17.5% |
| (SW) Sewer & Water | \$285,348.55 | ~16.3% |
| Total | \$1,744,615.89 | ~100% |

2008-2009 Maintenance Costs

| Cost | Number | Percentage of Total |
|--------------------|---------------|----------------------------|
| 1= < \$4,999 | 176 | ~67.4% |
| 2= \$5,000-9,999 | 38 | ~14.5% |
| 3= \$10,000-14,999 | 12 | ~4.5% |
| 4= \$15,000-19,999 | 11 | ~4.2% |
| 5= \$20,000-24,999 | 10 | ~3.8% |
| 6= \$25,000-29,000 | 6 | ~2.2% |
| 7= \$30,000-34,999 | 3 | ~1.1% |
| 8= \$35,000-39,999 | 3 | ~1.1% |
| 9= \$40,000-49,999 | 1 | ~0.3% |
| 10= > \$50,000 | 1 | ~0.3% |
| Total | 261 | 100% |

Declining visitation affects the resources available for maintenance needs

For fiscal year ended June 30, 2009, the department's park statistics show an across-the-board decrease in every category from the year before. Park attendance decreased by 7.4%; inn room occupancy decreased by 35.6%; cabin occupancy decreased by 4.3%; group camping decreased by 9.7%; campground rentals decreased by 6.9%; golfing decreased by 10.3%; and restaurant guests decreased by 12.6%.

State Park Annual Attendance

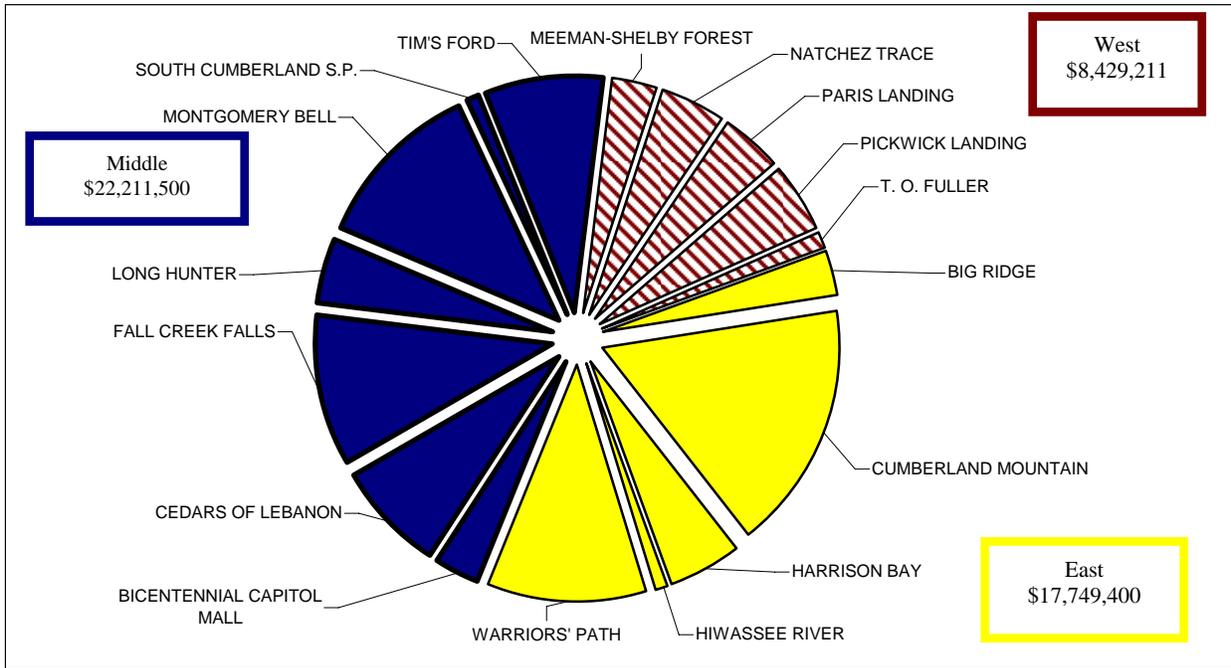
| Region | FY 2006 | FY 2007 | FY 2008 | FY2009 | 4-Year Total |
|---------------|-------------------|-------------------|-------------------|-------------------|---------------------|
| East | 10,090,275 | 9,874,819 | 11,559,051 | 10,364,668 | 41,888,813 |
| Middle | 9,682,210 | 10,918,294 | 10,951,003 | 10,834,763 | 42,386,270 |
| West | 7,449,942 | 8,743,661 | 8,162,679 | 7,210,636 | 31,566,918 |
| TOTAL | 27,222,427 | 29,536,774 | 30,672,733 | 28,410,067 | 115,842,001 |

State Park Annual Statistics

| | | | |
|-------------------------------|---------|---------|---------|
| Inn Room Occupancy (%) | | | |
| FY 2006 | FY 2007 | FY 2008 | FY 2009 |
| 42 | 44 | 59 | 38 |
| | | | |
| Cabin Occupancy (%) | | | |
| FY 2006 | FY 2007 | FY 2008 | FY 2009 |
| 47 | 49 | 47 | 45 |
| | | | |
| Group Camp (%) | | | |
| FY 2006 | FY 2007 | FY 2008 | FY 2009 |
| 31 | 31 | 31 | 28 |
| | | | |
| Campground (%) | | | |
| FY 2006 | FY 2007 | FY 2008 | FY 2009 |
| 30 | 30 | 29 | 27 |
| | | | |
| Golfers (#) | | | |
| FY 2006 | FY 2007 | FY 2008 | FY 2009 |
| 251,134 | 275,596 | 271,353 | 243,473 |
| | | | |
| Restaurant Guests (#) | | | |
| FY 2006 | FY 2007 | FY 2008 | FY 2009 |
| 870,999 | 912,921 | 861,219 | 753,028 |

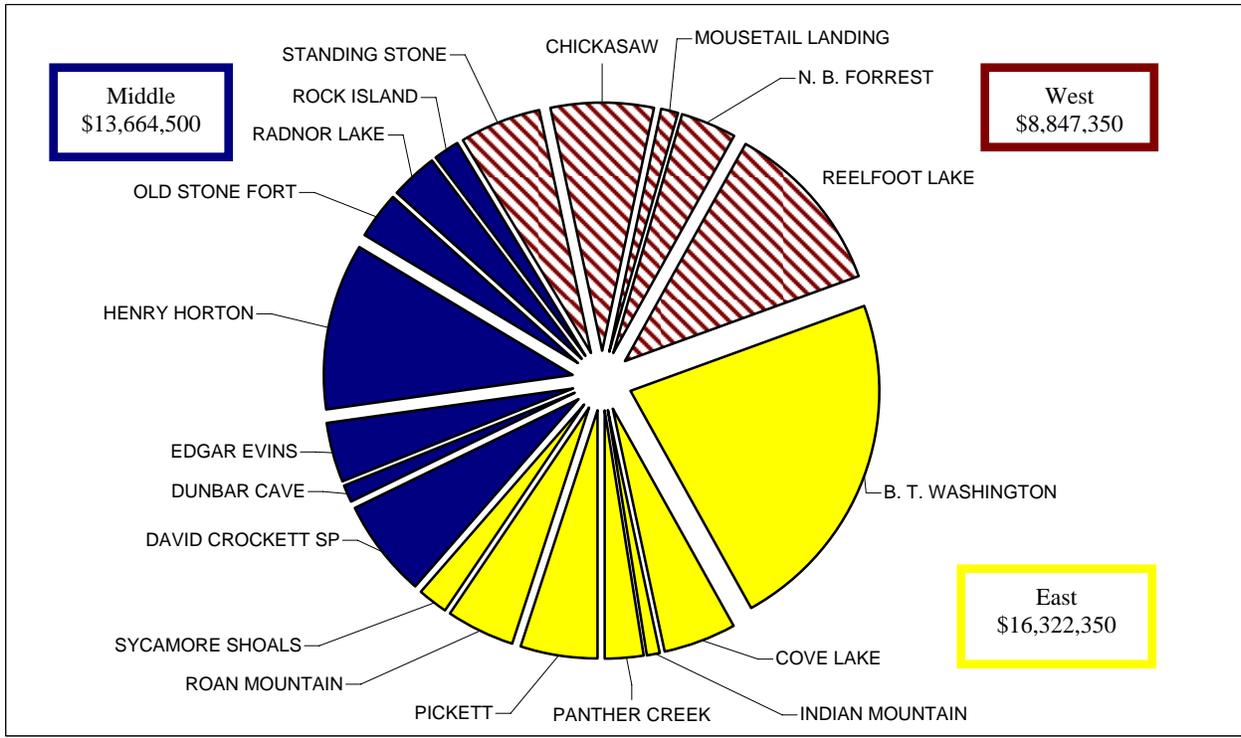
The following three charts illustrating the unfunded maintenance needs of the parks are presented based on the number of visitors. Also, each chart has three colors of pie pieces, each representing a particular grand division as noted on the charts.

**Chart 1
Parks With More Than 750,000 Visitors
Unfunded Maintenance by Park and Region**



| State Park | Region | Attendance 2009 | Unfunded Maintenance |
|---------------------------|-----------|-------------------|----------------------|
| Big Ridge | E | 1,083,430 | \$1,487,500 |
| Cumberland Mountain | E | 1,059,421 | \$8,133,700 |
| Harrison Bay | E | 980,662 | \$2,433,000 |
| Hiwassee River | E | 1,185,604 | \$495,000 |
| Warriors' Path | E | 1,771,740 | \$5,200,200 |
| Bicentennial Capitol Mall | M | 976,248 | \$1,487,500 |
| Cedars Of Lebanon | M | 1,017,837 | \$3,615,100 |
| Fall Creek Falls | M | 981,664 | \$4,978,100 |
| Long Hunter | M | 1,017,511 | \$2,120,000 |
| Montgomery Bell | M | 822,699 | \$5,673,000 |
| South Cumberland S.P. | M | 792,441 | \$465,300 |
| Tims Ford | M | 750,483 | \$3,872,500 |
| Meeman-Shelby Forest | W | 1,046,842 | \$1,419,950 |
| Natchez Trace | W | 1,235,190 | \$2,208,311 |
| Paris Landing | W | 1,194,440 | \$1,989,200 |
| Pickwick Landing | W | 890,786 | \$2,208,900 |
| T. O. Fuller | W | 984,438 | \$602,850 |
| Totals | 17 | 17,791,436 | \$48,390,111 |

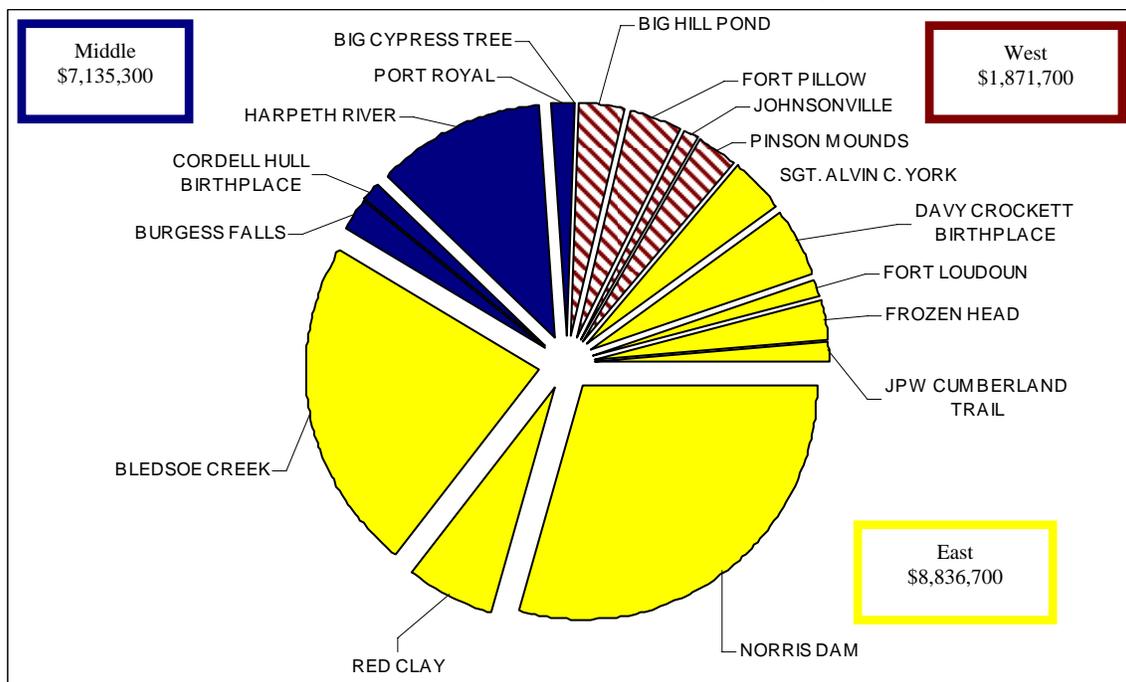
**Chart 2
Parks With 250,000 to 750,000 Visitors
Unfunded Maintenance by Park and Region**



| State Park | Region | Attendance 2009 | Unfunded Maintenance |
|-------------------|-----------|------------------|----------------------|
| B. T. Washington | E | 272,291 | \$8,688,650 |
| Cove Lake* | E | 750,000 | \$1,839,700 |
| Indian Mountain | E | 370,112 | \$346,500 |
| Panther Creek | E | 634,077 | \$961,500 |
| Pickett | E | 274,085 | \$2,019,200 |
| Roan Mountain | E | 577,043 | \$1,665,800 |
| Sycamore Shoals | E | 303,663 | \$801,000 |
| David Crockett Sp | M | 659,591 | \$2,416,400 |
| Dunbar Cave | M | 268,140 | \$444,100 |
| Edgar Evins | M | 596,386 | \$1,560,500 |
| Henry Horton | M | 443,752 | \$4,178,000 |
| Old Stone Fort | M | 257,685 | \$1,176,500 |
| Radnor Lake | M | 715,629 | \$1,230,000 |
| Rock Island | M | 570,194 | \$581,000 |
| Standing Stone | M | 398,281 | \$2,078,000 |
| Chickasaw | W | 347,582 | \$2,593,650 |
| Mousetail Landing | W | 257,875 | \$428,500 |
| N. B. Forrest | W | 602,593 | \$1,369,400 |
| Reelfoot Lake | W | 626,558 | \$4,455,800 |
| Totals | 19 | 8,354,858 | \$38,884,200 |

*Estimates by park based on prior year totals due to malfunctioning traffic counter.

Chart 3
Parks With Less Than 250,000 Visitors
Unfunded Maintenance by Park and Region



| State Park | Region | Attendance 2009 | Unfunded Maintenance |
|----------------------|-----------|------------------|----------------------|
| Alvin C. York | E | 155,495 | \$710,500.00 |
| Davy Crockett Bp | E | 74,495 | \$833,900.00 |
| Fort Loudoun | E | 232,633 | \$185,500.00 |
| Frozen Head | E | 112,784 | \$493,500.00 |
| JPW Cumberland Trail | E | *0 | \$266,000 |
| Norris Dam | E | 234,582 | \$5,259,300 |
| Red Clay | E | 199,103 | \$1,088,000 |
| Bledsoe Creek | M | 204,008 | \$4,081,800 |
| Burgess Falls | M | 128,951 | \$413,000 |
| Cordell Hull Bp | M | 42,319 | \$264,000 |
| Harpeth Scenic River | M | 245,693 | \$2,089,000 |
| Port Royal | M | 95,778 | \$287,500 |
| Big Cypress Tree | W | 27,351 | \$11,000 |
| Big Hill Pond | W | 189,955 | \$537,500 |
| Fort Pillow | W | 234,526 | \$627,500 |
| Johnsonville | W | 21,199 | \$202,800 |
| Pinson Mounds | W | 64,901 | \$492,900 |
| Totals | 17 | 2,263,773 | \$17,843,700 |

* The Justin P. Wilson Cumberland Trail State Park has multiple access points, and the department has not determined how to best track visitation.

Auditors visited three state parks to observe and document unfunded maintenance issues and gain an understanding of the severity of delayed maintenance. We visited Cumberland Mountain State Park in Crossville, Fall Creek Falls State Park in Pikeville, and Edgar Evins State Park in Silver Point. There were disparities in the severity of maintenance needs between these parks. To document these differences, we took digital photographs of those areas viewed.

It appears maintenance issues are repeatedly deferred, resulting in emergency repairs and the shifting of maintenance dollars from other parks, or eventually requiring classification as capital projects. For example, there are cabins at Cumberland Mountain having structural soundness issues that are now on the capital project listing. One of these cabins is leaning to one side and appears to be standing only due to the substantial chimney.

Timberlodge Picture 1



Timberlodge Cabin with crooked door and windows leaning toward the chimney, which is shown in the third photo. This has become a capital project for Cumberland Mountain State Park.

Timberlodge Picture 2



Closer look at the leaning door of the Timberlodge Cabin showing the top of the structure is leaning toward the chimney shown in the next picture.

Timberlodge Picture 3



Picture of the chimney that appears to be holding this structure upright.

Other maintenance problems noted were with the pool pumps at Cumberland Mountain and Fall Creek Falls. The Park Manager for Cumberland Mountain informed us there are days they must close the deep end of the Olympic size pool to swimmers because the filter system is not working properly, making the water cloudy and unsafe for swimmers. The pool pump at Fall Creek Falls was leaking considerably and is visibly corroded with rust.

**Cumberland Mountain State Park
Pool Pump Photos**



This pump for the Olympic-size pool has been in place since 1986. It is visibly rusted, as are many of the attached components.

**Fall Creek Falls State Park
Pool Pump Photos**



This tank is part of the pool pump system. It is sitting in several inches of water in the first picture, and the second picture is a close-up of the rust having eaten through the metal.



This leak was found as auditors were shown the pump system.



This portion of the pump is corroded with rust as well.

As for maintenance at Edgar Evins, there is a courtesy dock that is crumbling in places and requires spot welding to keep it together. Also, in the park's elevated parking areas for recreational vehicles, the support beams are very corroded, and the wooden parking areas are very worn and rotting in places. Per the maintenance manager, at some point, disrepair may force the closure of these areas.

Edgar Evins Cabin Courtesy Dock Photos



These two photos show the crumbling concrete of the dock and the very rusted support system. The iron holding the dock, per park maintenance staff, constantly requires welding repairs. If the iron was to fail, the cable attached should keep the dock together. However, as seen in the pictures, the clips holding the cabling in place are very rusty as well.



Much of the concrete is cracking.



New repair weld.

**Edgar Evins
Recreational Vehicle Parking Structure Photos**



The photo on the left is a side view of an elevated RV parking structure. The picture on the right is a picture of a support beam, which is directly below the timber, on which the RV actually sits.



Pictures of the timber of an elevated RV parking structure. The picture on the right shows the typical condition of timber on these structures.

As aging park facilities continue to deteriorate—along with the continued emergence of new and on-going maintenance needs—the accumulative costs of unfunded maintenance projects will continue to amass. Coupled with restricted maintenance funds and declining retail operations, the parks’ ability to keep pace with maintenance issues is an unlikely scenario. Aging park facilities in need of maintenance may also impact the department’s ability to meet the self-sufficiency mandate. (See Finding 3.)

The Underground Storage Tank Division is on schedule to meet EPA-required on-site inspections for the first three-year cycle

Section 68-215-102, *Tennessee Code Annotated*, states that the intent of the 2006 Tennessee Petroleum Underground Storage Tank Act is to protect the public health, safety, and welfare; prevent degradation of the environment; conserve natural resources; and provide a coordinated statewide underground storage tank program. It is the public policy of Tennessee to regulate underground storage tanks and to

- provide safe storage for petroleum products;
- provide a coordinated statewide program for petroleum products stored in underground storage tanks in cooperation with federal, state, and local agencies responsible for the prevention, control, or abatement of air, water, and land pollution such that adequate control is achieved without unnecessary duplication of regulatory programs;
- develop long-range plans for adequate petroleum underground storage tank systems to meet future demands;
- provide a mechanism for the remediation of environmental pollution due to releases from petroleum underground storage tank systems; and
- provide a comprehensive investigation and clean-up fund to address the problems caused by releases from petroleum underground storage tanks, including remediation of imminent and substantial threats to public health and/or the environment, and to provide a mechanism to assist the financial responsibility requirements for owners/operators of petroleum underground storage tanks.

The Division of Underground Storage Tanks carries out this mandate in several ways. Any owners, buyers, and sellers of tanks have several communication requirements throughout the life of the tank, such as tank installation, upgrades, changes in ownership, mailing address changes, and tank status. In fact, notifications of changes are required within 30 days of the change. As of June 19, 2007, the department requires notification of pre-installation 15 days prior to beginning installation. There are several regulations for which the division provides guidance as follows:

- threshold limits;
- inventory control and statistical inventory reconciliation (SIR);
- manual or automatic tank gauging;
- groundwater, vapor, and interstitial monitoring;
- requirements for corrosion protection;
- pressurized or suction piping;
- tank and line tightness testing; and
- spill and overfill protection.

Section 68-215-106(c), *Tennessee Code Annotated*, allows the division to affix red tags to each fill port for all underground storage tanks at a facility for failure to pay annual tank fees and associated late penalties and for violations that result in a final order and civil penalties. The removal of these tags is a Class C misdemeanor. The federal Energy Policy Act of 2005 further requires states receiving federal funding to have a delivery prohibition program. As a result, red-tagged tanks are listed for delivery prohibition. To further communicate delivery-prohibited sites to petroleum distributors, the division maintains a public listing of all facilities under this prohibition on its website.

Underground Storage Tank Compliance Inspections

The Underground Storage Tank (UST) Division has an inspection cycle that now requires inspection of tanks once every three years per the federal Energy Policy Act of 2005. The division has a staff of 19.5 FTE inspectors statewide in eight Environmental Field Offices. From its Comprehensive Inspection Plan, the division develops specific inspection goals that change each year based on the division's priorities and workload distribution. 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. According to the director of UST, the division is currently averaging 2.3 years statewide.

Before the Energy Policy Act of 2005, there was no federally mandated inspection frequency. The Energy Policy Act of 2005 was signed into law in August 2005, but before the beginning of the three-year inspection cycle mandate, the Energy Policy Act also mandated that states conduct on-site inspections for all tanks installed before December 22, 1998, as well as tanks that had not received an on-site inspection since December 22, 1998, within two years (August 8, 2007). Therefore, the first three-year inspection cycle would not end until August 2010.

Underground Storage Tank File Review

Based on reports provided by division management, the division only has 809 sites of 5,324 (15%) left to inspect before the three-year deadline expires on August 7, 2010. Auditors randomly selected 150 UST inspections performed by staff in the Nashville Environmental Field

Office and determined the inspections listing provided by the department was reliable. However, auditors discovered inconsistencies in the processes involving correspondence with tank owners in regard to compliance inspections.

According to memos provided by the Director of UST, inspectors are required to send a Confirmation of Compliance Inspection Appointment letter within 30 days from the date of inspection. During the file review, auditors found that many inspectors did not follow this procedure. Sixty-two percent (93) of the confirmation letters were sent within 30 days of the scheduled inspection date. While 15% (22) of the confirmation letters exceeded the 30 days, 15% (23) of the files did not include a confirmation letter, 1% (1) contained a letter that was not properly dated, 2% (3) of the files contained e-mail confirmations only, 2% (3) of the files were for tank closures, 1% (1) was a new file and had no inspection, and 1% (2) of the files had no information. The final 1% (2) of the files had confirmation letters, but they were desk reviews only and therefore had no inspection date for which to calculate the 30-day period.

The February 8, 2006, memo from the UST Director states if no violations or only deficiencies are discovered, a Result of Inspection letter should be issued. There is no time frame specified in the memo, and auditors found there was no consistency in when results of inspection letters were sent. Auditors found the average number of days between the results letter being mailed and the date of inspection was 28.

According to the February 8 memo, Notice of Violation (NOV) letters are to be issued within one week of the inspection date. Auditors found NOV letters were mailed within 12 days on average. Forty percent (21) were mailed later than seven days, 45% (24) were mailed within 7 days, and 15% (8) did not have letters in the file.

Underground Storage Tank Inspector Policies and Procedures

Auditors requested the policies and procedures for UST inspectors and found that there were no formal policies and procedures in place. The division's director provided office correspondence (memos) that he created and stated the division currently works from the memos. He also stated the Standardized Inspection Committee is in the process of creating a single comprehensive manual. The committee meets once a month and has been working to compile a *Standardized Operational Compliance Inspection Manual*. During the UST file review, there were inconsistencies in the way inspectors corresponded with tank owners regarding their compliance inspection. This is a direct effect of not having formal policies and procedures in place. As of October 7, 2009, approximately one-third of the manual was complete. According to staff, the main documents are being developed that will be used by the division staff as well as the regulated community. The manual will describe how each method of release detection should operate and how to maintain records, etc. There are also developments under way for release prevention (spill prevention) as well as photos of both acceptable and unacceptable types of equipment and functions.

The federally mandated Compliance Advisory Panel has been established but still lacks four member appointments

The 2005 performance audit found the department had not established the federally mandated Compliance Advisory Panel (CAP). Pursuant to Title V, Section 507, of the U. S. Clean Air Act Amendments of 1990, the department was to establish a State Compliance Advisory Panel as part of Tennessee's revised State Implementation Plan effective July 1995. The panel's responsibilities are to

- render advisory opinions about the technical assistance program, difficulties encountered, and the degree and severity of enforcement;
- make periodic reports to the EPA Administrator about the state program's compliance with the Paperwork Reduction Act and the Equal Access to Justice Act;
- review information provided to small business sources to ensure the information is understandable by the layperson.

The Act requires the CAP to have not less than seven members with the following appointments:

- two appointments by the Governor of non-business owners/representatives;
- two appointments by the State Senate of small business owners/representatives;
- two appointments by the State House of small business owners/representatives; and
- one appointment by the Environmental Commissioner to represent the agency.

As of July 10, 2009, the department established the CAP on its website. As of October 26, 2009, the Governor had made both required appointments, and the State House Republican Leader had made an appointment. Before this board can function, four more appointments are required, one each from the State Senate Majority Leader, State Senate Minority Leader, State House Democratic Leader, and the TDEC Commissioner.

Ground Water Management Board members approved current and former board members to provide continuing education instruction for licensed well drillers, who may review those drillers for additional licenses

A review of the minutes of the Board of Ground Water Management for August 9, 2007, revealed that board members unanimously approved the use of board members, both current and past, as instructors to provide continuing education in a classroom setting for licensed drillers.

While auditors were informed that board members are strictly volunteers and are not paid for providing training services, there is an inherent appearance of a conflict of interest in allowing current board members to conduct this type of training. While the training is to be for

licensed well drillers, there were instances in minutes where applicants were instructed to obtain more knowledge in the areas for which they were applying. While applicants were not directed to particular courses, there is the chance an applicant could attend training led by a board member who will eventually make another recommendation on the applicant for licensure.

To eliminate the appearance of a conflict of interest, the board should disallow current members from teaching continuing education classes.

RESULTS OF OTHER AUDIT WORK

Tennessee Youth Conservation Corps

Section 11-1-116, *Tennessee Code Annotated*, passed in 2006, states that the General Assembly’s policy is to have young persons assist in the preservation of state parks. The statute “encourages” the department to employ persons under 19 to work in state parks and recreation areas and to provide an annual report on the matter. The department established the Tennessee Youth Conservation Corps in 2006 after the statute was passed so that young people could participate in hands-on conservation experiences.

The coordinator of the program worked with 102 participants and 16 different crews in the summer of 2007, and the information below summarizes the activities of the conservation corps at that time:

Tennessee Youth Conservation Corps, Summer 2007

| Park | Work Performed |
|--|--|
| Montgomery Bell State Park, Narrows of the Harpeth, and Hidden Lake | Inventoried and established new research plots; trail maintenance; removal of invasive plants. |
| Bicentennial Capitol Mall | Landscaping and grounds improvement. |
| Henry Horton State Park | Built five miles of new hiking trail; removed storm debris. |
| Booker T. Washington | Assisted with building playgrounds; cleared undergrowth. |
| Burgess Falls State Park, Cordell Hull Birthplace State Park, and Sergeant Alvin C. York Historic Park | Trail maintenance; planted native plants and built eight bat houses. |
| Cumberland Trail State Park | Built a walkway; trail maintenance; took existing historical interviews and slides, organized them to be used by the Tennessee State Library and Archives; identified native plants. |
| David Crockett State Park | Cleared trails; saved native plants from a construction project and replanted them in another location; removed exotic plants. |

| | |
|--|--|
| Fort Loudoun State Historic Area | Reconstructed and furnished an 18th-century military barracks including assisting a stone mason, framing the building with oak timbers, applying clapboard siding and roofing with wooden shakes. Furnishing included constructing bunks, tables, and benches. |
| Natchez Trace State Park | Cleared a trail and completed maintenance so that it could be reopened. |
| Natural Areas | Traveled across the state to natural areas in each region to do trail maintenance, exotic plant removal, and boundary maintenance. |
| Pickett State Park | Repaired buildings and restored windows and furniture; learned stone masonry skills from local stone masons and used them to repair a cabin and trail shelter. |
| Tims Ford State Park | Built a portion of new hiking trail; cleaned up and refurbished backcountry campsites. |
| T.O. Fuller State Park and Meeman-Shelby Forest State Park | Cleared trails; reopened an outdoor amphitheater that had grown over; created flowerbeds and information boards; rehabilitated other flower beds. |

Park management said the program has been discontinued by TDEC management because of budget issues.

Risk Assessment

According to Section 9-18-102, *Tennessee Code Annotated*, each agency of state government is required to perform annually a management assessment of risk, and the internal controls associated with those risks should be incorporated into this assessment. Based on discussion with management of the Division of Internal Audit, it is the individual divisions' responsibility to test the controls listed on the risk assessments.

Auditors reviewed the 2008 risk assessments for the Divisions of Water Supply, Air Pollution Control, Solid Waste Management, Remediation, Ground Water Protection, Golf Services, and Hospitality Services.

Based on auditor analysis and audit work conducted at the Department of Environment and Conservation, the department does test the controls listed on its risk assessments.

RECOMMENDATIONS

ADMINISTRATIVE

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

1. Division management should ensure there is a clear, formal, and written process for final approval and implementation of policies and procedures within the division. All policies under which inspectors operate should be written and formally approved consistent with that process. For example, if personnel issues arose, it could be difficult to take actions against an employee for misconduct when the policies and procedures have not been formally approved and implemented, and the employee might be able to cite other informal practices that management has known about but not discouraged until this instance. Failing to have properly approved policies leaves management subject to criticism for taking personnel actions against staff if the activities in question are outside the draft policies but have been known to some management without previous sanctions. Because there is no clear process, there is no assurance that division management is aware of and supportive of changes to policies and procedures. This approval process is important to ensure the department's compliance with current laws, rules, and regulations; ensure awareness of how changes affect other division operations; and ensure that staff know when changes become effective.
2. The Department of Environment and Conservation should implement written policies and procedures to prioritize subrecipient contract monitoring for internal audit review and require formal approval of contract selection by the Internal Audit Director to ensure audit resources are used most efficiently and effectively. (This is especially important when full sample population monitoring is unattainable.) The policies and procedures should include the Policy 22 stipulation that consideration be given to subrecipients that have not been recently monitored or have prior findings that indicate serious deficiencies. The department could also consider allowing individual divisions to conduct some monitoring, if there are personnel qualified to perform the required reviews. Also, the department should maintain records for reconciling audit activities to the appropriate monitoring sample list.
3. Department and park management should review self-sufficiency requirements and identify ways to increase revenues and/or decrease expenses. Management should continue to periodically analyze the parks' financial condition and take actions to ensure that the parks meet the requirements for self-sufficiency.

4. Department management should consult with the General Assembly to determine whether any amendments should be made to Section 11-3-120(b), *Tennessee Code Annotated*, which requires a master plan update every five years, public hearings in the nine developmental districts, and submission of plan updates to the House Conservation and Environment Committee and the Senate Environment, Conservation and Tourism Committee.

**Appendix 1
State Parks**

| Name | City |
|--|------------------|
| Bicentennial Capitol Mall State Park | Nashville |
| Big Cypress Tree State Park | Greenfield |
| Big Hill Pond State Park | Pocahontas |
| Big Ridge State Park | Maynardville |
| Bledsoe Creek State Park | Gallatin |
| Booker T. Washington State Park | Chattanooga |
| Burgess Falls State Park | Sparta |
| Cedars of Lebanon State Park | Lebanon |
| Chickasaw State Park | Henderson |
| Cordell Hull Birthplace State Park | Byrdstown |
| Cove Lake State Park | Caryville |
| Cumberland Mountain State Park | Crossville |
| David Crockett State Park | Lawrenceburg |
| Davy Crockett Birthplace State Park | Limestone |
| Dunbar Cave State Park | Clarksville |
| Edgar Evins State Park | Silver Point |
| Fall Creek Falls State Park | Pikeville |
| Fort Loudon State Park | Vonore |
| Fort Pillow State Historic Park | Henning |
| Frozen Head State Park | Wartburg |
| Harrison Bay State Park | Harrison |
| Harpeth River State Park | Kingston Springs |
| Henry Horton State Park | Chapel Hill |
| Hiwassee/Ocoee Rivers State Park | Delano |
| Indian Mountain State Park | Jellico |
| Johnsonville State Historic Park | New Johnsonville |
| Justin P. Wilson Cumberland Trail State Park | Caryville |
| Long Hunter State Park | Hermitage |
| Meeman-Shelby Forest State Park | Millington |
| Montgomery Bell State Park | Burns |
| Mousetail Landing State Park | Linden |
| Natchez Trace State Park | Wildersville |
| Nathan Bedford Forrest State Park | Eva |
| Norris Dam State Park | Lake City |
| Old Stone Fort State Archaeological Park | Manchester |
| Panther Creek State Park | Morristown |
| Paris Landing State Park | Buchanan |
| Pickett State Park | Jamestown |
| Pickwick Landing State Park | Pickwick Dam |

| Name | City |
|---|---------------|
| Pinson Mounds State Archaeological Park | Pinson |
| Port Royal State Park | Adams |
| Radnor Lake State Park | Nashville |
| Red Clay State Historic Park | Cleveland |
| Reelfoot Lake State Park | Tiptonville |
| Roan Mountain State Park | Roan Mountain |
| Rock Island State Park | Rock Island |
| Sgt. Alvin C. York Historic Park | Pall Mall |
| South Cumberland State Park | Monteagle |
| Standing Stone State Park | Hilham |
| Sycamore Shoals State Historic Park | Elizabethton |
| Tims Ford State Park | Winchester |
| T. O. Fuller State Park | Memphis |
| Warriors' Path State Park | Kingsport |

**Appendix 2
State Natural Areas**

| Name | County |
|------------------------------------|--------------------|
| Auntney Hollow | Lewis |
| Barnett's Woods | Montgomery |
| Bays Mountain | Sullivan, Hawkins |
| Big Cypress Tree | Weakley |
| Bone Cave | Van Buren |
| Burgess Falls | Putnam, White |
| Campbell Bend Barrens | Roane |
| Carroll Cabin Barrens | Decatur |
| Carter (Harry Lee) | Franklin |
| Cedars of Lebanon | Wilson |
| Chimneys | Marion |
| Colditz Cove | Fentress |
| Couchville Cedar Glade | Davidson, Wilson |
| Crowder Cemetery | Roane |
| Devil's Backbone | Lewis |
| Dry Branch | Lewis |
| Duck River Complex | Maury |
| Dunbar Cave | Montgomery |
| Elsie Quarterman Cedar Glade | Rutherford |
| Fall Creek Falls | Bledsoe, Van Buren |
| Falling Water Falls | Hamilton |
| Fate Sanders Barrens | Rutherford |
| Flat Rock Cedar Glades and Barrens | Rutherford |
| Frozen Head | Morgan |
| Gattingers Cedar Glade | Rutherford, Wilson |
| Ghost River | Fayette |
| Grundy Forest | Grundy |
| Hampton Creek Cove | Carter |
| Hawkins Cove | Franklin |
| Hicks Gap | Marion |
| Honey Creek | Scott |
| House Mountain | Knox |
| Hubbard's Cave | Warren |
| John and Hester Lane Cedar Glades | Wilson |
| John Noel at Bon Aqua | Hickman |
| Langford Branch | Lewis |
| Laurel Snow Pocket | Rhea |
| Lucius E. Burch, Jr. Forest | Shelby |
| Manus Road Cedar Glade | Rutherford |

| Name | County |
|--|--------------------------|
| May Prairie | Coffee |
| Meeman-Shelby Forest | Shelby |
| Montgomery Bell | Dickson |
| Morril's Cave | Sullivan |
| Morrison Meadow | Warren |
| Mount View Glade | Davidson |
| Natural Bridge | Franklin |
| North Chickamauga Creek | Hamilton, Sequatchie |
| Overbridge | Rutherford |
| Ozone Falls | Cumberland |
| Piney Falls | Rhea |
| Pogue Creek | Fentress |
| Powell River | Claiborne |
| Radnor Lake | Davidson |
| Reelfoot Lake | Lake, Obion |
| Riverwoods | Shelby |
| Roundtop Mountain | Sevier |
| Rugby | Morgan |
| Savage Gulf | Grundy, Sequatchie |
| Sequatchie Cave | Marion |
| Short Mountain | Cannon |
| Short Springs | Coffee |
| Sneed Road Cedar Glade | Williamson |
| Stillhouse Hollow Falls | Maury |
| Stinging Fork Falls | Rhea |
| Stones River Cedar Glade | Rutherford |
| Sunk Lake | Lauderdale |
| Sunnybell Cedar Glade | Rutherford |
| Taylor Hollow | Sumner |
| Twin Arches | Pickett, Fentress, Scott |
| Vesta Cedar Glade | Wilson |
| Vine Cedar Glade | Wilson |
| Virgin Falls | White |
| Walker Branch | Hardin |
| Walls of Jericho | Franklin |
| Walterhill Floodplain | Rutherford |
| Washmorgan Hollow | Jackson |
| Watauga River Bluffs | Carter |
| William B. Clark | Fayette |
| William L. Davenport | Polk |
| Wilson School Road Forest and Cedar Glades | Marshall |

Appendix 3

Department of Environment and Conservation Subrecipient Contract Reviews Fiscal Year 10/1/07 Through 9/30/08

| AUDIT NAME | MAX. LIABILITY | ASSIGNED RISK |
|---|---------------------|---------------|
| Shelby Co. Waste Tire Grant FY06-07 | 2,424,053 | High |
| University of Tennessee-Solid Waste Management | 1,326,273 | High |
| University of Tennessee-Air Pollution Control | 810,531 | High |
| University of Tennessee-Solid Waste Management | 588,085 | High |
| Shelby County Waste Tire Grant FY07-08 | 517,000 | High |
| Memphis/Shelby Co. HHW-Solid and Hazardous Waste Management | 500,000 | High |
| City of Etowah-Recreation Educational Services | 500,000 | High |
| City of Cookeville-Solid Waste Management | 500,000 | High |
| City of Cookeville LPRF-Recreation Educational Services | 450,000 | High |
| City of Alcoa-Recreation Educational Services | 400,000 | High |
| Metro-Nashville-Recreation Educational Services | 400,000 | High |
| City of Ridgetop LPRF-Recreation Educational Services | 400,000 | High |
| University of Tennessee-Air Pollution Control | 308,746 | High |
| Greater Nashville Regional Council-Solid Waste Management | 282,896 | High |
| Town of Oneida-Recreation Educational Services | 250,000 | High |
| High Risk Total | \$9,657,584 | |
| Blount Co.-Waste Tire | 269,107 | Medium |
| City of Knoxville-Recreation Educational Services | 200,000 | Medium |
| Shelby Co. LPRF-Recreation Educational Services | 150,000 | Medium |
| City of Lakeland LPRF-Recreation Educational Services | 142,000 | Medium |
| University of Memphis-Water Supply | 124,970 | Medium |
| City of Kingsport-Recreation Educational Services | 100,000 | Medium |
| City of Chattanooga-Recreation Educational Services | 100,000 | Medium |
| Putnam County-Waste Tire Grant | 47,634 | Medium |
| Medium Risk Total | \$1,133,711 | |
| City of Harrogate-Recreation Educational Services | 180,000 | Low |
| Tellico Area Service systems | 77,878 | Low |
| Town of Monterey-RTP-Recreation Educational Services | 75,000 | Low |
| Bledsoe's Lick Historical Assoc. | 38,263 | Low |
| Lewis County-Used Tire-Solid Waste Management | 35,405 | Low |
| Union County-Solid Waste Management | 15,000 | Low |
| East Tennessee Historical Society | 14,415 | Low |
| City of Bolivar-Historical Commission | 12,000 | Low |
| Green County-Solid and Hazardous Waste Management | 6,720 | Low |
| Low Risk Total | \$454,681 | |
| Total | \$11,245,976 | |

Appendix 4
Title VI and Title VII 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 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 Department of Environment and Conservation's Budget by Program for fiscal year 2009, the department received \$58,426,600 in federal assistance during fiscal year 2009, broken down as follows:

| Program | Amount | Percent of Total |
|----------------------|---------------------|-------------------------|
| Administration | \$2,843,700 | 5% |
| Parks and Recreation | \$5,198,600 | 9% |
| Environment | \$50,384,300 | 86% |
| Total | \$58,426,600 | 100% |

With respect to Title VI compliance, the department reports annually to the Tennessee Comptroller of the Treasury and as needed to other state and federal entities. The department submits Title VI compliance information to other state and federal entities when requested, as a condition of receiving federal funds. The Title VI Coordinator stated information has been submitted to the Tennessee Department of Transportation, Tennessee Department of Health, the United States General Services Administration Federal Surplus Property Program, and the United States Environmental Protection Agency.

The department has a Title VI Coordinator who works in the Office of Environmental Assistance. The coordinator's responsibilities include but are not limited to the following:

- coordinating the implementation of Title VI and Environmental Justice requirements throughout the agency;
- maintaining permanent records of Title VI matters;
- submitting required Title VI reports;
- creating awareness of statutory non-discriminatory requirements;
- disseminating Title VI Information both internally and externally; and
- coordinating agency efforts to provide a mechanism for outreach to direct community participation in environmental decision-making.

To ensure that department staff and clients/program participants understand the requirements of Title VI, the department distributes discrimination policies in offices and public locations throughout the state, provides employee training, and disseminates information regarding Civil Rights and complaint procedures via its website. The department informs contractors of Title VI responsibilities by including a non-discrimination statement in all contracts.

The Title VI plan states that the department monitors Title VI compliance through contract language and assurances, contract monitoring, subrecipient monitoring reviews (see Finding 2), and the complaint process. Subrecipients and contract vendors must maintain records of those ethnic and gender groups that are awarded bids on projects. Each contract contains a nondiscrimination clause.

When the department receives a Title VI complaint, the Complaint Officer will review for validity, investigate if valid, and attempt to resolve the complaint. If negotiations to correct a violation are unsuccessful, enforcement proceedings may be initiated. The Complaint Officer submits findings and conclusions to the Title VI Coordinator, and the Assistant Commissioner issues a decision on the investigation findings and conclusions. Decisions by the Assistant Commissioner can be appealed to the Commissioner within 30 days of receipt of the decision. A complaint may be filed with the appropriate federal agency no later than 180 calendar days after the alleged discrimination occurred.

**Female/Minority-Owned Business Contracts
Fiscal Year 2009**

| Vendor | Contract Amount | Services Provided | Ownership |
|---------------------------|------------------------|--|------------------|
| Mudpuppy & Waterdog, Inc. | \$3,500 | Civil War Site Preservation Services | Female |
| Madeline Snow | \$4,900 | Meeting Facilitation | Female |
| Elizabeth Stetar | \$5,000 | Health Physicist Consultation | Female |
| Mary Buckner | \$4,500 | State of Environment Report | Female |
| K S Ware | \$3,500,000 | Investigative, Engineering & Remediation | Female |

Title VII

All programs or activities receiving federal assistance must comply with Title VII of the Civil Rights Act of 1964 that prohibits employment based on race, color, religion, sex, or national origin. The tables below detail the breakdown of board members and agency staff by gender and ethnicity.

Environmental Boards Board Member Gender and Ethnicity as of June 24, 2009

| Board | Gender | | Ethnicity | | |
|--|-----------|-----------|-----------|----------|----------|
| | Male | Female | White | Black | Other |
| Air Pollution Control Board | 10 | 3 | 12 | 1 | 0 |
| Ground Water Management Board | 5 | 0 | 5 | 0 | 0 |
| Petroleum Underground Storage Tank Board | 7 | 2 | 7 | 1 | 1 |
| Solid Waste Disposal Control Board | 7 | 4 | 9 | 2 | 0 |
| Water Quality Control Board | 7 | 3 | 9 | 1 | 0 |
| Total | 36 | 12 | 42 | 5 | 1 |

**Tennessee Department of Environment and Conservation
Staff Gender and Ethnicity by Job Position
As of September 24, 2009**

Gender

| Title | Male | Female |
|-------------------------------------|------|--------|
| Account Clerk | 1 | 22 |
| Accountant 2 | 3 | 3 |
| Accountant 3 | 13 | 6 |
| Accountant/Auditor 1 | 1 | 0 |
| Accounting Manager | 0 | 3 |
| Accounting Technician 1 | 1 | 14 |
| Accounting Technician 2 | 1 | 3 |
| Administrative Assistant 1 | 0 | 12 |
| Administrative Secretary | 2 | 39 |
| Administrative Services Assistant 1 | 0 | 1 |
| Administrative Services Assistant 2 | 2 | 29 |
| Administrative Services Assistant 3 | 6 | 20 |
| Administrative Services Assistant 4 | 6 | 19 |
| Administrative Services Assistant 5 | 3 | 10 |
| Administrative Services Manager | 2 | 2 |
| Archaeologist 1 | 1 | 1 |
| Archaeologist 2 | 4 | 1 |
| Archaeologist Supervisor | 2 | 0 |
| Archaeologist - State | 1 | 0 |
| Assistant Commissioner 1 | 1 | 1 |
| Assistant Commissioner 2 | 2 | 0 |
| Attorney 3 | 5 | 3 |
| Attorney 4 | 3 | 2 |
| Audit Director 1 | 1 | 0 |
| Auditor 2 | 2 | 1 |
| Auditor 3 | 1 | 0 |
| Auditor 4 | 0 | 1 |
| Automotive Master Mechanic | 1 | 0 |
| Biologist 3 | 4 | 3 |
| Biologist 4 | 5 | 1 |
| Board Member | 32 | 9 |
| Budget Analysis Director 1 | 1 | 0 |
| Budget Analyst 2 | 2 | 0 |
| Building Maintenance Worker 1 | 5 | 0 |
| Building Maintenance Worker 2 | 12 | 0 |
| Building Maintenance Worker 3 | 7 | 0 |
| Business Development Consultant 2 | 2 | 0 |
| Chemist 3 | 1 | 0 |

Ethnicity

| Asian | Black | Hispanic | Indian | White | Other |
|-------|-------|----------|--------|-------|-------|
| 0 | 2 | 0 | 0 | 21 | 0 |
| 1 | 1 | 0 | 0 | 4 | 0 |
| 2 | 4 | 0 | 0 | 11 | 2 |
| 0 | 1 | 0 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 | 1 | 0 |
| 1 | 3 | 0 | 0 | 10 | 1 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 0 | 2 | 0 | 0 | 10 | 0 |
| 0 | 8 | 0 | 0 | 33 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 1 | 5 | 0 | 0 | 25 | 0 |
| 0 | 7 | 0 | 0 | 19 | 0 |
| 0 | 3 | 0 | 0 | 21 | 1 |
| 0 | 2 | 0 | 0 | 11 | 0 |
| 0 | 1 | 0 | 0 | 3 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 1 | 1 | 0 | 0 | 6 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 7 | 0 |
| 0 | 0 | 0 | 0 | 6 | 0 |
| 0 | 2 | 0 | 0 | 38 | 1 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 |
| 0 | 0 | 0 | 0 | 12 | 0 |
| 0 | 1 | 0 | 0 | 6 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |

Gender

| Title | Male | Female |
|--|------|--------|
| Chief Ranger | 1 | 0 |
| Clerk 1 | 9 | 30 |
| Clerk 2 | 8 | 41 |
| Clerk 3 | 6 | 26 |
| Commissioner 1 | 1 | 0 |
| Conservation Maintenance Administrator | 1 | 0 |
| Conservation Planner 3 | 1 | 0 |
| Conservation Planning Director | 1 | 1 |
| Conservation Worker 1 | 141 | 37 |
| Conservation Worker 2 | 70 | 4 |
| Conservation Worker 3 | 28 | 0 |
| Cook 1 | 9 | 22 |
| Cook 2 | 4 | 7 |
| Custodial Worker 2 | 26 | 85 |
| Custodial Worker 3 | 1 | 12 |
| Custodial Worker Supervisor 1 | 0 | 5 |
| Custodial Worker Supervisor 3 | 1 | 0 |
| Database Administrator 3 | 2 | 0 |
| Deputy Commissioner 1 | 1 | 0 |
| Easement Acquisition Coordinator | 1 | 0 |
| Environmental Assistance Program Director | 0 | 1 |
| Environmental Assistance Program Manager 1 | 2 | 1 |
| Environmental Assistance Program Manager 2 | 0 | 2 |
| Environmental Field Office Manager | 41 | 5 |
| Environmental Investigator | 4 | 0 |
| Environmental Program Administrator | 1 | 2 |
| Environmental Program Director | 7 | 0 |
| Environmental Program Manager 1 | 23 | 10 |
| Environmental Program Manager 2 | 13 | 5 |
| Environmental Program Manager 3 | 13 | 0 |
| Environmental Protection Specialist 3 | 53 | 23 |
| Environmental Protection Specialist 4 | 46 | 7 |
| Environmental Protection Specialist 5 | 18 | 4 |
| Environmental Protection Specialist 6 | 9 | 1 |
| Environmental Protection Specialist 7 | 2 | 2 |
| Environmental Specialist 1 | 7 | 9 |
| Environmental Specialist 3 | 138 | 44 |
| Environmental Specialist 4 | 81 | 22 |
| Environmental Specialist 5 | 43 | 13 |

Ethnicity

| Asian | Black | Hispanic | Indian | White | Other |
|-------|-------|----------|--------|-------|-------|
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 | 38 | 0 |
| 0 | 2 | 1 | 0 | 46 | 0 |
| 0 | 4 | 0 | 0 | 28 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 7 | 1 | 0 | 170 | 0 |
| 0 | 1 | 0 | 0 | 73 | 0 |
| 0 | 1 | 0 | 0 | 27 | 0 |
| 0 | 0 | 1 | 0 | 30 | 0 |
| 0 | 1 | 1 | 0 | 9 | 0 |
| 0 | 10 | 1 | 0 | 99 | 1 |
| 0 | 0 | 0 | 0 | 13 | 0 |
| 0 | 1 | 0 | 0 | 4 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 3 | 0 |
| 0 | 1 | 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 | 44 | 1 |
| 0 | 2 | 0 | 0 | 2 | 0 |
| 0 | 1 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 7 | 0 |
| 0 | 3 | 0 | 0 | 29 | 1 |
| 0 | 0 | 0 | 0 | 18 | 0 |
| 0 | 0 | 0 | 0 | 13 | 0 |
| 7 | 14 | 0 | 0 | 47 | 8 |
| 8 | 4 | 0 | 0 | 38 | 3 |
| 3 | 2 | 1 | 0 | 14 | 2 |
| 0 | 1 | 0 | 0 | 8 | 1 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 1 | 0 | 0 | 0 | 15 | 0 |
| 1 | 4 | 0 | 1 | 175 | 1 |
| 1 | 3 | 0 | 0 | 99 | 0 |
| 0 | 2 | 0 | 0 | 54 | 0 |

Gender

| Title | Male | Female |
|--------------------------------------|------|--------|
| Environmental Specialist 6 | 35 | 8 |
| Equipment Mechanic 1 | 11 | 0 |
| Equipment Mechanic 2 | 2 | 0 |
| Equipment Operator | 8 | 0 |
| Equipment Operator Supervisor | 4 | 0 |
| Equipment Service Worker | 1 | 0 |
| ERP Consultant 2 | 1 | 0 |
| Executive Administrative Assistant 1 | 1 | 4 |
| Executive Administrative Assistant 2 | 2 | 2 |
| Executive Administrative Assistant 3 | 4 | 1 |
| Facilities Construction Specialist 2 | 1 | 0 |
| Facilities Construction Specialist 3 | 1 | 0 |
| Facilities Manager 2 | 3 | 0 |
| Facilities Supervisor | 8 | 0 |
| Facilities Surveyor | 6 | 0 |
| Fiscal Director 1 | 1 | 0 |
| Fiscal Director 3 | 1 | 0 |
| Food Service Supervisor 2 | 0 | 4 |
| Food Service Worker | 31 | 75 |
| Forester 2 | 1 | 0 |
| General Counsel 4 | 1 | 0 |
| Geologist 3 | 19 | 4 |
| Geologist 4 | 11 | 4 |
| Geologist 5 | 1 | 0 |
| Geologist - State | 1 | 0 |
| GIS Analyst 2 | 0 | 1 |
| GIS Technician Manager 1 | 1 | 0 |
| Golf Course Manager | 10 | 1 |
| Golf Operations Administrator | 1 | 0 |
| Graduate Trainee | 23 | 5 |
| Grants Analyst 2 | 1 | 0 |
| Grants Analyst 3 | 2 | 0 |
| Grants Program Manager | 1 | 0 |
| Graphics Designer 1 | 0 | 1 |
| Graphics Designer 2 | 1 | 0 |
| Greens Superintendent | 2 | 0 |
| Greenskeeper | 10 | 0 |
| Grounds Worker 1 | 23 | 0 |
| Grounds Worker 2 | 9 | 2 |
| Grounds Worker 3 | 2 | 2 |
| Health Physicist 1 | 0 | 1 |
| Health Physicist 3 | 12 | 8 |

Ethnicity

| Asian | Black | Hispanic | Indian | White | Other |
|-------|-------|----------|--------|-------|-------|
| 0 | 2 | 0 | 0 | 41 | 0 |
| 0 | 0 | 0 | 0 | 11 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 8 | 0 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 3 | 0 |
| 0 | 0 | 0 | 0 | 8 | 0 |
| 0 | 0 | 0 | 0 | 6 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 | 3 | 0 |
| 0 | 8 | 0 | 0 | 97 | 1 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 22 | 1 |
| 1 | 0 | 0 | 0 | 14 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 11 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 | 27 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 1 | 0 | 0 | 9 | 0 |
| 0 | 3 | 0 | 0 | 20 | 0 |
| 0 | 0 | 0 | 0 | 11 | 0 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 3 | 1 | 0 | 15 | 1 |

Gender

| Title | Male | Female |
|---|------|--------|
| Health Physicist Consultant | 1 | 0 |
| Health Physicist Director | 1 | 0 |
| Health Physicist Field Office Manager | 3 | 1 |
| Health Physicist Program Manager 1 | 2 | 0 |
| Health Physicist Program Manager 2 | 3 | 0 |
| Health Physicist Program Manager 3 | 0 | 1 |
| Health Physicist Program Supervisor 1 | 5 | 1 |
| Health Physicist Program Supervisor 2 | 5 | 3 |
| Historical Commission Director | 1 | 0 |
| Historical Preservation Specialist Supervisor | 1 | 0 |
| Historical Preservation Specialist 2 | 5 | 1 |
| Historical Preservation Specialist 3 | 1 | 0 |
| Horticultural Manager | 1 | 0 |
| Hospitality Assistant | 8 | 17 |
| Hospitality Manager 1 | 0 | 8 |
| Hospitality Manager 2 | 1 | 3 |
| Hospitality Manager 3 | 3 | 1 |
| Hotel & Restaurant Management Specialist | 1 | 1 |
| Human Resource Analyst 3 | 0 | 3 |
| Human Resource Director 3 | 0 | 1 |
| Human Resource Manager 1 | 1 | 2 |
| Human Resource Manager 2 | 0 | 1 |
| Human Resource Technician 2 | 0 | 1 |
| Human Resource Technician 3 | 1 | 1 |
| Human Resource Transactions Supervisor | 0 | 1 |
| Information Resource Support Specialist 2 | 2 | 0 |
| Information Resource Support Specialist 3 | 6 | 1 |
| Information Resource Support Specialist 4 | 4 | 2 |
| Information Resource Support Specialist 5 | 2 | 1 |
| Information Officer | 0 | 2 |
| Information Systems Analyst 3 | 0 | 2 |
| Information Systems Analyst 4 | 0 | 1 |
| Information Systems Consultant | 2 | 2 |
| Information Systems Director 3 | 1 | 0 |
| Information Systems Manager 2 | 1 | 1 |
| Laborer | 217 | 102 |
| Legal Assistant | 1 | 3 |

Ethnicity

| Asian | Black | Hispanic | Indian | White | Other |
|-------|-------|----------|--------|-------|-------|
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 3 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 | 5 | 0 |
| 0 | 0 | 0 | 0 | 8 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 6 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 25 | 0 |
| 0 | 0 | 0 | 0 | 8 | 0 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 3 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 2 | 0 | 0 | 5 | 0 |
| 0 | 1 | 0 | 0 | 5 | 0 |
| 0 | 0 | 0 | 0 | 3 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 1 | 1 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 1 | 15 | 0 | 0 | 302 | 1 |
| 0 | 1 | 0 | 0 | 3 | 0 |

Gender

| Title | Male | Female |
|--|------|--------|
| Legal Services Director | 1 | 0 |
| Lifeguard 1 | 76 | 54 |
| Lifeguard 2 | 8 | 8 |
| Mail Clerk | 1 | 0 |
| Marina Manager | 2 | 0 |
| Meteorologist | 1 | 1 |
| Museum Program Assistant | 1 | 0 |
| Office Supervisor 2 | 0 | 1 |
| Operations Specialist 2 | 1 | 0 |
| Operations Specialist Supervisor 2 | 1 | 0 |
| Park Area Manager | 4 | 0 |
| Park Interpretative Specialist 2 | 14 | 7 |
| Park Interpretative Specialist 3 | 3 | 1 |
| Park Manager 1 | 25 | 6 |
| Park Manager 2 | 12 | 0 |
| Park Manager 3 | 12 | 1 |
| Park Marketing Administrator | 0 | 1 |
| Park Ranger 2 | 73 | 14 |
| Parks Marketing Manager | 1 | 0 |
| Procurement Officer 1 | 0 | 2 |
| Procurement Officer 2 | 0 | 2 |
| Programmer/Analyst 3 | 1 | 2 |
| Programmer/Analyst 4 | 1 | 2 |
| Publications Editor 2 | 0 | 1 |
| Radio Communications Technician 2 | 1 | 0 |
| Radio Communications Technician 3 | 3 | 0 |
| Radio Communications Technician Supervisor | 1 | 0 |
| Radio Systems Analyst | 1 | 0 |
| Recreational Services Coordinator | 1 | 0 |
| Recreational Services Director | 1 | 0 |
| Recreational Services Specialist | 3 | 1 |
| Room Clerk | 10 | 31 |
| Seasonal Interpreter/Recreator | 47 | 36 |
| Secretary | 1 | 48 |
| Servitor | 4 | 70 |
| Soils Conservation Regional Supervisor | 3 | 0 |
| Soils Consultant 2 | 1 | 1 |
| Storekeeper 1 | 3 | 3 |
| Stores Clerk | 1 | 4 |
| Student Assistant | 5 | 0 |
| Training Officer 1 | 0 | 2 |

Ethnicity

| Asian | Black | Hispanic | Indian | White | Other |
|-------|-------|----------|--------|-------|-------|
| 0 | 0 | 0 | 0 | 1 | 0 |
| 1 | 12 | 0 | 0 | 113 | 4 |
| 0 | 2 | 0 | 0 | 14 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 0 | 0 | 0 | 0 | 21 | 0 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 0 | 1 | 0 | 0 | 30 | 0 |
| 0 | 1 | 0 | 0 | 11 | 0 |
| 0 | 0 | 0 | 0 | 13 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 2 | 1 | 0 | 83 | 1 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 2 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 1 | 2 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 3 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 4 | 0 |
| 0 | 0 | 0 | 0 | 41 | 0 |
| 0 | 1 | 1 | 0 | 81 | 0 |
| 0 | 4 | 1 | 0 | 44 | 0 |
| 0 | 2 | 0 | 0 | 72 | 0 |
| 0 | 1 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 6 | 0 |
| 0 | 1 | 0 | 0 | 4 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 |
| 0 | 0 | 1 | 0 | 1 | 0 |

Gender

| Title | Male | Female |
|---|--------------|--------------|
| Transportation Assistant 2 | 1 | 0 |
| Transportation Technician 1 | 1 | 0 |
| Treatment Plant Operator | 2 | 0 |
| Watchkeeper | 1 | 0 |
| Website Developer 1 | 0 | 1 |
| Website Developer 2 | 0 | 1 |
| West Tennessee Basin Authority Director | 1 | 0 |
| Total | 1,812 | 1,215 |

Ethnicity

| Asian | Black | Hispanic | Indian | White | Other |
|-----------|------------|-----------|----------|--------------|-----------|
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 |
| 36 | 185 | 11 | 2 | 2,761 | 32 |

Based on the employment demographics of the department listed above, we determined that approximately 91% of employees (2,761 of 3,027) are White. We contacted the TDEC Human Resources Director to determine how the department has addressed this disparity. The director stated that during 2007 and 2008, TDEC participated in career days and recruitment efforts at career fairs of historically Black colleges and universities including Tennessee State University in Nashville and LeMoyne-Owen College in Memphis. Students targeted were those with specialized training in engineering or interests in law enforcement. The department has also recruited at the University of Phoenix Nashville campus, which has a high percentage of minority students. Over the past year, however, the department did not participate in these activities because there were no positions to offer students due to the hiring freeze. The Human Resources Director hopes that once the economy rebounds, the department may conduct further education at the high-school level and continue recruitment efforts producing positive results.