

**STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF TURNPIKES**

**PERFORMANCE-BASED BUDGETING  
AUDIT REPORT  
APRIL 2001**



*To The Fiscal Committee Of The General Court:*

As directed by RSA 14:31-a, VI, we have conducted an audit of the Department of Transportation's Bureau of Turnpikes' performance-based budgeting efforts. We conducted our audit in accordance with the standards applicable to performance audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to provide a reasonable basis for our findings and conclusions. Accordingly, we have performed such procedures as we considered necessary in the circumstances.

The purpose of our audit was to provide an assessment of the Bureau of Turnpikes' achievement towards its performance-based budgeting goals, objectives, and outcomes, as well as provide an assessment of the appropriateness of its performance measures. The audit period encompasses fiscal year 2000.

This report is the result of our evaluation of the information noted above and is intended solely for the information of the Department of Transportation and the Fiscal Committee of the General Court. This restriction is not intended to limit the distribution of this report, which upon acceptance by the Fiscal Committee is a matter of public record.

*Office Of Legislative Budget Assistant*

Office Of Legislative Budget Assistant

April 2001

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**STATE OF NEW HAMPSHIRE  
BUREAU OF TURNPIKES  
PERFORMANCE-BASED BUDGETING**

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**ABBREVIATIONS**

- DOT Department Of Transportation
- IRI International Roughness Index
- LBA Legislative Budget Assistant
- NHIFS New Hampshire Integrated Financial System

**STATE OF NEW HAMPSHIRE  
BUREAU OF TURNPIKES  
PERFORMANCE-BASED BUDGETING**

**SUMMARY**

**Purpose And Scope Of Audit**

This audit was performed to meet the requirements of RSA 14:31-a, VI, and conducted in accordance with generally accepted government auditing standards. The purpose was to assess whether the Bureau of Turnpikes (the bureau) achieved the goals, objectives, and measures developed for performance-based budgeting. A review of the appropriateness of the goals and measures was also completed.

**Background**

Federal and state governments have used performance measures and performance information in budgeting since the late 1940s. Generally, performance budgeting is defined as a method of linking resources to program performance and expected outcomes, moving away from the concept of line item budgeting. Performance-based budgeting is said to allow for increased accountability, more budgeting flexibility, improved decision-making, and enhanced performance evaluations. However, some of the hurdles facing performance-based budgeting include developing adequate output and outcome measures to determine program performance, and cultivating leadership support from both executive and legislative branches.

Chapter 222, Laws of 1998, authorized New Hampshire agencies to use performance-based budgeting and designated the Legislative Budget Assistant (LBA), Audit Division to conduct "performance audits of each performance budgeted agency and program under RSA 9:8-a at least once every 2 years." Two agencies used performance-based budgeting during the 2000-2001 biennium: the Department of Environmental Services and the Department of Transportation's (DOT) Bureau of Turnpikes. The bureau identified three areas for developing performance measures: debt service, renewal and replacement, and operations and maintenance. The bureau identified 11 goals and 24 performance measures to monitor as part of performance-based budgeting.

The bureau is organizationally located within the DOT's Division of Operations. The bureau has 240 permanent employees and approximately 200 part-time employees. It is responsible for operating and maintaining the turnpike system that serves two travel corridors in New Hampshire, the Central Turnpike and the Eastern Turnpike, totaling approximately 93 miles.

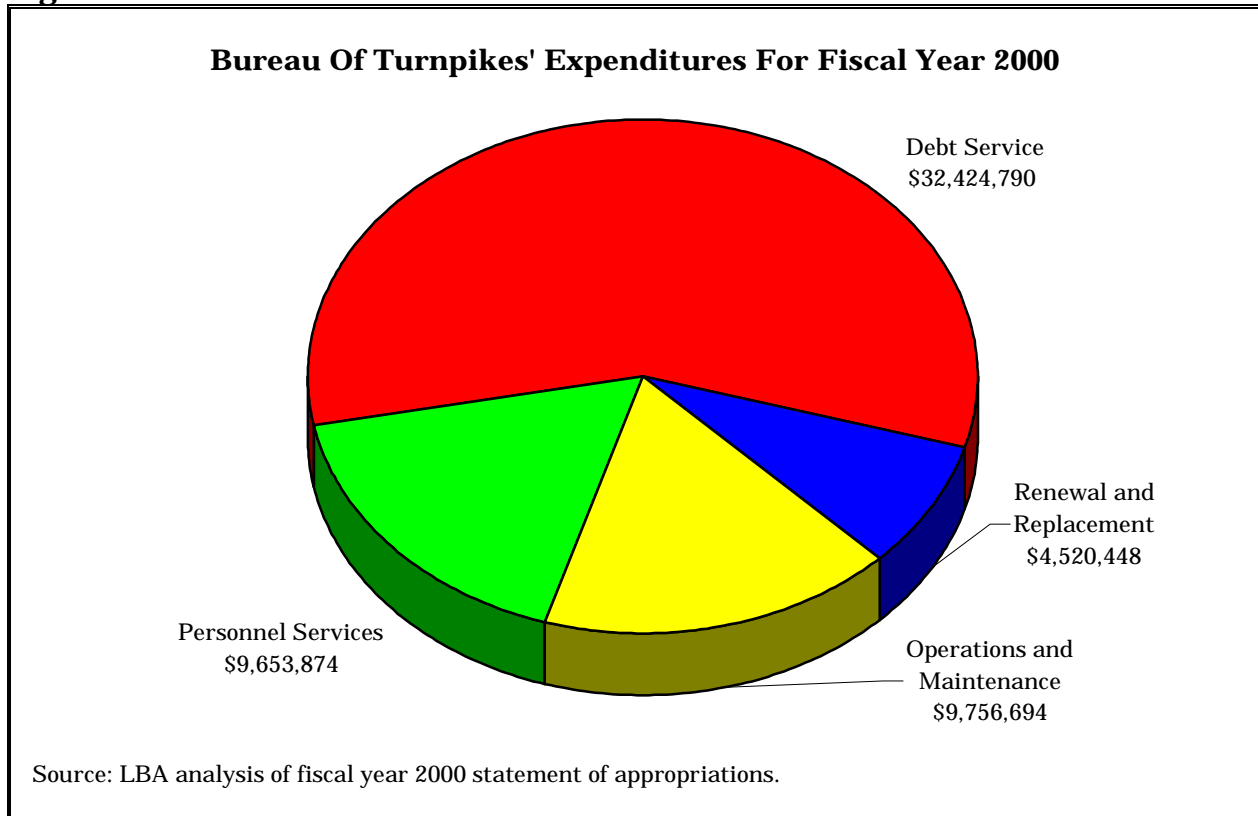
All revenues generated from turnpike toll collections are accounted for in an enterprise fund. Funding for the operations and maintenance of the turnpike system comes solely from revenues generated through the toll system. In addition, toll revenues support debt incurred through bonds issued for turnpike-related projects. The turnpike system had

## Background (Continued)

approximately \$26.2 million in general obligation bonds and \$331.3 million in revenue bonds payable as reported in the June 30, 2000 audited financial statements.

In fiscal year 2000, the bureau collected \$60.7 million in revenues and expended a total of \$56.4 million on debt service, operations and maintenance, personnel services, and renewal and replacement (Figure 1).

**Figure 1**



## Results In Brief

We noted a total of nine observations with recommendations: one detailing the need for a centralized plan for implementing and assessing performance-based budgeting in New Hampshire and eight observations regarding the bureau's performance-based budget. Of the eight observations directed to the bureau, two relate to quality review and timely submission of quarterly performance reports. The remaining six observations provide comments on potential problems and issues with the current goals and measures, as well as suggestions for improvements.



## **Results In Brief (Continued)**

### *Centralized Approach To Performance-Based Budgeting Needed*

We found performance-based budgeting in New Hampshire is being piloted without implementing any formal written plan. We found a lack of detailed policies and procedures, limited training for personnel, and no planned method to evaluate and assess the piloting of performance-based budgeting. Lack of clear direction regarding the implementation and use of performance-based budgeting has resulted in confusion and frustration for the bureau and the DOT.

### *Achievement Of Goals, Objectives, And Measures Unclear*

We found the bureau reported on only 19 of the 24 measures it originally identified and that the bureau either met or exceeded its performance projection for 11 of the 19 reported measures. However, due to the lack of correlation between the goals and measures, we could not accurately determine success or failure for most goals. We also found the bureau should make more timely reports of its measures and improve the quality review of its quarterly reports so they provide accurate and reliable information. Not submitting the quarterly reports in a timely manner, as well as errors contained in the quarterly reports, could adversely impact any assessments completed on the use of performance-based budgeting by the bureau.

### *Goals, Objectives, And Measures Need Reviewing To Assess Appropriateness*

While many of the goals and measures appear to be appropriate, we found the bureau should review its performance-based budget goals and measures to ensure they meet the needs of the bureau, as well as those outside the bureau who rely on this information for decision-making. The bureau originally identified several goals for which there were no measures, while some measures were not included in the quarterly reports. In addition, the bureau should evaluate the data used for the measures to determine if changes should be made to improve the reliability and accuracy of performance information.

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**RECOMMENDATION SUMMARY**

<b>Observation Number</b>	<b>Page</b>	<b>Legislative Action Required</b>	<b>Recommendation</b>	<b>Agency Response</b>
1	21	NO	The Governor's Budget Office or designee should develop a plan describing the purpose, objectives, and goals of performance-based budgeting, and offer training for agencies and personnel.	Concur In Part
2	24	NO	The bureau should document the methods used to calculate performance measures and perform quality checks on the quarterly reports to ensure they are consistent and accurate.	Concur
3	26	NO	The bureau should submit timely quarterly performance and transfer reports to the Fiscal Committee and Governor and Council.	Concur In Part
4	29	NO	The bureau should consider changing or revising its debt service goals and measures to more clearly relate to one another and better reflect its mission statement.	Concur

**Recommendation Summary (Continued)**

<b>Observation Number</b>	<b>Page</b>	<b>Legislative Action Required</b>	<b>Recommendation</b>	<b>Agency Response</b>
5	30	NO	The bureau should make adjustments to reporting renewal and replacement measures to better reflect actual work performed. Goals and measures should be reviewed to verify they are clear and relate to the bureau’s mission statement.	Concur In Part
6	32	NO	The bureau should review its operations and maintenance goals and measures to determine if they clearly reflect its mission statement and relate to one another. Two measures should be reviewed to determine if they should be retained.	Concur
7	33	NO	The calculations for efficiency measures should be reviewed to ensure all relevant costs are included. The bureau should revise or change the measures to ensure they reflect its mission statement.	Concur
8	36	NO	The bureau should stop reporting on outcome measures it cannot accurately measure and improve information reported.	Concur In Part
9	39	NO	The bureau should incorporate customer satisfaction information as part of its performance-based budget measures.	Concur

**STATE OF NEW HAMPSHIRE  
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PERFORMANCE-BASED BUDGETING**

**INTRODUCTORY SECTION**

The Legislature is interested in determining whether the Bureau of Turnpikes (the bureau) achieved its goals, objectives, and outcome measures as submitted in its performance-based budget. Chapter 222, Laws of 1998, authorized agencies to use performance-based budgeting and designated the Audit Division of the Legislative Budget Assistant (LBA) to conduct "performance audits of each performance budgeted agency and program under RSA 9:8-a at least once every 2 years."

**1.1 Overview**

*Performance-Based Budgeting*

Federal and state governments have used performance measures in budgeting since the late 1940s. Presently, the federal government and 33 states are using some form of performance measurement for government accountability. Many states using performance measures are doing so consistent with efforts to develop strategic plans. The federal government, through its Government Performance and Results Act (Public Law 103-62), has instituted strategic planning that includes performance indicators. Generally, performance budgeting is defined as a method of linking resources to program performance and expected outcomes, moving away from the concept of line item budgeting. In theory, performance-based budgeting provides decision makers with organized information to assist them with fully assessing governmental performance and the budget process.

Proponents of performance-based budgeting say its benefits may include increased accountability to the public, more budgeting flexibility, improved decision-making, and enhanced performance evaluations. Some of the hurdles facing performance-based budgeting include developing adequate output and outcome measures for determining program performance, and cultivating leadership support from both the executive and legislative branches.

*Performance Measures*

Performance measures typically include outcome measures, output measures, and input measures. Performance measures may also include efficiency and productivity. Outcome measures are the most important measures because they show the effects of a program, agency, or department in achieving desired results.

Developing a performance measurement system requires commitment, time, resources, and training. It requires that performance measures be clear, cost effective, relevant, significant, practical, verifiable, linked to funding, result-based, and linked to a mission or goal. Developing these measures should include input from relevant staff at all levels of an agency, as well as customers and policy makers. Good measures, particularly outcome

## 1.1 Overview (Continued)

measures, are often difficult for agencies to identify. It takes time to develop measures that accurately reflect the performance of an agency while at the same time provide decision makers with reliable, valid, and easy to understand measures and information. Due to some of the difficulties associated with developing an agency's performance measures, the federal government and many states are phasing in performance measurement over a period of time.

Another concern with developing performance measures involves the number of measures developed for agencies or programs. Care needs to be taken not to "overload" decision makers with measures providing unneeded details. Performance measures should not be designed to report every activity of an agency or program but rather focus on key processes and activities.

Finally, it is important to link performance measures back to an agency's strategic plan, mission statement, or goals. In addition, measuring performance requires data that are sufficiently complete, accurate, and consistent. If the data do not exist, agencies need to determine if they can collect it at a reasonable cost, or determine if there are sufficient and reliable surrogate data already collected or that can easily be collected.

### *New Hampshire's Performance-Based Budgeting Efforts*

The Legislature enacted Chapter 222, Laws of 1998, authorizing agencies to submit a performance-based budget consisting of "one line item for each program objective." In addition, Chapter 159:11, Laws of 1999, authorizes the commissioners or department heads to transfer appropriated funds among accounts "to accomplish the measurable goals and objectives as approved by the legislative fiscal committee and the governor and council." Chapter 159:11 also requires performance-based budgeted agencies or programs to submit quarterly reports to the Fiscal Committee and Governor and Council.

To date, only the Department of Transportation's (DOT) Bureau of Turnpikes and the Department of Environmental Services have used performance-based budgets. Agency personnel worked with the Governor's Budget Office and Department of Administrative Services' personnel in developing goals and measures for their 2000-2001 biennium performance-based budget plans. Additionally, definitions for a variety of performance measures can be found in the budget manuals issued by the Department of Administrative Services. However, outcome and efficiency measures are identified for the first time in the budget manual issued for the 2002-2003 biennium. As we discuss in Observation No. 1 (page 21), performance-based budgeting has been implemented without formal plans explaining its intent or how it will be assessed. Furthermore, performance-based budgeting has been implemented with insufficient training for agency personnel and limited policies or procedures for the agencies using it.

## 1.2 Scope, Objectives, And Methodology

In meeting the requirements set forth in RSA 14:31-a, VI, we conducted a performance audit of the bureau's performance-based budget. This performance audit was conducted in accordance with generally accepted government auditing standards and accordingly included such procedures as we considered necessary in the circumstances.

### *Scope And Objectives*

This report is intended to provide an assessment of the bureau's achievement towards its performance goals, objectives, and outcomes, as well as provide an assessment of the appropriateness of the performance measures and objectives. To address these issues, our performance audit attempted to answer the following questions as identified in RSA 14:31-a, VI:

- 1. Has the bureau achieved the goals, objectives, and specific outcome measures identified in its budget submission?*
- 2. Has the bureau identified appropriate performance measures and objectives for its performance-based budgeting efforts?*

### *Methodology*

To obtain background information and develop an overall understanding of performance-based budgeting, we reviewed documents generally related to performance budgeting and measures obtained from the General Accounting Office, the National Conference of State Legislatures, the Council of State Governments, and other states. We reviewed documents specific to performance measures and budgeting in transportation departments obtained from other states and the Federal Highway Administration. Furthermore, we obtained and reviewed information specific to DOT's Bureau of Turnpikes including: State laws and administrative rules, policies and procedures, budget documents, financial audits, agency-produced reports, and consultant traffic studies. Finally, we conducted interviews with personnel from the DOT, the Department of Administrative Services, and the Governor's Office.

We used the following methods to address the issues:

- Verifying the accuracy of the quarterly reports.
- Comparing the projected figures for fiscal year 2000 to the actual figures for fiscal year 2000 to determine if the goals, objectives, and measures were achieved.
- Comparing the actual figures for fiscal year 2000 to the projected figures for fiscal year 2001 to determine if the 2001 measures needed reevaluating based upon the 2000 information.
- Reviewing performance measures literature to determine if the bureau has appropriate measures.

## **1.2 Scope, Objectives, And Methodology (Continued)**

- Determining if there are any transportation standards or benchmarking information used by other states or the federal government that might be incorporated by the DOT to assist with its performance measures development.
- Interviewing DOT officials to obtain their comments on why the bureau either surpassed or fell short of its identified measures, and determine if plans existed to change or modify any goals, objectives, or outcome measures based on the first year experience.

## **1.3 NH Turnpike System And Bureau Of Turnpikes**

The bureau is responsible for the operations and maintenance of the New Hampshire Turnpike System, which consists of two travel corridors, the Central Turnpike and the Eastern Turnpike. The entire turnpike system consists of approximately 93 miles of limited access highway, including 36 miles of U.S. interstate highway. The Central Turnpike, also known as the F.E. Everett Turnpike, is approximately 45 miles in length and extends from the Massachusetts/New Hampshire border in Nashua and runs north to Concord. The Eastern Turnpike consists of two turnpikes, the Blue Star Turnpike and Spaulding Turnpike, and is approximately 48 miles in total length. The Blue Star Turnpike is approximately 15 miles long and runs from the Massachusetts/New Hampshire border in Seabrook to the traffic circle in Portsmouth. The Spaulding Turnpike is approximately 33 miles long and runs from its junction with Interstate 95 in Portsmouth northerly to Milton.

The turnpike system includes ten toll plazas, five maintenance facilities, four rest areas, and one administrative office. No food, gas, or vehicle service facilities are located on the turnpike system with the exception of vending machines under the supervision of the Department of Administrative Services.

The bureau has 240 permanent employees and approximately 200 part-time employees and is located within the DOT's Division of Operations. The bureau consists of four sections: Toll Operations, Highway Maintenance, Building Maintenance, and Administration (Figure 2).

The toll operations section has 143 permanent employees and approximately 200 part-time employees. Toll operations is responsible for managing toll collection activities at all toll plazas, including collecting and preparing all toll receipts for pickup by a security service.

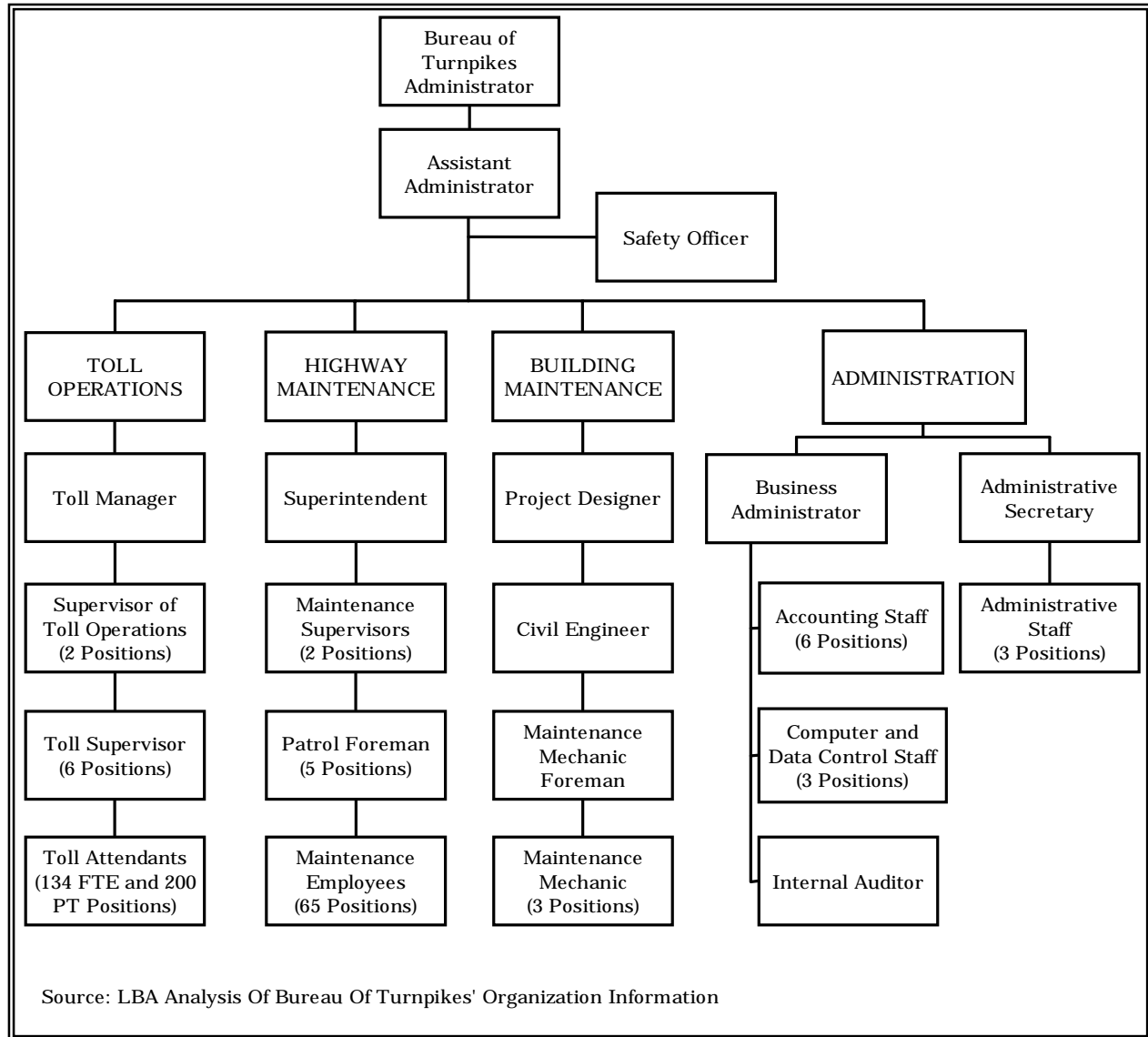
The highway maintenance section has 73 permanent employees and is responsible for year-round maintenance of the entire turnpike system and operation of the four rest areas; two located in Hooksett, one in Dover, and one in Seabrook. Maintenance in the summer months primarily consists of vegetation control, property damage repair, litter control, and small improvement projects. Winter maintenance consists of clearing snow and ice from the turnpike system. Additionally, plowing and salting services are hired from private contractors to assist with winter maintenance.



### 1.3 NH Turnpike System And Bureau Of Turnpikes (Continued)

**Figure 2**

**Bureau Of Turnpikes' Organization Chart**



The building maintenance section has six permanent employees and is responsible for supervising and coordinating the renewal and replacement programs for the turnpike system. This section acts as an administrative liaison between the bureau and private contractors and designers, as well as manages and coordinates encroachment permits on the turnpike system.

The administration section has 15 permanent employees and is responsible for the bureau's administrative and financial activities such as budget preparation, financial reconciliation, audit functions, and payroll.

### **1.3 NH Turnpike System And Bureau Of Turnpikes (Continued)**

The bureau also receives assistance for its operations from other divisions and bureaus within the DOT, as well as from the State Police. Some of the DOT bureaus providing assistance include the Bureaus of Traffic, Mechanical Services, and Bridge Design. The State Police provides patrols on the turnpike system. Services and support rendered by the State Police and other DOT divisions and bureaus are invoiced to the Bureau of Turnpikes.

### **1.4 Significant Achievement**

It is important to recognize that performance auditing by its nature is a critical process designed to identify problems or weaknesses in past and existing practices and procedures. We note here the success the bureau has had transferring funds under performance-based budgeting for which sufficient documentation was available.

The bureau successfully transferred a total of approximately \$1.65 million, with \$1.4 million being used for renewal and replacement projects in future years. These projects include guardrail replacement, establishing permanent snow fences for bridges, shoulder rumble strip installation, and sign replacement. Other projects include \$111,500 used for personnel-related costs, \$99,000 used to purchase a platform lift truck, \$30,000 used to purchase a generator, and the remaining \$13,900 used for miscellaneous purposes. According to bureau officials these funds were available as a result of the refinancing of bonds and a tight job market leaving many vacated positions.

According to bureau officials, the flexibility of performance-based budgeting reduced the lead time required for transfer approvals and increased the effectiveness of managing budgeted funds productively, by allowing the bureau to transfer available balances between accounts in the last quarter of fiscal year 2000. Some of these balances were available in accounts where funds could not be transferred under conventional budgeting rules. Conventional budgeting rules require approval of transfers from Fiscal Committee and/or Governor and Council. Essentially, many of these enhancements would not have been possible without performance-based budgeting.

### **1.5 Revenues And Expenditures**

The turnpike system was originally funded using general obligation bonds to be paid from toll revenue proceeds remaining after the payment of operations and maintenance expenses. Chapter 203, Laws of 1986, established RSA 237-A, which is commonly referred to as the Turnpike System Revenue Bond Act. Under RSA 237-A, the State may issue turnpike system revenue bonds "for the purpose of financing the project costs of construction of any turnpike or of paying or refunding any bonds issued" to improve or expand the turnpike system. The turnpike system became an enterprise fund, a self-supporting governmental unit rendering services on a user-charge basis, with the authorization to issue revenue bonds.

The bond resolutions require the turnpike system to establish and collect tolls adequate at all times to provide for proper operations and maintenance of the turnpike system, as well

## 1.5 Revenues And Expenditures (Continued)

as for timely payment of principal and interest on all bonds, notes, or other indebtedness. The turnpike system had approximately \$26.2 million in general obligation bonds and \$331.3 million in revenue bonds payable as reported in the June 30, 2000 audited financial statements.

The DOT also has the authority to direct federal aid to the bureau's capital programs. As of this report no federal funds had been provided to the bureau. However, in the ten-year transportation improvement program for 2001-2010, several projects have been converted from turnpike funding to federal funds.

As shown in Table 1, the bureau's fiscal year 1998 expenditures were \$48.9 million and may be as much as \$62.7 million by fiscal year 2003. Over half of the expenditures each year are for debt service, with \$28.3 million being expended in fiscal year 1998. Debt service is projected at \$33.6 million for fiscal year 2001, and is projected to decrease in fiscal years 2002 and 2003 to \$32.6 million and \$32.4 million respectively.

Turnpike system revenues have risen each year and are projected to continue to increase. In fiscal year 1998, the turnpike system collected revenues of \$54.4 million, and projected to increase revenue collections to \$64.4 million by fiscal year 2003.

**Table 1**

<b>Bureau Of Turnpikes' Revenues And Expenditures</b>						
	<b>FY 1998</b> <sup>(1,3)</sup>	<b>FY 1999</b> <sup>(1,3)</sup>	<b>FY 2000</b> <sup>(1,3)</sup>	<b>FY 2001</b> <sup>(2,4)</sup>	<b>FY 2002</b> <sup>(2,5)</sup>	<b>FY 2003</b> <sup>(2,5)</sup>
<b>Revenues</b>						
Turnpike Toll Revenues	<b>\$54,417,024</b>	<b>\$57,218,196</b>	<b>\$60,657,492</b>	<b>\$60,885,878</b>	<b>\$62,713,819</b>	<b>\$64,394,284</b>
<b>Expenditures</b>						
Debt Service	\$28,375,651	\$28,022,984	\$32,424,790	\$33,583,491	\$32,614,301	\$32,386,098
Operations & Maintenance	8,575,894	9,670,630	9,756,694	10,630,757	12,126,162	13,594,326
Renewal & Replacement	3,325,686	4,403,242	4,520,448	5,365,000	5,365,000	5,700,000
Personnel Services	8,649,517	8,832,488	9,653,874	9,824,517	10,835,658	11,013,676
<b>Total Expenditures</b>	<b>\$48,926,748</b>	<b>\$50,929,344</b>	<b>\$56,355,806</b>	<b>\$59,403,765</b>	<b>\$60,941,121</b>	<b>\$62,694,100</b>
<i>Notes:</i>						
<i>(1) Toll revenue numbers from Audited Financial Statements in FY 98, 99 &amp; 00.</i>						
<i>(2) Toll revenue numbers from 1999 Wilbur Smith Associates Traffic and Toll Revenue Study in FY 01-03, less the revenues projected from the Nashua toll plazas originally proposed for FY 02-03.</i>						
<i>(3) Actual expenditures from State of New Hampshire Statement of Appropriations.</i>						
<i>(4) Budgeted expenditures from Chapter 159 of New Hampshire Laws of 1999 (2000-2001 Operating Budget).</i>						
<i>(5) Requested expenditures from FY 2002-2003 Agency Budget Requests, 9/25/2000.</i>						

The turnpike system is required to establish a Renewal and Replacement Program as part of the bond resolutions. Renewal and replacement costs involve major reconstruction, rehabilitation, renewals, replacements, and extraordinary repairs necessary for the operation of the turnpike system or to prevent loss of revenues. Renewal and replacement costs do not include new construction, additions, or extensions. Renewal and replacement expenditures are shown in Table 1.

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**STATE OF NEW HAMPSHIRE  
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PERFORMANCE-BASED BUDGETING**

**REVIEW OF GOALS, OBJECTIVES, AND SPECIFIC OUTCOME MEASURES**

As part of our review of the Bureau of Turnpikes' (the bureau) performance-based budget, we determined whether the bureau had achieved its projected performance measures for fiscal year 2000. The bureau's performance-based budget as submitted to and approved by the Fiscal Committee and the Governor and Council can be found in Appendix B. To assess the bureau's achievement towards its projected measures, we audited quarterly performance reports prepared for submission to the Fiscal Committee and Governor and Council to determine the accuracy and reliability of the reports. The quarterly performance reports included most but not all of the measures identified below.

**2.1 Bureau Of Turnpikes' Performance Goals And Measures**

The bureau identified three areas for performance budget development: 1) debt service, 2) renewal and replacement, and 3) operations and maintenance. The bureau identified output measures for the three goal areas, as well as efficiency and outcome measures. The goals, objectives, and performance measures identified and developed as part of the bureau's performance budget were submitted to the Fiscal Committee and Governor and Council for approval as required in Chapter 159:11, Laws of 1999. The bureau's performance budget included a total of 11 goals and 24 measures. However, the bureau only reported on 19 of those measures in its quarterly performance reports.

The bureau did not use planning documents, such as a strategic plan, for developing goals and performance measures. However, the bureau does have a mission statement which is:

to maintain and operate a turnpike system which provides safe and efficient passage of all its users, maximizes the financial return to meet and enhance customer service, and provides an alternate means of financing needed transportation facility enhancements in a significant portion of the state experiencing continued economic expansion.

The bureau used historical data to develop baselines for some measures, while other measures were established based on available funding. For example, available appropriations determined the amount of guardrail replaced and number of lane miles resurfaced. Bureau officials reported using no specific standards or benchmarking information in developing performance measures. However, for bridge condition the bureau relies upon the Department of Transportation's (DOT) Bureau of Bridge Design's ratings, which are based on federal guidelines.

*Debt Service*

Debt service goals include: 1) retiring general obligation and revenue bond debts in accordance with bond schedules, 2) having adequate bonding to fund the Turnpike System

## 2.1 Bureau Of Turnpikes' Performance Goals And Measures (Continued)

Improvement Program (ten-year plan), and 3) optimizing debt service efficiency. The bureau identified the following performance measures for the goals:

- State Treasurer and financial advisors reviewing existing interest rates compared to market rates,
- State Treasurer monitoring debt service schedules for compliance, and
- preparing and reviewing quarterly financial statements and independent annual audits.

### *Renewal And Replacement*

The goals associated with renewal and replacement are: 1) to meet the bond covenant test of 1.0 times<sup>1</sup> to fulfill fiduciary responsibilities to bondholders, 2) maintain the infrastructure integrity to utilize funds in the most optimal fashion, and 3) maintain a turnpike system to improve safety, comfort, and convenience. The bureau identified the following performance measures:

- number of lane miles resurfaced annually based on pavement management criteria,
- number of bridges rehabilitated annually, and
- amount of guardrail upgraded annually.

### *Operations And Maintenance*

The bureau identified five goals for operations and maintenance. These goals include: 1) operate as efficiently as possible, 2) move traffic as quickly and safely as possible with programs to ensure employee and patron safety, 3) collect toll revenues sufficient to meet or exceed bond covenant ratio of 1.0 to ensure they are sufficient for debt service and promote commercial vehicle usage, 4) high level of service of winter and summer maintenance of the turnpike system, and 5) zero audit findings and comments. The bureau identified the following performance measures:

- number of toll transactions,
- amount of revenue collected,
- number of charge card transactions,
- adequate level of maintenance consistent with department policy, and
- internal and external audits of financial management.

### *Efficiency Measures*

The bureau identified efficiency measures but did not link them to a specific goal. The Department of Administrative Services' budget manual issued for the 2002-2003 biennium

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<sup>1</sup> Bond covenant test of 1.0 times means the annual net operating revenues must be equal to or greater than the annual sum of revenue bond debt service, general obligation debt service, and renewal and replacement costs.

## **2.1 Bureau Of Turnpikes' Performance Goals And Measures (Continued)**

defines efficiency measures as “a measure of the cost or productivity associated with a program. They are indicators of the input resources required to produce a given level of output.” Efficiency measures illustrate resource cost in dollars or employee time used per unit of product or service output. The bureau identified the following efficiency measures:

- administration expense,
- contractual services,
- costs associated with other agencies,
- effective use of personnel,
- costs per toll transaction, and
- costs per lane mile.

### *Outcome Measures*

The bureau also identified outcome measures. As with the efficiency measures, the outcome measures were not linked to a specific goal. The Department of Administrative Services' budget manual issued for the 2002-2003 biennium defines outcome measures as a “measure of the effectiveness or quality of services provided. They are assessments of the impact or public benefit of the agency's actions.” Outcome measures reflect how well the agency has met its objective or goals. The bureau identified the following outcome measures:

- number of pavement lane miles in good condition,
- number of bridges in good condition,
- percentage of pavement lane miles in good condition,
- percentage of bridges in good condition,
- annual percent increase of toll transactions,
- annual percent increase of revenue, and
- revenue bond covenant 1.0 test.

## **2.2 Review Of Quarterly Performance Reports**

We attempted to recreate the bureau's quarterly performance reports using the same methods and data. The bureau relies primarily on three sources for its performance measures data: the New Hampshire Integrated Financial System, revenue and toll transaction reports generated by the DOT's computer system, and information provided by the bureau's building maintenance section. Using the data provided by the bureau, we were unable to replicate the quarterly reports for reasons such as calculation errors, changes in how calculations were performed, and insufficient documentation to support what was reported. Additionally, bureau personnel identified some misstatements in the expenditure spreadsheets they used for preparing the quarterly performance reports. The various problems with the information contained in the quarterly reports and how the bureau calculated its measures are addressed throughout the observations contained in this report. Table 2 shows the year-end measures as reported by the bureau and recalculated by the Legislative Budget Assistant (LBA).

## 2.2 Review Of Quarterly Performance Reports (Continued)

**Table 2**

<b>Comparison Of Projected, Audited, And Reported Performance Measures For Fiscal Year 2000</b>			
<b>Performance-Based Budgeting Activities</b>	<b>Fiscal Year 2000 Projections</b>	<b>LBA Audited</b>	<b>Bureau of Turnpikes Reported</b>
<b>Debt Service Expenditures</b>	<b>\$33,045,213</b>	<b>\$32,424,790</b>	<b>\$32,424,790</b>
State Treasurer and financial advisors review existing interest rates, comparing against market rates	Not Reported	<i>Not Reported</i>	Not Reported
State Treasurer monitors debt service schedules for compliance	Not Reported	<i>Not Reported</i>	Not Reported
Preparation and review of quarterly financial statement and independent annual audits	Not Reported	<i>Not Reported</i>	Not Reported
<b>Renewal &amp; Replacement Expenditures</b>	<b>\$5,308,000</b>	<b>\$4,520,448</b>	<b>\$4,520,448</b>
Number of lane miles resurfaced annually	53 Lane Miles	<i>48 Lane Miles</i>	53 Lane Miles
Number of bridges rehabilitated annually	1 bridge	<i>0 bridge</i>	1 bridge
Amount of guardrail upgraded annually	14,700 feet	<i>13,575 feet</i>	13,575 feet
<b>Operations and Maintenance Expenditures</b>	<b>\$11,095,621</b>	<b>\$9,759,783</b>	<b>\$10,176,405</b>
Number of toll transactions	97,891,165	<i>99,363,028</i>	99,363,028
Amount of revenue collected	\$59,232,831	<i>\$60,166,814</i>	\$60,166,813
Number of charge card transactions	3,435,311	<i>3,923,673</i>	3,923,673
Adequate level of maintenance consistent with department policy	Not Reported	<i>Not Reported</i>	Not Reported
Internal and external audits of financial management	Not Reported	<i>Not Reported</i>	Not Reported
<b>Personnel Services Expenditures</b>	<b>\$9,930,857</b>	<b>\$9,653,874</b>	<b>\$9,653,874</b>
<b>Efficiency Measures</b>			
Administration expense	16%	<i>15.5%</i>	15.5%
Contractual Services	5%	<i>4.7%</i>	4.7%
Costs associated with other agencies	20%	<i>20.2%</i>	20.2%
Effective use of personnel	14%	<i>14.4%</i>	14.4%
Costs per toll transaction	\$0.0733	<i>\$0.0718</i>	\$0.0718
Costs per lane mile	\$7,018	<i>\$6,629</i>	\$7,406
<b>Outcome Measures</b>			
Number of pavement lane miles in good condition	557 of 605	<i>Unable to Confirm</i>	557 of 605
Percentage of pavement lane miles in good condition	92%	<i>Unable to Confirm</i>	92.10%
Number of bridges in good condition	151 of 162	<i>130 of 162</i>	151 of 162
Percentage of bridges in good condition	93%	<i>80.25%</i>	92.60%
Annual percent increase of toll transactions	4%	<i>5.69%</i>	5.69%
Annual percent increase of revenue	4%	<i>5.41%</i>	5.41%
Revenue bond covenant 1.0 test	1.10	<i>1.14</i>	1.14

Source: LBA analysis of Bureau of Turnpikes data.



## **2.2 Review Of Quarterly Performance Reports (Continued)**

Although various differences existed among the four quarters, many of the discrepancies are corrected when fiscal year 2000 information is compared. The LBA was able to replicate 12 of the 19 measures reported by the bureau for fiscal year 2000. Six of the seven measures for which the LBA had a different year-end result involved measures related to bridges rehabilitated, lane miles resurfaced, and condition ratings for both. The LBA was also unable to replicate the “costs per lane mile” measure due to misstatements in the expenditure spreadsheets used by the bureau.

As Table 2 shows, the LBA found the bureau met or exceeded 11 of the 19 measures using the bureau’s methods of calculation. However, according to the bureau’s calculations for fiscal year 2000, it met or exceeded 15 of the 19 measures reported.

According to the table, it does not appear the bureau met its projection for guardrail replacement. However, the bureau actually met the projection for guardrail replacement, using less linear feet of guardrail than originally projected. Projections called for upgrading 14,700 linear feet of guardrail in fiscal year 2000, however a total of 13,575 linear feet of guardrail were actually upgraded. According to a bureau official, this variance was not due to the bureau failing to meet the goal, but rather because the original estimate for the targeted section of turnpike overestimated the number of feet needed.

The use of a maintenance/asset management system may assist the bureau in providing more accurate data for performance measures, such as guardrail replacement. The recommendations for Observations No. 5 and No. 8 encourage DOT to investigate maintenance/asset management systems used in other states to determine the benefits of this type of system, particularly in assisting the bureau with performance-based budgeting.

If the bureau adopts recommendations contained in this report, the calculations for several measures would be impacted. More specifically, measures related to “administration expense” and “effective use of personnel” would be reported as 12.8 percent and 12.6 percent, respectively. The bureau’s projection for “administration expense” would still have been exceeded, while the “effective use of personnel” measure would have gone from not meeting projections to meeting projections. Furthermore, the measures “costs per toll transaction” and “costs per lane mile” would be reported as \$0.0784 and \$7,500, respectively. Neither measure would have met the bureau’s projections for fiscal year 2000.

Although the LBA found the bureau met or exceeded the projections for 11 of the 24 measures originally identified, progress towards most goals could not be determined. As discussed in Observation Nos. 4 through 9, not all performance measures correlated clearly to identified goals.

As previously mentioned, it takes time to develop goals and measures that accurately and reliably reflect an agency’s or program’s mission. Although some projections for fiscal year 2000 were not met, the first year lessons should provide the bureau with a better understanding of how to develop performance goals and measures, as well as to fully consider the available data when developing projections for future fiscal years.

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**STATE OF NEW HAMPSHIRE  
BUREAU OF TURNPIKES  
PERFORMANCE-BASED BUDGETING**

**OBSERVATIONS AND RECOMMENDATIONS**

The observations and recommendations we make in this report provide insight and suggest improvements regarding the use of performance-based budgeting in New Hampshire. Observation No. 1 discusses the importance of establishing centralized guidance and training to more effectively and successfully implement performance-based budgeting throughout State government.

**3.1 Implementation Of Performance-Based Budgeting**

**Observation No. 1**

***Improvements Needed In Planning  
And Training Related To  
Performance-Based Budgeting In  
New Hampshire***

The State is expending resources and energy on piloting performance-based budgeting without implementing a formal plan containing methods, procedures, or training. Lack of a formal plan has created confusion, particularly regarding policy and procedural issues, for agencies with

performance-based budgets. Without clear direction, policies, procedures, and guidance it will be difficult to effectively implement and accurately assess pilot efforts in performance-based budgeting.

Good management controls and practices indicate the need for organization, methods, and procedures to ensure that goals are met. Government auditing standards define management controls as including processes for planning, organizing, directing, and controlling program operations, as well as including systems for measuring, reporting, and monitoring program performance.

Initially the Governor’s Budget Office, through past budget directors, appeared to take a leadership role in implementing performance-based budgeting in the State. According to personnel from the Department of Administrative Services and the Department of Transportation (DOT), the Governor’s former budget directors spearheaded the solicitation of agencies to implement performance-based budgeting.

In September of 1999, the Governor’s Budget Office submitted to the Fiscal Committee and the Governor and Council a request to approve the goals and measures of two agencies piloting performance-based budgeting. As part of this submission, limited procedures were included for the agencies to use. The procedures focused on how an agency could change or revise goals or measures and the need for the agencies to provide quarterly reports on performance measures and transfers.

More recently, the Governor’s letter in the 2002-2003 Budget Manual briefly discusses performance-based budgeting. Specifically, agencies are asked to “pay special attention to the “program measures” portion of [their] submission...to ensure that it meaningfully and

### **3.1 Implementation Of Performance-Based Budgeting (Continued)**

#### **Observation No. 1: Improvements Needed In Planning And Training Related To Performance-Based Budgeting In New Hampshire (Continued)**

accurately reflects...performance.” This letter also suggests moves will be made to implement “performance-based budgeting across all of state government” and that program measures “will become even more important.” However, no specific timelines are discussed regarding when other agencies will begin implementing performance-based budgeting. The Governor’s budget director was not able to provide any additional information regarding when other agencies might implement performance-based budgeting.

There has been confusion and uncertainty during the implementation of performance-based budgeting that can be attributed to lack of training, lack of detailed policies and procedures, as well as breakdowns in communication and understanding of the information that currently exists to guide performance-based budgeted agencies. For example, although intentions appear to be to increase the number of agencies using performance-based budgets, no training is planned nor was training provided prior to implementation to assist agencies currently using performance-based budgeting. The only training provided to several individuals from the DOT was the two-day performance-based budgeting seminar sponsored by the LBA Audit Division in June 2000. Prior to this, only the DOT’s current Director of Operations, who started in February 2000, had training on performance measures obtained at a professional conference. Insufficient training in performance-based budgeting, particularly for personnel charged with developing goals and measures, may adversely affect the ability of agencies to develop clear, concise, relevant, and result-based performance measures.

Lack of clear, detailed performance-based budgeting policies and implementation procedures have resulted in confusion for agencies. For example, the DOT understood Chapter 159:11, Laws of 1999, to allow transfers at the discretion of the commissioner and that this information would be forwarded to the Department of Administrative Services, not for approval but for record keeping purposes. However, the two groups of transfers completed by the bureau required revisions. The first transfer series dated May 2000 was amended to include only transfers of more than a thousand dollars. The second transfer dated June 2000 only included those items to cover shortfalls in personnel class lines. There is some confusion between those interviewed as to the exact reasons for the revised transfers. The Governor’s budget director reported there is a need to develop policies and procedures.

In addition, performance-based budgeted agencies were required to submit two budgets, a detailed line item budget and a performance-based budget, for the 2002-2003 biennium budget cycle. This requirement has added to confusion regarding performance-based budgeting. Chapter 222, Laws of 1998, exempted performance budgeted agencies from the requirements of RSA 9:8-a, I, the program appropriation unit format, and specifically stated “[t]he budget of a performance budget agency or program shall be presented as one line item for each program objective.” Officials at the DOT reported they had expected to complete only a performance-based budget for the Bureau of Turnpikes (the bureau) for the

### **3.1 Implementation Of Performance-Based Budgeting (Continued)**

#### **Observation No. 1: Improvements Needed In Planning And Training Related To Performance-Based Budgeting In New Hampshire (Continued)**

2002-2003 biennium budget cycle. Two reasons given for requiring two budgets from performance-based budgeted agencies include: a detailed budget is needed because the current budget system is unable to manage a performance-based budget, and the Governor's Budget Office wanted the detailed information.

#### **Recommendation:**

**We recommend a formal plan describing the purpose, objectives, and goals of performance-based budgeting as well as how it will be assessed, should be developed. This plan should provide guidance on how the State plans to continue and expand the use of performance-based budgeting. The Governor's Budget Office should develop this plan or delegate the responsibility to an appropriate agency. We also recommend the Legislature review the performance-based budgeting concept and what it hopes to gain by its use. The Legislature may wish to add language to existing laws related to performance-based budgeting to clarify its purpose in New Hampshire.**

**It may be beneficial for both the Governor's Budget Office and the Legislature to clearly communicate their goals for implementing performance-based budgeting to ensure all needs will be met when a formal plan for the implementation of performance-based budgeting is developed.**

**We recommend further that training on performance-based budgeting be developed and provided to agencies and personnel using performance-based budgets. Training should focus on measures development, implementation policies and procedures, and the purpose for using performance-based budgeting in New Hampshire.**

**If it is determined performance-based budgeting will continue to be used and expanded in the future, a review and analysis of the current computer system used for developing the budget should be completed to determine if it could be adapted to the format used for budget submissions for performance-based budgeted agencies.**

#### *Auditee Response:*

*The Governor's Office partially concurs with the recommendation discussed above as noted in the letter on page A-1 of Appendix A.*

### 3.2 Quarterly Reports

This report should provide the bureau with some guidance for developing and reporting performance goals and measures more reliably and accurately. Observation Nos. 2 and 3 address the lack of quality review of the quarterly performance reports and not submitting the quarterly reports in a timely fashion to the Fiscal Committee and the Governor and Council.

#### Observation No. 2

##### ***No Quality Review Of Quarterly Reports***

As part of our review of the bureau's performance-based budgeting efforts, we audited the quarterly reports prepared for submission to the Fiscal Committee and Governor and Council to

determine if the information contained in the quarterly performance reports was reliable and accurate. The quarterly reports could not be replicated in their entirety due to some inconsistencies with how data obtained from the New Hampshire Integrated Financial System (NHIFS) and from the building maintenance section were used in calculations (Table 3).

Bureau officials reported performance measures dependent upon the NHIFS information were calculated differently in the quarterly reports. Originally, the first quarter performance report used expenditures and encumbrances in calculations, resulting in some instances of double counting. Thereafter, the first quarter data were recalculated using only expenditure information and the new results were included in subsequent quarterly reports. Once the first quarter was recalculated, the second and third quarters were calculated in the same fashion. In the fourth quarter calculations, encumbrances were included in the calculations.

The spreadsheets used by the bureau for its quarterly performance reports also contained overstatement and understatement errors. For example, maintenance costs were overstated in the fourth quarter and fiscal year end by \$470,098. Additionally, first quarter maintenance costs were overstated by \$2,744 then understated in the third quarter by the same amount, and maintenance personnel costs were understated by \$23,000 in the first quarter and overstated in the second quarter by \$23,000.

Insufficient review of the quarterly reports resulted in errors in several measures using information provided by the building maintenance section of the bureau. For example, the percentage of bridges in good condition was reported as 92.6 percent for all four quarters and fiscal year 2000. However, in the fourth quarter the number of bridges reported as being in good condition increased by one, which was not reflected in the percentage of bridges reported.

Finally, insufficient review of the quarterly reports resulted in the "effective use of personnel" measure to be calculated differently than described in the quarterly report footnotes. Footnote number four of the quarterly reports states the method to calculate the measure is to use "annual administration personnel and benefit costs as a % of overall personnel and benefit costs," however the bureau reported it arrived at the "effective use of personnel" measure by dividing total administration personnel and benefit costs by the total operating and maintenance personnel and benefit costs. If the bureau had calculated the measure as it

### 3.2 Quarterly Reports (Continued)

#### Observation No. 2: No Quality Review Of Quarterly Reports (Continued)

describes in the quarterly report footnote, the percentage would have been less than what was reported in the quarterly and year-end reports. For example, fiscal year 2000 should have been reported as 12.6 percent, not 14.4 percent, for the “effective use of personnel” measure.

**Table 3**

#### Differences In Quarterly Measures As Reported By The Bureau And Verified By The LBA

##### Quarterly Measures as Reported by the Bureau of Turnpikes

Activity	Data Source	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Effective Use of Personnel	NHIFS	13.8%	14.4%	--	--
Costs per Lane Mile	NHIFS	\$1,217	\$1,560	\$2,275	\$2,355
Number of Pavement Lane Miles in Good Condition	Building Maintenance	557 of 605	557 of 605	557 of 605	557 of 605
Number of Bridges in Good Condition	Building Maintenance	150 of 162	150 of 162	150 of 162	151 of 162
Percentage of Lane Miles in Good Condition	Building Maintenance	92.10%	92.10%	92.10%	92.10%
Percentage of Bridges in Good Condition	Building Maintenance	92.60%	92.60%	92.60%	92.60%

Source: Bureau of Turnpikes' Fourth Quarter Performance Report.

##### LBA Verification of Quarterly Measures

Activity	Data Source	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Effective Use of Personnel	NHIFS	13.7%	14.6%	--	--
Costs per Lane Mile	NHIFS	\$1,258	\$1,588	\$2,279	\$1,505
Number of Pavement Lane Miles in Good Condition	Building Maintenance	Unable to Confirm	Unable to Confirm	Unable to Confirm	Unable to Confirm
Number of Bridges in Good Condition	Building Maintenance	130 of 162	130 of 162	130 of 162	130 of 162
Percentage of Lane Miles in Good Condition	Building Maintenance	Unable to Confirm	Unable to Confirm	Unable to Confirm	Unable to Confirm
Percentage of Bridges in Good Condition	Building Maintenance	80.25%	80.25%	80.25%	80.25%

Source: LBA Analysis of Bureau of Turnpikes' Data.

-- Indicates no difference in calculated measure.

Performance measures data need to be sufficiently complete, accurate, and consistent to document performance and support decision-making. Agencies need to verify and validate performance measures data to reduce the risk of producing inaccurate data. Additionally, agencies need to be consistent in how the measures are calculated to allow for accurate comparisons from quarter to quarter and year to year. Lack of management review and oversight of the quarterly performance reports resulted in reports being issued with errors and inconsistencies.

### 3.2 Quarterly Reports (Continued)

#### Observation No. 2: No Quality Review Of Quarterly Reports (Continued)

Without sufficiently complete, accurate, and consistent performance measures information, it is difficult to assess the success or failure of measures and goals. Additionally, performance measures need to be clear, concise, and result-based to allow for easier and accurate interpretation of information contained in the quarterly reports and provide a means to assess the impact of performance-based budgeting on the bureau's operations and maintenance. Not using the same methods or data from quarter to quarter to calculate the information contained in the quarterly performance reports increases the chances that invalid or incorrect assessments will be made of the bureau's performance-based budgeting efforts and the impacts of performance-based budgeting.

#### **Recommendation:**

**The bureau should clearly document the methods it uses to calculate performance measures, including the exact data to be used when performing the calculations. Documenting this information will allow for consistency in measures calculations between the quarterly reports and decrease potential errors if more than one individual is involved with the measures calculations in the quarterly reports.**

**The quarterly performance reports should be reviewed for accuracy prior to submitting them to the Fiscal Committee and Governor and Council.**

#### *Auditee Response:*

*We concur with this observation. The reports will be reviewed for accuracy by a qualified employee that does not prepare the report. Documentation will be clarified for ease of review.*

#### Observation No. 3

##### ***Performance-Based Budgeting Quarterly Reporting Requirements Not Being Met***

The bureau has failed to meet the quarterly reporting requirements set forth by Chapter 159:11, Laws of 1999, and the performance-based budgeting procedures submitted to the Fiscal Committee and Governor and Council in September 1999. The bureau submitted untimely fiscal year 2000 and 2001 quarterly performance reports and transfer reports to the Fiscal Committee and Governor and Council.

Chapter 159:11, Laws of 1999, specifically states “[a] report of all such transfers and of any progress in meeting the measurable goals and objectives shall be filed quarterly with the legislative fiscal committee and with the governor and council.” Also, according to procedures established for agencies using performance-based budgeting, quarterly reports concerning the progress toward identified goals, objectives, and performance measures set forth by the agency are to be filed with the Fiscal Committee and Governor and Council “at the earliest time possible but no later than November for the 1<sup>st</sup> quarter, February for the



### 3.2 Quarterly Reports (Continued)

#### **Observation No. 3: Performance-Based Budgeting Quarterly Reporting Requirements Not Being Met (Continued)**

2<sup>nd</sup> quarter, May for the 3<sup>rd</sup> quarter, and August for the 4<sup>th</sup> quarter.” Additionally, agencies must file quarterly reports of all transfers with the Fiscal Committee and Governor and Council following the same timeline.

There may have been some confusion as to when quarterly reports actually needed to be submitted to the Fiscal Committee and Governor and Council. In September 1999, a letter with attachments, including performance-based budgeting procedures, was sent to the Fiscal Committee and Governor and Council by the Governor’s Office. The Fiscal Committee tabled the letter and attachments until January 2000, and Governor and Council approved the procedures on February 9, 2000. This delay may have caused some confusion as to the timeline for when reports should have been submitted. Consequently, the bureau did not submit first and second quarter performance reports to the Fiscal Committee until April 2000 and the third quarter performance report was not submitted until June 2000.

According to a bureau official, the fiscal year 2000 fourth quarter performance report and transfer report were completed and submitted to DOT administration near the end of September 2000. The reports should have been filed with the Fiscal Committee and Governor and Council no later than August 2000 but were not submitted to the Fiscal Committee until February 2001. The bureau also submitted its fiscal year 2001 first quarter performance report to the Fiscal Committee in February 2001 and still has not submitted the second quarter performance report. The fiscal year 2001 first quarter performance report should have been submitted no later than November 2000 while the second quarter performance and transfer reports were due in February 2001.

Success or failure in attaining identified goals and measures cannot be monitored and tracked if quarterly performance reports and transfer reports are not submitted timely or at all.

#### **Recommendation:**

**The bureau should adhere to Chapter 159:11, Laws of 1999, and submit quarterly performance reports and transfer reports to the Fiscal Committee and Governor and Council. Additionally, the bureau should submit quarterly reports by the times specified in the performance-based budgeting procedures.**

#### *Auditee Response:*

*We concur in part with this observation. We agree that the deadlines should be met, however, the timeframes should be reviewed for reasonableness. For example, the fourth quarter requirement is not feasible. Much of the data for the measurements come from NH Integrated Financial System year-end reports that are not finalized until the last week in July. The*

### **3.2 Quarterly Reports (Continued)**

#### **Observation No. 3: Performance-Based Budgeting Quarterly Reporting Requirements Not Being Met (Continued)**

*August deadline does not give adequate time for preparation, quality review, and submittal two weeks before Fiscal Committee meetings. Delaying submittal until September would be more reasonable.*

### **3.3 Appropriateness Of Performance Measures**

The Legislature, through RSA 14:31-a, VI, expressed an interest in the appropriateness of performance measures identified and used by performance-based budgeted agencies. As part of our review, we assessed the goals and performance measures identified by the bureau. Our review indicates the bureau does not report on several measures and the relationship between some of the goals and measures was not clear. The bureau also should consider deleting or changing some measures, as well as adding several new measures to improve the quality of the information being provided.

Observation Nos. 4 through 8 address each of the three goal areas, as well as the efficiency and outcome measures, identified by the bureau. Observation No. 9 addresses the bureau's need to include customer feedback, such as satisfaction, in its performance measures.

Literature on performance measures indicate measures should be clear, concise, relevant, verifiable, result-based, and linked to a goal or mission. Additionally, performance measures data must be sufficiently complete, accurate, and consistent to document performance and support decision-making. Agencies need to verify and validate performance measures data to reduce the risk of producing inaccurate data. Without sufficiently complete, accurate, and consistent performance measures information, it is difficult to assess the success or failure of measures and goals.

DOT officials, Department of Administrative Services personnel and the Governor's Budget Office all provided input and feedback during the development of the bureau's performance-based budget goals and measures. It does not appear all possible limitations to the goals and measures were fully considered by those providing input and feedback.

According to bureau officials, they were instructed to increase the total number of measures in their original goals and measures proposal. This may have resulted in the inclusion of some questionable measures. The concern for the quantity of measures may have adversely affected the ability of the bureau to develop clear, concise, relevant, result-based performance measures.

### 3.3 Appropriateness Of Performance Measures (Continued)

#### Observation No. 4

***Debt Service Goals And Performance Measures Need Revising Or Changing***

As part of performance-based budgeting, the bureau identified debt service as an area to develop goals and performance measures. The goals identified for debt service include: 1) retiring general obligation and revenue bond debt in accordance with bond schedules, 2) having adequate bonding for the Turnpike System Improvement Program, and 3) optimizing the efficiency of debt service. The following output measures were identified for the goals:

- State Treasurer and financial advisors reviewing existing rates,
- State Treasurer monitoring debt service schedules for compliance, and
- preparation and review of quarterly financial statements and independent annual audits.

The bureau's debt service measures are not easily or clearly related to the goals. Additionally, the bureau does not track or report on the debt service output measures as part of its quarterly performance reports. Moreover, it is not clear how the bureau would report on the measures. None of these measures are easily quantified, result-based, or linked directly to a goal. Bureau officials agreed the debt service measures are not easily quantified.

#### **Recommendation:**

**The bureau should follow established performance-based budgeting procedures to revise or change its debt service goals and measures to ensure they reflect the bureau's mission statement and that the goals and measures relate to one another. Additionally, as the bureau revises or changes performance measures it should make a determination if reliable, valid, and complete data exist to support measures.**

**The bureau should consider reporting only two goals related to debt service: 1) retiring bond debts in accordance with schedules, and 2) having adequate bonding for funding the Turnpike System Improvement Program. Two possible measures that could be used in conjunction with the goals include making timely bond payments 100 percent of the time and reporting the bond covenant ratio calculation to ensure sufficient revenue is collected to meet the required ratio of 1.0. These measures are outcome-based, easily quantified, and directly relate to the goals.**

#### *Auditee Response:*

*We concur with this observation. Implementation of the recommendation to report only two goals related to debt service is manageable: 1) retiring bond debts in accordance with schedules, and 2) having adequate bonding for funding the Turnpike System Improvement*

### 3.3 Appropriateness Of Performance Measures (Continued)

#### Observation No. 4: Debt Service Goals and Performance Measures Need Revising Or Changing (Continued)

*Program. The two measures suggested are currently being done: making timely bond payments 100 percent of the time and reporting the bond covenant ratio calculation to ensure sufficient revenue is collected to meet the required ratio of 1.0.*

#### Observation No. 5

##### ***Renewal And Replacement Goals And Performance Measures Need Revising Or Changing***

As part of performance-based budgeting, the bureau identified renewal and replacement as an area to develop goals and performance measures. The goals identified for renewal and replacement include: 1) meeting the bond covenant test at the 1.0 ratio to fulfill fiduciary responsibilities to bondholders, 2) maintaining the infrastructure integrity to utilize funds in the most optimal fashion, and 3) maintain a turnpike system to improve safety, comfort, and convenience. The following measures were identified for the goals:

- number of lane miles resurfaced annually based on pavement management criteria,
- number of bridges rehabilitated annually, and
- amount of guardrail upgraded annually.

The renewal and replacement goals and measures developed by the bureau are not outcome oriented, not easily or clearly related to one another, and none of the measures directly relate to meeting the bond covenant test. Additionally, the identified performance measures provide no information to assess if the work completed maintains the “infrastructure integrity to utilize funds in the most optimal fashion” or improves the “safety, comfort, and convenience” of the turnpike system.

The identified measures attempt to provide outputs of the work performed on the turnpike system, however the measures do not truly reflect the work completed. For example, the bureau has no method to report when it resurfaces lane miles beyond those projected in contracts. In fiscal year 2000, the resurfacing contract estimates totaled 48 lane miles, however the bureau reports a total of 53 lane miles was resurfaced. According to bureau officials, there is no documentation to support the resurfacing of five additional lane miles. Additionally, the use of lane miles as a measure does not accurately account for areas such as interchanges and toll plazas that require more materials for resurfacing because they are typically wider than the twelve foot width used when calculating a lane mile.

In fiscal year 2000, the bureau had planned and received appropriations to rehabilitate one bridge. Because the appropriation was for fiscal year 2000, the bureau reported one bridge as being rehabilitated for that year even though the bridge rehabilitation was not completed until fiscal year 2001.

Finally, the use of linear feet to show guardrail replacement has the potential to be

### 3.3 Appropriateness Of Performance Measures (Continued)

#### Observation No. 5: Renewal And Replacement Goals And Performance Measures Need Revising Or Changing (Continued)

misleading. In fiscal year 2000, the bureau projected to replace 14,700 linear feet of guardrail but reported replacing only 13,575 linear feet. However, the bureau completed guardrail replacement for the planned section of turnpike for fiscal year 2000.

A bureau official explained the variance between what the bureau estimated and the actual linear feet replaced is due to the methods used by the Bureau of Contracts to estimate the linear feet of guardrail to replace when contracts are prepared. The actual amount of guardrail replaced is physically measured once the new guardrail has been installed.

One DOT official stated the lack of a maintenance/asset management system is problematic. A maintenance/asset management system would allow the department to track a variety of performance measures. It would also improve the ability of the department to provide accurate and reliable information in a quick and efficient manner.

#### **Recommendation:**

**The bureau should follow established performance-based budgeting procedures to revise or change its renewal and replacement goals and measures to ensure they reflect the bureau's mission statement and that the goals and measures relate to one another. Additionally, as the bureau revises or changes performance measures it should make a determination if reliable, valid, and complete data exist to support measures.**

**The bureau may want to consider reporting the sections of turnpike it resurfaces in miles to better account for interchanges, toll plazas, and other sections of the turnpike not accurately accounted for using lane miles as a measure. Also, adding a brief description of the section of turnpike to be resurfaced will be more meaningful for those reviewing and using the quarterly performance reports. For example a description of the resurfacing measure could be stated as *a total of ten miles will be resurfaced: five miles of northbound turnpike from the Hooksett toll plaza I-93 to the junction of I-89 and five miles of the southbound lane from Milton to Rochester*. However, the bureau still needs to determine how it will accurately account for and document the work actually completed.**

**The bureau may also want to report guardrail replacement in miles versus linear feet. The use of miles may more accurately reflect the parts of the turnpike system targeted for guardrail replacement. For example, a description of the guardrail replacement measure could be stated as *five miles of northbound turnpike, not including the median guardrail, from the Hooksett Toll Plaza to the I-89 junction are targeted for guardrail replacement*.**

### 3.3 Appropriateness Of Performance Measures (Continued)

#### Observation No. 5: Renewal And Replacement Goals And Performance Measures Need Revising Or Changing (Continued)

**The DOT should investigate maintenance/asset management systems used in other states to determine the benefits of this type of system particularly in assisting the bureau, and eventually the entire department, with performance-based budgeting in New Hampshire.**

*Auditee Response:*

*We concur in part with this observation. A maintenance/asset management system would be helpful to assist the Department with Performance Based Budgeting and other management needs. We are currently developing such a system. However, we do not agree that guardrail should be measured in miles rather than linear feet. Due to the fact that many sections of guardrail that are replaced measure less than a mile, reporting in linear feet is more precise and appropriate than reporting in miles.*

*Furthermore, pavement resurfacing should be reported in lane miles rather than in miles. Using miles of roadway would change the results of the measurement considerably, depending on the number of lanes in each mile of roadway. Reporting pavement resurfacing in lane miles is more precise and appropriate than reporting in miles.*

#### Observation No. 6

##### ***Operations And Maintenance Goals And Performance Measures Need Revising Or Changing***

As part of performance-based budgeting, the bureau identified operations and maintenance as an area to develop goals and performance measures. The following five goals were identified for operations and maintenance: 1) operate as

efficiently as possible; 2) move traffic as quickly and safely as possible with programs to ensure employee and patron safety; 3) collect toll revenues sufficient to meet or exceed bond covenant ratio of 1.0 to ensure they are sufficient for debt service and promote commercial vehicle usage; 4) high level of service of winter and summer maintenance of the turnpike system; and 5) zero audit findings and comments. The following measures were identified for the goals:

- number of toll transactions,
- amount of revenue collected,
- number of charge card transactions,
- adequate level of maintenance consistent with department policy, and
- internal and external audits of financial management.

The measures of “adequate level of maintenance consistent with department policy” and “internal and external audits of financial management” are not tracked or contained in the quarterly reports. Because the bureau did not track or report on the measure of “internal and external audits of financial management,” the bureau has no data for the goal of “zero audit

### 3.3 Appropriateness Of Performance Measures (Continued)

#### Observation No. 6: Operations And Maintenance Goals And Performance Measures Need Revising Or Changing (Continued)

findings and comments.”

Additionally, none of the identified measures relate to the goals of “operate as efficiently as possible,” “move traffic as quickly and safely as possible with programs to ensure employee and patron safety,” and “high level of service of winter and summer maintenance of the turnpike system.”

The “number of toll transactions,” “amount of revenue collected,” and “number of charge card transactions” provide the bureau with output measures related to the goal of collecting “toll revenue sufficient to meet or exceed bond covenant ratio of 1.0 to ensure they are sufficient for debt service and promote commercial vehicle usage.” The bureau has controls in place to verify and validate the data related to these various measures.

#### **Recommendation:**

**The bureau should follow established performance-based budgeting procedures to revise or change its operations and maintenance goals and measures to ensure they reflect the bureau’s mission statement and that the goals and measures relate to one another. More specifically, the bureau should determine why they did not report on the measures of “adequate level of maintenance consistent with department policy” and “internal and external audits of financial management” to determine if the measures should be retained. Additionally, as the bureau revises or changes performance measures it should make a determination if reliable, valid, and complete data exist to support measures.**

#### *Auditee Response:*

*We concur with this observation. Implementation of a measure of adequate level of maintenance consistent with department policy will be more feasible if a maintenance management system is adopted. As we revise or change performance measures, we will assess the supporting data to determine if they are reliable, valid and complete.*

#### Observation No. 7

<b><i>Efficiency Performance Measures Need Revising Or Changing</i></b>
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As part of performance-based budgeting, the bureau identified the following program efficiency measures:

- administration expense,
- contractual services,
- costs associated with other agencies,
- effective use of personnel,
- costs per toll transaction, and

### **3.3 Appropriateness Of Performance Measures (Continued)**

#### **Observation No. 7: Efficiency Performance Measures Need Revising Or Changing (Continued)**

- costs per lane mile.

The bureau does not provide a clear explanation of the purpose of the measures, how the measures relate to the identified goals or mission statement, or how the measures are to be used to assess performance-based budgeting. For example, the bureau identifies “contractual services” and “costs associated with other agencies” as efficiency measures, however it is not clear if the goal of the measures is to increase or decrease the amount of funds expended. Additionally, it is not clear why the bureau does not consider the “costs associated with other agencies” or even the costs of the renewal and replacement program as part of the “contractual services” efficiency measure.

The measures of “costs per toll transaction” and “costs per lane mile” provide easy to understand efficiency measures related to the turnpike system. However, the calculations for these measures exclude several costs. For example, the administration budget contains a line item for toll revenues processing services (7022-092) not used when calculating the “costs per toll transactions.” Additionally, the following administration budget line items were not used when calculating the “costs per lane mile”: payment to district 6 (7022-091), turnpike bridge maintenance (7022-093), and pavement marking (7022-097).

The “administration expense” measure is intended to compare administration expenses to overall costs, less debt service costs. However, the calculation for this measure includes the toll revenues processing services costs, which should not have been included because they relate to toll operations.

A bureau official agreed that line items in the administration budget had been omitted from the measures of “costs per toll transaction” and “costs per lane mile,” and that the calculation of the “administration expense” should not have included the toll revenues processing services line item.

The bureau explains the measurement of “effective use of personnel” is important because “administrative personnel expense should be minimized so that the Bureau can operate as efficiently as possible, maximizing financial resources to achieve its mission.” In footnote number four of the quarterly reports the bureau states the method to calculate the measure is to use “annual administration personnel and benefit costs as a % of overall personnel and benefit costs.” This measure does not necessarily show effective use of personnel, but attempts to show what percentage of personnel costs can be attributed to administration. However, the bureau is incorrectly calculating this measure. The administrative personnel expense is divided by the operations and maintenance personnel expense to arrive at the “effective use of personnel” measure. The information in the quarterly reports had been and continues to be calculated in this manner.



### **3.3 Appropriateness Of Performance Measures (Continued)**

#### **Observation No. 7: Efficiency Performance Measures Need Revising Or Changing (Continued)**

##### **Recommendation:**

**The bureau should follow established performance-based budgeting procedures to revise or change its efficiency measures to ensure they reflect the bureau's as well as the department's mission statement and that the goals and measures relate to one another. Additionally, as the bureau revises or changes performance measures it should make a determination if reliable, valid, and complete data exist to support these measures.**

**The bureau should also review its various organization codes and their respective line items to determine if all relevant costs are being considered when calculating the efficiency measures. When calculating the "costs per toll transaction" measure, the toll revenues processing services (7022-092) line item in the administration budget should be included. Additionally, the following administration budget line items should be included when calculating the "costs per lane mile": payment to district 6 (7022-091), turnpike bridge maintenance (7022-093), and pavement marking (7022-097). Finally, when calculating the "administration expense" the toll revenues processing services (7022-092) line item should not be included.**

**In an effort to better report efficient toll operations, a measure using a dollar amount should be included. This "operational cost per dollar collected" measure would show for every dollar collected so much is used for operations with the balance being available for debt service, maintenance, and renewal and replacement. The bureau could calculate this measure by dividing operations costs, including those costs in the administration budget (7022) related to operations, by the total revenues collected.**

**The bureau should consider discontinuing the "effective use of personnel" measure because it does not demonstrate how effectively personnel are being used with the current method to calculate the measure. If the bureau decides to continue using the "effective use of personnel" measure, a review of the types of data available to gauge the effectiveness of bureau personnel should be completed.**

**If the bureau is attempting to show a measure of administration personnel expense it should consider renaming the "effective use of personnel" to "administration personnel expense." To calculate this measure the bureau should divide administration personnel expense by the total personnel expense for the bureau, as it describes in its quarterly report footnotes.**

### 3.3 Appropriateness Of Performance Measures (Continued)

#### Observation No. 7: Efficiency Performance Measures Need Revising Or Changing (Continued)

##### *Auditee Response:*

*We concur with this observation. Implementation can easily be done by changing the formulas used to report most of the measures. However, costs associated with other agencies and contractual services are beyond our control and may not be proper to report as efficiency measures. Reporting administrative personnel expense as a measure will require realignment of maintenance personnel currently paid under the administrative account to a maintenance organization account. This can only occur during the beginning of a budget cycle.*

#### Observation No. 8

##### ***Outcome Measures Need Revising Or Changing***

As part of performance-based budgeting, the bureau identified the following program outcome measures:

- number of pavement lane miles in good condition,
- number of bridges in good condition,
- percentage of pavement lane miles in good condition,
- percentage of bridges in good condition,
- annual percent increase of toll transactions,
- annual percent increase of revenue, and
- revenue bond covenant 1.0 test.

Though the bureau does a good job identifying potential outcome measures, it did not adequately assess if the data available and used to calculate the measures were appropriate, specifically for rating pavement condition. The DOT owns a Pavement Management System, which the bureau has access to. The turnpike system has been driven to establish data points for historical reference and once enough points are available the system will be activated. Currently, this Pavement Management System is not providing any pavement condition reports and as a result the bureau still uses a subjective method in arriving at a pavement condition. At times the bureau relies on visual inspections, age of pavements, and rideability tests to determine pavement condition. Due to the bureau's current status of the Pavement Management System, the ratings provided, such as "good," are subjective and the reporting of the number and percentage of lane miles in "good" condition is compromised.

The Pavement Management System the department owns is Deighton dTIM, which is a module of a much larger infrastructure asset management system. There has been a recommendation to buy additional modules for such things as highway guardrail. Each asset uses a particular degradation curve and thus allows for the modular nature of the software system. The department reports all its efforts are directed to getting the pavement management module up and running and that a detailed technical software brochure has

### **3.3 Appropriateness Of Performance Measures (Continued)**

#### **Observation No. 8: Outcome Measures Need Revising Or Changing (Continued)**

been submitted. As the owner determines performance indices, the department can include roughness ratings, distress index, rutting index, and a structural index. From the bureau's road data, taken over time, these indices can be changed to create decision trees, which will indicate the optimum maintenance treatment to be utilized from an overall condition index.

The Federal Highway Administration accepts states' pavement ratings using the International Roughness Index (IRI) and the Present Serviceability Rating (PSR), however, it recommends states use the IRI to report on the "Interstate system, other principal arterials, and rural minor arterials." The Federal Highway Administration states it adopted the IRI "because this index uses a standardized procedure, is consistent across jurisdictions, is an objective measurement, and is accepted as a worldwide pavement roughness measurement." Once the department has enough data points it will be in a position to have several objective measurements for pavement management decisions.

A federally accepted method for rating bridges is used by the DOT. The Bureau of Bridge Design, not the Bureau of Turnpikes, inspects all the bridges on the turnpike system and in New Hampshire. If a bridge is found to be in poor condition or worse it is added to the State's red list of bridges. The red list is used to manage the maintenance of bridges in New Hampshire. The Bureau of Bridge Design also maintains a list of bridges considered to be in fair condition.

The Bureau of Turnpikes uses only two ratings for its bridges, good and poor (red list) and does not provide a separate category for its bridges rated as fair. Bridges with a rating of fair are included with bridges rated in good condition when the quarterly performance reports are completed. Because of this, the bureau over-reported the number of bridges in good condition in the reports. By separating the bridges rated in fair and good condition, the number of bridges in good condition would be 130, the number of bridges in fair condition would be 16, and the number of bridges in poor (red list) condition or worse would be 16 for a total of 162 bridges on the turnpike system. Due to the over-reporting of the bridges in good condition, the bureau's "percentage of bridges in good condition" measure is also not accurate.

The measures of "annual percent increase of toll transactions," "annual percent increase of revenue," and "revenue bond covenant 1.0 test" provide the bureau with outcome measures that indicate the bureau is meeting its funding requirements. The increases in toll transactions results in increased revenues to meet bond covenant tests as well as other costs associated with the operations and maintenance of the turnpike system. The bureau's efforts to meet its mission statement are partially supported through these measures. For example, the increased revenues potentially support the bureau's mission to provide "an alternate means of financing needed transportation facility enhancements in a significant portion of the state experiencing continued economic expansion." Additionally, the bureau has controls in place to verify and validate the data related to these various measures.

### **3.3 Appropriateness Of Performance Measures (Continued)**

#### **Observation No. 8: Outcome Measures Need Revising Or Changing (Continued)**

As mentioned in Observation No. 5 on page 30, one DOT official stated the lack of a maintenance/asset management system is problematic. A maintenance/asset management system would allow the department to track a variety of performance measures. It would also improve the ability of the department to provide accurate and reliable information in a quick and efficient manner.

#### **Recommendation:**

**The bureau should follow established performance-based budgeting procedures to revise or change its operations and maintenance goals and measures to ensure they reflect the bureau's mission statement and that the goals and measures relate to one another. Additionally, as the bureau revises or changes performance measures it should make a determination if reliable, valid, and complete data exist to support these measures.**

**The bureau should discontinue reporting the number of lane miles in good condition since it does not have a pavement rating system in place. If the bureau desires to continue using this measure, consideration should be made to incorporate a rating system that is consistent, reliable, and valid, such as the International Roughness Index recommended by the Federal Highway Administration. Additionally, the reporting of "percentage of lane miles in good condition" should be discontinued until an appropriate method of determining the condition of lane miles is used.**

**The bureau should not include bridges rated in fair condition with those rated in good condition when calculating and reporting on the number of bridges in good condition. Including bridges rated as fair as good skews the bridge data by inflating the number of bridges considered to be in good condition.**

**The DOT should investigate maintenance/asset management systems used in other states to determine the benefits of this type of system particularly in assisting the bureau, and eventually the entire department, with performance-based budgeting.**

#### *Auditee Response:*

*We concur in part with this observation. We do use the ARAN vehicle to produce Federal Highway Administration International Roughness Index and Present Serviceability Rating, which we use to monitor the pavement conditions of the Turnpike. However, engineering judgment is just as important in rating pavement conditions.*

*Bridges approaching a red list condition may still be programmed for rehabilitation.*

### 3.3 Appropriateness Of Performance Measures (Continued)

#### Observation No. 9

***Lack Of Measures To Assess  
Customer Satisfaction***

The bureau currently has no method of assessing customer satisfaction with the turnpike system. As part of performance-based budgeting, the bureau has identified customer satisfaction in its

mission statement and several goals, however no measures currently exist to monitor and track it. According to DOT and bureau officials, the bureau does not currently collect customer satisfaction information, however the DOT has a presence at four State fairs where department personnel collect non-statistical customer satisfaction surveys. These surveys do not provide any specific feedback related to the turnpike system.

According to the bureau, their mission is to “maintain and operate a turnpike system which provides safe and efficient passage of all its users, [and] maximizes the financial return to meet and enhance customer service...” Additionally, the bureau has identified “[m]aintain a Turnpike System to improve safety, comfort and convenience” as a renewal and replacement goal, as well as “[m]ove traffic as quickly and safely as possible with programs instituted to ensure employee and patron safety,” and “[high level of service for] winter and summer maintenance,” as operations and maintenance goals.

Success or failure in meeting an identified goal cannot be monitored or tracked if no measure exists to quantify and report it. Additionally, without a method of compiling customer satisfaction information, the bureau is unable to ascertain whether its services and programs “provides safe and efficient passage” to all its users or “meets and enhances customer service” as identified in its mission statement.

A DOT official stated the department is working on implementing a customer satisfaction survey for the entire highway system and estimates something could be in place within the next few months. The department plans to work closely with the University of New Hampshire’s Survey Center to develop a customer satisfaction survey to which turnpike officials will be able to provide comments and suggestions regarding the types of information that would be useful to the bureau.

DOT officials, Department of Administrative Services personnel, and the former Governor’s Budget Director all provided input and feedback during the development of the bureau’s performance-based budget goals and measures. Even with the concerted effort to develop goals and measures, the issue of customer satisfaction was not fully addressed.

#### **Recommendation:**

**The bureau should follow established performance-based budgeting procedures, to add measures that would incorporate the customer satisfaction element into its performance-based budgeting efforts.**

### **3.3 Appropriateness Of Performance Measures (Continued)**

#### **Observation No. 9: Lack Of Measures To Assess Customer Satisfaction (Continued)**

**The bureau should proactively provide feedback concerning what customer satisfaction information would be useful to the bureau's performance-based budgeting efforts as the DOT pursues the development of a customer satisfaction survey using the University of New Hampshire's Survey Center as a resource.**

*Auditee Response:*

*We concur with this observation on the assumption that the survey will be designed to obtain quality results. We are pursuing the development of a customer service survey using UNH as a resource. However, using the results of the survey as the only performance measure for customer satisfaction may be unrealistic. The responses given by toll patrons may be negatively weighted depending, for instance, on traffic delays and given the public's reluctance to pay tolls.*

**STATE OF NEW HAMPSHIRE  
BUREAU OF TURNPIKES  
PERFORMANCE-BASED BUDGETING**

**CONCLUSION**

New Hampshire's introduction of performance-based budgeting is an effort to increase the accountability of State government and provide lawmakers with information to assist with budgeting decisions. Although performance-based budgeting is new to New Hampshire, the State is not alone in its efforts to implement performance-based budgeting as an accountability and budgeting tool. However, more work is required before the State is able to effectively and efficiently use performance-based budgeting in this way.

The current performance-based budgeting pilot program in New Hampshire should be reviewed and evaluated to determine what is working, what changes need to be made, and if the information provided to the Fiscal Committee and Governor and Council meet their needs. Additionally, training and education should be provided centrally so all agencies and programs implementing performance-based budgeting will have the same initial training. Training should focus on expectations, methods to meet expectations, as well as developing a common understanding of performance-based budgeting in New Hampshire government. As part of this training, detailed policies and procedures for implementing and maintaining a performance-based budgeted system should be provided to agencies and programs. The Governor's Budget Office should consider developing, creating, and organizing training and policies and procedures, or designate a department or agency with this responsibility.

We recognize the bureau's efforts to implement performance-based budgeting, and realize that if training and clearer direction had been provided some issues noted in this report may not have existed. However, the bureau needs to proactively review and revise its goals and performance measures to ensure they continue providing useful and accurate information for DOT and bureau management, as well as for the Legislature and Governor and Council.

If changes are not made to the process for implementing a performance-based budgeting system, successful implementation throughout all of State government will be difficult. The Legislative and Executive branches may want to consider what goals are to be achieved using performance-based budgeting and work toward implementing a system that meets the needs of both branches.

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## APPENDIX A

### Overall Responses From The Governor's Office And DOT Management



JEANNE SHAHEEN  
GOVERNOR

#### STATE OF NEW HAMPSHIRE

OFFICE OF THE GOVERNOR

March 15, 2001

Catherine A. Provencher  
Director of Audits  
Office of the Legislative Budget Assistant  
State House, Room 102  
107 North Main St.  
Concord, NH 03301

Dear Catherine:

I am writing in response to Observation 1 of the LBA's audit of performance based budgeting at the Department of Transportation, Bureau of Turnpikes.

As you know, performance based budgeting is a method of budgeting designed to improve accountability and efficiency of state government operations. In January 2000, the legislative fiscal committee approved the Governor's request to establish performance based budgeting pilot projects at the Department of Transportation, Bureau of Turnpikes, and the Department of Environmental Services. These pilot projects have now been under way for just over a year.

Because these two projects were established as pilots, the process of evaluation and refinement, including the development of materials and training, has been ongoing.

Whether to move ahead with expanded use of performance based budgeting beyond the pilot phase is a significant policy decision that requires legislative participation. Expanding the use of performance based budgeting across state agencies will require development of a comprehensive implementation plan, guidelines, policies and procedures, computer systems upgrading and employee training. The Governor's office is pleased to work with the legislature and share insights gained from the pilot projects.

Sincerely,

A handwritten signature in cursive script that reads "Linda Hodgdon".

Linda Hodgdon  
Budget Director

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# Appendix A: Overall Responses From The Governor's Office And DOT Management (Continued)



## THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

LEON S. KENISON  
COMMISSIONER

March 16, 2001

Catherine A. Provencher, CPA  
Director, Audit Division  
Office of Legislative Budget Assistant  
107 North Main Street, Room 102  
Concord, NH 03301-4906

Subject: Department of Transportation, Bureau of Turnpikes  
Performance-Based Budgeting Audit Report

Dear Ms. Provencher:

I am writing to you to express this Department's thanks to you and your staff for your cooperative efforts in completing the audit in accordance with RSA 14:31-a, VI. Where performance based budgeting is new to New Hampshire and this Department, your team's demeanor and attitude in providing direction and explanations on their thoughts regarding how performance based budgeting should work is to be commended.

The Department is committed to making performance-based budgeting successful within the Bureau of Turnpikes. With the commitment for additional training coupled with our maintenance management initiative, we feel that the performance measurements can be identified that will provide valuable information in the management of our services and future financial requirements to maintain the serviceability of the Turnpike System. The flexibility which performance based budgeting provides, allows our managers to react to budget shortfalls and opportunities which previously we could not easily do. The benefits of the additional work that was completed, as a result of seamless transfers, provided for a safer Turnpike System. That effort is a strong component of our mission statement.

As we become better trained and begin to address your recommendations, I hope your staff can be made available to review our anticipated changes so we follow a path that is consistent with your understanding of the process and end result.

It is evident by our responses to your observations that we anticipate changes and have already started to review our measures. Again, I commend you and your staff for their help and hope the open dialogue can continue.

Sincerely,

A handwritten signature in cursive script that reads "Carol A. Murray".

Carol A. Murray  
Assistant Commissioner

cc: Lyle Knowlton, Director of Operations  
Harvey Goodwin, Administrator, Bureau of Turnpikes

JOHN O. MORTON BUILDING - 1 HAZEN DRIVE - P.O. BOX 483 - CONCORD, N.H. 03302-0483  
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## APPENDIX B

### Bureau Of Turnpikes' FY 00-01 Performance Budget As Submitted To And Approved By The Fiscal Committee And Governor And Council

August 25, 1999

Performance Based Budgeting  
Department of Transportation  
Bureau of Turnpikes

**1.) Introduction:** The New Hampshire Turnpike System presently consists of 93 miles of limited access highway, 36 miles of which are a part of the U.S. Interstate Highway System. The Turnpike System comprises a total of approximately 605 lane miles and includes three limited access highways: The Blue Star Turnpike (I-95), and the Spaulding Turnpike, collectively referred to as the Eastern Turnpike, and the Central Turnpike.

No food, gas or vehicle service facilities are located on the Turnpike System, with the exception of vending machines at the Hooksett and Seabrook Welcome/Information Centers. Motorist services are located near most interchanges off the Turnpike System and are privately operated. State operated liquor stores are located at Welcome/Information Centers on the Central Turnpike and at two sites along the Blue Star Turnpike (I-95). The Bureau of Turnpikes does not receive any revenue from the liquor store operations, which are under the supervision of the State's Liquor Commission, or from the vending machines which are under supervision of the Department of Administrative Services.

The Blue Star Turnpike (I-95) segment of the Turnpike System extends from the Massachusetts state line in Seabrook, New Hampshire to the Portsmouth Traffic Circle in Portsmouth, New Hampshire. It is 15 miles in length and constitutes a portion of the U.S. Interstate Highway 95. The Blue Star Turnpike serves as the major connecting road between the states of Maine and Massachusetts. It also parallels the seacoast and, as such, is the major artery for tourist traffic to the New Hampshire coast from Massachusetts and Maine. The route also connects with several major highways in New Hampshire, including Route 101, Route 4 and the Spaulding Turnpike. Two toll plazas are located in Hampton, one for main line traffic and one for vehicles entering and leaving the system. Hampton also has a maintenance facility and a park and ride facility to encourage car pooling. A new Welcome/Information Center providing additional parking for motorist and commercial vehicles is currently under construction in Seabrook. This new facility will provide a larger building than the current Seabrook Welcome/Information Center, allowing for increased convenience of the Turnpike System patrons.

The Spaulding Turnpike segment of the Turnpike System, including the 11.2 mile Spaulding Turnpike extension, extends from Portsmouth, New Hampshire to Exit 18 in Milton, New Hampshire. It is 33.2 miles in length and is the major north-south artery in the eastern corridor of the State. This segment of the Turnpike System connects the Blue

**Appendix B: Bureau Of Turnpikes' FY 00-01 Performance Budget As Submitted To And Approved By The Fiscal Committee And Governor And Council (Continued)**

Star Turnpike (I-95) to Route 16 (the major roadway to northern New Hampshire in the eastern portion of the State), and it connects the major cities of eastern New Hampshire (Portsmouth, Dover and Rochester) as well as several major highways (Routes 4, 16 and 125, and I-95). It has two toll plazas located at Dover and at Rochester, with a maintenance facility for the Spaulding Turnpike located at Dover. Maintenance on the Spaulding Turnpike extension is provided by the Department of Transportation's Bureau of Highway Maintenance and billed to the Bureau of Turnpikes. In addition, for the convenience of the Turnpike System patrons, a Welcome/Information Center with rest rooms and picnic facilities is provided at Hilton Park in Dover.

The Central Turnpike, commonly known as the F.E. Everett, extends from the Massachusetts state line in Nashua, New Hampshire to Exit 14 in Concord, New Hampshire. Its distance is 44.7 miles and, in part, constitutes a portion of U.S. Interstate Highways 93 and 293. The Central Turnpike connects three urban centers in New Hampshire (the cities of Concord, Manchester, and Nashua). The route also connects with the major east-west roads in New Hampshire (Route 101, Route 4, and I-89). Six toll plazas are located on the Central Turnpike: two at Hooksett (main line and ramp), a main line plaza in Bedford, and ramp plazas at Bedford Road, Exit 11 and Merrimack Industrial Interchange.

There are maintenance facilities at Hooksett, Nashua, and Merrimack. Park and ride facilities are provided in Hooksett and Nashua. In addition, two Welcome/Information Centers for information and rest room facilities are provided in Hooksett for the convenience of Turnpike System patrons. The Capital Improvement Program presently contains provisions for the construction of a new Welcome/Information Center in Nashua during Fiscal Year 2001.

**2.) Description:** These three PAU's and three class lines replaces ten PAU's and 104 class lines of the old format of the NHDOT Turnpikes budget which is 100% Turnpike Funds.

**3.) PAU/Program:**

3.a.) 04-01-08-01-01, Debt Service

Pay all principal and interest on all general obligations and revenue bonds for the Turnpike System.

- Goals:
1. Retire G.O. and Revenue Bond Debts in accordance with the Bond Schedules.
  2. Adequate bonding provides funding for the Turnpike System Improvement Program (10 year plan) which escalates as the program continues.

**Appendix B: Bureau Of Turnpikes' FY 00-01 Performance Budget As Submitted To And Approved By The Fiscal Committee And Governor And Council (Continued)**

3. Optimize the efficiency of the Debt Service (review market conditions).

Program Outputs, Debt Service:

Outputs	State Fiscal Year			
	1998	1999	2000	2001
	Actual	Actual	Projected	Projected
Treasurer and financial advisors review existing interest rates, comparing against market rates	Ongoing Review by Treasurer & Public Resource Advisory Group	Ongoing Review by Treasurer & Public Resources Advisory Group	Ongoing Review by Treasurer & Public Resources Advisory Group	Ongoing Review by Treasurer & Public Resources Advisory Group
Treasurer monitors debt service schedules for compliance. Annual Debt Service:	\$28.4M	\$28.0M	\$33.0M	\$33.6M
Preparation of quarterly financial statement and independent annual audits	Ongoing Review by Treasurer & Public Resource Advisory Group	Ongoing Review by Treasurer & Public Resource Advisory Group	Ongoing Review by Treasurer & Public Resource Advisory Group	Ongoing Review by Treasurer & Public Resource Advisory Group

3b.) 04-01-08-01-02 Renewal and Replacement

Funds major maintenance projects, most of them done by outside contractors, which insures that the Turnpike will be kept in good condition. This also meets the requirements of bond covenants, allowing for adequate maintenance of the Turnpike equating to lower rates of interest when issuing bonds.

- Goals:
1. Meet covenant test - 1.0 times test; fulfill fiduciary responsibilities to bondholders.
  2. Maintain infrastructure integrity to utilize funds in the most optimal fashion.
  3. Maintain a Turnpike System that provides safety, comfort and convenience.

**Appendix B: Bureau Of Turnpikes' FY 00-01 Performance Budget As Submitted  
To And Approved By The Fiscal Committee And Governor And  
Council (Continued)**

Program Outputs, Renewal and Replacement

Outputs	State Fiscal Year			
	1998	1999	2000	2001
	Actual	Actual	Projected	Projected
Number of lane miles resurfaced annually based on pavement management criteria	68 lane miles	53 lane miles	53 lane miles	40 lane miles 2 interchanges and 2 toll plazas
Number of bridges rehabilitated annually	0 bridges	3 bridges	1 bridge	3 bridges
Amount of guard rail upgraded annually	30,788 feet	0 feet	14,700 feet	6,500 feet

3c.) 04-01-08-01-03, Operation and Maintenance

Operation and maintenance of Turnpike System including Revenue Collection, Administration and day by day maintenance done by our own employees.

- Goals:
1. Operate as efficiently as possible.
  2. Move traffic as quickly and safely as possible with programs to ensure employee and patron safety (Safety Program, Workers Compensation, Substance Testing).
  3. Collect toll revenue sufficient to meet/exceed the bond covenant 1.0 times test, ensure revenues collected are sufficient to pay Deb Service, and promotes commercial vehicle usage.
  4. Winter and summer maintenance of the Turnpike (high level of service).
  5. Zero audit findings and comments.

Program Outputs, Operation and Maintenance

Outputs	State Fiscal Year			
	1998	1999	2000	2001
	Actual	Actual	Projected	Projected
<b>Operations:</b>				
Number of toll transactions	88,987,246	94,017,638	97,891,165	101,630,607
Amount of revenue collected (#1)	\$54,298,452	\$57,080,882	\$59,232,831	\$61,228,978
Number of charge card transactions	3,238,110	3,335,253	3,435,311	3,538,370
<b>Maintenance:</b>				
Adequate level of service consistent with Department policy	Independent Review by Outside Parties	Independent Review by Outside Parties	Independent Review by Outside Parties	Independent Review by Outside Parties
<b>Administration:</b>				
Internal and external audits of financial management	Review Quarterly Statements and Annual Audit	Review Quarterly Statements and Annual Audit	Review Quarterly Statements and Annual Audit	Review Quarterly Statements and Annual Audit

#1 Toll revenue only, does not include investment income on toll revenue



**Appendix B: Bureau Of Turnpikes' FY 00-01 Performance Budget As Submitted  
To And Approved By The Fiscal Committee And Governor And  
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**4. Statutory Basis:** RSA 237, 238, 295, Turnpike System and RSA 237-A, Turnpike System Revenue Bonds.

**5. Program Efficiencies:**

Efficiency Ratios	State Fiscal Year			
	1998	1999	2000	2001
	Actual	Actual	Projected	Projected
Administration Expense (#1)	14%	15%	16%	16%
Contractual Service (#2)	5%	5%	5%	5%
Cost Associated With Other Agencies (#3)	20%	18%	20%	20%
Effective Use of Personnel (#4)	14%	15%	14%	14%
Costs per toll transaction (#5)	\$0.0729	\$0.0703	\$0.0733	\$0.0709
Costs per lane mile (#6)	\$6,407	\$6,350	\$7,018	\$7,091

- #1 Annual Administration Costs as a % of overall cost minus Debt Service.
- #2 Contractual Service cost as a % of overall costs minus Debt Service
- #3 Costs associated with other agencies as a % of overall costs minus debt service
- #4 Annual administration personnel and benefit costs as a % of overall personnel and benefit costs
- #5 Operating costs/number of transactions
- #6 Maintenance costs less equipment costs/lane miles

**6. Program Outcomes:**

Outcomes	State Fiscal Year			
	1998	1999	2000	2001
	Actual	Actual	Projected	Projected
Number of pavement lane miles and bridges in good condition	492 of 560 miles, 148 of 162 bridges	552 of 605 miles, 148 of 162 bridges	557 of 605 miles, 151 of 162 bridges	565 of 605 miles, 152 of 162 bridges
Percentage of Lane Miles and Bridges in Good Condition	Miles 88% Bridges 91%	Miles 91% Bridges 91%	Miles 92% Bridges 93%	Miles 93% Bridges 94%
Annual Percent Increase of Toll Transactions	5%	6%	4%	4%
Annual Percent Increase of Revenue	4%	5%	4%	3%
Revenue Bond Covenant 1.0 Test (#1)	1.25	1.13 (projected)	1.10	1.07

#1 Although the 1.0 Test is based on net operating revenues, it is primarily a function of capital expenditures in the Turnpike Expansion Program.

**Appendix B: Bureau Of Turnpikes' FY 00-01 Performance Budget As Submitted  
To And Approved By The Fiscal Committee And Governor And  
Council (Continued)**

**7. Expenditures and Funding Sources:**

Category	State Fiscal Year			
	1998	1999	2000	2001
	Actual	Actual	Projected	Projected
Debt Service	\$28,375,651	\$28,022,984	\$33,045,213	\$33,583,491
Renewal and Replacement	\$ 3,325,686	\$ 5,616,062	\$ 5,308,000	\$ 5,365,000
Operation & Maintenance	\$ 8,918,833	\$ 9,851,306	\$11,095,621	\$11,231,348
Personnel Services	\$ 8,649,517	\$ 8,832,488	\$ 9,930,857	\$ 9,824,517
<b>TOTAL</b>	<b>\$49,269,687</b>	<b>\$52,322,840</b>	<b>\$59,379,691</b>	<b>\$60,004,356</b>
Number Personnel*	236	236	240	240
<b>FUNDING SOURCE</b>				
General	0%	0%	0%	0%
Federal	0%	0%	0%	0%
Other (Turnpike)	100%	100%	100%	100%

\*NOTE: The increase in the number of positions is due to the opening of new lane miles for the South Nashua expansion including one new patrol headquarters.

**Appendix B: Bureau Of Turnpikes' FY 00-01 Performance Budget As Submitted To And Approved By The Fiscal Committee And Governor And Council (Continued)**

**Appendix 1**

**Definitions of Commonly Used Terms:**

**1.0 Test:** Revenue bond covenant which stipulates that annual net operating revenues must be equal or greater than the annual sum of revenue bond debt service, general obligation debt service and renewal and replacement costs.

**G.O. Bonds:** General obligation debt issued to the public prior to the establishment of the Turnpike Expansion Program that legally can be paid back with any funding source, but will be paid back with Turnpike revenue proceeds. These bonds were issued to fund older assets which belong to the Turnpike Expansion Program.

**Infrastructure:** All bridges, road surfaces, guard rail, structures, and facilities.

**Lane Mile:** One travel lane of roadway, one mile in length, twelve feet in width. Roadway shoulders are not considered in the calculation of highway lane miles.

**Linear Mile:** One mile of roadway, bi-directional, inclusive of all lanes and shoulders.

**Pavement Management Criteria:**

- a. Rideability Standard: A measurement of the smoothness of a road, using an instrument installed in a vehicle, measuring the opposing up and down forces of the ride.
- b. Rut Index: Amount and depth of pavement rutting
- c. Pavement Slope: Percent slope conforming to original design
- d. Pavement Cracking: Amount of pavement cracks observed per linear mile.

**Red List Bridge:** Bridges which have been identified as structurally deficient or functionally obsolete.

**Resurfacing:** The overlay and replacement of asphalt pavement.

**Revenue Bonds:** Debt issued to the public to finance the Turnpike Expansion Program in the form of bonds, which must be paid back with toll revenue proceeds.

**Ten Year Plan:** As per RSA 228.99, a long-term schedule for developing, maintaining, and improving the State's transportation infrastructure.

**Toll Transaction:** The acceptance and recording of a single toll payment by the computerized toll collection equipment.

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