

## Budget Methodologies Study

# final report

*prepared for*

**State of Washington Joint Transportation Committee**

*prepared by*

**Cambridge Systematics, Inc.**



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# Executive Summary

## BACKGROUND

In the early 1990s, the Washington State Legislative Transportation Committee (LTC) conducted the Programming and Prioritization Study (PAPS) to examine the programming process used by the Washington State Department of Transportation (WSDOT). The topics addressed in that study included the overall program structure used for the highway program; the prioritization methods used to select projects within different program categories; the capital program and budget process; and the degree to which WSDOT was complying with Legislative requirements, particularly the requirements set forth in the Revised Code of Washington (RCW) Section 47.05. As a result of that effort, significant changes were made to RCW 47.05 and to the approach used by WSDOT for highway capital programming and budgeting. These changes included a simplified program structure, a revised prioritization process, and a stronger emphasis on performance measurement and accountability.

Since the conclusion of the PAPS, the transportation budget process in Washington has continued to evolve. This evolution has been driven by a variety of factors, including: WSDOT's programming and budgeting implementation efforts; the passage of two very significant new revenue packages (Nickel and TPA) that added \$11 billion to the transportation program over a period of 16 years; natural turnover in the legislature; changes to the legislative staff structures that support the transportation committees; and most recently, the transition of WSDOT to a cabinet agency. In light of these changes and with continued interest in the transportation budget process, funding was identified in the 2005 Legislative Session and included in the Transportation Budget for the Joint Transportation Committee (JTC) to conduct an analysis of the methodology used to structure, develop, and communicate the Transportation Budget for Washington State. In September of 2005, the JTC issued a request for proposals for a Budget Methodologies Study of the Washington State Department of Transportation. Cambridge Systematics, Inc. was selected for this work.

**This executive summary presents the Study's key findings and recommendations, for which additional support and discussion can be found in the complete version of the final report.**

## STUDY OBJECTIVE AND APPROACH

The objective of the Budget Methodologies Study of WSDOT was to identify specific and practical steps that can be taken to strengthen the transportation budgeting process' role in defining, evaluating, and communicating critical

policy issues that confront Washington. The specific areas addressed by this study included:

- **Program Structure** - Are there changes to the current program structure that will improve the budgeting process, better highlight key policy choices, and better communicate the core objectives and rationale for the transportation budget?
- **Budget Process** - Are there changes to the budget process that both address the Legislature's desire for accountability and enable the Governor's Office and WSDOT to manage and deliver the transportation program more effectively?
- **Communication** - Are there changes to the organization and presentation of WSDOT's budget that will help the Legislature and the public better understand it?

The findings and recommendations detailed in this study are the result of a variety of research activities, including: interviews with approximately 20 individuals from WSDOT, the Office of Financial Management (OFM), committee chairs, ranking and other members, and staff of both House and Senate Transportation committees, the Washington Transportation Commission, and the Legislative Evaluation and Accountability Program (LEAP). The findings and recommendations also are based on a comprehensive review of existing Washington State Transportation Budget material, as well as other related studies; and a review of the budget practices in a number of peer agencies - primarily the Departments of Transportation in Arizona, Colorado and Wisconsin.

It should be noted that as required by legislation, the budget methodologies study was coordinated with a number of other efforts that either overlapped with, or were otherwise closely related. These other efforts included: WSDOT's Critical Applications Replacement Design (CARD) Project; WSDOT's Statewide Program Management (SPM) effort; Washington State's Transportation Performance Audit Board's (TPAB) Study of Transportation Goals, Benchmarks and Ten-Year Investment Criteria and Process; and OFM's Roadmap Project.

## PROGRAM STRUCTURE

This portion of the study was designed to evaluate the effectiveness of WSDOT's current program structure as a framework for resource allocation and budget decisions. Specifically:

- Does the program structure facilitate policy and budget decision-making;
- Is the program structure useful as a tool for communicating budget decisions; and
- Does the program structure provide a reasonable basis for budget implementation and program delivery?

An effective program structure addresses these management needs while supporting transparency in budget decision-making and accountability for subsequent program expenditures.

Figure ES.1 illustrates WSDOT’s existing top-level programs along with the funding initially appropriated for the 2005-2007 budget by the passage of Engrossed Substitute Senate Bill 6091. The existing programs have been classified according to whether they are considered operating programs or capital programs or a combination of operating and capital programs.

**Figure ES.1 Existing WSDOT Program Structure**  
*Capital and Operating Programs*

Capital Programs	Capital and Operating Programs	Operating Programs		
Washington State Ferries Construction \$261.4M , 5.8%	Facility Maintenance, Operations, and Construction \$36.0M, 0.8%	Program Delivery Management and Support \$49.7M, 1.1%	Toll Operations and Maintenance \$8.6M, 0.2%	Transportation Planning, Data, and Research \$50.3M, 1.1%
Improvements (Highway) \$2,303.8M , 51.0%	Traffic Operations \$77.7M, 1.7%	Economic Partnerships \$1.0M, <0.1%	Information Technology \$66.8M, 1.5%	Public Transportation \$65.0M, 1.4%
Preservation (Highway) \$649.0M, 14.4%	Rail \$124.1M, 2.7%	Highway Maintenance \$302.4M, 6.7%	Transportation Management and Support \$27.8M, 0.6%	Charges from Other Agencies \$45.4M, 1.0%
	Local Programs \$85.5M, 1.9%	Marine (Puget Sound Ferries) \$354.1M, 7.8%		Aviation \$9.0M, 0.2%

Source: Engrossed Substitute Senate Bill 6091, Washington State Legislature, approved May 2005.

The existing WSDOT program structure is logical from the point of view that it effectively subdivides WSDOT’s overall program into a mixture of modes and primary and supporting activities. It is clearly well aligned with both the way in which WSDOT is organized and how it actually manages its work. With that said, in comparing WSDOT’s program structure to the three peer agencies and based upon the stakeholder interviews a number of key themes emerged and are summarized herein.

- **A Higher-Level Roll-Up of the Existing Program Structure Should be Implemented** - With a total of 18 programs, WSDOT's current top-level program structure is significantly broader than the top-level structures used by each of the Arizona, Colorado and Wisconsin departments of transportation, which have four, five and 10 top-level categories respectively. Without exception, all of the stakeholders interviewed during the course of the study indicated that a higher-level categorization of the programs would be helpful. The major benefits of such a higher-level roll-up would be i) to improve the ability to connect budget priorities to overall policy goals, and ii) to communicate the contents and objectives of the transportation budget to the legislature and the general public.
- **The Ability to Differentiate Capital and Operating Expenses Should be Maintained** - Regardless of how prominent this distinction might be in the selected higher-level roll-up of programs, it is believed that maintaining the ability to distinguish between operating and capital components of the budget is critical.
- **The Existing Level of Detail must be Maintained and Expanded in the Areas of Ferries and Rail** - Notwithstanding the interest in a higher-level categorization of the existing programs, the study also confirms that it is critical that the program structure supports the ability to incrementally drill-down to increasing levels of detail. This characteristic was observed in the program structures of each of the three peer agencies considered. There is no question that the legislature, OFM and other interested parties want to be able to view the level of detail currently provided (i.e., beneath whatever high-level categorization that might be used initially). Furthermore, in the areas of Ferries and Rail, it is perceived that the current program structure should be extended in order to improve understanding of the different types of expenditures in these areas.

## Program Structure Conclusions

WSDOT's existing program structure includes too many top-level programs. The number (18) of top-level programs makes providing a succinct description of its overall program objectives difficult, if not impossible. Furthermore, by using the existing program structure as the starting point for communicating the budget, WSDOT effectively overwhelms many of the people that are interested in understanding it (including the general public, OFM and the Legislature). Finally, the mixture of modes and primary and supporting activities in the top-level programs makes creating/observing direct linkages between the program structure and the Governor's Priorities of Government initiative or WSDOT's own strategic initiatives challenging.

## Program Structure Recommendations

1. WSDOT should reduce the number of top-level program categories used in its initial budget presentation;

2. Maintain the ability to distinguish between operating and capital expenditures; and
3. Add subprograms beneath the existing programs for Ferries and Rail.

## **BUDGET PROCESS**

Most of the issues raised in this area focused on the complexity of the transportation budget, the difficulties in tracking and communicating project changes, and the key policies, or policy context, that drive budget decisions. The basic budget process and the budget schedule were not identified as issues. While it was anticipated that the shift of WSDOT to a cabinet agency in 2005 might have significant implications for the budget process, during the time that this study was occurring, the shifting roles among WSDOT, OFM, the Legislature, and the Transportation Commission were still evolving and therefore could not be evaluated.

While most of the participants in the transportation budget process express frustration with some aspects of the process, there also is a clear willingness to consider some changes to the existing process to improve its effectiveness. Based on the interviews conducted as part of this project and a review of the large amount of budget-related materials available, the key to improving the existing budget process lies in developing the right balance between the Legislature's desire for oversight and its need to establish accountability, and the Governor's Office and WSDOT's need to manage and deliver the budget and the State's transportation program effectively. With this context, the budget process section of the study focused on three main areas: i) project versus program appropriations; ii) tracking project scope, budget and schedule; and iii) the policies that guide the budget development process.

### **Project versus Program Appropriation**

The manner in which funds are appropriated in the budget process can have a significant impact on the complexity of the budget, how accountability for project delivery is established, and on WSDOT's ability to manage both program delivery and the use of funds from different revenue sources. Prior to the 2003 - 2005 biennium, Washington State's transportation budget was appropriated by program. The peer agency review conducted as part of this study revealed that in general, appropriating transportation funding at the program level appears to be the most common approach, although other agencies also include specific project references in some cases.

The passage of the Nickel and TPA revenue packages in 2003 and 2005, with their associated lists of projects and project costs, represented a significant shift in the State's appropriation approach. Many stakeholders felt that the identification of the specific projects to be constructed with the new revenue was critical to passing the legislation. It also provided the Legislature with an opportunity to strengthen

its role in assuring accountability for delivering these projects. On the other hand, the project appropriation process also has created additional limitations on fund transfers and the use of different funding sources, which could adversely impact WSDOT’s flexibility to manage the project and program delivery process. Table ES.1 summarizes the impacts of different appropriation approaches. Please note that the “Resulting Ability To” values are in the context of the appropriation approach only and in each case there are other ways to achieve these results.

**Table ES.1 Evaluation of Appropriation Options**

Level of Appropriation	Resulting Ability To:			
	Gain Public Support for Revenue Increase	Manage Change	Manage Funds Use and Make Transfers	Monitor Delivery
Program	Low	High	High	Low
Groups of Projects	Medium	Medium	Medium	Medium
Projects	High	Low	Low	High

### Tracking Project Scope, Budget and Schedule

Accountability for project delivery is a critical factor in establishing and maintaining support for Washington’s transportation program and budget and is a concern for all projects not just Nickel and TPA projects. Reflecting the importance of project delivery accountability a working group with representation from WSDOT, OFM, and the Legislature continues to meet and work together to establish and improve a variety of performance and accountability reporting mechanisms and systems. However, despite significant efforts to address this issue, changes in project scopes, schedules, and budgets are the single biggest cause of frustration with the budget process. Unfortunately, information (especially cost) is provided in support of the transportation budget, even though this information is often provided very early in the project development life cycle, which all but guarantees it will change.

This study identified and investigates three key dimensions to this problem:

- Inherent uncertainty and risk in the project development process;
- Variations in the specific elements or geographic extent of projects that cause confusion and raise questions about the reliability of information; and
- Limitations, or a lack of integration and consistency, among the information systems that support project development, monitoring and reporting during different project phases.

This study can report that all of these issues are well known by the participants in the budget process and significant work is occurring to address them.



## Policies that Guide the Budget Development Process

There was some discussion about the policy context for the budget. This discussion was related to the following observations:

- **Legislative Involvement** - The first observation, that was raised by a number of legislative (members and staff) stakeholders, is the recognition that legislative involvement in the project selection process increased in the recent new revenue packages (Nickel and TPA). As noted previously, the identification of specific projects in these revenue packages was widely viewed as key to their passage, however, whether or how this is consistent with the legislatively mandated project prioritization process is unclear. Ultimately, because the projects included in the revenue packages were selected from a WSDOT provided prioritized lists of candidate projects, none of the stakeholders questioned that the selected projects were/are not all good investments on the merits.
- **Diffuse Legislation Includes Conflicting Priorities** - The second observation is that repeated attempts to try to clarify the transportation investment prioritization policy in the legislation has resulted in the topic being discussed in a number of places in the legislation, and in each case differently. In essence the existing legislative guidance in the area of investment prioritization is diffuse and in some cases even conflicting. This issue was well documented in the TPAB Study of Transportation Goals, Benchmarks and Ten-Year Investment Criteria and Process, which was completed shortly after the budget study commenced. The TPAB study included a number of recommendations designed to help Washington clarify its policy.
- **Future Operating and Preservation Costs of Improvements** - The third observation, that was raised by a number of stakeholders during the study, is that although the passage of the two new revenue packages was a considerable achievement, it is not clear that sufficient thought has been given to the additional operating and preservation costs that the resulting improvements will required in the future.

## Budget Process Conclusions

In an attempt to ensure WSDOT accountability, the legislature has appropriated almost 40 percent of the current WSDOT's budget at the project level, and it has put in place strict requirements and authorization procedures that control when and how adjustments to individual project 'budgets' can be made. The extent of project-level appropriations, combined with restrictions concerning the use of different funding sources (specifically the Nickel and the TPA), have curtailed WSDOT's ability to be responsive (i.e. manage its cash flow and operations) to the types of changes that are to be expected in a diverse transportation program of the magnitude of WSDOT's. There is no debate about the need for accountability or about WSDOT's, the Governor's, and the Legislature's

commitment to the delivery of the projects identified in the Nickel and TPA revenue packages. However, ensuring accountability to this commitment can be achieved without limiting WSDOT's flexibility to the extent that is presently the case, which now only permits transfers between projects within a particular revenue package.

### **Budget Process Recommendations**

1. Clarify process for approving transfers between Nickel projects and between TPA projects;
2. Increase flexibility to transfer funds between Nickel projects and TPA projects;
3. Increase flexibility to manage multiple dedicated funding streams. For example, allow Federal funds to be used for Nickel and TPA projects and vice versa, as long as the total budget for the Nickel and TPA projects does not drop below the approved amounts;
4. For new revenue packages, appropriate funds at the program level (with associated project lists as appropriate) or by group of projects;
5. Over time, work towards consistent reporting and fund management protocols for all projects. Currently, the requirements for Nickel and TPA projects are different from those for other projects;
6. Incorporate project development milestones into the budgeting process; and
  - For external reporting purposes, select a consistent set of milestones for all projects;
  - Always indicate the current milestone when a project's scope, budget, or schedule is listed or reported; and
  - Consider reporting cost estimate ranges for more projects.
7. Revise project status reporting.
  - Define consistent definitions for on time and on budget for all projects. Building off of the recommendations of the Transportation Working Group;
  - Establish a threshold for reporting project status. For projects above the threshold, report detailed information by milestone. For projects below the threshold, report progress as a whole (e.g., percent of projects completed on time); and
  - Ensure that Critical Applications Modernization and Integration effort results in the ability to clearly map deficiencies, projects, and contracts.

## **COMMUNICATION**

A significant volume of material is produced and made available to document WSDOT's budget and report on its implementation progress. However,

WSDOT's budget is still considered too complex and difficult to understand, even by many legislators that have been involved in transportation over a number of years. The central communication issue is the need to balance the size and complexity of the WSDOT budget with an appreciation of the variation in the audiences interest in the details. The communication section of the study focused on three main areas: i) the budget presentation; ii) reporting on budget implementation; and iii) budget education. Highlights from each area are provided below:

- **Budget Presentation**

- Transportation budgets are lengthy and complex and WSDOT's is no exception;
- Multiple budget presentations are common - these may be generated by different organizations and are intended for different purposes, but it is important to understand exactly what it is that you are looking at;
- Different readers may prefer to see the budget presented in different ways, but the paper document centric form of existing presentations limit the extent to which this can be practically provided;
- The distinction between capital and operating expenses is not prominent in all transportation budgets;
- The structure used to present the budget can differ from the agencies organizational structure and/or the structure that is used to develop the budget;
- WSDOT's initial budget presentation uses more top-level program categories than each of the peer agencies reviewed;
- Locating information about WSDOT's budget is very straight forward; and
- Washington's budget legislation is very consistent with WSDOT's Current Law Budget.

- **Reporting on Budget Implementation**

- The number, depth and breadth of reports made available by WSDOT tend to overwhelm many interested observer;
- The narrative and discussion of projects and issues must be developed and made available, however, for external audiences it should be provided in support of clear and concise summary statistics;
- WSDOT's web site offers significant untapped potential as a vehicle for communicating implementation performance;
- Consistency in its reporting is key for WSDOT to maintain the highest level of credibility with and confidence of the Legislature, Governor, OFM and the general public;

- Ongoing efforts to improve the consistency of mapping projects to contracts should be pursued to the extent that it is practical;
  - Until a number of critical information systems at WSDOT are replaced there will continue to be practical limitations to WSDOT's ability to provide all desired reports in a timely and consistent manner;
  - Reporting on individual project delivery is critical, however, it needs to be balanced with reporting on system-level performance; and
  - WSDOT must strike a balance between immediate broadcasting of issues as they are encountered versus being able to accurately ascertain the extent of a problem.
- **Budget Education**
    - Education efforts associated with the transportation budget are hampered by the existing top-level program structure (i.e., it has too many program categories);
    - Transportation is sufficiently different from other state programs that even the most effective budget materials and implementation reports must be effectively supplemented to improve a reader's understanding;
    - Consideration must be given to the limited amount of time that a reader/reviewer, including legislators, will be able to dedicate to the issue of transportation and therefore material must be summarized to a reasonable level; and
    - As the level of granularity at which the legislature appropriates transportation funding increases, so to will the level of effort necessary for effective education about the budget.

## Communication Conclusions

WSDOT produces a significant amount of budget and reporting information, which is entirely consistent with the magnitude of its programs and essential for WSDOT to effectively manage its operations. However, the existing document centric approach to presenting this material combined with the current program structure and focus on reporting by source of funds, mean that there is practically no way for a person or entity outside of WSDOT to reasonably absorb and understand the information. The World Wide Web and associated technologies were created to help organize large amounts of information and facilitate navigation through it. WSDOT already utilizes its web site to present information about its budget, programs and implementation status. However, with respect to its efforts to communicate the budget and report on its implementation, WSDOT uses its web site primarily as a means to allow people to locate PDF versions of physical documents. There is a significant opportunity to address many of the communication issues raised during this study by actually presenting material in rich web pages to supplement the existing PDF documents.

## Communication Recommendations

1. WSDOT should adopt a higher-level roll-up of its programs for the initial presentation and communication of its budget;
2. A concise summary of what the budget is designed to purchase in the context of its impact on the overall system should be included as part of the budget presentation;
3. WSDOT should either incorporate lists of project directly into the budget presentation or provide links to these lists, not simply reference one or more external lists;
4. WSDOT should consider increasing the prominence with which the debt service is explained in the budget presentation;
5. WSDOT should stop referring to programs and subprograms in budget presentations and related material by alphanumeric designator, and it should strive to make all of its program names descriptive and unambiguous;
6. WSDOT should supplement the existing paper document centric presentation of the budget by implementing a web-based system that provides multiple ways of viewing the budget, facilitates navigation around the budget, and allows the budget to be viewed in varying levels of details;
7. Review, refine, standardize, and eliminate duplication from the existing external implementation reports;
8. WSDOT should expand its use of web technology to present interactive summary program delivery statistics;
9. Consider the implementation of a WSDOT program dashboard on its web site to better communicate system and program-level performance;
10. Strengthen the existing program education sessions;
11. Supplement existing education efforts with a regular session or sessions that focuses specifically on the aspects of the transportation program that make it different than other state programs. The material presented in this session also should be published on WSDOT's web site and in a form that can be readily printed; and
12. Consider the elimination of as many points of confusion as possible from initial budget presentations. Three examples that might be considered include:
  - The capital/operating distinction (e.g., when does maintenance become capital preservation? Where is the division of labor between capital and operating programs?);
  - A top-level program structure that mixes primary activities, modes, and support activities; and
  - Minimizing the extent to which project definitions change.









# 1.0 Introduction

## 1.1 BACKGROUND

In the early 1990s, the Washington State Legislative Transportation Committee (LTC) conducted the Programming and Prioritization Study (PAPS) to examine the programming process used by the Washington State Department of Transportation (WSDOT). The topics addressed in that study included the overall program structure used for the highway program; the prioritization methods used to select projects within different program categories; the capital program and budget process; and the degree to which the DOT was complying with Legislative requirements, particularly the requirements set forth in the Revised Code of Washington (RCW) Section 47.05. As a result of that effort, significant changes were made to RCW 47.05 and to the approach used by the DOT for highway capital programming and budgeting. These changes included a simplified program structure, a revised prioritization process, and a stronger emphasis on performance measurement and accountability.

Subsequent to the PAPS, the transportation budgeting and programming process continued to evolve in response to various policy issues, legislative requirements, and WSDOT implementation efforts. In light of these changes and with continued interest in the transportation budget process, funding was identified in the 2005 Legislative Session and included in the Transportation Budget by proviso for the Joint Transportation Committee (JTC) to conduct an analysis of the methodology used to structure, develop, and communicate the Transportation Budget for Washington State. In September of 2005 the JTC issued a request for proposals for a Budget Methodologies Study of the Washington State Department of Transportation. Cambridge Systematics, Inc. was selected for this work and this report documents the results of the study.

While the Budget Methodologies Study revisits some of the same issues raised during the PAPS, it goes beyond just updating earlier work for a number of reasons. First, key aspects of the institutional structure and political process for transportation budgeting have changed. Through the 1999 Session, the Legislative Transportation Committee staff provided staff support to both the House and Senate Transportation Committees. This staffing approach has been replaced, so that there are now two separate staff groups. Staff for the Senate Transportation Committee is assigned by Senate Committee Services. Staff for the House Transportation Committee is assigned by the House Office of Program Research. The LTC was dissolved in June 2005, and certain functions of the LTC, including research studies, were transferred to the newly established JTC. Furthermore, turnover in the Legislature has created an environment where members of the Legislature may not have long histories dealing with transportation issues and the transportation budget, yet they must make critical policy and budget

decisions based on the information presented to them. On the Executive side, WSDOT has been made a Cabinet agency with the Secretary reporting directly to the Governor. As a result, the Governor's office and the Office of Financial Management (OFM) have a much more direct role in developing and communicating transportation budget priorities.

In addition, state and Federal legislation affecting the budget process and funding availability have changed over the past 10 years. At the state level, RCW 47.05 has been amended a number of times since the changes generated by the PAPS, including an expansion of the specific factors that must be considered in setting project priorities. The Nickel and Transportation Partnership revenue packages have changed the budget appropriations process and resulted in new budget management and reporting requirements. At the Federal level, both TEA-21 and the recently passed SAFETEA-LU legislation affected the Federal funding structure, project funding eligibility rules, and flexibility in terms of shifting funds among Federal program categories.

## 1.2 STUDY OBJECTIVES

The objective of this study was to identify specific and practical steps that can be taken to strengthen the transportation budgeting process' role in defining, evaluating, and communicating critical policy issues that confront Washington. The specific focus areas addressed by this study included:

- **Program Structure** - Are there changes to the current program structure that will improve the budgeting process, better highlight key policy choices, and better communicate the core objectives and rationale for the transportation budget?
- **Budget Process** - Are there changes to the budget process that both address the Legislature's desire for accountability and enable the Governor's Office and WSDOT to manage and deliver the transportation program more effectively?
- **Communication** - Are there changes to the organization and presentation of WSDOT's budget that will help the Legislature and the public better understand it?

## 1.3 STUDY APPROACH

The findings and recommendations presented in this report are based on a review of existing resource materials, a series of interviews with stakeholders, and a review of practices by peer agencies in other states.

- Existing resource materials were compiled and reviewed as a starting point for this study. These materials included, but were not limited to, transportation legislation and supporting budgeting documents; previous reviews and audits conducted by the Legislature; and WSDOT documents

such as the Project Control and Reporting Manual, the Critical Applications Modernization and Integration Strategy, and the Gray Notebook.

- Approximately 20 individuals from WSDOT, the Legislature (members and staff), the Governor’s office, and OFM were interviewed. The interviews were used to explore stakeholder perceptions in the three study areas.
- Relevant practices by the Arizona, Colorado, and Wisconsin Departments of Transportation were reviewed as part of this study. In addition, the study team examined specific pieces of budget legislation from Arizona, Mississippi, Ohio, and Oregon.

## **1.4 REPORT ORGANIZATION**

The report organization reflects the objectives described above:

- Sections 2.0, 3.0, and 4.0 address WSDOT’s program structure, the transportation budget process, and the communication of the transportation budget. Each section documents the state of practice in Washington, discusses key issues, presents the results of the peer state review, and recommends improvements.
- Section 5.0 provides a summary of conclusions and recommendations.



## 2.0 Evaluate the WSDOT Program Structure

### 2.1 INTRODUCTION

The purpose of this section is to evaluate the effectiveness of WSDOT's current program structure as a framework for resource allocation and budget decisions. Specifically:

- Does the program structure facilitate policy and budget decision-making?
- Is the program structure useful as a tool for communicating budget decisions?
- Does the program structure provide a reasonable basis for budget implementation and program delivery?

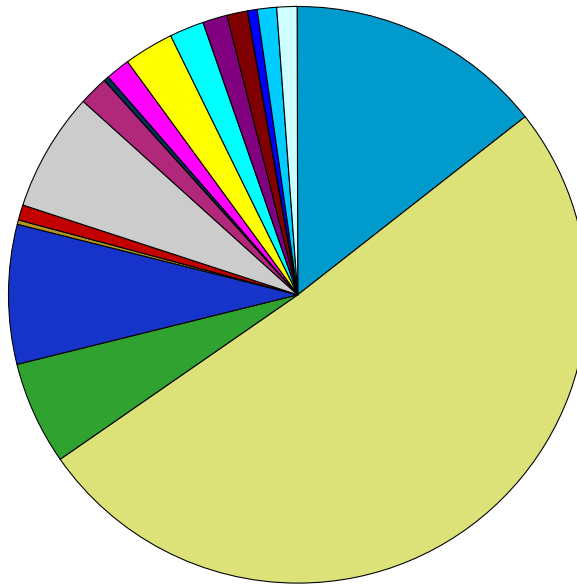
An effective program structure addresses these management needs while supporting transparency in budget decision-making and accountability for subsequent program expenditures.

### 2.2 CURRENT WSDOT PROGRAM STRUCTURE

The existing WSDOT program structure used for budgeting, and the amount of funds allocated to each of these programs in the 2005-2007 budget, are shown in Figure 2.1. While the 18 programs shown in Figure 2.1 represent the highest-level "roll-up" of the current budget, in some cases, budget documents detail the distribution of a single program appropriations at the subprogram level (e.g., for the Improvement and Preservation Programs). Furthermore, the project lists and language associated with the Nickel and TPA revenue packages effectively mean that appropriations occur at the project level for these funding sources. The current high-level program structure includes a mix of functional activities (e.g., highway improvement, traffic operations, etc.), modes (e.g., Marine, Rail, Aviation, etc.), support functions (e.g., Information Technology) and funding for local programs. Expenditures within each program and subprogram are further guided by two mechanisms:

- Budget provisos; and
- Project Lists (e.g., in the Legislative Book or LEAP List), covering:
  - Nickel Account (158 projects);
  - Transportation Partnership Account (TPA) (274 projects); and
  - Preexisting funds.

Figure 2.1 Existing WSDOT Program Structure  
2005-2007



Highway Improvements, 51.0%, \$2,303,826,000	Information Technology, 1.5%, \$66,835,000
Highway Preservation, 14.4%, \$648,995,000	Transportation Planning, Data, and Research, 1.1%, \$50,342,000
Marine (Puget Sound Ferries), 7.8%, \$354,114,000	Program Delivery Management and Support, 1.1%, \$49,711,000
Highway Maintenance, 6.7%, \$302,389,000	Charges from Other Agencies, 1.0%, \$45,430,000
Washington State Ferries Construction, 5.8%, \$261,413,000	Facility Maintenance, Operations, and Construction, 0.8%, \$35,991,000
Rail, 2.7%, \$124,081,000	Transportation Management and Support, 0.6%, \$27,758,000
Traffic Operations, 1.7%, \$77,684,000	Aviation, 0.2%, \$9,044,000
Local Programs, 1.9%, \$85,489,000	Toll Operations and Maintenance, 0.2%, \$8,615,000
Public Transportation, 1.4%, \$65,027,000	Economic Partnerships, < 0.1%, \$1,068,000 (no pie-piece visible)

Source: Engrossed Substitute Senate Bill 6091, Washington State Legislature, approved May 2005.

While the current program structure reflects the diversity of WSDOT activities and responsibilities, the amounts budgeted for the 18 programs varies widely. The top five programs represent approximately 86 percent of the total budget, whereas, the five programs with the smallest budgets account for just 1.6 percent

of the budget. As a result of the Nickel and TPA revenue packages, about 75 percent of the largest single program, the \$2.3 billion Highway Improvement program, is earmarked for specific projects.

The legislative appropriations for these programs also distinguish between two types of programs:

1. **Capital programs**, which fund projects that are longer-lived such as construction of roads, bridges, ferry terminals, and the building or refurbishing of ferry vessels.
2. **Operating programs**, which fund noncapital, day-to-day expenses of running the agency and its programs.

For programs with both operating and capital elements, separate appropriations are made for each component. Figure 2.2 shows the WSDOT program structure with respect to the three programs that are capital programs, the 11 that are operating programs, and the four with both a capital element and an operating element.

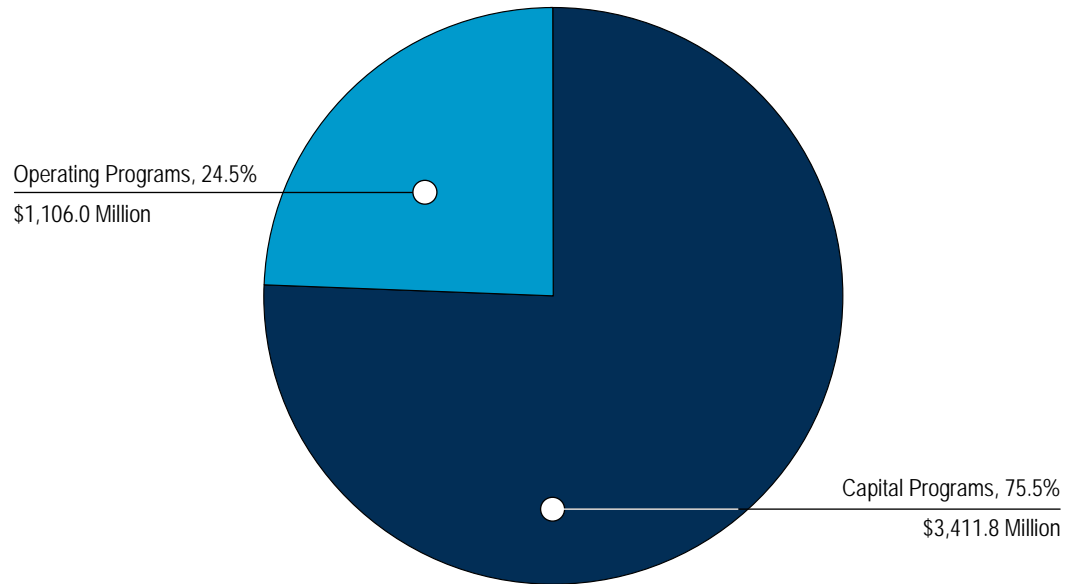
**Figure 2.2 Existing WSDOT Program Structure**  
*Capital and Operating Programs*

Capital Programs	Capital and Operating Programs	Operating Programs		
Washington State Ferries Construction \$261.4M , 5.8%	Facility Maintenance, Operations, and Construction \$36.0M, 0.8%	Program Delivery Management and Support \$49.7M, 1.1%	Toll Operations and Maintenance \$8.6M, 0.2%	Transportation Planning, Data, and Research \$50.3M, 1.1%
Improvements (Highway) \$2,303.8M , 51.0%	Traffic Operations \$77.7M, 1.7%	Economic Partnerships \$1.0M, <0.1%	Information Technology \$66.8M, 1.5%	Public Transportation \$65.0M, 1.4%
Preservation (Highway) \$649.0M, 14.4%	Rail \$124.1M, 2.7%	Highway Maintenance \$302.4M, 6.7%	Transportation Management and Support \$27.8M, 0.6%	Charges from Other Agencies \$45.4M, 1.0%
	Local Programs \$85.5M, 1.9%	Marine (Puget Sound Ferries) \$354.1M, 7.8%		Aviation \$9.0M, 0.2%

Source: Engrossed Substitute Senate Bill 6091, Washington State Legislature, approved May 2005.

Figure 2.3 shows the total funding for capital programs and for operating programs as a whole.

**Figure 2.3** WSDOT Budget for Capital and Operating Programs  
*2005-2007*



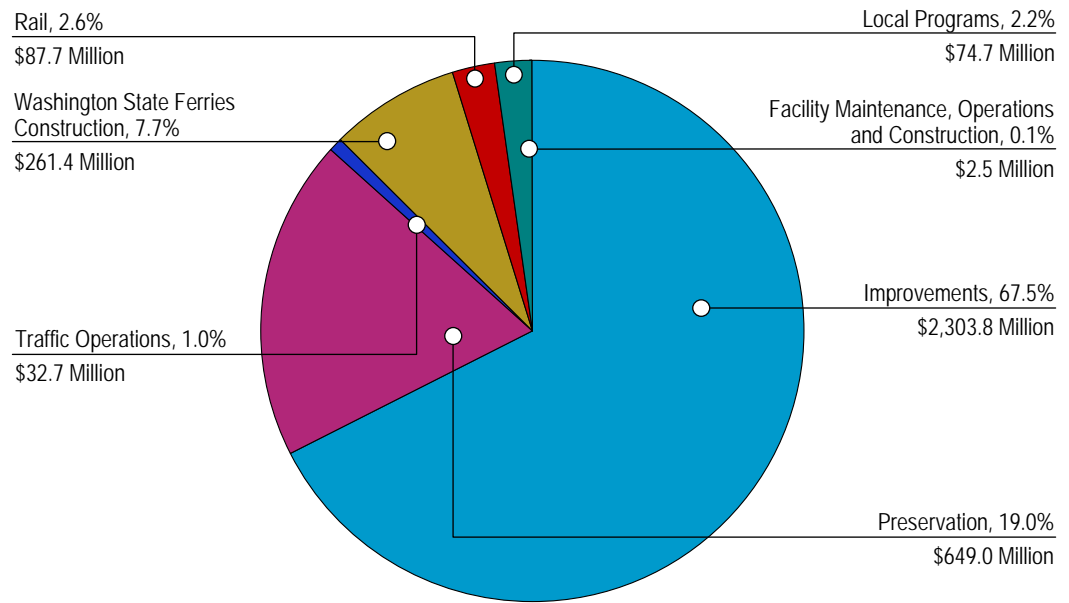
Note: Total Budget 2005-2007 ~ \$4.5 Billion

Source: Engrossed Substitute Senate Bill 6091, Washington State Legislature, approved May 2005.



Figure 2.4 provides a breakdown of funding levels for the capital programs.

**Figure 2.4 WSDOT Budget for Capital Programs  
2005-2007**

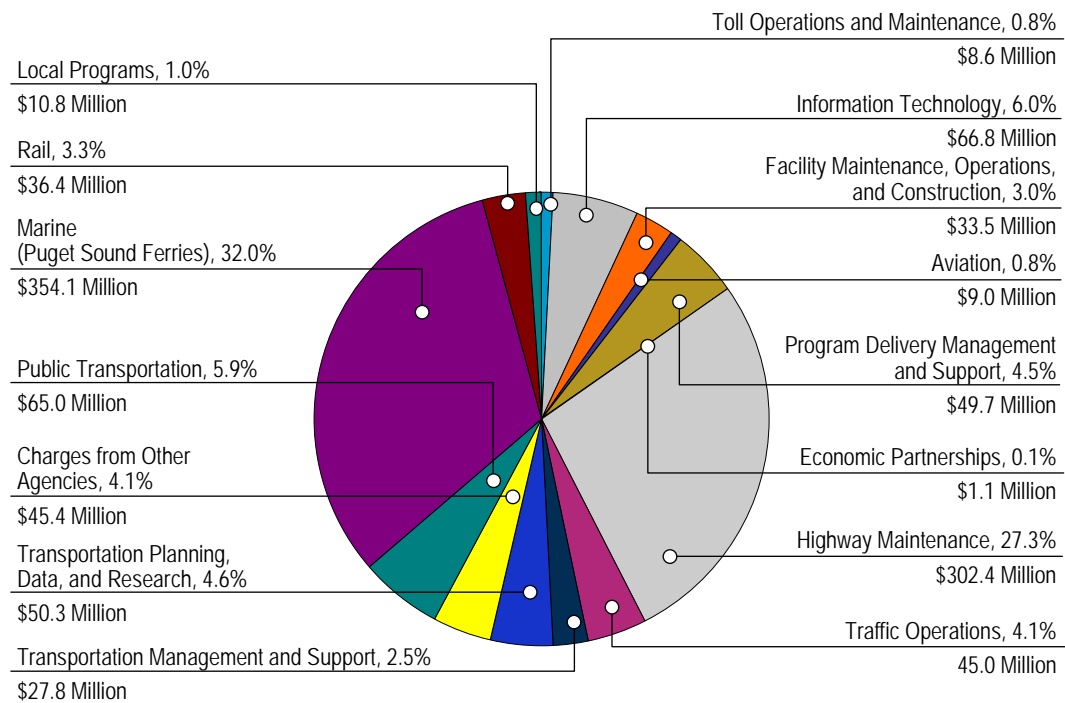


Note: Capital Program Budget 2005-2007 ~ \$3.4 Billion

Source: Engrossed Substitute Senate Bill 6091, Washington State Legislature, approved May 2005.

Figure 2.5 provides a breakdown of funding levels for the operating programs.

**Figure 2.5 WSDOT Budget for Operating Programs  
2005-2007**



Note: Operating Program Budget ~ \$1.1 Billion

Source: Engrossed Substitute Senate Bill 6091, Washington State Legislature, approved May 2005.

Debt service payments are not included within the current program structure but are treated instead as a withholding from available funds. As the implementation of the projects included in the Nickel and TPA packages continues and accelerates over the next few years, the impact of debt service in terms of the use of available funds will increase significantly.

## 2.3 PEER AGENCY REVIEW

Program structures from three other state departments of transportation were reviewed to illustrate other approaches:

- The Arizona Department of Transportation divides its highway capital program into four major subprograms;
- Colorado Department of Transportation uses five performance-based investment categories that overlay its programs; and

- Wisconsin Department of Transportation has 10 program categories, with specific major projects identified within one of these programs and another program that covers debt service on bonds.

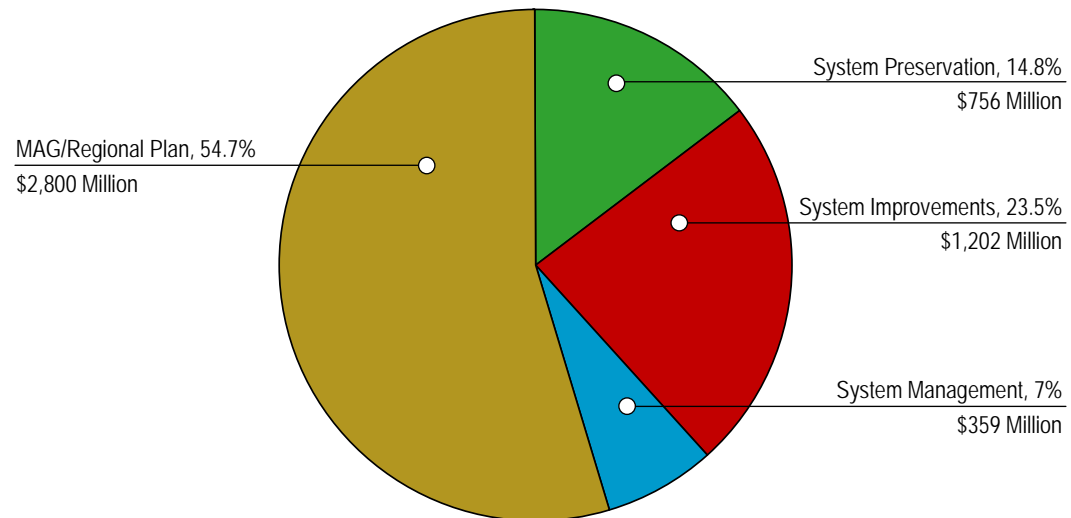
The program structures from these peer agencies are described in more detail below.

### Arizona Department of Transportation

Arizona Department of Transportation (ADOT) has some multimodal transportation responsibilities but the majority of its budget and program is focused on the highway system. Somewhat unusual among state DOTs, the ADOT capital program and budget is developed and approved by the Transportation Board with little direct involvement of either the Legislature or Governor's office. However, ADOT's operating budget is approved by the Legislature as part of the budget process for the rest of state government with little involvement of the Transportation Board. Because the capital and operating budgets have very different budgeting processes, and because we could find no complete details of the operating program, the program structure described here only reflects the capital portion of ADOT's budget.

Figure 2.6 shows the breakdown of expenditures for the subprograms of ADOT's Highway Capital Program.

Figure 2.6 Arizona DOT Highway Capital Program Structure  
2006-2010



Notes: Total Highway Program \$5.117 Billion  
ADOT identifies \$56.1 Million in airport spending separately from highways.  
ADOT has separate programs for transit (organized by grant program).

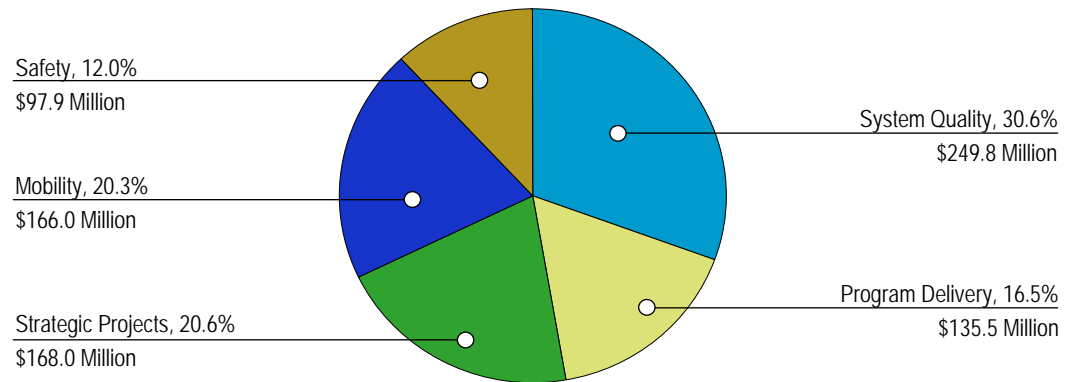
Source: Arizona Department of Transportation web site; <http://tpd.azdot.gov/pps/budget.asp>.

## Colorado Department of Transportation

Going even further than Arizona, the only piece of the Colorado Department of Transportation's (CDOT) budget that is legislatively appropriated is the department's administrative expenses (\$23.4 million in the 2005-2006 biennium). The remainder is the responsibility of the Colorado Transportation Commission and is included in the budget bill as a number of line items for information only. In terms of presenting its budget, CDOT has imposed a high-level program investment category structure on its existing programs to assist in planning, budgeting, and performance measurement. Program investment categories provide a mechanism to relate existing capital, maintenance, and operations programs to agency goals and objectives, and to provide accountability by tracking costs and performance measures. A larger number of preexisting programs with their funding sources, eligibility criteria, etc. remain in place. The broader investment category structure did not replace or substitute for these existing programs, but rather combined them within five broad areas. The five program investment categories that overlay the existing CDOT programs are illustrated in Figure 2.7 and described below:

- **Safety:** Services, programs and projects that reduce fatalities, injuries, and property damage for all users of the system (e.g., roadway safety improvements, safety education programs, and highway maintenance activities relating to signage and pavement striping and markings).
- **System Quality:** Activities, programs and projects that maintain the function and condition of the existing transportation infrastructure (e.g., pavement surface treatment, bridge repairs and rehabilitation, and highway maintenance activities related to pavements, bridges, rest areas, traffic operations devices, roadside features, roadside vegetation, and major tunnels).
- **Mobility:** Services, projects, and programs that provide for the movement of people, goods, and information (e.g., highway construction for new or improved infrastructure and to meet regional priorities, Federal programs, aeronautics, transit/intermodal investments, and highway maintenance activities related to winter snow and ice control and to courtesy patrols).
- **Strategic Projects:** Twenty-eight high-priority statewide projects that have been designated for accelerated funding, on the basis of overall priority, cost, and return on investment in addressing safety, mobility, and reconstruction needs.
- **Program Delivery:** Support functions that enable the delivery of CDOT's programs and services (i.e., administration, project support, engineering, planning, research, training, and highway maintenance activities related to support infrastructure such as buildings, grounds, and equipment).

Figure 2.7 Colorado DOT Program Structure  
2006



<p><b><u>Safety</u></b></p> <ul style="list-style-type: none"> <li>• Traffic Operations</li> <li>• Rockfall Mitigation</li> <li>• Hazard Elimination</li> </ul> <p><b><u>Mobility</u></b></p> <ul style="list-style-type: none"> <li>• Congestion Relief</li> <li>• Enhancement</li> <li>• Metro and CMAQ</li> <li>• Maintenance (Snow and Ice)</li> <li>• Part of Regional Priorities</li> </ul> <p><b><u>Strategic Projects</u></b></p> <ul style="list-style-type: none"> <li>• Strategic 28 Corridor Projects</li> <li>• Debt Service</li> </ul>	<p><b><u>System Quality</u></b></p> <ul style="list-style-type: none"> <li>• Surface Treatment</li> <li>• Bridge</li> <li>• Part of Maintenance</li> <li>• Part of Regional Priorities</li> </ul> <p><b><u>Program Delivery</u></b></p> <ul style="list-style-type: none"> <li>• Administration</li> <li>• Operations</li> <li>• Maintenance (Program Support)</li> <li>• Equipment and Property</li> </ul>
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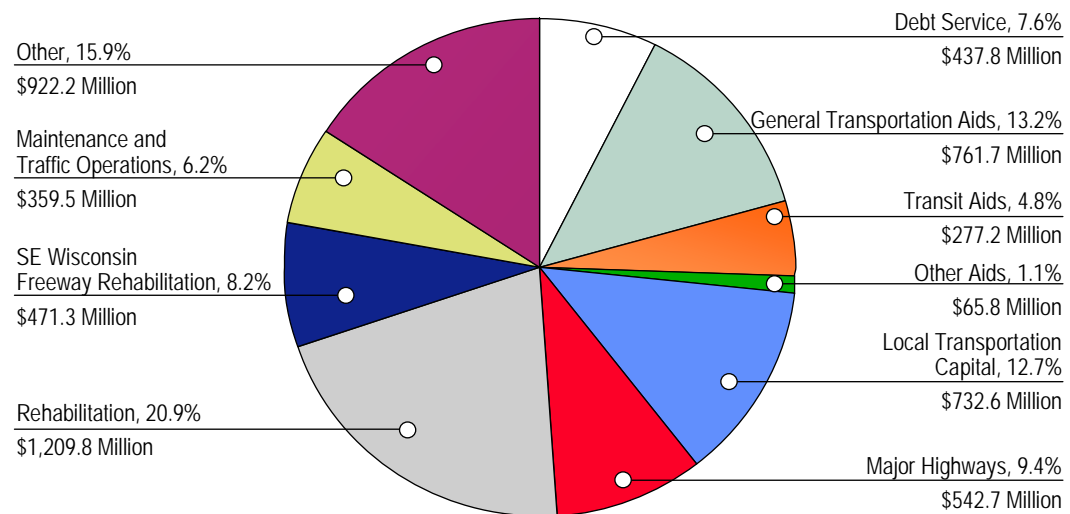
This distribution does not include TRANS Bond proceeds and is an estimate based upon general Program Budget alignments with Investment Categories, and thus not project specific.

Source: Colorado Department of Transportation Budget for FY 2005-2006, page 23; April 2005.

## Wisconsin Department of Transportation

Wisconsin Department of Transportation (WisDOT) prepares a biennial budget based on 10 program categories, including one category that funds specific high-priority major projects and another that represents the debt service on bonds issued for highway construction. Figure 2.8 shows this program structure.

Figure 2.8 Wisconsin DOT Program Structure  
2006-2007



Note: Total Budget \$5.78 Billion Final (2005 Wisconsin Act 25)

Source: *Fact Sheet: Transportation Finance Issues*, page 2; Wisconsin Department of Transportation, August 2005.

A description of these program categories are as follows:

- **Major Highways:** Development or reconstruction of highways within an existing transportation corridor;
- **Rehabilitation:** Improves deteriorated pavement and roadway base, and modernizes State Trunk Highways to meet current and projected travel needs;
- **SE Wisconsin Freeway Rehabilitation:** Designated freeway rehabilitation projects in Southeast Wisconsin;
- **Maintenance and Traffic Operations:** Includes snowplowing, applying salt, inspecting bridges, maintaining rest areas and waysides, replacing signs, installing traffic signals, and repainting highway markings;
- **Local Aid Programs:** Includes local transportation capital, general transportation aids, transit aids, and other aids;
- **Debt Service:** Payment of debt service; and

- **Other:** Non-modal activities, including long-range planning, Division of Motor Vehicle services and activities, the Wisconsin State Patrol, and DOT administrative costs.

### Peer State Summary

WSDOT uses a considerably larger number of top-level programs (18) in its budget presentation than do the three peer states – Colorado (5), Wisconsin (10), and Arizona (4). Two of the peer states, Colorado and Arizona, link their programs to system performance criteria in the following categories: mobility, safety, and system quality for Colorado; highway system preservation, system improvement, and system management for Arizona.

All of the peer states appropriate funds at the program level as opposed to the project level even for program categories that identify specific projects. With respect to budget presentation, neither Colorado or Wisconsin stress the distinction between operating and capital expenditures to the extent that occurs in Washington State. Wisconsin includes a specific program category to account for the expenditures for debt service.

## 2.4 STAKEHOLDER PERCEPTIONS AND ANALYSIS

As part of this study, interviews were conducted with representatives of the Washington State Legislature and legislative staff, Governor’s office, Office of Financial Management, the Washington Transportation Commission, and WSDOT. Key themes that emerged from these interviews regarding the transportation program structure, as well as our analysis is presented in this section.

- **A higher-level categorization of programs would be helpful in terms of connecting budget priorities to overall policy goals and to communicate the contents and objectives of the transportation budget to the legislature and the general public.** For most individuals, the list of 18 high-level program categories used now to summarize the budget is too long and represents a too diverse set of functions, modes, and activities to provide a clear sense of budget focus and priorities. This desire for higher-level roll-up of program categories to provide a stronger linkage to overall policy goals is consistent with the Priorities of Government (POG) initiative of the Governor’s office which is attempting to provide a clear policy framework for all of state government. It also is consistent with the findings of the recent Transportation Performance Audit Board (TPAB) study on transportation goals, benchmarks, and investment criteria which recommended connecting transportation plans, programs, and budgets to the relevant portion of the POG effort. While a simpler program structure at the highest level is desirable, it also is clear that the ability to drill down to a more detailed set of programs and subprograms will need to be maintained. The overarching goal is the desire for budgeting transparency: to provide information in a readily digestible summary form, but also to enable an understanding of the details when needed.

- **The program structure that encompasses ferry and rail activities should be expanded.** The highway program structure has evolved over a period of years in an attempt to enhance understanding of its various components. A similar approach should be applied to the rail and ferry areas. They should be broken out into a number of logical subprograms to facilitate better understanding and communication. For example, in the case of ferries, it may be helpful to distinguish between capital investments for *new or expanded* terminals and vessels as opposed to capital preservation of *existing* terminals and vessels. Defining some additional subprogram categories for the ferry and rail programs does not conflict with the desire to have fewer high-level programs for summarizing the budget. Rather it will provide a stronger capability to drill down and understand the nature of the investments being made in both of these areas.
- **There should be a clear distinction between the capital and operating portions of the transportation budget.** While opinions varied about the importance of this distinction, the ability to communicate clearly the portion of the budget that was devoted to “capital investments” in existing or new facilities versus spent on managing/delivering those capital projects and operating the system and all of WSDOT’s programs was felt to be a very useful in some instances for explaining the budget. As discussed earlier, the current program structure does not clearly distinguish between capital and operating expenses since some program categories include both capital and operating expenditures. However, because separate appropriations are made for capital and operating expenses within program categories that include both, a summary of overall capital and operating expenses is provided as part of the budget document. While distinguishing between capital and operating expenses is useful in explaining the budget’s purpose and impacts, there are important linkages between some capital and operating expenses that must be understood as well. For example:
  - i) highway capital preservation and a portion of roadway maintenance expenditures are both focused on keeping highway facilities in a state of good repair. However, the relationship between these capital versus operating expenditures is often not well understood and was cited as one area that causes confusion (similar capital-maintenance tradeoffs also pertain to other modes, such as ferries);
  - ii) the relationship between the capital investments in highway system expansion being made as part of both the Nickel and TPA revenue packages and subsequent operating costs, including downstream requirements for maintenance and, eventually, preservation, was another area where a key relationship between the capital and operating budgets was noted; and
  - iii) the potential to shift funds between capital and operating budgets under certain circumstances and provided that the appropriate legislative and/or other approval is given: e.g., as might be needed following a



particularly harsh winter, when costs of snow and ice control are higher than anticipated.

- **Major changes in the WSDOT program structure may require modifications to some of the information systems used to support the budget process.** Given existing legacy systems, WSDOT lacks the flexibility to change its current program structure in a significant way without corresponding changes to a number of these systems. Such changes may be too expensive and time-consuming to consider just for the purpose of changing the program structure. However, the first phase of the Critical Applications study made the strong case that the core IT applications of WSDOT need to be replaced. If a major upgrade to these systems occurs, more significant changes to the program structure could be integrated into the effort.

## 2.5 RECOMMENDATIONS AND IMPLEMENTATION OPTIONS

### Recommendations

Based on a review of WSDOT's current program structure, interviews with stakeholders, and a review of approaches used by other states we make the following recommendations with respect to program structure.

1. WSDOT should reduce the number of top-level program categories used in its initial budget presentation.

This higher-level roll-up would be beneficial for:

- Explaining the WSDOT budget to external stakeholders;
- Answering common questions about the WSDOT budget;
- Strengthening the connection between the budget and overall policy objectives and a small set of high-level performance measures; and
- Improving the alignment of the program structure with the ongoing Priorities of Government effort.

2. Maintain the ability to distinguish between operating and capital expenditures.

Notwithstanding the first recommendation which related to initial communication of the budget, we believe that the ability to be able to differentiate between operating and capital components of the budget is beneficial.

3. Add subprograms beneath the existing programs for ferries and rail.

For example, beneath the existing Washington State Ferries Construction program the following subprograms might be beneficial:

- New Ferry Construction;
- Ferry Preservation;

- Terminal Improvement; and
- Terminal Preservation.

## Implementation Options

To illustrate the first recommendation above we have developed two potential implementation options for a program structure roll-up. Both of these options meet the dual objectives of reducing the number of top-level program categories and maintaining the ability to drill down to more detailed programs and sub-programs. These approaches differ in two important respects:

- The degree to which they aggregate information across modes; and
- The degree to which they require revisions in WSDOT’s internal budgeting procedures and updates in the Department’s financial management and accounting systems in order to implement completely.

The recommended options are each neutral with respect to the decision on a capital-operating cost distinction – they can accommodate the existing split, or they can be used without it. Option A is an incremental revision to the top-level program structure. Option B is a more substantial revision at the top level, with a corresponding split in certain existing programs to be consistent with the new program “umbrella” and to provide the additional detail that stakeholders desire.

It must be noted that any change to WSDOT’s program structure requires that WSDOT reconstruct its budget over the prior ten years within the context of the new structure, and that it provide this information to the Legislative Evaluation and Accountability Program (LEAP). LEAP makes this information available in order to allow comparisons of the funding levels for the modified program over a period of ten years. As the degree of modification to the program structure increases, so will the level of effort necessary to satisfy this reporting requirement.

These options are explained and illustrated in the following sections.

### *Option A: Incremental Roll-Up*

Figure 2.9 shows the Option A program structure and how the existing 18 programs would roll up directly to seven top-level program categories.

**Figure 2.9 Option A**  
*Incremental Roll-Up of Existing Structure*

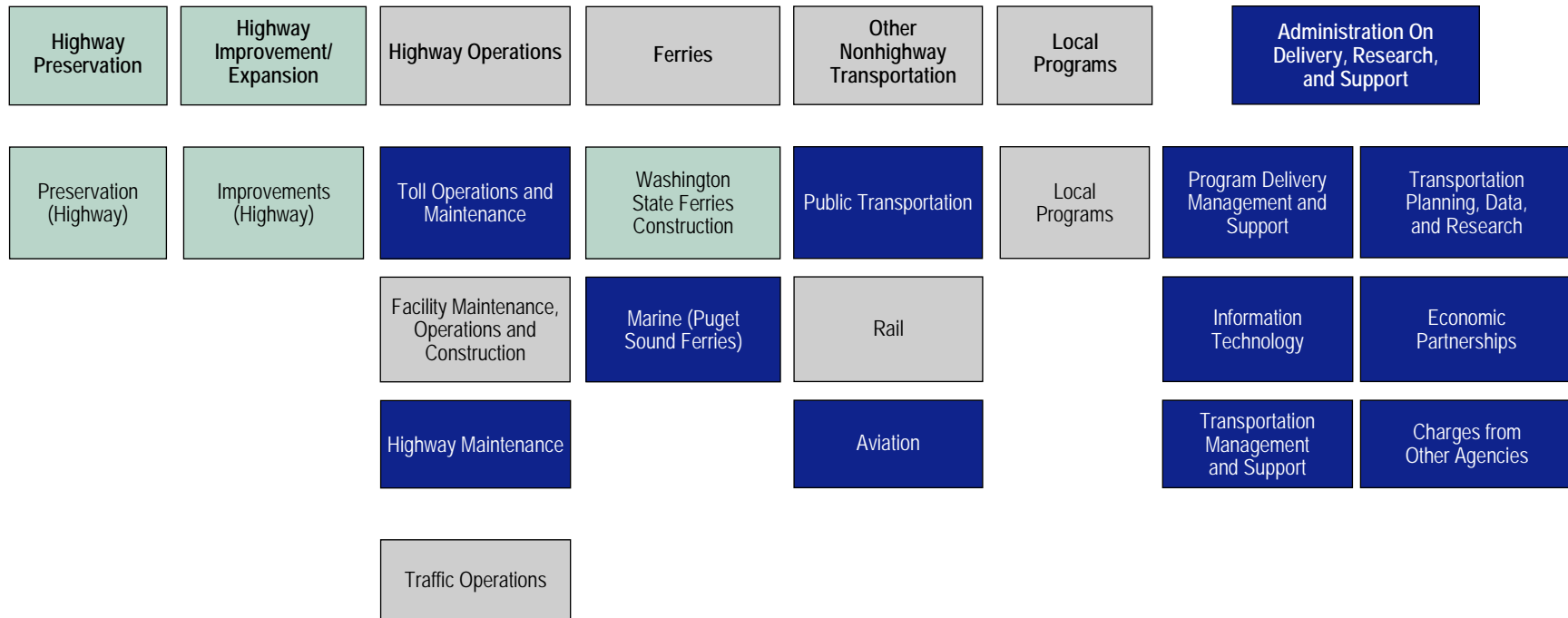
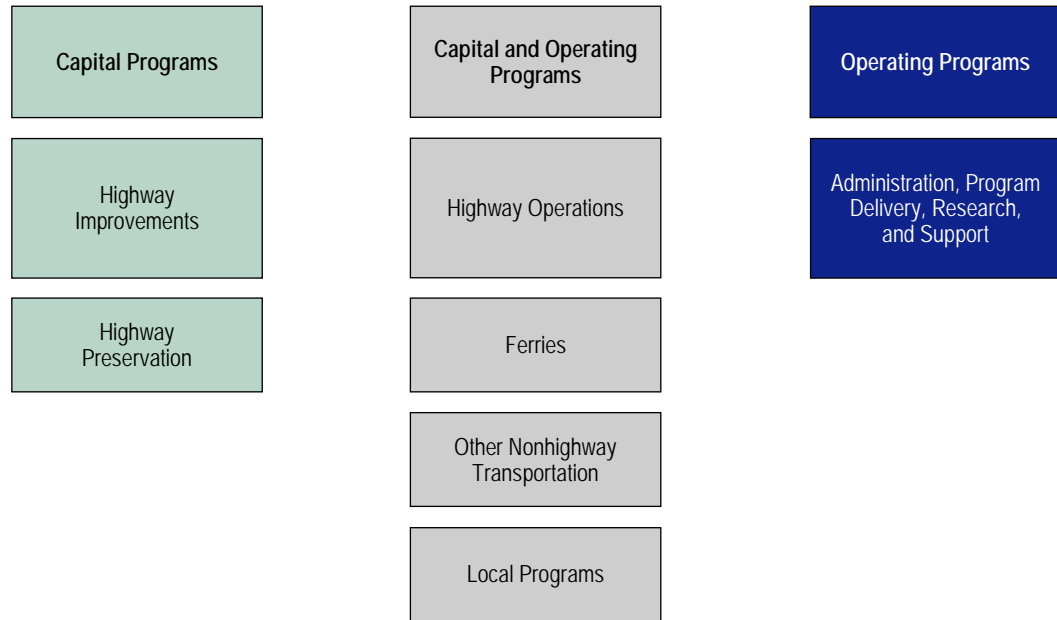


Figure 2.10 shows how the proposed new top-level program categories would align according to the capital and operating program split.

**Figure 2.10 Option A**

*Capital and Operating Split of Top-Level Programs*



The characteristics of Option A are as follows:

- Results in a smaller number of top-level program categories for budget presentation and explanation;
- Creates a stronger link between top-level program categories and key policy objectives;
- Represents an incremental step that requires no changes to the underlying existing program structure and will require minimal effort to satisfy the need to provide a ten year history to LEAP;
- The Legislature could still appropriate funds at the current program level;
- Retains separate identification of highway, ferry, and other modes in the top-level programs; and
- Capital versus operating roll-up, consistent with the current budget, could still be done.

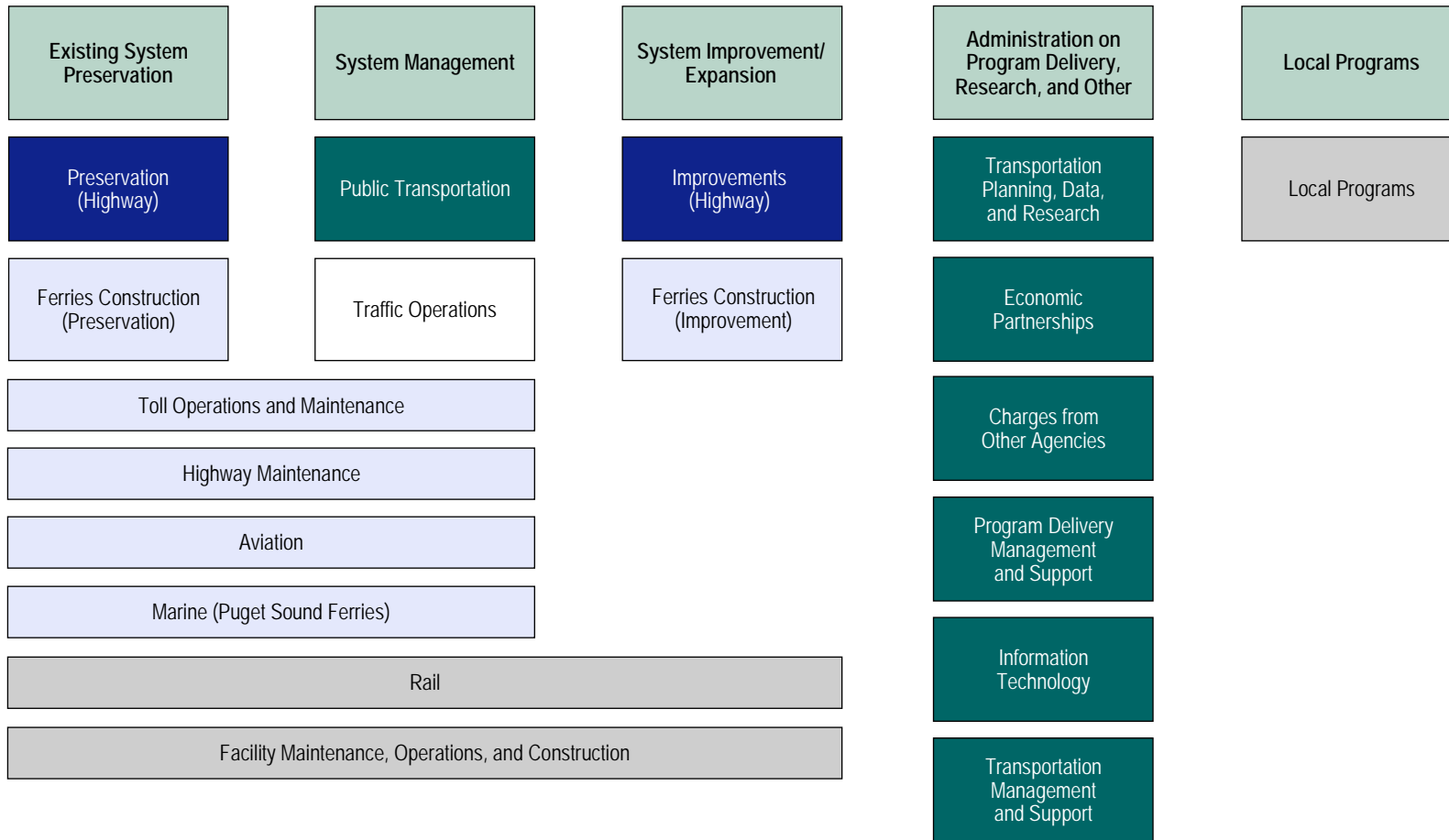
*Option B: More Substantial Roll-Up*

Fundamentally, WSDOT's activities are oriented to accomplish three primary performance objectives:

- **System Management:** Manage the operational characteristics of the State's transportation system;
- **System Preservation:** Preserve the State's existing transportation infrastructure assets and features; and
- **System Improvement/Expansion:** Improve and expand the State's transportation system.

These activities are focused across a number of modes. In addition to these three basic system-related functions, there are other responsibilities that WSDOT fulfills (e.g., in necessary support activities and pass-through of funding) that can be organized outside of these three top-level program categories to maintain complete coverage of WSDOT's budget and expenditures. Figure 2.11 shows the Option B roll-up and how the existing 18 program categories now being used would fit into this roll-up.

**Figure 2.11 Option B**  
*Substantial Roll-Up of Existing Structure*



With the Option B program structure:

- Certain existing programs would roll up directly to one of the new top-level program categories. For example, the existing highway preservation program would roll up directly to the new System Preservation category.
- Other existing programs would be split between two of the new top-level program categories. For example, parts of the existing highway maintenance program would roll up to the new System Preservation and System Management categories, respectively. Within the ferries construction program, projects that preserve existing terminals and vessels would roll up to the System Preservation category, while projects that improve terminals and vessels or provide new such assets would roll up to System Improvement/Expansion.
- Yet other existing programs would be split among three of the new top-level program categories. For example, parts of the existing Facility Maintenance, Operation and Construction program would roll up to the new System Preservation, System Management, and System Improvement/Expansion categories, respectively.

The characteristics of Option B are as follows:

- Aligns primary existing WSDOT programs with three mode-independent program categories that can be readily understood;
- Each top-level program category includes both operating and capital activities, but the ability to summarize expenditures by capital/operating category and mode could still be maintained; and
- Requires more splits of existing programs and complete implementation may be impractical until new financial management and accounting systems emerge from the Critical Applications effort. This option would require substantially more effort in order to satisfy the need for WSDOT to provide LEAP with ten years of budget history using the modified program structure.

With Option B, those program categories that address System Management, System Preservation, System Improvement/Expansion, and Administration/Program Delivery/Research and Other align very well with the main strategy categories within the mobility area of the POG Process:

- Preserve and maintain state, regional, and local transportation systems;
- Manage system operations and demand effectively;
- Improve system quality and service;
- Effective management; and
- Maximize resources.

## Summary Comparison of Options

Table 2.1 provides a summary comparison of the two options.

**Table 2.1 Comparison of Options A and B**

	Option A: Incremental Roll-Up	Option B: More Substantial Roll-Up
Overview	Reduces number of programs from 18 to 7 for budget presentation and explanation.	Aligns existing programs within five mode-independent program categories for budget presentation and explanation.
Extent of Change	Maintains current program structure for internal WSDOT purposes. Capital versus operating split, consistent with the current budget, could still be done.	Requires division of some existing WSDOT programs to new high-level programs. Ability to identify capital versus operating splits and costs by mode could still be retained.
Benefits	Creates stronger link between high-level programs and key policy objectives.	Further strengthens connection to policy objectives intermodally.
Ability to Implement	Can be readily implemented. Legislature could still appropriate at current program level.	Requires a split of some existing programs within the new high-level program structure and would require additional effort on the part of WSDOT. Until new financial management and accounting systems emerge from the Critical Applications effort the extent to which this option can be implemented will be limited.

For either option, defining specific activities and performance measures for each top-level program category and tracking performance over time can strengthen the consideration of impacts to transportation system users and the public at large. Additional activities and performance measures for highway preservation could be defined as well. Corresponding activities and performance measures related to other programs would establish the desired relationship between the transportation program structure and the POG effort, consistent with the recommendations of the TPAB report.

## Implementation Considerations

Options A and B would both provide the opportunity to use the higher-level categorization for communication purposes, and potentially for presentation of the WSDOT budget itself.

With Option A, the current program structure could still be used internally by WSDOT as the basis for budget development. Similarly, WSDOT's existing program management and financial management and accounting systems could be applied with little or no change. The main task under the new program structure would be to develop a relatively simple mechanism to accomplish the roll-up to the new, top-level program categories in a consistent, unambiguous, replicable manner.



With Option B, the current program structure could still be used for internal WSDOT budget activities in the short term, but at some point in the future it would be more efficient to migrate the internal WSDOT program structure to the new high-level categories, together with the appropriate program splits shown in Figure 2.11. With Option B, upgrade or replacement of WSDOT's current financial management and accounting systems realistically would be needed at some point to facilitate implementation and to lock-in the new program structure. Some programs and subprograms have evolved to match particular sources of funds, which were given individual accounts. Tracking funding sources according to the revised program structure may require workarounds to existing legacy systems in the short term, until such time that the legacy systems are upgraded or replaced. The basic steps in implementing Option B involve:

- For each program that would be split among more than one of the new top-level programs, a decision would need to be made about which elements included in the current program belong in each top-level program. To maintain the ability to roll up capital and operating expenditures that distinction would need to be maintained as elements of existing programs are split among the new top-level programs.
- Existing account structure may need to be modified to reflect split of some existing programs.
- Budget development and accounting system adjustments will need to be made to accommodate the split of existing programs or manual workarounds outside of these would need to be developed in the interim.
- Budget instructions and development process potentially would need to be adjusted to facilitate the new breakdowns.
- Reporting formats and procedures also would need to be adjusted.



## 3.0 Evaluate the Budget Development Processes

### 3.1 INTRODUCTION

This section evaluates the process used to develop and monitor the implementation of Washington's transportation budget. Most of the issues raised in this area focused on the complexity of the transportation budget, the difficulties in tracking and communicating project changes, and the key policies, or policy context, that drive budget decisions. The basic budget building process itself in terms of steps required and schedule were not identified as issues. While it was anticipated that the shift of WSDOT to a cabinet agency in 2005 might have significant implications for the budget process, during the time that this study was occurring, the shifting roles among WSDOT, OFM, the Legislature, and the Transportation Commission were still evolving. However, no participants in the process cited this change to a cabinet agency as presenting any significant problems and a "Working Group" consisting of staff from WSDOT, OFM, and the Legislature are meeting regularly to implement the transition in a manner that reflects the needs of all the stakeholders.

The transportation budget in Washington is large and complex and everyone involved in the budget process readily acknowledges this fact. Part of the complexity of the transportation budget process reflects the fact that it is funded by a variety of revenues sources, including Federal funds, and the use of those different sources at both the state and Federal levels involves eligibility criteria and restrictions in many cases. Also, in contrast to the budgets of most state agencies, the transportation budget has a very significant capital investment component, in addition to operating programs, and funds hundreds of individual projects across the State. Because of the time required to plan, design, and construct many projects, the full funding of these projects occurs over multiple biennial budgets. The recent Nickel and Transportation Partnership Account (TPA) funding packages, while reflecting the Legislature's commitment to transportation investment, have increased the complexity of the budget process as well. Finally, because WSDOT uses a financial management and accounting system that is different from the rest of state government, it is often difficult or not feasible to generate some reports that are consistent with the rest of the state budget.

While most of the participants in the transportation budget process express frustration with the some aspects of the process, there also is a clear willingness to consider some changes to the existing process to improve its effectiveness. Based on the interviews conducted as part of this project and a review of the large amount of budget-related materials available, the key to improving the existing budget process lies in developing the right balance between the Legislature's

desire for oversight and the need to establish accountability and the Governor's Office and WSDOT's need to manage and deliver the budget and the State's transportation program effectively. Three specific issues emerged as key areas to examine the appropriate balance between accountability and delivery:

- Project versus program appropriations;
- Tracking project scope, budget and schedule; and
- Policies that guide the budget development process.

Each of these issues is discussed in the following sections.

## 3.2 PROJECT VERSUS PROGRAM APPROPRIATIONS

The manner in which funds are appropriated in the budget process can have a significant impact on the complexity of the budget, how accountability for project delivery is established and on WSDOT's ability to manage both program delivery and the use of funds from different revenue sources. Prior to the 2003-2005 biennium, Washington State's transportation budget was appropriated by program categories. The 18 high-level categories that define the existing WSDOT program structure were identified and discussed in Section 2.0 of this report. Funding packages included a lump sum figure for each program for which a specific appropriation was established. While for some programs (e.g., Highway Improvement Program), a specific list of projects was associated with a program-level appropriation, the appropriation itself was for the entire program.

In 2003, the Legislature enacted the Nickel funding package, so called because it included a five cent increase in the state gas tax. The anticipated revenues from this increase were dedicated to a list of 158 specific projects with an estimated cost of \$3.9 billion. These projects were to be bond financed and constructed over a 10-year period<sup>1</sup> with revenues from the nickel increase covering the debt service on these bonds over a longer period. A brief scope and cost estimate was developed for each project and reference to the list of projects was included in the legislation, the 2003 Transportation Funding Package (ESHB 1163). The inclusion of specific projects in the 2003 funding package represented a major shift in how the transportation budget was appropriated – from program-level appropriations to project-level appropriations. The practice of project-level appropriations was expanded with the passage of the 2005 Transportation Partnership Revenue Package. The 2005 package included additional gas tax increases totaling nine and a half cents and identified 274 projects with an estimated cost of \$7.1 billion to be implemented over the next 16 years<sup>2</sup> again using bond financing with the debt repaid by the gas tax increase. As a result of

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<sup>1</sup> <http://www.wsdot.wa.gov/Projects/Funding/Nickel/>.

<sup>2</sup> <http://www.wsdot.wa.gov/Projects/Funding/2005/>.

both of these revenue packages 75 percent of the \$2.3 billion highway improvement program in the 2005-2007 biennial budget is earmarked for specific projects.

While the revenue packages passed in 2003 and 2005 represented a significant shift in how transportation funds were appropriated, most individuals interviewed felt that the identification of the specific projects to be constructed with the new revenue was critical to passing the legislation. In addition, the identification of specific projects and subsequent project-level appropriations also were perceived as a way the Legislature could strengthen its role in assuring accountability for delivering these projects. However, the project appropriation process also has created some additional limitations on fund transfers and the use of different funding sources that affect WSDOT's flexibility to manage the project and program delivery process.

### *Transferring Funds Between Programs and Projects*

The initial 2005-2007 Transportation Budget limited the use of Nickel and TPA funds to projects identified in those programs. It also identified the conditions and limitations under which funds could be transferred between projects within these two programs:<sup>3</sup>

- Transfers from a project may be made if the funds allocated to the project are in excess of the amount needed to complete the project;
- Transfers from a project may be made if the project is experiencing unavoidable expenditure delays;
- Transfers from a project may not be made as a result of the reduction of the scope of a project, nor shall a transfer be made to support increases in the scope of a project;
- Each transfer between projects may only occur if the Transportation Commission finds that any resulting change will not hinder the completion of the projects approved by the Legislature; and
- Transfers may not occur to projects not identified on the applicable project list.

In the initial 2005-2007 budget all transfers of funds between Nickel projects and between TPA projects had to be approved by the Transportation Commission and reported to the Legislature annually.

NOTE: The 2006 Supplemental Transportation budget transfers this approval authority from the Commission to OFM, and makes other minor changes.

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<sup>3</sup> Washington State ESSB 6091, Section 603. May 9, 2005. (After enactment ESSB 6091 becomes Chapter 313, Laws of 2005)

In terms of transfers between non-Nickel and non-TPA projects, legislation enables WSDOT to transfer Federal funds from Program Z (Operating) with state funds from Programs I (Improvements) and P (Preservation).<sup>4</sup> The transfers should not impact project prioritization, rather their sole purpose is to help WSDOT manage the projects in these programs more efficiently.

WSDOT has developed guidelines for transferring funds between non-Nickel and non-TPA projects. Table 3.1 indicates who is authorized to approve changes in project costs. This authority varies by the total cost of the project and the cost of the change.

**Table 3.1 Authorization Transfers for Non-Nickel and Non-TPA Projects**

Level	Threshold	Authorization for Approval
	Changes up to \$200K for projects < \$2M	Regional Program Managers
	Changes up to 10% for project >\$2M and <\$10M	
	Changes up to \$1M for projects > \$10M	
Minor	Changes up to \$400K for projects < \$2M	Improvement and Preservation Program Managers
	Changes up to 20% for project >\$2M and <\$10M	
	Changes up to \$2M for projects > \$10M	
	Changes above Headquarters Program Manager level, up to \$3M	Assistant Director Project Control and Reporting
Major	Changes above \$3M	Assistant Secretary Engineering and Regional Operations

Source: WSDOT Project Control and Reporting Manual.

### *Use of Federal Funds*

Because the Nickel and TPA revenue increases restricted the use of the additional funds to the specific lists of projects included in the legislation, available Federal funds generally have not been used to fund these projects. There have been some exceptions where original project cost estimates have increased and Federal funds have been used to cover the increase. While WSDOT continues to use all of the Federal aid available to Washington, the restrictions on the use of the Nickel and TPA revenue have increased the complexity of the fund management process and have required WSDOT to use Federal aid on a much larger number of smaller projects.

### **Peer Agency Review**

While the transportation budget process varies widely from state to state, very few states appropriate transportation funds at the project level. In 2002, WSDOT

<sup>4</sup> Washington State ESSB 6091. Section 310. May 9, 2005.

staff conducted a survey of other states and found that the transportation budgets in 43 states had only program-level appropriations.<sup>5</sup> However, a number of these states did identify specific projects that were to be funded by program appropriations, generally larger improvement or rehabilitation projects. Prior to the passage of the Nickel and TPA revenue packages, Washington also had project lists associated with selected program or subprogram appropriations and continues to maintain and report on these “preexisting funds” (PEF) projects.

The remainder of this section describes three examples of transportation revenue packages that rely, at least in part, on new revenue sources for their funding – a situation similar to the Nickel and TPA programs. Aspects of the legislation that are particularly relevant to Washington’s budget process are highlighted.

### *Mississippi Vision 21*

In 1987, the Mississippi Legislature passed a bill establishing a long-range highway program totaling \$1.6 billion over 14 years. This program, referred to as Vision 21, provided funds for constructing, reconstructing, and relocating four-lane highways throughout the State. In 2002, the Legislature extended Vision 21 and allocated an additional \$3.6 billion to it.<sup>6</sup> Following are highlights from the Vision 21 legislation:<sup>7</sup>

- **Appropriations by Groups of Projects.** The 2002 act provides a total of \$200 million annually for work along 133 highway segments identified in the legislation.
- **Project Information.** The 2002 legislation contains a list of segments in the following categories – immediate needs, midrange needs, and long-range needs. It does not include any project scope, schedule, or budget information. The State Transportation Commission is required to develop a project for each segment and establish an overall project schedule, based on analysis conducted by the DOT.

The original Vision 21 legislation established schedule guidelines by percent let by year. For example, it required that at least 5 percent of all contracts be let by June 30, 1991; at least 10 percent be let by June 30, 1992.

- **Use of Federal Funds.** Federal funds can be used in lieu of state funds that have been allocated to Vision 21, as long as the total amount spent on the program is not less than \$200 million annually.

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<sup>5</sup> Gregory A. Selstead, *WSDOT’s Program v. Project Appropriation Survey*, presented at the 2003 TRB Joint Summer Meetings.

<sup>6</sup> Mississippi DOT, *Vision 21 Annual Report*. June 2005.

<sup>7</sup> Mississippi Code of 1972, Section 65-3-97, as amended in 2002.

- **Managing Project Changes.** The legislation enables the Transportation Commission to adjust the project schedule as needed to efficiently deliver the program.
- **Policy Guidance.** Legislation requires the DOT to develop a construction prioritized schedule based on a needs analysis that is consistent with current standards and practices. It defines a number of factors that should be considered during prioritization, including: benefit/cost analysis, capacity analysis, user cost analysis, and land use projections. It also establishes that the number one criteria for prioritizing projects should be “year of need,” which is defined as the year in which a highway segment will drop below an unacceptable level of service.
- **Progress Reporting.** The DOT publishes a Vision 21 progress report annually. The report provides a list of projects planned for the following year. The projects are organized by milestone – preliminary engineering, right-of-way acquisition, and construction. The following information is provided for each project – route, termini (e.g., cross streets), and county.

### *Maricopa County Proposition 400*

Arizona is one of the fastest growing states in the country. This rapid population growth is driving an ever-increasing demand for transportation infrastructure and services. The most populous part of Arizona is Maricopa County. The county’s population increased by more than 500,000 between 1993 and 1999 and is expected to exceed 6,000,000 by 2040.<sup>8</sup>

In November 2004, the voters of Maricopa County passed Proposition 400, extending an existing half-cent sales tax for 20 years. The sales tax is expected to generate a total of \$15.8 billion. This revenue is to be deposited in a road fund and used to finance transportation projects throughout the county.<sup>9</sup> The State Legislature has passed a number of bills defining how these funds are to be appropriated. Highlights from the most recent legislation include:<sup>10</sup>

- **Appropriation by Program.** Legislation requires that the funds be allocated among three programs as follows:
  - 56.2 percent to freeways and highways;
  - 10.5 percent to major arterial streets; and
  - 33.3 percent to public transportation.

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<sup>8</sup> www.maricopa.gov.

<sup>9</sup> Arizona Department of Transportation, *Certification of Revenue and Construction Costs for the Regional Freeway System*. July 31, 2005.

<sup>10</sup> Arizona House Bill 2292. 2003.



- **Project Information.** The legislation does not identify projects to be funded by the sales tax. Rather, it specifies that the projects should be consistent with the regional planning agency's transportation plan. The planning agency developed a plan that was approved by the governor and the Legislature. Once approved, the specific projects in the plan were provided to voters before they voted on the proposition. The list of projects included a brief scope, an estimated cost, a five-year window in which the project would be complete, and a reason for implementing the project.
- **Transferring Funds between Programs.** Transferring funds between the three programs listed above is prohibited. The use of funds for projects not identified in the regional transportation plan also is prohibited.
- **Managing Project Changes.** The list of projects to be funded with the sales tax and changes to individual projects may be updated annually, upon approval by a Regional Council. This council also must approve any changes that materially increase the cost of a project.
- **Policy Guidance.** Legislation requires the regional planning agency to prioritize projects for inclusion the regional plan. It also provides six items that should be included in the prioritization criteria - extent of private funding participation; community impact; establishment of a complete transportation system as rapidly as practical; projects that serve regional transportation needs; projects that provide connectivity with other elements of the regional system; and other relevant criteria as determined by the regional planning agency.
- **Progress Reporting.** Legislation calls for an independent auditor to conduct a performance audit every five years to determine the merit of each project scheduled over the following five-year period. In addition the regional planning agency is required to issue an annual report on all projects and to hold a public hearing to discuss it. The annual report includes the following project-level information: brief statement of progress, actual expenditures in previous year, total planned expenditures, and year of final completion.<sup>11</sup>

### *Ohio Fuel Tax Increase*

In 2003, the Ohio legislature approved a six cents per gallon increase in the state motor fuel tax. The increase was phased in at two cents per year over three consecutive years.<sup>12</sup> It also increased Ohio's driver's license and license plate fees. It

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<sup>11</sup>Maricopa Association of Governments, *2005 Annual Report on the Status of the Implementation of Proposition 400*. September 2005.

<sup>12</sup>Ohio Revised Code 5735.29.

is anticipated that this legislation will provide the Ohio DOT with an additional \$2.5 billion over 10 years.<sup>13</sup>

- **Lump Sum Appropriation.** The legislation appropriates a specified portion of the new revenue for work on Ohio’s highways and bridges. This is a lump sum appropriation with no further guidance on allocating the funds to programs or specific projects.
- **Project Information.** The legislation defines a wide range of work activities that can be funded with the new revenue. Examples include: constructing, reconstructing and retaining state highways; maintaining and repairing bridges; purchasing, installing, and maintaining traffic signs. No specific project information is provided.

One of the reasons that this legislation was passed was the Governor’s transportation investment plan, referred to as the “Jobs and Progress Plan.” The Jobs and Progress Plan is a detailed construction program, totaling \$5 billion over 10 years. The plan anticipates that half of its funding would come from increased tax revenue and the other half would come from additional Federal funds. Although this plan and the list of projects identified in it are viewed as a key driver of the fuel tax increase, neither are referenced in the legislation.

- **Policy Guidance.** The fuel tax legislation does not include any policy guidance for prioritizing projects. However, previous legislation established the Ohio Transportation Review Advisory Committee (TRAC) to guide the Ohio DOT in selecting major capacity projects that cost over \$5 million.<sup>14</sup> It requires the director of transportation and the TRAC to define strategic initiatives and to document a set of criteria for evaluating projects in terms of their ability to support these initiatives.
- **Progress Reporting.** The fuel tax legislation does not include any new reporting requirements. However, previous legislation requires the TRAC to submit biennial reports describing the project selection process and the status of projects that are being implemented.

### *Oregon Transportation Investment Act III*

In 2003, the Oregon State Legislature passed the third phase of the Oregon Transportation Investment Act (OTIA III). This act provides \$2.5 billion over 10 years to improve Oregon’s bridges and roads. OTIA III is funded with existing

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<sup>13</sup>Taft, Bob and Gordon Proctor, *Jobs and Progress Plan, Ohio’s Transportation Investment Plan*. August 2003.

<sup>14</sup>Ohio Revised Code 5512.

state and Federal funds, and increases in driver and motor vehicle fees.<sup>15</sup> Following are highlights of the OTIA III program.<sup>16</sup>

- **Appropriation by Program.** OTIA III legislation appropriates funds to the following four programs:
  - Repair or replace bridges on state highways - \$1.3 billion;
  - Repair or replace local bridges - \$300 million;
  - Maintenance and preservation of county roads and city streets - \$361 million; and
  - Modernization program - \$500 million.
- **Project Information.** OTIA III legislation includes no project information. It requires the State Transportation Commission to select projects for implementation.
- **Managing Project Changes.** The legislation contains no language regarding project changes.
- **Policy Guidance.** Legislation requires the Commission to develop criteria for selecting projects based. It also provides a set of criteria that should be considered. For example, the criteria for selecting modernization projects are as follows: projects must be of significance to state highway system, projects must be equitably distributed across the State; priority may be given to projects that increase safety; priority may be given to projects that impact economic development; and priority may be given to projects with strong local support.
- **Transferring Funds between Programs.** Transferring funds between the three programs listed above is prohibited.
- **Project Definition.** Status is reported by project bundle - one bundle may include work on several projects and/or several bridges.
- **Progress Reporting.** The Oregon DOT prepares a monthly progress report. These reports provide significant information on each bundle. For example, Tables 3.2 and 3.3 illustrate the typical schedule and financial summaries. In addition, accomplishments and issues being worked on are described. The progress report also uses a red, yellow, green scale to communicate the status of the bundle's schedule and budget.

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<sup>15</sup>[http://egov.orenton.gov/ODOT/WHY/OTIA/OTIA3\\_introduction.shtml](http://egov.orenton.gov/ODOT/WHY/OTIA/OTIA3_introduction.shtml).

<sup>16</sup>Arizona House Bill 2041. 2003.

**Table 3.2 Example OTIA III Monthly Schedule Summary**

	Planned	Forecast	Actual
<b>Design</b>			
Kickoff			
Approved design			
Preliminary plans			
Advance Plans			
ROW			
<b>Construction</b>			
Let			8/12/04
Notice to proceed			8/08/04
Complete	11/2005	06/2006	

Source: OTIA II State Bridge Delivery Program, Monthly Progress Report. February 2006.

**Table 3.3 Example OTIA III Monthly Schedule Summary**

OTTIA III Bridge Budget			18,375
Non-OTIA III Bridge Budget			-
Total Bundle Budget			18,375
Cost Item	Budget	Forecast	Expended
PE	\$1,647	\$1,910	\$1,910
CEI	\$2,146	\$1,893	\$684
Construction	\$12,611	\$12,403	\$11,578
ROW		\$180	\$180
Utility			
<b>Totals</b>	<b>\$16,404</b>	<b>\$16,386</b>	<b>\$14,432</b>

Source: OTIA II State Bridge Delivery Program, Monthly Progress Report. February 2006.

### *Peer State Observations*

In each of the examples described above, a State Legislature has approved additional revenues explicitly for the purpose of funding transportation activities. Although the details of these examples vary widely, they differ significantly from the situation in Washington State in the following three ways:

1. None of the legislation contains project-level information;

2. In all four cases, the DOTs are provided greater flexibility for implementing the program than is afforded in the Nickel and TPA packages; and
3. In three of four examples, the Legislature plays less of an oversight role than in Washington State.

These items are discussed in more detail below.

**Lack of Project-Level Information.** None of the legislation described above appropriates funds at the project level. In the Ohio example, the funds are allocated on a lump-sum basis. The Arizona and Oregon legislation provide program-level appropriations. The Mississippi legislation appropriates funds for a group of projects. It identifies “projects” by listing segments of highway that are to be improved.

In all four examples, a body external to the Legislature and the DOT is responsible for determining the scope, budget, and schedule for the projects that will be implemented. This work is to be completed subsequent to the passing of the legislation. In Washington, these details were set before the Nickel and TPA packages were approved and were included directly in the legislation.

**Increased Flexibility for Implementing the Program.** The Ohio DOT has the greatest flexibility, because the funds are approved without restrictions on how they are distributed between programs or to specific projects. The Oregon and Arizona legislation provide flexibility in terms of which projects will be implemented. However, they both prohibit transferring funds between the programs. This restriction is consistent with the situation in Washington in which funds cannot be transferred between the Nickel and TPA programs.

Since none of the legislative examples identify specific projects, they do not restrict transfers between projects. Furthermore, the Mississippi legislation explicitly allows for the use of Federal funds for the approved program, as follows:

...Federal funds may be utilized in lieu of state funding that would otherwise be utilized...provided, however, that the annual total amount of funding for the construction, reconstruction, and relocation of the highway system described in this section shall not be less than it would have otherwise been without the utilization of such additional Federal funds.<sup>17</sup>

**Decreased Oversight Role for the Legislature.** In three of the four examples, the Legislature appears to play less of an oversight role than in Washington State. This is evident in the timing and level of detail of status reports. For example, the Ohio DOT is required to submit a status report to the Legislature every two years. In Arizona and Mississippi, progress reports are submitted annually. In contrast, WSDOT develops quarterly reports and the Oregon DOT develops monthly

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<sup>17</sup>Mississippi Code of 1972, Section 65-3-97, as amended in 2002.

reports. In terms of the level of detail provided, the Mississippi report provides only project location and milestone information. The Arizona report provides expenditures in the previous year, total planned expenditures, and year of final completion. WSDOT and the Oregon DOT provide much more project information, including a comparison of planned versus actual schedule and budget data.

### Comparison of Appropriation Approaches

Table 3.4 summarizes the strengths and weaknesses of three appropriation approaches for programs or subprograms that are intended to fund capital projects:

1. Program appropriations without reference to any specific projects;
2. Program appropriations where a list of projects is associated with the appropriation; and
3. Project appropriations.

WSDOT's current budget is in fact a mix of all of these appropriation approaches though, as described earlier, a significant portion of the capital program now is appropriated by project as a result of the Nickel and TPA revenue packages. The impact of these different appropriation approaches on the issues identified in Table 3.4 is discussed below.

**Table 3.4 Evaluation of Appropriation Options**

Level of Appropriation	Resulting Ability To:			
	Gain Public Support for Revenue Increase	Manage Change	Manage Funds Use and Make Transfers	Monitor Delivery
Program	Low	High	High	Low
Groups of Projects	Medium	Medium	Medium	Medium
Projects	High	Low	Low	High

**Legislative and Public Support for Revenue Increases.** Appropriating funds for specific projects in the transportation budget can help generate support for revenue packages because the Legislature identifies where the new funding will be spent and maintains a high degree of control (i.e., at the project level) to ensure that only designated projects will receive this funding. Identification and commitment to specific projects in the Nickel and TPA packages is widely viewed as the key to their approval. Project-level appropriations maintain the greatest degree of Legislative control over how funds will be spent. However, a program-level appropriation with an associated list of projects also allows the Legislature to direct how funds will be spent though monitoring and controlling the use of funds at the project level would need to occur outside of the appropriations process in this case.

**Managing Changes to Project Scopes, Schedules, and Budgets.** As a project moves through the project development cycle (from definition to design to procurement), more details regarding right-of-way acquisition, environmental mitigation, risk mitigation strategies, and construction requirements are determined. As this information becomes available, a project's scope, schedule, and budget can change dramatically. Often the first time a specific project is identified in the budget process, either as a project-level appropriation or as part of a list of projects associated with a program-level appropriation, the project is at an early stage of the project development of process when the likelihood of some changes to scope, schedule, and budget is greatest. WSDOT's ability to manage such changes is likely to be most constrained if project-level appropriations are involved and some adjustments to projects and overall programs may even require Legislative approval. WSDOT typically has more flexibility to make adjustments to projects that are associated with a program-level appropriation but in these cases an effective method of monitoring and reporting changes to the Legislature is critical requirement for effective accountability.

**Managing Multiple Revenue Sources and Fund Transfers.** Washington's transportation budget consists of several state and Federal revenue sources and there are a variety of eligibility requirements and constraints on the uses of some of these sources of funds. The wider the variety of revenue sources and the more restrictions on use of various funds, the more complex and expensive it becomes to manage the program and match available funds to needs. Both the Nickel and TPA revenue packages placed restrictions on the use of those funds and constraints on transfers of funds among projects included within each package. The law that establishes the Nickel and TPA revenue packages (including specific lists of projects), as well as the bond authorizations associated with each, is such that all projects in these packages are henceforth and by definition state-funded. The proceeds of any bond sales that were authorized in conjunction with the revenue packages MUST be utilized to complete the specific set of projects identified. WSDOT is therefore precluded from substituting any of the proceeds from these bond sales with other eligible funding sources, such as Federal funds, and hence the set of projects that WSDOT can apply its Federal funds to is limited. While this approach provides a significant degree of Legislative control over the use of the funds for specific projects, there may be other approaches that assure that designate projects are completed while provide more flexibility for fund management. For example, there are significant reporting requirements for projects that use Federal funds. Using Federal funds originally designated for several non-Nickel projects to fund one large Nickel project, and transferring the same amount of Nickel funds to other projects might 1) decrease the cost of administering the Federal aid program, and 2) have no impact on the total amount of transportation money spent on the Nickel projects.

**Monitoring Project Delivery.** All of the parties involved in the transportation budget process understand that accountability for delivering projects is critical, whether they are included in project appropriations or not. For projects included in the Nickel and TPA packages, this accountability is built into the

appropriations process since each project represents a line item in the budget. However, WSDOT, working with the Governor's office, OFM and the Legislature has established a variety of reporting mechanisms to monitor and report on project deliver for all projects. The method of appropriation should not affect the need to provide any information required by the Legislature to provide oversight on project and program delivery.

A final issue that was raised about project versus program appropriations was a concern about **project prioritization**. As mentioned earlier, the identification of specific projects in the Nickel and TPA packages was viewed as necessary to approve these packages. Furthermore, all of the projects included in these packages were considered good investments and priority projects. However, a number of Legislators interviewed for this project expressed concern about Legislative involvement in project selection moving forward. Current legislation (RCW 47.05) requires an objective and consistent priority setting process. Continued project-level appropriations may lead to questions about the basis for project selection over the long term and the appropriate role of the Legislature.

## Recommendations

The passage of the Nickel and TPA revenue packages provided significant new funding for critical transportation needs in the State of Washington. Both packages involved project-level appropriations for the first time and reflected a very strong commitment on the part of the Legislature to identify and control the projects implemented with these new revenues. While the desire of the Legislature to establish clear accountability and control over the use of the new revenue packages is understandable, using a project appropriations process as the method to provide the desired control has created additional constraints and complexity to WSDOT's ability to manage and deliver the program as effectively as possible. The objective of the recommendations in this area is to strike a balance between accountability and effective program management which provides the Legislature with the ability to ensure that funds are used for the intended purpose while giving WSDOT appropriate flexibility to manage the program while meeting Legislative expectations.

1. Clarify process for approving transfers between Nickel projects and between TPA projects (based upon the latest language in the approved 2006 Supplemental Transportation Budget legislation).
2. Increase flexibility to transfer funds between Nickel projects and TPA projects. In developing these guidelines, build on the existing guidelines for non-Nickel or non-TPA projects (Table 3.1) and suggestions in the Statewide Program Management Strategic Plan.
3. Increase flexibility to manage multiple dedicated funding streams. For example, allow Federal funds to be used for Nickel and TPA projects and vice versa, as long as the total budget for the Nickel and TPA projects does not drop below the approved amounts. Before a transfer is approved, a cash



flow analysis should be conducted in order to insure that it will not hinder the completion of the projects approved by the Legislature. A similar transfer clause was part of ESSB 6091, Section 603, and could be expanded.

4. For new revenue packages, appropriate funds at the program level (with associated project lists as appropriate) or by group of projects. The Legislature's requirements for accountability and oversight can be met without using a project-level appropriation process. Associating project lists with program-level appropriations, defining monitoring and reporting requirements to track project delivery and defining the limits of WSDOT flexibility to manage the program delivery process without addition Legislative involvement and action can provide the Legislature with the ability to establish accountability while strengthening WSDOT's ability to effectively manage the project delivery process.

### 3.3 TRACKING PROJECT SCOPE, BUDGET, AND SCHEDULE

Accountability for project delivery is a critical factor in establishing and maintaining support for Washington's transportation program and budget and is a concern for all projects not just Nickel and TPA projects. Reflecting the importance of project delivery accountability WSDOT, OFM and the Legislature have worked together to establish a variety of performance and accountability reporting mechanisms and systems. However, despite significant efforts to address this issue, changes in project scopes, schedules, and budgets are the single biggest cause of frustration with the budget process. There are three key dimensions to this problem:

- Inherent uncertainty and risk in the project development process;
- Variations in the specific elements or geographic extent of projects that cause confusion and raise questions about the reliability of information; and
- Limitations, or a lack of integration and consistency, among the information systems that support project development, monitoring and reporting during different project phases.

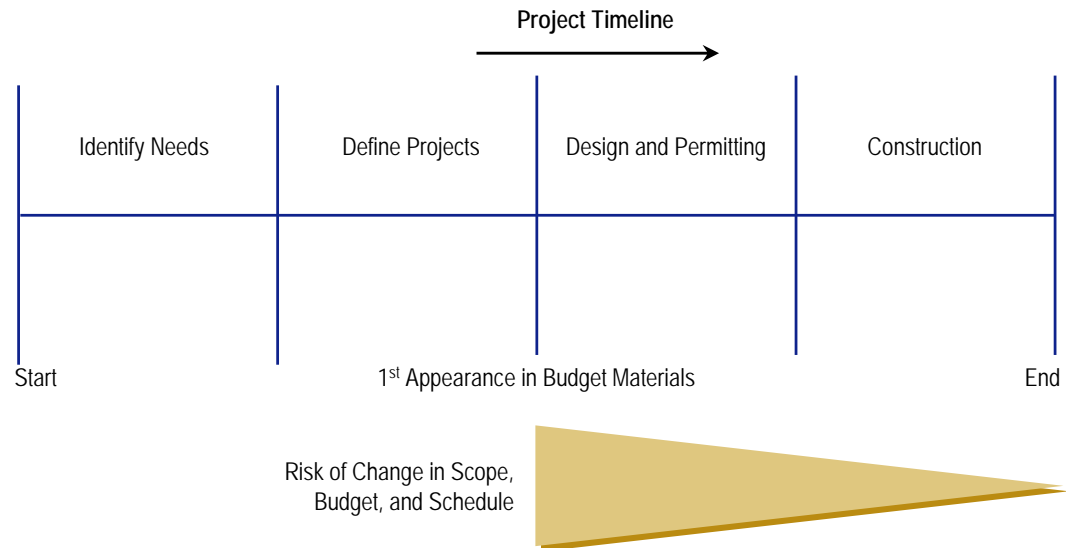
All of these issues are well known by the participants in the budget process and significant work is occurring to address them.

#### *Project Development Process*

A simplified view of WSDOT's project development process is illustrated in Figure 3.1. Locations where existing deficiencies exist or where there are opportunities to address future needs are identified for a wide range of types of improvement (capacity, operations, safety, preservation, etc.). These needs are prioritized and projects are defined to address the highest priority needs consistent with overall funding available. For projects that are funded, a sequence of

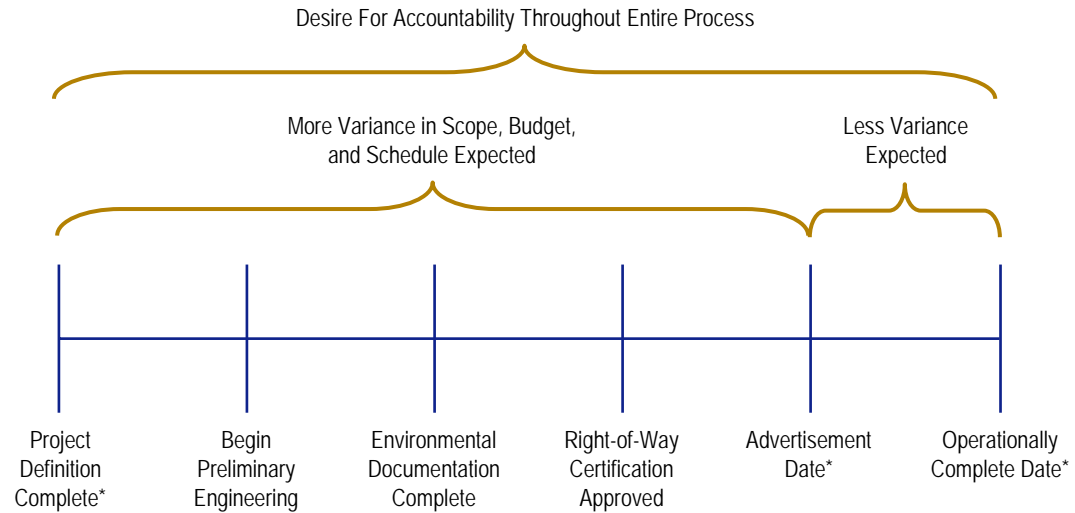
project development activities occur and lead to construction and completion of the proposed improvement.

Figure 3.1 Project Development Process



Often the first time that a project appears in budget materials (either as a project-level appropriation or on a project list associated with a program or subprogram appropriation) is very early in the project development process just after the project definition has been completed. At this stage of the process, a project will have a preliminary scope, schedule, and budget associated with it and the likelihood of changes to that preliminary scope, budget, and schedule is very high. As project development continues the uncertainty associated with scope, schedule and budget decrease though some risk of change continues during the construction period as illustrated in Figure 3.2.

Figure 3.2 Accountability Throughout Project Development Process



\* Indicates milestones used for non-Nickel and non-TPA projects

Project uncertainty and risk can be mitigated during the design process. For example, one of the objectives of WSDOT's Cost Estimate Validation Process (CEVP) is to flag project risks and assess their potential impact on a project's cost and schedule. Design adjustments can then be made in order to mitigate some of the largest risks. Although there is a desire for accountability throughout the entire process, it is appropriate to increase the level of accountability once design is complete and the project is advertised. Tracking projects in more detail from this point forward provides a more stable benchmark from which to assess project delivery.

Most of the participants in the transportation budget process recognize the uncertainty in the project development process. However, because preliminary cost, schedule, and scope estimates are often included in budget materials subsequent changes invariably cause confusion and often raise questions about accountability and the effectiveness of WSDOT's project delivery process. To address these concerns, WSDOT has made a significant effort to communicate the nature of the uncertainty in the project development process, develop nationally recognized methods to develop better cost estimates or cost ranges explicitly reflecting risk, and communicating both changes to project scope, budget and schedules and the reasons for the changes. The key issues affecting the budget process itself are:

- What project milestones to track and report progress;
- What accountability expectations are reasonable for projects at different stages of development;
- How are changes to project scope, budgets and schedules to be reported and with what frequency;

- Who has the authority to approve changes and manage overall program delivery; and
- What is the impact of changes to specific projects on the overall program.

While none of these issues are new, the Nickel and TPA packages have increased the concern with and scrutiny given to the inherent uncertainty and risks in project development and delivery. First, the new packages have greatly increased the size of WSDOT's overall capital program. Second, the Legislature's commitment to fund a specific list of projects with each package has naturally increased concern for project delivery and oversight. Finally, the new project-level appropriation process associated with these revenue packages has placed new constraints and restrictions on WSDOT.

In response, a Transportation Working Group, consisting of staff from WSDOT, OFM, and the Legislature has been established to address these and other concerns associated with the transportation budget and budget implementation reporting as part of the transition of WSDOT to a cabinet agency. The 2005-2007 Transportation Budget (ESSB 6091) requires WSDOT to submit a quarterly progress report on the scope, budget, and schedule of all approved projects. The Transportation Working Group has developed a set of proposed milestones for use in these reports. The recommended milestones are provided in Table 3.5. The table also indicates the types of projects for which each milestone would be reported and the proposed definition of "on time" for each milestone. "On budget" criteria also have been suggested for some of these milestones. As shown in Table 3.5, the number of milestones reported to the Legislature for Nickel and TPA projects is greater than for projects funded by preexisting funds.

**Table 3.5 Proposed Milestones**

Milestone	Nickel and TPA Projects	Other Projects	On Time Criteria
Project definition complete	√	√	Within six weeks of date planned in biennial budget
Begin preliminary engineering	√		Within six weeks of date planned in biennial budget
Environmental documentation complete	√		Within six weeks of date planned in biennial budget
Right-of-way certification approved	√		Within six weeks of date planned in biennial budget
Advertisement date	√	√	Within the quarter planned in the biennial budget
Operational complete date	√	√	Within the quarter planned in the biennial budget

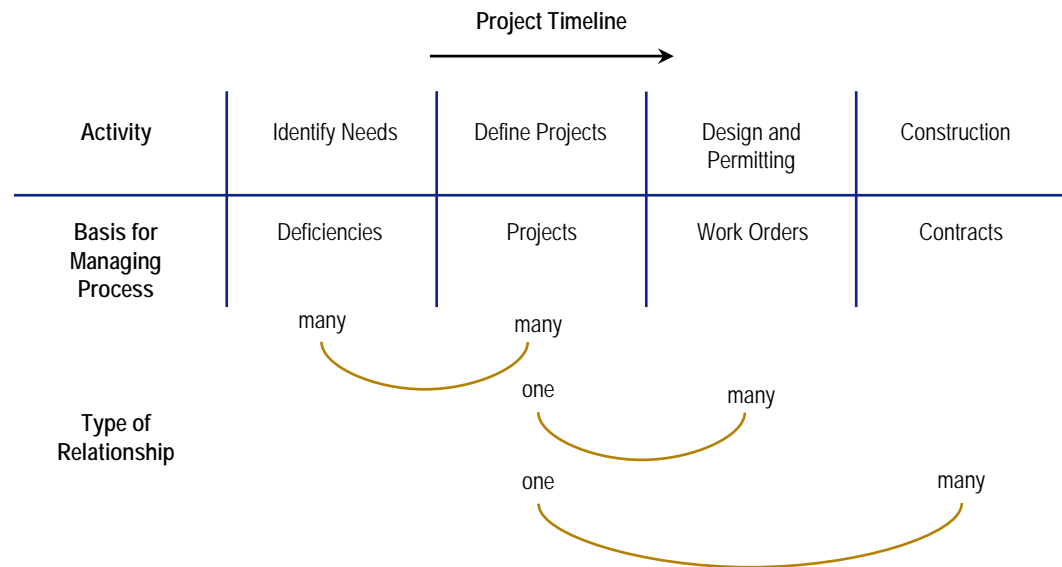
Source: Transportation Working Group, Draft Definitions, November 2, 2005.

### *Project Composition and Extent*

As discussed in the previous section, the scope, budget and schedule for any large capital project are likely to change during the project development process and these changes can create confusion and concerns about accountability even if the program delivery process is well managed. A further cause of confusion is

the fact that the geographic extent of a particular project or the specific elements that may be included in a project may change. For example, a significant improvement in a particular corridor may be divided into a series of individual projects reflecting a logical implementation sequence or budget constraints. Also, as illustrated in Figure 3.3, individual projects may involve many work orders and multiple contracts to be accomplished. As a result, what may appear as a single “project” in material supporting a particular transportation budget, may be subsequently broken up in different ways for the purposes of tracking and reporting progress.

**Figure 3.3 Mapping Deficiencies to Contracts**

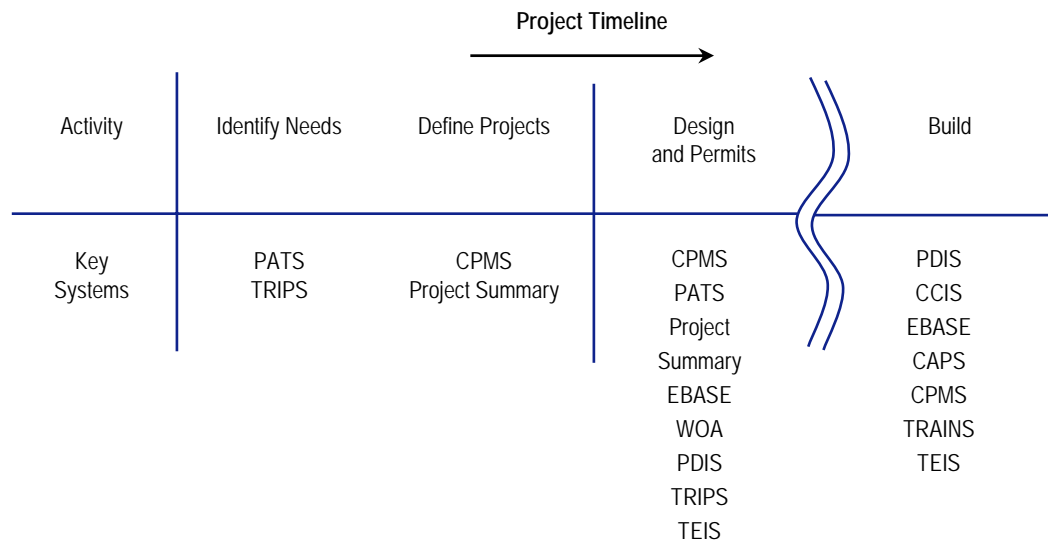


The only real concern with any of these aspects of the project delivery process is the challenge they pose in terms of consistent and understandable reporting on project status. The lack of ability to easily roll up reports on multiple projects, work orders, and contracts can make consistent tracking of a project from the project definition milestone to the operationally complete milestone difficult. To address part of this issue the Transportation Working Group is defining a series of different types of projects to attempt to facilitate consistent reporting.

### *Information Systems*

As shown in Figure 3.4, WSDOT uses a variety of interdependent information systems to support the project development cycle. For example, at least eight systems play a role in the design and permitting phase, and at least seven are used during the construction phase. Much, if not all, of the information desired by the Legislature already is available in one or more of these information systems. However, the information is dispersed among different systems, the systems are not integrated, and differences in how projects are categorized and identified make consistent reporting difficult if not practically speaking impossible.

Figure 3.4 Systems That Support Project Development and Reporting



These systems include:

- **CAPS (Contract Administration and Payment System, 1983)** - Used to track administrative and payment information for highway and ferry construction contracts;
- **CCIS (Construction Contracts Information System, 1990)** - Used to track construction contract details (e.g., start and end dates and percent complete);
- **CPMS (Capital Program Management System, 1987)** - Supports the development, delivery, and monitoring of the capital highway program;
- **EBASE (Estimate and Bid Analysis System, 1998)** - Used to analyze historic bid data and develop engineer's estimates;
- **PATS (Priority Array Tracking System, 1997)** - Used to track highway deficiencies, which also are referred to as needs;
- **PDIS (Project Delivery Information System, 2002)** - Used to schedule capital highway projects;
- **Project Summary** - Used during the initial scoping effort for capital highway projects;
- **TEIS (Transportation Executive Information System)** - Used by WSDOT, OFM and the legislature and staff to facilitate legislative planning and oversight of the transportation budget;
- **TRAINS (Transition Reporting and Accounting Information System, 1991)** - Accounting system for WSDOT's entire budget;

- **TRIPS (Transportation Information Planning and Support System, 1986)** – Used to track and analyze traffic, inventory, and safety data for Washington’s roadway network; and
- **WOA (Work Order Application, 2002)** – Used to track funding approval for various stages in the project development cycle for capital highway projects.

Detailed descriptions of the functionality and use of these systems are documented in the Critical Applications Modernization and Integration Strategy report.<sup>18</sup> The objective of the applications study is to develop a long-term strategy for improving WSDOT’s information systems, which have been developed independently of one another over the past 25 years. However, until these systems are upgraded information system limitations make it difficult for WSDOT to provide project information in a consistent and timely manner.

Compounding the issue of technology is the fact that WSDOT operates its own main accounting system (TRAINS), which is different than the Agency Financial Reporting System (AFRS) that is used by the rest of State government (AFRS). Furthermore, differences in the way these systems handle certain basic concepts further complicate WSDOT’s efforts to produce reports in a format that is consistent with reports from the rest of State government. One example of an area where such differences exist is the way in which labor categories, FTEs and positions are handled.

The net result of these issues is that the level of confidence in the information received by the Legislature decreases. This leads to additional requests for information. WSDOT already struggles to satisfy basic reporting requests from the Governor and Legislature and often only does so through excessive manual collation and manipulation of the data.

## Recommendations

The inherent uncertainty in the project development process in terms of changes to a project’s initial scope, budget, and schedule, implementation of projects in different phases, using multiple contracts and limitations of existing information systems make consistent tracking of project scope, budgets and schedules throughout the entire project development process a significant challenge. However, there are a number of significant ongoing efforts that are addressing exactly these challenges which over time should result in significant improvements. The Transportation Working Group is establishing consistent project milestones, project definitions and criteria for establishing project delivery accountability (e.g., “on time,” “on budget,” etc.). The Critical Applications Study has recommended a significant upgrade and improvement to WSDOT’s information systems. The Statewide Program Management project is designed to give WSDOT

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<sup>18</sup>Eclipse Solutions, *Critical Applications Modernization and Integration Strategy, Final Report*, Version 2.2, prepared for WSDOT. December 30, 2005.

the ability to deliver a significantly increased capital program and provide consistent internal and external reporting on project status and overall program delivery. These efforts are likely to significantly reduce the frustration associated with tracking project scope, budgets, and schedules. The recommendations included here are consistent with these other ongoing efforts and in some cases could simply be integrated into those efforts.

1. Over time, work towards consistent reporting and fund management protocols for all projects. Currently, the requirements for Nickel and TPA projects are different from those for other projects.
2. Incorporate project development milestones into the budgeting process.
  - For external reporting purposes, select a consistent set of milestones for all projects. Currently, the milestones recommended for Nickel and TPA projects are different from those reported for Preexisting Fund projects. While part of the reason for this difference is the capability of existing information systems and the availability of some historic data for PEF projects, having different milestones for different categories of projects is likely to cause confusion. The smaller number of milestones being used for PEF projects should be sufficient to track project delivery.
  - Always indicate the current milestone when a project's scope, budget, or schedule is listed or reported. Clearly communicate the meaning of each milestone in terms of expected variance in scope, budget, and schedule. For example it is anticipated that the details for a project in preliminary design will change significantly compared to a project that has been advertised.
  - Consider reporting cost estimate ranges for more projects. WSDOT's CEVP has exposed the public and the Legislature to the use of a range of estimates for a project, rather than a single value. Consider expanding this approach to more projects, particularly ones that are early in the project development process.
3. Revise project status reporting.
  - Define consistent definitions for on time and on budget for all projects. Building off of the recommendations of the Transportation Working Group.
  - Establish a threshold project value for reporting project status. For projects above the threshold value, report detailed information by milestone. For projects below the threshold value, report progress for a particular group of projects (e.g., percent of projects completed on time).
  - Ensure that Critical Applications Modernization and Integration effort results in the ability to clearly map deficiencies, projects, and contracts. This is the fundamental shortcoming in WSDOT's current suite of information systems with regards to reporting consistent and timely project information.



### 3.4 POLICY CONTEXT FOR BUDGET

A recent study by the Washington State Transportation Performance Audit Board (TPAB) identified the wide range of guidance on transportation policy objectives, performance goals and benchmarks and investment criteria that are established in a variety of state statutes, Federal regulations and various WSDOT plans and other documents.<sup>19</sup> In most cases, there is no indication of the relative priority of different policy objectives or criteria. A few examples of the policy guidance for evaluating transportation investments in Washington include:

- RCW 47.05 establishes criteria that should be considered during development of the transportation improvement program:
  - Traffic congestion, delay, and accidents;
  - Location within a heavily traveled transportation corridor;
  - Synchronization with other potential transportation projects, including transit and multimodal projects, within the heavily traveled corridor;
  - Support for the State's economy, including job creation and job preservation;
  - The cost-effective movement of people and goods;
  - Accident and accident risk reduction;
  - Protection of the State's natural environment;
  - Continuity and systematic development of the highway transportation network;
  - Consistency with local and regional transportation plans;
  - Public views concerning proposed improvements;
  - The conservation of energy resources;
  - Feasibility of financing the full proposed improvement;
  - Commitments established in previous legislative sessions; and
  - Relative costs and benefits of candidate programs.
- RCW 47.10.012 contains nine policies in response to recommendations by the Blue Ribbon Commission on Transportation:

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<sup>19</sup>Lund Consulting, Inc., *Study of Transportation Goals, Benchmarks, and Ten-Year Investment Criteria and Process, Final Report*, prepared for the Washington State Transportation Performance Audit Board. February 15, 2006.

- Improve safety;
  - No interstate highway, state route, or local arterial shall be in poor condition;
  - No bridge shall be structurally deficient. Safety retrofits shall be performed on those state bridges at the highest seismic risk levels;
  - Traffic congestion on urban state highways shall be significantly reduced and be no worse than the national mean;
  - Delay per driver shall be significantly reduced and be no worse than the national mean;
  - Per capita vehicle miles traveled shall be maintained at 2000 levels;
  - Non-auto share of commuter trips shall be increased in urban areas;
  - Administrative costs as a percentage of transportation spending shall achieve the most efficient quartile nationally; and
  - The State's public transit agencies shall achieve the median cost per vehicle revenue hour of peer transit agencies, adjusting for the regional cost of living.
- The Federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) establishes the following criteria for prioritizing Federally funded projects:<sup>20</sup>
    - Support economic vitality;
    - Increase safety;
    - Increase security;
    - increase accessibility and mobility;
    - Protect and enhance the environment, and quality of life;
    - Enhance the integration and connectivity of the transportation system;
    - Promote efficient system management and operation; and
    - Emphasize the preservation of the existing highway system.

In light of what it refers to as an “excessive list of investment criteria” in current state legislation, the TPAB study goes on to recommend new legislation to establish “overarching goals for the state transportation system and include investment criteria that directly relate to key performance measures and system objectives.” Furthermore it recommended that transportation goals, objectives, and measures be reported consistently in the long-range transportation plan, investment plans, and the budget.

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<sup>20</sup>United States Public Law 109-59, Section 5303. August 10, 2005.

While the scope of this budget study was considerably narrower than the TPAB effort, the lack of a clear and understandable policy framework that guides the overall budget was a concern expressed by a number of stakeholders interviewed as part of this project. This concern was most often expressed as a question about “What are we really buying with the state transportation budget” in terms of impact on the system and improved transportation service. While WSDOT does make an effort in some of the budget material developed and in other reports to address this question, given the complexity of the transportation budget and the understandable interest in specific projects, it is not surprising that overall policy directions are difficult to communicate and get lost in the “details.”

The Priorities of Government (POG) initiative is one effort attempting to provide a clearer policy framework for all of state government and the part of the effort that is related to transportation might serve as a starting point for clarifying the policy objectives driving the transportation budget. The TPAB study referenced earlier organized its recommendations for transportation performance measures around the POG structure. Whether the POG model is used as the starting point or not, a clearer policy framework for the budget is desirable. The recommendations in Section 2.0 of this report concerning the development of a simpler roll-up of the transportation budget program structure also will make it easier to tie the budget to some overall policy objectives.

Two other aspects of the policy framework guiding the transportation budget were raised during the course of this study.

- It is recognized that many of the policies guiding the preservation and improvement of the transportation system represent long-term goals and each biennial budget must reflect and be understood in the context of these long-term goals. This point is most easily made with respect to the preservation program where maintaining the State’s transportation facilities in a state of good repair requires commitment to a long-term expenditure plan. For some program and subprogram categories explaining the impact of the budget in terms of these longer-term objectives would increase understanding and support.
- To the extent that the Nickel and TPA packages are expanding the transportation system and will increase the need for system maintenance, operations and ultimately preservation costs future needs projections should reflect these long-term costs.



## 4.0 Evaluate the Process and Materials for Communication

### 4.1 INTRODUCTION

A significant volume of material is produced and made available to document WSDOT's budget and report on its implementation progress. However, WSDOT's budget is still considered too complex and difficult to understand, even by many legislators that have been involved in transportation over a number of years. The central communication issue is the need to balance the size and complexity of the WSDOT budget with an appreciation of the variation in the audiences interest in the details. The goal of this section is to document the current communication process, methods, and media (i.e., static PDF versus dynamic web presentation) that are used to communicate the WSDOT budget, and to make recommendations that might improve communications. The remainder of this section will consider the communication issue in the context of three key areas:

1. Budget Presentation;
2. Reporting on Budget Implementation; and
3. Budget Education.

### 4.2 BUDGET PRESENTATION

#### Description of the Current Process

The WSDOT budget is documented in a variety of forms as described below.

#### *WSDOT Current Law Budget*

This approximately 100-page document, available as a PDF, is produced by WSDOT for each biennial budget. The document is divided into four main sections (Executive Summary, Operating Program Detail, Capital Program Detail, Sources, and Uses of Funds) and a number of appendices.

The operating program section details the prior biennium's budget for each top-level program, carry forward adjustments, current law proposals, and any adjustments that are required due to proposed structure changes and puts them in the context of the current 10-year plan. A brief description of each program is provided as well as descriptions of any proposed one-time items.

The capital program section similarly details for each top-level program the current budget as well as the prior biennium's budget and the 10-year plan amount.

In some cases, for example, the 2005-2007 Ferry Construction Program, the document further breaks down spending into a small number of major categories (Terminal Preservation, Vessel Preservation, Emergency Repairs, and Terminal Improvements). The document identifies the portion of each program budget that will be funded from preexisting funding versus funds stemming from new revenue packages (for example, the Nickel fund). This document does not specify every project that will be worked on, but it does refer to other lists of projects, and in certain cases does identify individual projects by name.

The sources and uses of funds section describes each fund source, recent history, and details the forecasted revenue for the current biennium and throughout the remainder of the 10-year plan. This section also includes information concerning bond authorizations, projected bond issuance levels, and debt service payments.

The appendices cover a variety of topics, including WSDOT's Business Directions, Organizational Chart, Excerpts from the Gray Notebook and a section detailing the distribution of WSDOT staff between the operating and capital programs.

### *Legislative Budget Notes*

After each session, the staff of the House and Senate Transportation committees, with the help of the Legislative Evaluation and Accountability Program (LEAP) staff, prepare the Legislative Budget Notes for the current Transportation Budget, 78 percent of which is made up of WSDOT's programs (the remainder of the budget is allocated to the Washington State Patrol, the Department of Licensing and then a number of transportation-related committees, commissions, boards and departments). Legislative Budget Notes are prepared for the entire state budget and the Transportation section is just one component of a much larger document. The Transportation section comprises a number of different pieces, but in general it covers five major areas (Agency Summary Report, Budget Highlights, Funding Information, Project List, and Agency Detail Reports).

The Agency Summary contains by agency and organization the listing of programs and subprograms for which appropriations have been made in the current budget. In the case of the 2005-2007 document, it specifies the appropriation made for each of the Preservation and Improvement subprograms (I1, I2, I3, I4, I7, P1, P2, P3).

The Budget Highlights section provides descriptions of major activities that will be undertaken, as well as summarizing compensation adjustments, transportation-related vetoes taken by the Governor, accountability measures, and summary information regarding sources and uses of funds.

The Funding Information section details the contribution of the different fund types (State, Federal, Bonds, and Local) to the overall operating and capital budget. In addition, this section presents the contribution of the major fund sources (for example, Transportation 2003 (Nickel) Account, Motor Vehicle Fund,

and Transportation Partnership Account) and details the contribution from these sources to each program for which an appropriation is made.

The Project List section details by program and subprogram the expenditure projections for each project specified in the current law on a biennium by biennium basis for a period of 10 years.

The Agency Detail Report for WSDOT begins with a summary presentation of the distribution of the budget between major programs and the split between operating and capital expenses. It also illustrates the relative contribution of different fund sources (Bonds, State, Federal, and Local). The remainder of this section presents each program in turn in alphabetical order of the program letter designator (for example, Program B – Toll Operations and Maintenance – Operating). For each program and subprogram the document shows the expenditure authority of the prior biennium (if applicable), the maintenance level (i.e., the amount to continue consistent with the last biennium’s activity excluding any one time or other special expenditures), and then lists all proposed policy changes along with their estimated cost in tabular form. The sum of the maintenance level amount and all of the policy change amounts equals the total budget for the program.

For each policy change item a brief description is provided after the summary table. For example, in the 2005-2007 legislative budget notes “New Law” policy change line items were included in the first four out of five improvement subprograms. These “New Law” items were to cover work that would be done on projects that were included in the proposed Transportation Partnership Account.

### *House Transportation Committee – Transportation Budget Overview*

This nine-page document (for 2003-2005) provides a brief summary of the revenue issues facing the legislature in 2003 as well its desire to improve accountability and efficiency of the transportation system. It then summarizes the outcomes of the 2003 session, specifically with respect to addressing these issues. With respect to new funding, it projects the revenue that will be generated by the Nickel gas tax increase and license fee changes over 10 years, and identifies the changes to the system that will result from the completion of the Nickel projects. It identifies the major investments that will be made over the next 10 years in the areas of highways, non-highway mobility, ferries and clean air and water protection. Finally it presents a summary of both the projected revenue and transportation budget for the 2003-2005 biennium as well as placing it in context of the last 10 years. The budget is summarized by operating and capital expenditures for WSDOT and all other agencies, with the largest WSDOT programs in each area being identified.

### **Peer Agency Review**

CS reviewed the transportation budget presentations of three other states, Arizona, Colorado, and Wisconsin. The review focused on the web sites of the

state DOTs, Governor's office, and the legislatures, as well as other relevant reports. Given the resources available for this review, it is possible that we might have missed some material. However, in each case we did review the most significant information sources used to communicate the transportation budget.

### *Arizona*

At its highest level, the Arizona Department of Transportation's (ADOT) budget is comprised of two distinct pieces, an 'operating' component, approved by the legislature, and a capital component, approved by the Transportation Board with no legislative involvement. The operating component of the budget is developed by ADOT and gets included in the annual legislative budget process. We were unable to find any information about the operating component of the budget on ADOT's web site. However, it is identified in the Governor's Executive Budget documentation and for 2006 the Governor's request was for \$394.5 million. The summary document identified the major components of this operating budget as maintenance, administration and the Motor Vehicle Division which have budgets of approximately \$110 million, \$40 million and \$87 million respectively.

The capital component of the budget (\$1.35 billion in 2006), which uses Federal and other funds not appropriated by the legislature, is detailed on ADOT's web site. ADOT summarizes its capital budget consistent with the State's Priority Programming Law, for a five-year period. At the highest level it differentiates between activities in the areas of highways and aviation, the former being the primary focus of our review and making up almost 90 percent of the overall budget.

In the highway arena, ADOT presents its capital budget in four main areas: System Preservation, System Improvements, System Management, and Maricopa Association of Governments (MAG)/Regional Plan. The first three of these areas are statewide programs, while the latter is an aggregation of all investments that will be made in Maricopa county. Maricopa county is singled out because of the dedicated funding that it receives.

The primary document detailing ADOT's capital budget is its Five-Year Transportation Facilities Construction Program. This approximately 100-page document is updated each year by ADOT and must be adopted annually by the State Transportation Board. The document provides a description of the priority programming process, summarizes available funding, and details projected expenditures. Projected expenditures for each of the five years in the plan are summarized by county and by program, subprogram, and activities, and a listing of projects by county also is provided. Table 4.1 is a reproduction of the Resource Allocation Summary provided in the 2006-2010 version of the document. The document does not provide any historical context for the current budget, although ADOT's web site provides access to each year's plan back to 1987.



**Table 4.1 Arizona Department of Transportation Resource Allocations**  
*In Thousands of Dollars*

		2006	2007	2008	2009	2010	Total
<b>System Improvements</b>	Corridor Improvements	\$935,988	\$563,244	\$520,310	\$682,316	\$540,441	\$3,242,299
	Major Capacity/Operational Spot	\$91,971	\$102,306	\$56,880	\$2,877	\$23,250	\$277,284
	Minor Capacity/Operational Spot	\$22,568	\$23,754	\$22,225	\$21,950	\$21,950	\$112,447
	Roadside Facilities Improvements	\$42,398	\$36,256	\$10,044	\$9,444	\$18,944	\$117,086
	TEA-21 High-Priority Projects	\$0	\$0	\$5,000	\$0	\$0	\$5,000
	<b>Summary Total</b>	<b>\$1,092,925</b>	<b>\$725,560</b>	<b>\$614,459</b>	<b>\$716,587</b>	<b>\$604,585</b>	<b>\$3,754,116</b>
<b>System Management</b>	Development Support	\$87,992	\$82,292	\$77,292	\$77,292	\$80,592	\$405,460
	Operating Support	\$7,076	\$6,926	\$6,926	\$6,986	\$7,086	\$35,000
	Program Operating Contingencies	\$18,027	\$16,800	\$16,800	\$16,800	\$17,100	\$85,527
	<b>Summary Total</b>	<b>\$113,095</b>	<b>\$106,018</b>	<b>\$101,018</b>	<b>\$101,078</b>	<b>\$104,778</b>	<b>\$525,987</b>
<b>System Preservation</b>	Bridge Preservation	\$18,903	\$29,150	\$16,750	\$16,750	\$16,750	\$98,303
	Operational Facilities	\$14,375	\$21,005	\$23,150	\$22,800	\$23,800	\$105,130
	Pavement Preservation	\$80,698	\$116,233	\$105,300	\$101,500	\$101,500	\$505,231
	Public Transit	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$32,500
	Roadside Facilities	\$6,400	\$4,000	\$4,000	\$4,100	\$4,100	\$22,600
	Safety Program	\$12,690	\$18,118	\$14,140	\$14,140	\$14,140	\$73,228
	<b>Summary Total</b>	<b>\$139,566</b>	<b>\$195,006</b>	<b>\$169,840</b>	<b>\$165,790</b>	<b>\$166,790</b>	<b>\$836,992</b>
<b>Total Resource Allocation Total</b>		<b>\$1,345,586</b>	<b>\$1,026,584</b>	<b>\$885,317</b>	<b>\$983,455</b>	<b>\$876,153</b>	<b>\$5,117,095</b>

In addition to ADOT's Five-Year Transportation Facilities Construction Program, CS reviewed the Arizona Governor's budget materials. A key to understanding the Arizona state budget is the distinction between four funding categories (State General Fund, Other Appropriated State Funds, Non-Appropriated State Funds, and Federal Funds). Not all of the documents clearly cover the distinction, or necessarily present all funding categories. Therefore, in order to get a complete picture of Arizona's transportation budget it was necessary to review multiple Governor's office documents. One interesting observation from this review is that the Governor's budget materials appear to introduce the distinction between operating and capital expenditures, something which was absent from ADOT's presentation.

### *Colorado*

Approximately \$800 million (98 percent) of the Colorado Department of Transportation's (CDOT) 2005-2006 budget was included in the annual Long Appropriations bill as four non-appropriated line items, i.e., they are included for information only. The only legislatively appropriated component of CDOT's 2005-2006 budget is a \$23.4 million portion of the Program Delivery program category that relates to CDOT's administrative expenses. The rest of CDOT's budget is the responsibility of the Colorado Transportation Commission.

Each year CDOT in consultation with the Transportation Commission prepares a budget document for the review and approval of the Governor. For the 2005-2006 budget this 74-page document includes summary information about the transportation budget process, the resource allocation process, revenue projections for the budget period (including a history of certain revenue sources), and summarizes the proposed distribution of the budget between what CDOT refers to as investment categories. Section 2.0 of this report includes a pie chart showing the distribution of the 2005-2006 budget between these investment categories. The document further breaks down the budget into program areas beneath the investment categories and Table 4.2 shows this detail from the 2005-2006 budget document.

**Table 4.2 Colorado Department of Transportation Allocation by Investment Category**  
*As of April 21, 2005*

Investment Category	Allocation
PROGRAM AREAS (All or part)	
	April
<b>SAFETY</b>	
Safety	12,773,142
Rockfall Mitigation	3,000,000
Rockfall Mitigation-Gaming Funds	0
Hazard Elimination	14,047,000
Hot Spots	2,100,000
Traffic Signals	1,427,000
Safety Enhancements	5,339,000
Maintenance (Traffic Operations)	59,256,223
Regional Priorities	0
Total SAFETY	97,942,365
SYSTEM QUALITY * FY 2006 ST to do in FY 2005	
Surface Treatment * 42,401,957	100,684,043
CDOT Bridge and Special DI for Culvert Repair	32,892,000
Local Bridge	8,886,000
Maintenance	85,955,944
Rest Area	0
ITS Maintenance	3,737,000
Maintenance-Gaming Funds	0
Regional Priorities	17,690,400
Total System Quality	249,845,387
<b>MOBILITY</b>	
Congestion Relief	0
Enhancement	10,888,000
Metro	34,536,000
CMAQ	26,985,000
Maintenance (Avalanche, Snow, and Ice)	42,227,142
ITS Investments	4,373,000
Gaming Construction	0
Division of Aeronautics – non Admin.	12,139,034
Transit	9,365,782
Regional Priorities	25,485,600
Total MOBILITY	165,999,558
<b>STRATEGIC 28 PROJECTS</b>	
7 <sup>th</sup> Pot Projects	0
Debt Service	167,990,650
Total STRATEGIC PROJECTS	167,990,650
<b>PROGRAM DELIVERY</b>	
Operations	59,767,835

Investment Category	Allocation
Maintenance (Program Support)	23,453,314
TC Contingency	24,661,243
Road Equipment	12,648,130
Capitalized Operating Equipment	3,534,403
Property	7,422,443
Metro Planning	3,921,276
<b>Total PROGRAM DELIVERY</b>	<b>135,408,644</b>
<b>TOTAL CDOT INVESTMENT CATEGORIES</b>	<b>\$ 817,186,604</b>

In addition to the budget breakdown, each investment category is described in turn, as well as the program areas and activities that they encompass. The investment category detail includes a graphic to illustrate the history of the budget over the past several years and provides brief explanations for the more significant changes.

It should be noted, that in some cases a particular program area may appear in more than one of the investment categories. For example, maintenance appears in each of the Safety, System Quality, Mobility, and Program Delivery investment categories. The 2005-2006 budget document describes all maintenance activities in one section and provides a description of the Maintenance Levels of Service (MLOS) system utilized by CDOT. The MLOS system is used to collect annual physical rating and/or survey observations for approximately 50 activity or system items. The items are grouped into nine categories called Maintenance Program Areas (MPA) and the 2005-2006 budget document shows the proposed levels of service for each category (that are anticipated to be achieved by the current budget) as well as the levels of service from 2004 for comparison.

Finally, the document includes two appendices. The first, appendix (A), lists the 28 projects that make up the strategic projects investment category and reports on both their implementation and funding progress. The second appendix (B) contains the current (2003-2007) CDOT Strategic Plan that lists and describes the investment categories as well as the program area summaries, and identifies investment-level performance measures for each category.

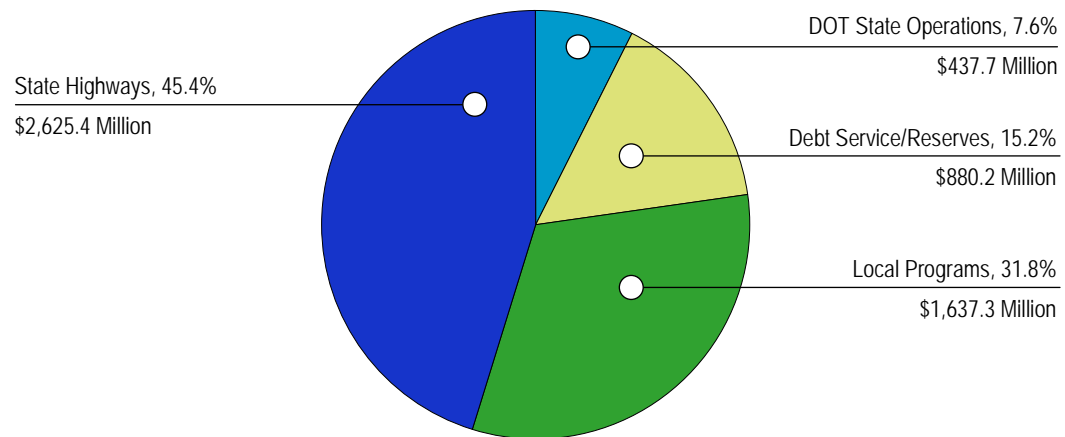
### *Wisconsin*

The Wisconsin Department of Transportation's (WisDOT) budget, as with all other Wisconsin agencies, is prepared and submitted to the Governor's office every two years. The Governor's staff revise and combine all agency budgets into a single budget bill, which is then introduced into one of the houses of the legislature in the early months of the odd-numbered years. Over the course of between two and four months the budget bill is then revised by the Joint Committee on Finance (JFC - which has representatives from both houses of the legislature), through a series of hearings. The revised bill is then reintroduced into the house that it was first introduced, and follows the standard course of

debate, amendment, and voting. After the first house approves the bill, it is past onto the other house which follows the same procedure. Once both houses agree on the same bill it is sent back to the Governor for either, signature into law, veto in its entirety, or line item veto.

The WisDOT web site provides summary information for both the 2003-2005 and 2005-2007 biennial transportation budgets. The six-page 2005-2007 Biennial Budget Highlights 2005 Act 25 document presents a summary of available revenue sources, a summary of expenditures along with brief descriptions of key programs and limited additional commentary. Figure 4.1 is a reproduction of the budget pie chart from this document, which divides expenditures into only four program categories (State Highways, DOT State Operations, Debt Service/Reserves, and Local Programs).

**Figure 4.1 Final Transportation Budget Wisconsin Act 25  
2005-2007**



The budget section of the web site includes links to answers to frequently asked questions about the budget and the budget process and a report that summarizes budget trends between 1990 and the end of the 2003-2005 biennium. In addition, a two-page document titled “Transportation Finance Issues – How is transportation money spent” provides a very brief summary of the budget, culminating in the pie chart illustration of the budget that is included in section two of this report that divides the budget into 10 program categories (Figure 2.7).

CS was unable to locate any more detailed information about the budget at WisDOT’s web site. We did find additional information on both the Governor’s and Legislature’s web site, including the original 2005-2007 budget bill (Assembly Bill 100) and the enacted legislation (Act 25). The presentation of the Transportation budget in these documents used the following major program categories:

1. AIDS (includes General Transportation Aids, Transit Aids and Other Aids from the pie chart in Figure 2.7);

2. Local Transportation Assistance (equals Local Transportation Capital from the pie chart in Figure 2.7);
3. State Highway Facilities (includes Maintenance and Traffic Operations, SE Wisconsin Freeway Rehabilitation, Rehabilitations, and Major Highways from the pie chart in Figure 2.7);
4. General Transportation Operations (includes a piece of the Other segment of the pie chart in Figure 2.7);
5. Motor Vehicle Services and Enforcement (includes a piece of the Other segment of the pie chart in Figure 2.7);
6. Debt Services (includes a piece of the Debt Service/Reserves segment of the pie chart in Figure 2.7); and
7. General Provisions (actually numbered '9').

This is noteworthy because without additional information it is not possible to map the appropriation breakdown directly to the 10 program categories identified on WisDOT's web site (Figure 2.7).

Finally we reviewed approximately 20 budget papers prepared by the Joint Committee on Finance. Each of these papers cover a specific budgetary decision included in the Governor's budget request. The papers present the Governor's request in the context of the current law, provide a series of detailed discussion points, and the present a set of decision alternatives that include accepting the Governor's request.

## Stakeholder Perceptions and Analysis

The general consensus of the stakeholders contacted during the course of this study is that the WSDOT budget is too complex and confusing for anyone outside of WSDOT. Even legislators that have been involved with transportation issues for many years expressed the need for the budget to be translated in order that it may be understood. Contributing to the confusion is the issue of the names of certain of the programs and the tendency, in some instances, to refer to them by their letter designator alone.

CS has reviewed WSDOT's budget as it is presented in a number of different documents and has reviewed the budget presentations of three other state DOT's (Arizona, Colorado, and Wisconsin). Based upon this review we will make the following observations about state transportation budget presentations in general and the effectiveness of WSDOT's existing presentation in particular.

**Transportation budgets are lengthy and complex** – The scope of state transportation budgets is such that there is no way to avoid, at some point, presentations that are both lengthy and complex. In certain cases, budget presentations may reference one or more supporting documents, for example, some WSDOT budget documents reference specific lists of projects. Given the size, breadth, and complexity of state transportation budgets, they will be developed and managed at a

detailed level. However, to facilitate communication and understanding of the overall budget it is critical that a high-level budget presentation provide a roll-up into a small number of meaningful and logical categories.

**Multiple budget representations are common** – The way in which state budget processes work is such that there will be multiple representations of the budget. In many cases there will be an agency request, a Governor’s proposal, and then one or more legislative versions and/or a budget bill. It is important when reviewing budget information to make sure that the reader understands which version of the budget they are looking at.

**Different readers may prefer to see the budget presented from different perspectives, but the form of existing presentations limit the extent to which this can be practically provided** – For a paper document centric communication strategy, given the volume of information included in transportation budget documents it is impractical to include more than one or two slices of the budget. For example, Arizona’s capital budget is summarized in its Five-Year Transportation Facilities Construction Program first by county and then by program and subprogram whereas WSDOT’s budget is presented in terms of operating and capital expenditures and within these by program, and in some cases, subprogram.

**The distinction between capital and operating expenses is not prominent in all transportation budgets** – Of the four agencies reviewed in detail and based upon a limited review of the DOT budgets for Oregon and Virginia, WSDOT’s budget highlights the distinction between operating and capital expenses most prominently.

**The structure that is used to communicate the budget can differ from the agencies organizational structure and/or the structure that is used to develop the budget** – Budget presentations should not be constrained by the agencies organizational structure, particularly if the agencies organizational structure does not help explain the budget. An example of this is provided by the way in which maintenance activities appear in four out of five of CDOT’s top-level investment categories.

**WSDOT’s initial budget presentation uses more top-level program categories than other state DOTs** – Beyond the operating and capital distinction, WSDOT’s budget is presented in 18 major programs compared with 4, 5, and 10 for Arizona (capital programs), Colorado, and Wisconsin respectively. The larger the number of top-level program categories used, the more time someone must spend in order to read and understand the overall scope of the budget.

**Locating information about WSDOT’s budget is straight forward** – Putting aside the form and complexity of the budget presentations, locating WSDOT’s budget information is very straight forward. Of the peer states reviewed, only Colorado’s budget was as easily located.

**Washington’s budget legislation is very consistent with WSDOT’s Current Law Budget Presentation** – This consistency facilitates the comparison of the

Current Law Budget document with the enacted budget legislation, more so than in the case of the three peer states reviewed.

## **Recommendations**

The WSDOT budget is complex, but its complexity is driven by a number of factors that are not going to change. Although we believe that the level of detail in the current budget presentations is necessary and must be maintained, we think that the existing presentation emphasizes this complexity and tends to overwhelm many in its potential audience. To address this issue we have the following recommendations that should simultaneously make the budget presentation more user friendly and more easily understood and retain the ability to view the same level of detail that is presently provided.

1. WSDOT should adopt a higher-level roll-up of its programs for the initial presentation and communication of its budget. The selected higher-level roll-up should be consistent with the work being done in the mobility result area of the Governor's Priorities of Government (POG) initiative. The key strategy areas defined by POG are as follows:
  - Preserve and maintain state, regional, and local transportation systems;
  - Manage system operations and demand effectively;
  - Improve system quality and service;
  - Effective management; and
  - Maximize resources.

Two examples of what such a higher-level roll-up might look like are presented and discussed as Options A and B in Section 2.0 of this report.

2. A concise summary of what the budget is designed to purchase in the context of its impact on the overall system should be included as part of the budget presentation.
3. WSDOT should either incorporate lists of projects directly into the budget presentation or provide links to these lists, not simply reference one or more external lists.
4. WSDOT should consider increasing the prominence with which the debt service is explained in the budget presentation.
5. WSDOT should stop referring to programs and subprograms in budget presentations and related material by alphanumeric designator, and it should strive to make all of its program names descriptive and unambiguous. For example, we would suggest the existing "Preservation" and "Improvement" programs would be better named "Highway Facility Preservation" and "Highway Facility Improvement" respectively.
6. WSDOT should supplement the existing paper document centric presentation of the budget by implementing a web-based system that provides multi-



ple ways of viewing the budget, facilitates navigation around the budget, and allows the budget to be viewed in varying levels of details. In order to better illustrate this concept we are including here some high-level requirements for such a system along with references to a set of screen representations that we have developed in Figures 4.2 through 4.6. In particular such a system should:

- Allow the budget to be sliced in different ways:
  - » All of the screens that follow show a radio button control in the upper left part of the screen. This control would allow the user to switch between different views of the budget and for the purposes of our example we show Program Category, Operating versus Capital and Mode.
  - » Figure 4.2 shows the total budget represented in a pie chart from the perspective of operating versus capital expenditures.
  - » Figure 4.3 shows the total budget represented in a pie chart from the perspective of the high-level program categories, using Option A from Section 2.0 of this report.
- For a given perspective, allow the application of filters:
  - » For example, if a user has selected the operating versus capital perspective, they should be able to filter the presentation by a particular mode or program category – i.e., show the operating and capital budgets for ferries.
- Enable users to drill down and up – showing more or less detail:
  - » A user looking at Figure 4.3, the program category view of the total budget, could select any segment of the pie chart and the page would be updated to show the programs that make up the selected program category. Figure 4.4 illustrates the results if a user selected the “Administration, Program Delivery, Research, and Support” program category from the screen show in Figure 4.3.
- Provide succinct descriptions of each budget item/group at each step:
  - » For each segment of a pie chart, line in a table, and bar in a bar chart, the system should include a standard control that if selected display a summary description of the programs and activities that are included in a particular budget item.
- Allow users to see historical comparison (prior biennia):
  - » For each segment of a pie chart, line in a table, and bar in a bar chart the system should include a standard control that if selected displays a bar chart showing the current budget amounts in the context of prior biennia as illustrated in Figure 4.5.
- Provide visibility of different funding sources:

- » For each segment of a pie chart, line in a table, and bar in a bar chart the system should include a standard control that if selected displays a pie chart showing the funding sources used by the budget item.
- Allows users to select display options (tables, pie, or bar chart):
  - » Similar to the control that enables the selection of different views of the budget, the system should include a control that allows the user to toggle between different display types, including pie charts, bar charts, and tables.
  - » Figure 4.6 illustrates a tabular representation of data.

Such a system might be an extension of the existing Transportation Executive Information System (TEIS).

Figure 4.2 Budget Portal  
*Operating versus Capital Total Budget Summary*

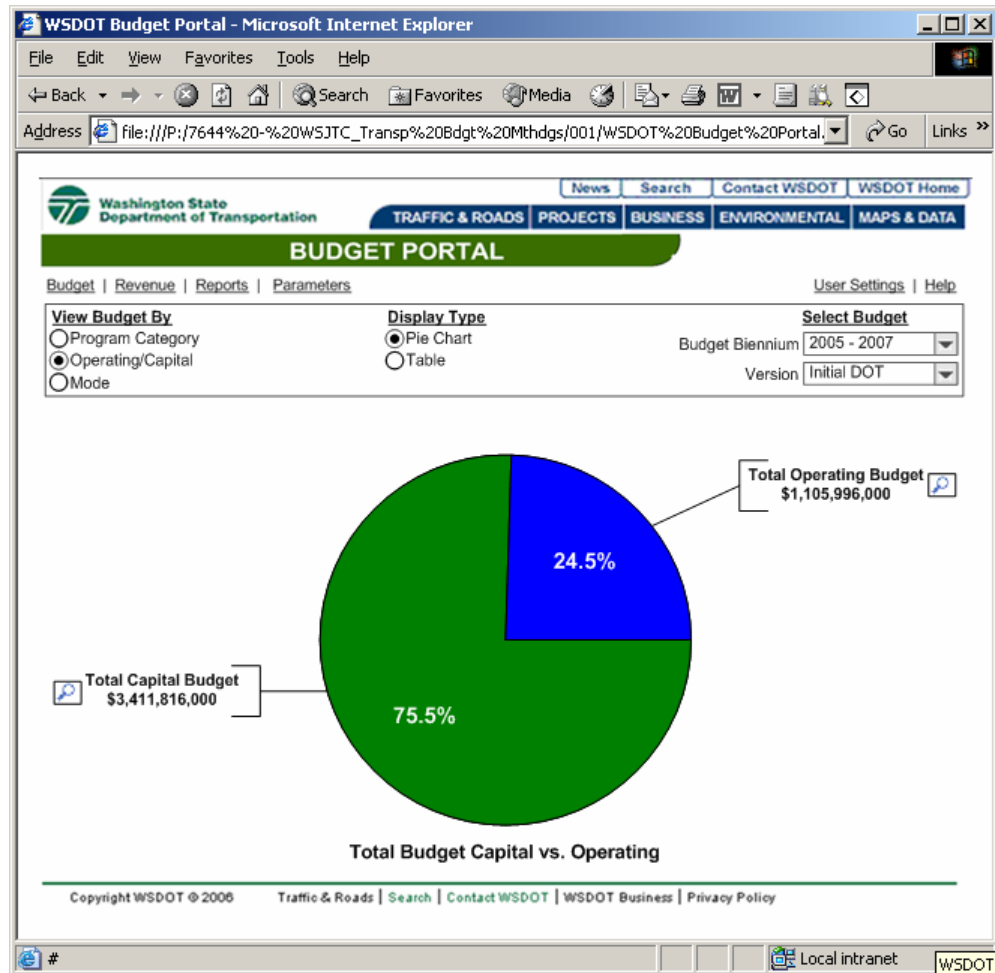


Figure 4.3 Budget Portal  
Option A Program Category Total Budget Summary

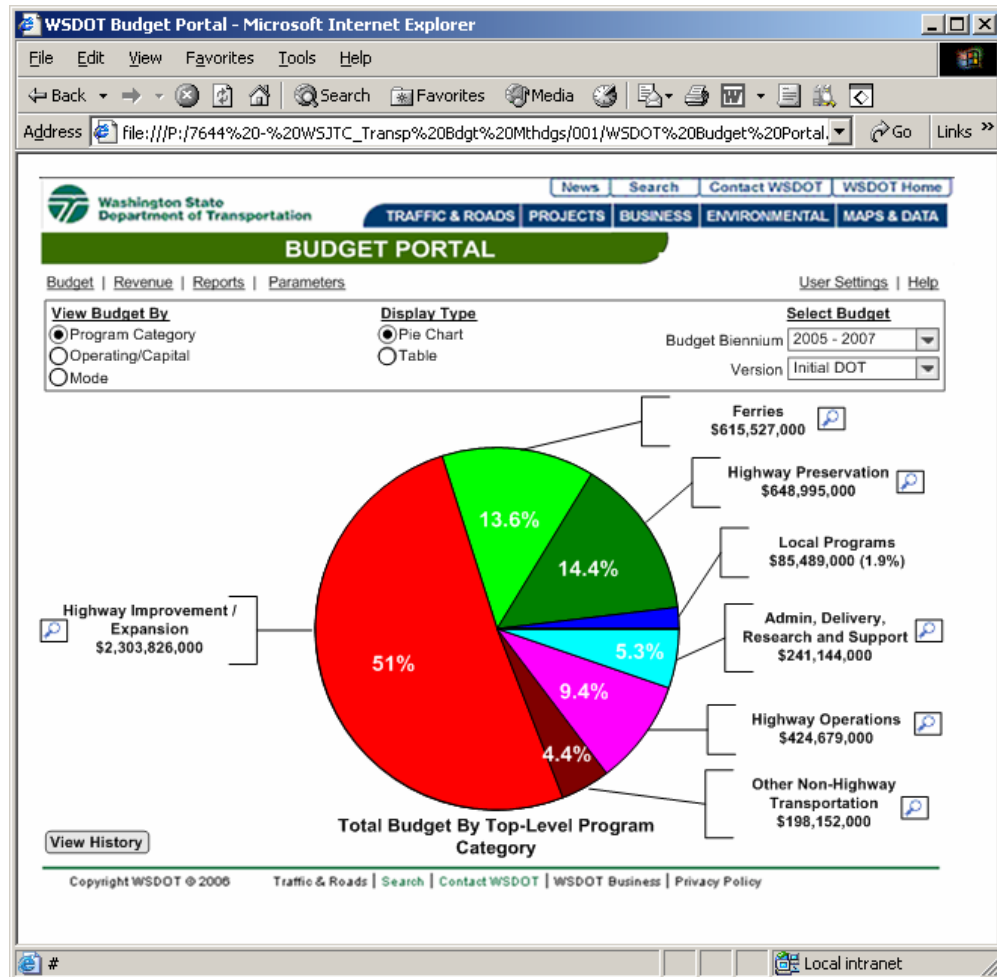


Figure 4.4 Budget Portal  
Option A Admin, Program Delivery, Research,  
and Support Program Category Detail

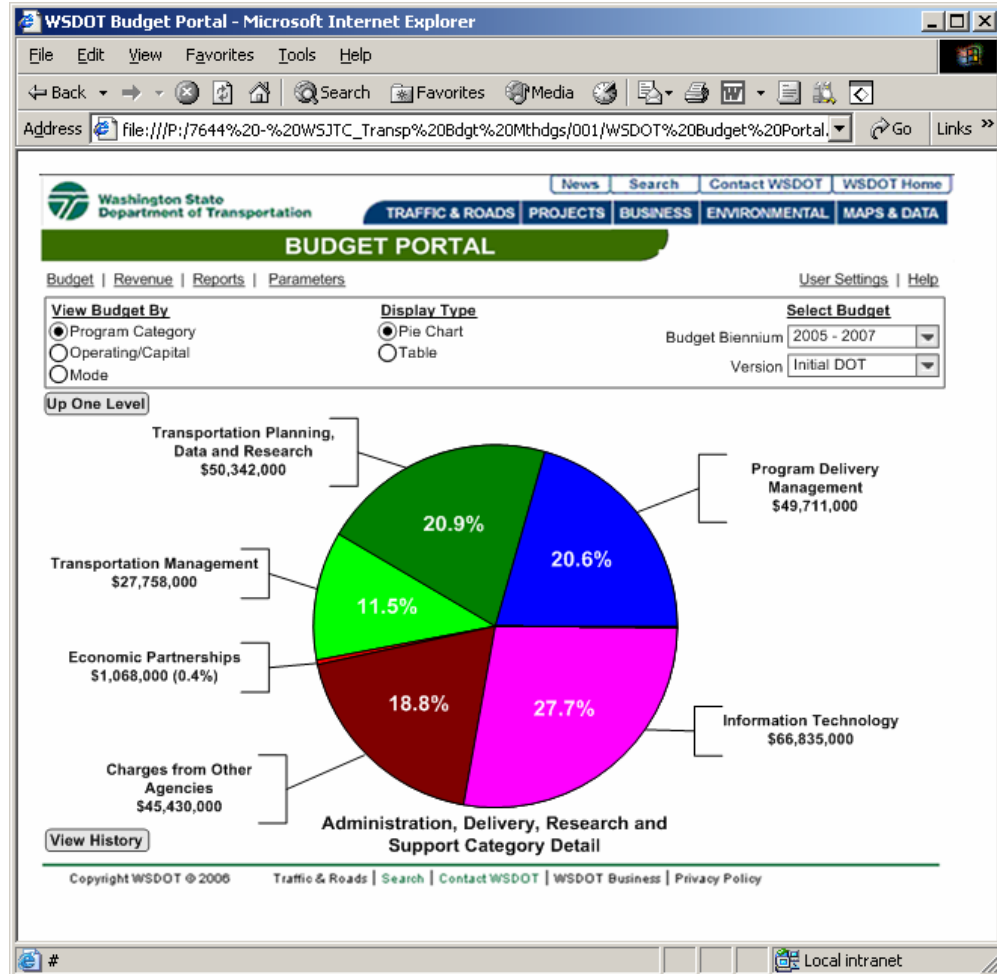


Figure 4.5 Budget Portal  
Budget Item Historical Context

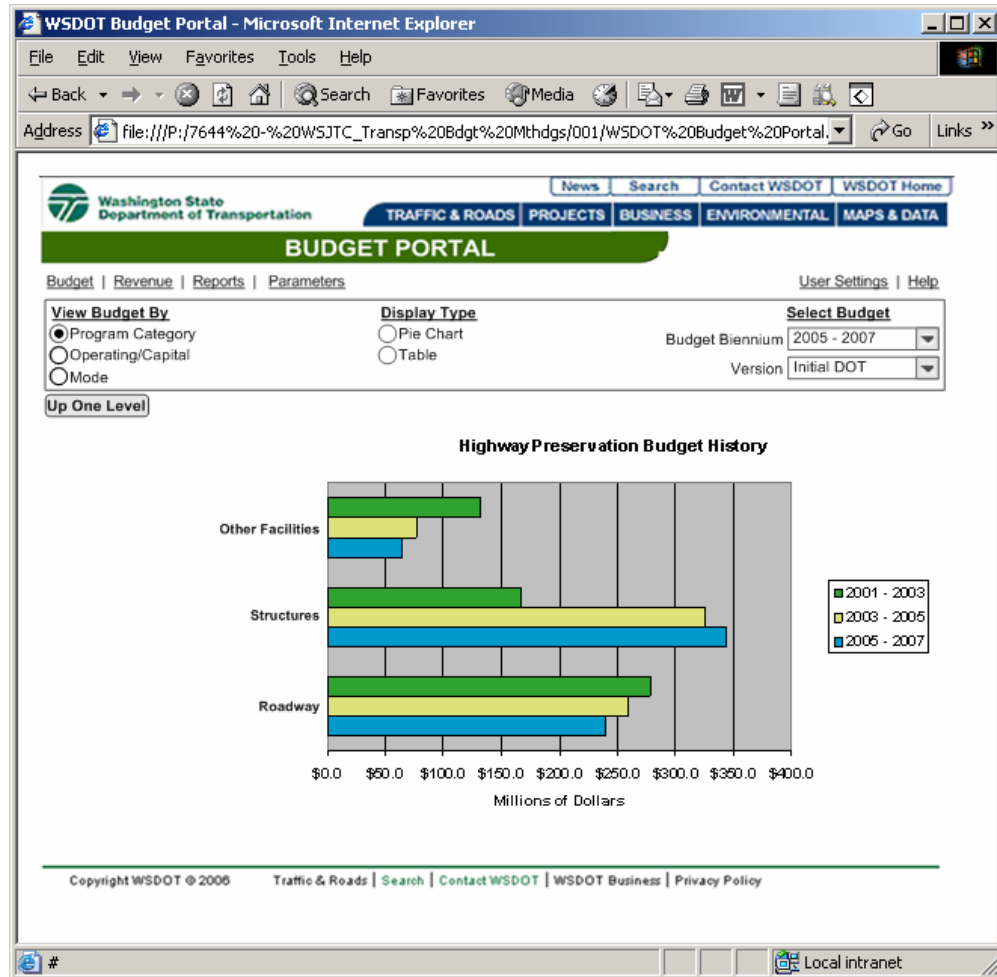
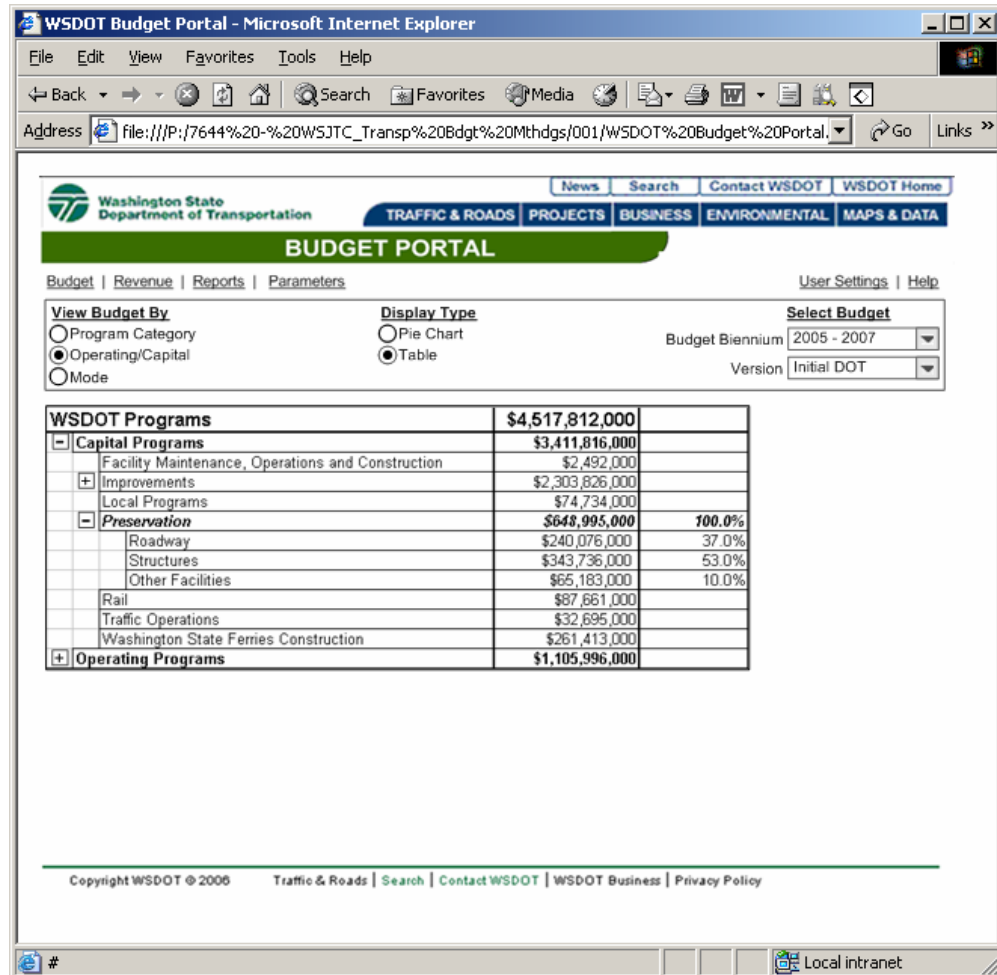


Figure 4.6 Budget Portal  
Tabular Data View



## 4.3 REPORTING ON BUDGET IMPLEMENTATION

### Description of the Current Process

WSDOT reports implementation of its programs and projects in a variety of forms as described in this section. It is noteworthy, and has been the case for some time, that the transportation budget legislation outlines certain reporting requirements, both with respect to content and frequency of reports. For example, specific requirements were developed for the Nickel revenue package. Over time they have been extended to other revenue sources. The 2006 Supplemental Transportation budget now applies the same reporting requirements to all projects included on the project lists associated with the budget, including those funded by the Nickel and TPA and preexisting funds.

### *Gray Notebook*

The Gray Notebook (or GNB) has been published on a quarterly basis since the first quarter of 2001, and is described by WSDOT as “the foundation for agency performance assessment and reporting as well as public and legislative communication.” The Gray Notebook includes a brief introductory section followed by two main sections called the Beige Pages and the White Pages. The introductory section provides a description of the report’s organization and explains how the material reported relates to the Governor’s Priorities of Government (POG) and the Government Management Accountability and Performance (GMAP) initiatives through the current WSDOT Strategic Plan. The Beige Pages section presents summary project delivery performance information for Nickel, Transportation Partnership Account (TPA) and Preexisting Funds project programs, as well as detailed project narratives for a subset of these projects. It also presents a variety of cross-cutting management issues (for example, the results of the Critical Applications study were included in the March 31, 2006 GNB). In addition, the Beige Pages includes a section that details projects for which there is cost and/or schedule concern (termed “Watch List” projects) and presents summary financial information. The White Pages section contains three types of transportation system and agency program performance measures, including Annual Performance Topics, Quarterly Performance Topics, and Special Topics. The annual performance topics are included in the Gray Notebook on a rotating basis, for example, the Aviation Program is included in every March 31 edition of the report.

The Gray Notebook contains a significant amount of information in each issue, indeed the March 31, 2006 issue is 90 pages in length. The information is presented in a variety of forms, including text, charts, and tables and the underlying intent is to explain everything at a level and in a fashion that makes it easy to understand. WSDOT has termed the style of reporting embodied by the Gray Notebook as “Performance Journalism.” The Gray Notebook has reached a level of maturity that the format and layout is very stable from edition to edition and WSDOT has established a regular schedule by which topics that do not appear in each addition are included in the same quarter’s report each year. WSDOT has placed links to various Gray Notebook sections in a number of places on its web site. For example, WSDOT has implemented a comprehensive subject index on its web site, including links that take the user directly to the section of interest of a particular Gray Notebook issue, and it includes links to all prior versions of the report.

Since the first quarter of 2004 WSDOT also has published the Gray Notebook Lite on a quarterly basis. For the quarter ending March 31, 2006, the Lite Notebook is only six pages in length. The Lite version includes selected excerpts from both the Beige Pages and White Pages sections of the full report, including an executive summary of project delivery performance.

### *Transportation Benchmarks*

With respect to reporting on the implementation of the transportation budget, there is considerable focus on tracking the delivery of capital projects vis-à-vis scope, schedule, and budget. The majority of the reports described in this section devote a considerable amount of their content to the issue of project delivery, and for some, it is their exclusive focus. Project delivery is an important measure of a transportation agencies performance, but it is not the only one. A driving force behind the adoption of a set of transportation benchmarks is the desire to measure the transportation system's performance against a set of policy objectives.

Efforts by WSDOT to identify and report on certain transportation benchmarks have been underway for several years. In 2001, upon review of the results of the Governor's appointed Blue Ribbon Commission on Transportation (BRCT), the Washington State Transportation Commission formed a committee to develop benchmarks for WSDOT. This effort, undertaken in cooperation with WSDOT, resulted in the adoption of a series of benchmarks by WSDOT that were consistent with the major policy categories from the results of the BRCT. In 2002, the Legislature passed Engrossed Substitute House Bill 2304 that formalized the adoption of transportation performance measures consistent with, but not limited to, the recommendations of the BRCT. These provisions are codified in RCW 47.01.012 and presented in Section 3.0 of this report.

WSDOT's transportation benchmarks have continued to evolve as more experience is gained and the ability to measure and obtain data both for Washington and nationally (for comparative benchmarks) improves. WSDOT has periodically reported on the status of its benchmarks in the Gray Notebook since its inception in 2001. In addition, in 2003 WSDOT developed a separate report titled "Transportation Benchmarks Implementation Report" which summarizes the history of benchmarks, presents a summary of the current benchmark results, and then describes benchmarking efforts in each policy area in more detail.

### *Project Pages and Quarterly Project Reports*

WSDOT lists almost 400 highway, ferry, and rail capital projects prominently on its web site at [www.wsdot.wa.gov/projects](http://www.wsdot.wa.gov/projects). The list indicates the source of funding for each project (Nickel, TPA, or preexisting funds). Each project on the list provides a link to a "Project Page," which contains current status information, an overview of the project and its benefits, identifies any partners in the project (for example, a transit agency, a city, etc.), the projected timeline, financial information, and the WSDOT project engineer's name and contact information. The project page also may include maps or links to maps, photographs, and/or visualizations of the completed project. In addition to the "Project Page" link, some of the projects on the list provide a link to the most recent quarterly status report.

WSDOT prepares Quarterly Status Reports for Nickel and TPA projects that are underway and certain projects that are funded by preexisting funds. The Quarterly Status Report utilizes a fixed structure such that most project reports



can be printed on one to two pages. The Quarterly Status Reports contain the following key project characteristics:

- Project Title and Location;
- Project Description;
- Contractor/Consultant;
- Recent Progress;
- Design Construction Impacts;
- Environmental Impacts/Compliance;
- Impacts to Traffic;
- Summary Schedule Information (Preliminary Engineering, Environmental Documentation, Right-of-Way Certification, Ad Date, Award Date, Open to Traffic);
- Project Cost Summary (Preliminary Engineering, Right-of-Way, Construction, Funded Project Costs, Nickel Funds, TPA Funds); and
- Planned versus Actual Expenditure (graph).

#### *Summary of Adjustments to Project Delivery and Project Status Report*

The Summary of Adjustments to Project Delivery report is prepared by WSDOT each quarter and covers the projects funded by the Nickel revenue package. The report details:

- The originally approved expenditures by biennium (the 2004 LEAP list);
- The latest approved expenditures by biennium;
- The current estimated expenditures by biennium; and
- The difference between the latest approved and current estimate as well as a brief explanation for any differences.

A subset of this information, combined with summary Gantt charts for each project, make up the Project Status Report. A Gantt chart is a popular type of horizontal bar chart used in the project management arena to depict the start and end points of tasks over time and the degree to which tasks might be simultaneous. The Gantt chart for each project shows both the current and baseline schedules and includes: preconstruction and construction phases; the six specified Nickel milestones (see Table 3.5); the amount of work completed; and whether any of the milestones have been either advanced or delayed. Another report, titled “Nickel Project Status Report” was located at the Project Control and Reporting section of WSDOT’s web site. This report provides a tabular presentation of the baseline and current estimated dates for the six milestones of the Nickel projects. In addition, the report includes two summary tables (Planned and Actual) that show numbers and percentages of milestones achieved early, on time and late.

It should be noted that as of the time of this reports preparation, the latest version of each of these reports that is available at WSDOT's web site is for the quarter ending June 30, 2005 (the last quarter of the 2003-2005 biennium).

### *Transportation Executive Information System (TEIS)*

The Transportation Executive Information System (TEIS), which was first implemented in the mid 1990s, currently is used primarily by WSDOT staff, OFM and the House and Senate Transportation Committees for the development, maintenance, and oversight of the capital project component of the WSDOT's budget. It has three main modules:

1. Capital Projects;
2. Fund Balance; and
3. Fiscal Monitoring.

In order to provide this functionality, TEIS is dependent upon data feeds from a number of different systems, both internal and external to WSDOT (e.g., TRAINS, CPMS, TRACS, GIS, AFRS - the State Accounting System, and WinSum). The system's functionality has been expanded over time, and there continues to be discussion about further enhancements. The first two modules are central to the capital budget development process.

In addition, TEIS has a publicly accessible Internet-based component that provides a variety of resources related to the budget and its implementation. TEIS provides an interface that allows the user to select a particular year's final legislative budget project list and filter it by route, legislative district, county, and/or region. The resulting list of projects indicate the budgeted expenditures by biennium and provide a links to summary information for each individual project.

TEIS provides a link to a list of all projects by program and subprogram indicating expenditures by biennium for each project with subtotals for each program, subprogram, and biennium. TEIS also provides links to WSDOT's quarterly project reports (described above) and to a set of allotment and expenditure status reports prepared by the Joint Transportation Committee (and previously the Legislative Transportation Committee). The allotment and expenditure reports were discontinued after November 2005.

### *Construction Highlights*

Each year since 2001, WSDOT has selected a number of projects (25 for 2005) from each of its regions, for which it performs a self-assessment of the project's construction phase. WSDOT publishes the results of the assessment on its web site. The assessment looks at four criteria: Design, Construction Management/Contract Administration, Schedule, and Cost. Each project receives a rating from one to five (worst to best) for each criteria.

### *Government Management Accountability and Performance (GMAP)*

Another vehicle through which WSDOT reports on its program implementation progress is by its participation in the Governor's GMAP initiative. Once a quarter the Secretary of Transportation attends a public meeting with the Governor and presents and discusses progress and issues related to the delivery of the transportation program. The four GMAP sessions over the past year have focused exclusively on highway project delivery and the presentations used are available at both the Governor's and WSDOT's web sites. These presentations contain summaries of and excerpts from a number of the reporting sources already described in this section.

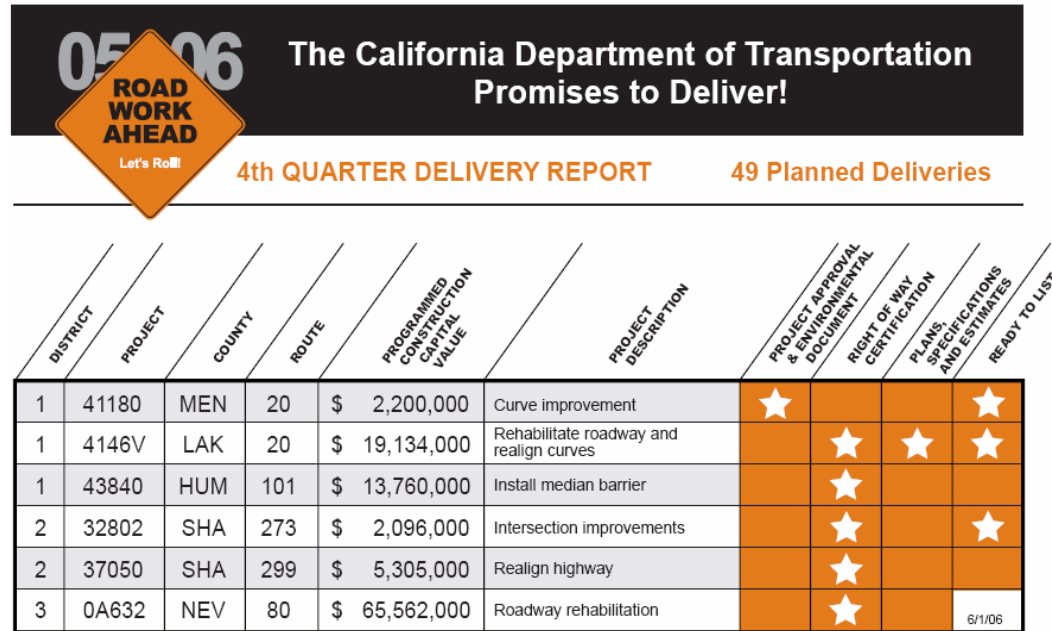
### **Peer Agency Review**

Based on a review of practices at the Arizona, Colorado, and Wisconsin DOT's and several other agencies, there are three basic mechanisms for implementation reporting - regularly published reports, project web sites, and program web sites. These mechanisms are described in more detail below.

### *Published Reports*

Several agencies (including WSDOT) develop regularly scheduled progress reports. These reports vary in frequency and in level of detail. Typically they include background information and project-by-project status information. As described in the previous section, the project-by-project information can vary widely from basic milestone and location information (Mississippi DOT Vision 21 report) to detailed comparisons of planned versus actual expenditures and schedule (Oregon DOT OTIA/III report). Figure 4.7 provides an example of a summary table from a California Transportation Agency (Caltrans) report. The report summarizes project progress by four milestones. A shaded box indicates that a milestone has been completed and a star indicates that it was completed ahead of schedule.

Figure 4.7 Caltrans Quarterly Delivery Report



Source: <http://www.dot.ca.gov/docs/projectdeliveryreport.pdf>.

Often published progress reports also provide condition/performance information that goes beyond project delivery (e.g., pavement condition, congestion information, and safety measures) and document agency progress towards stated performance targets. WSDOT’s Gray Notebook is often cited as a model for these types of reports. The main benefits of these reports are that they enable agencies to compile and present information from a variety of sources, and provide an opportunity for results to be synthesized and explained and for key issues to be described. The main disadvantage of this reporting approach is that users must sift through large documents in order to find the information for which they are looking.

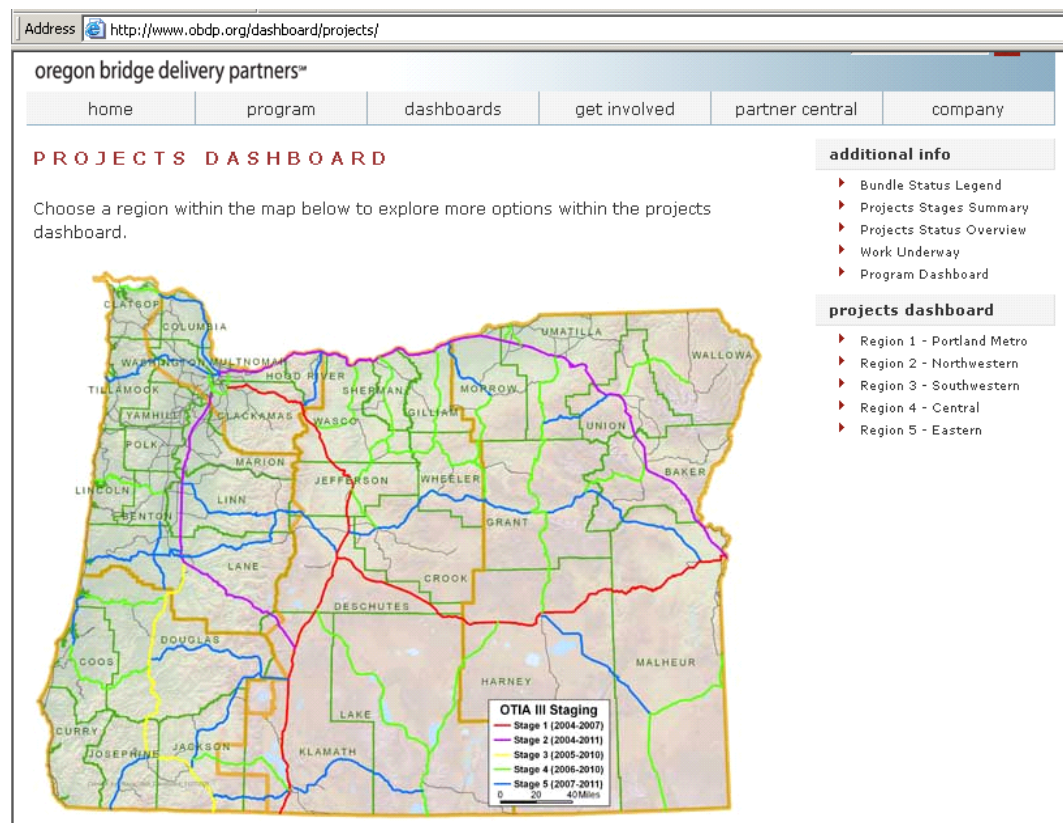
### Project Web Sites

Several agencies, including WSDOT, develop web sites for specific projects. Typically these pages are used as a public relations tool for large projects. They provide external stakeholders with general information such as a project’s history, benefits, and construction status. Often, they also provide detailed lane closure information. In Arizona, Colorado, and Wisconsin these web sites are developed for a small set (10-20) of high-profile projects. In contrast, WSDOT provides a project page for nearly 400 capital highway, ferry, and rail projects. By nature these sites provide stakeholders with ready access to general project information, but not with information on the overall status of program delivery.

## Program Web Sites

Interactive web sites provide stakeholders with ready access to a variety of information and provide mechanisms for navigating through it. An example of this type of reporting mechanism is the Washington State TEIS. Figure 4.8 illustrates another example developed by the Oregon DOT. This system provides status information for projects in the OTIA/III program. (The OTIA/III program is described in more detail in the previous section.) The project dashboard enables users to navigate to a specific project using an interactive map.

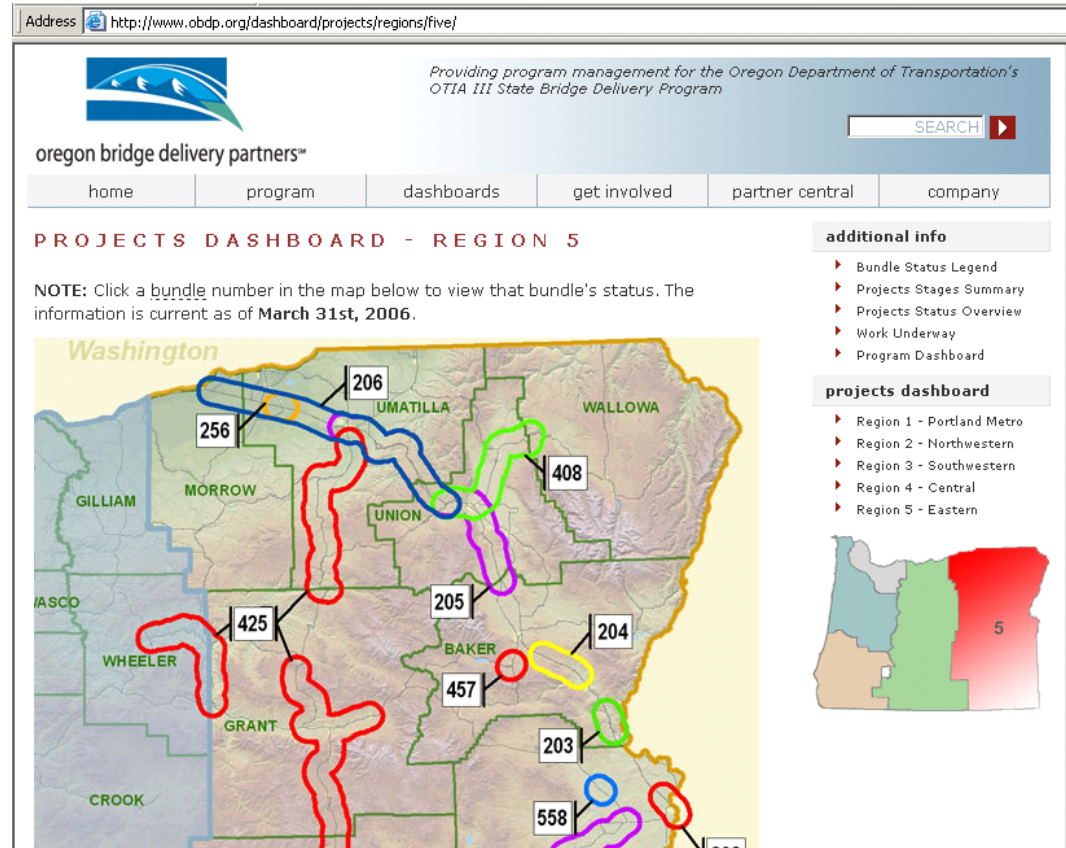
Figure 4.8 OTIA/III Projects Dashboard  
Main Page



Source: <http://www.obdp.org/dashboard/projects/>.

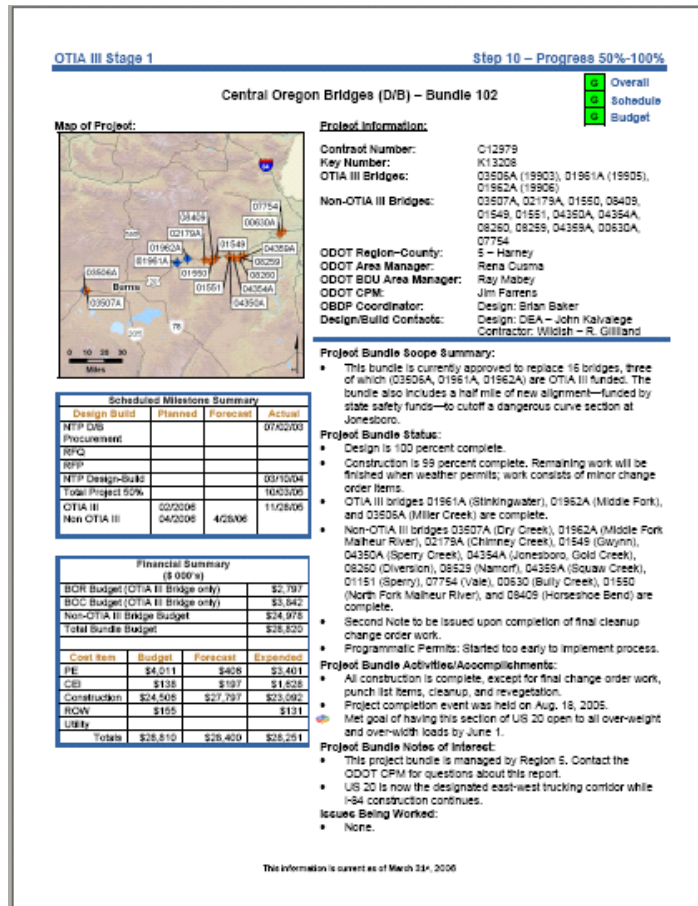
When a user clicks on one of the regions a more detailed map is generated. This functionality is illustrated in Figure 4.9.

Figure 4.9 OTIA/III Projects Dashboard  
Regional Map



When a user clicks on one of the numbers on the regional map, a one-page project summary report is generated. This report is illustrated in Figure 4.10. It includes a comparison of planned versus actual budget and schedule information.

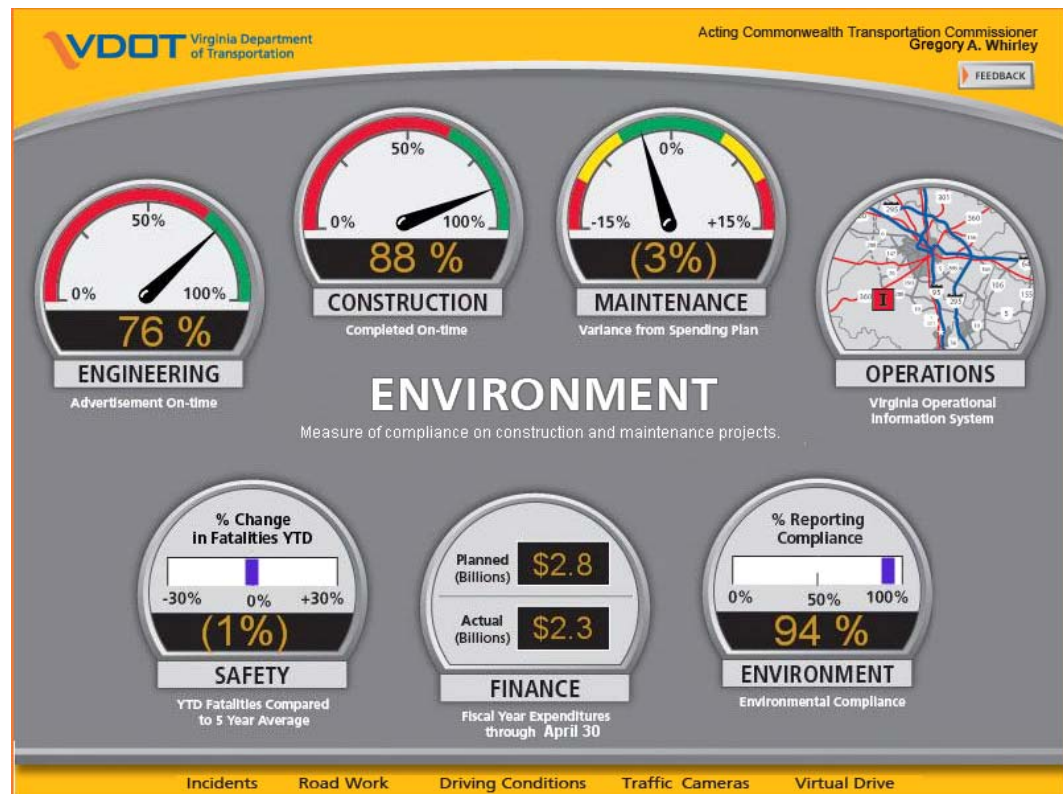
Figure 4.10 OTIA/III Projects Dashboard  
Project Report





The Virginia DOT also has developed a web-based reporting tool. This tool, referred to as the Virginia DOT Dashboard, enables users to both review summary data and drill down into project-level details. The front page of the dashboard shows summary performance results in seven different areas, as illustrated in Figure 4.11. The “Construction” gauge indicates percent completed on time.

Figure 4.11 Virginia DOT Dashboard  
Main Page



Source: <http://dashboard.virginiadot.org/default.aspx>.



Clicking on the “Construction” gauge generates a more detailed construction report showing on time and on budget information. This screen is illustrated in Figure 4.12. As in the main page, a red/yellow/green system is used to communicate overall status. This screen also provides a query tool for drilling further down into the details for a specific project. Figure 4.13 illustrates the most detailed view that the dashboard provides.

Figure 4.12 Virginia DOT Dashboard  
*Construction View*

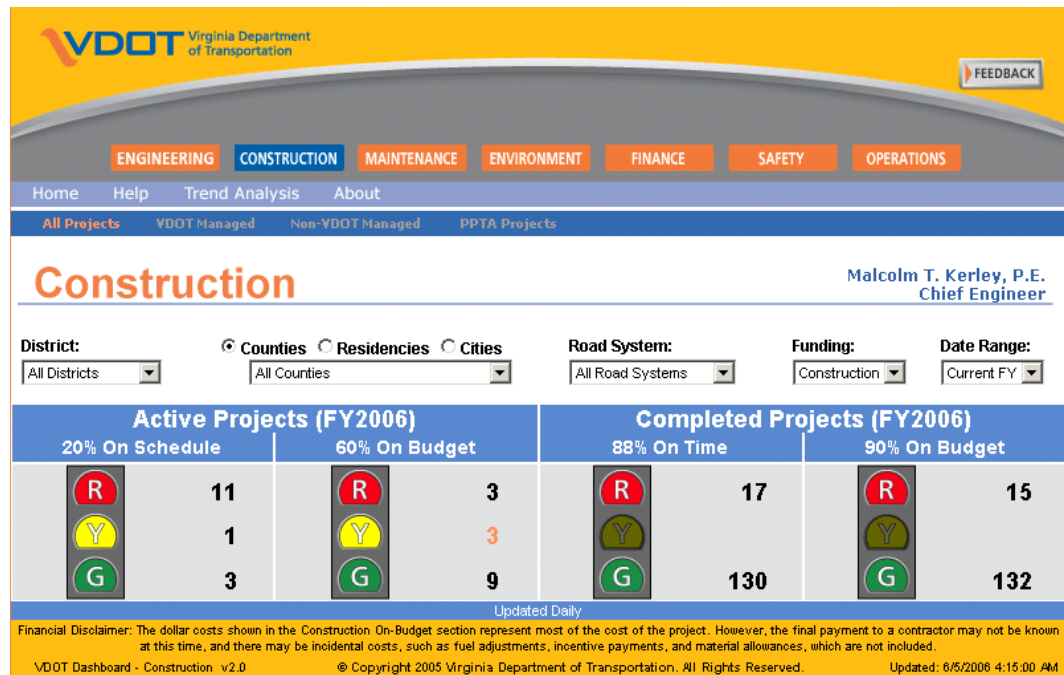
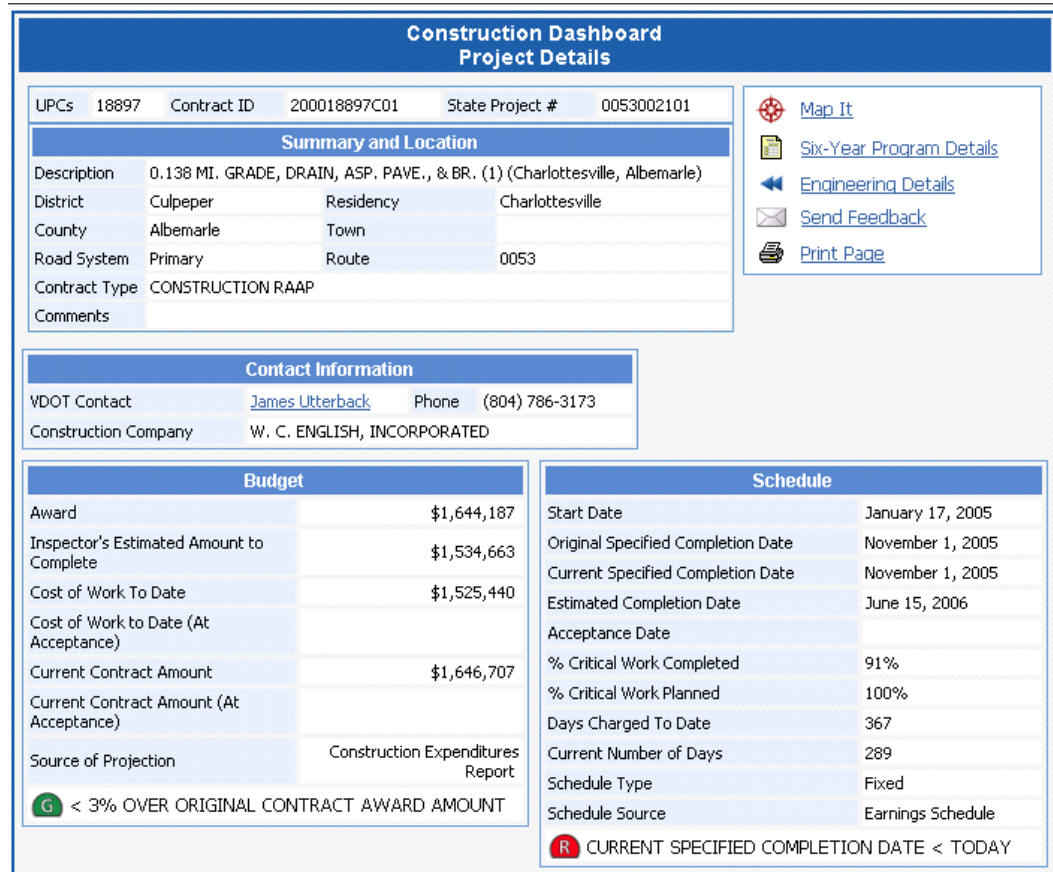


Figure 4.13 Virginia DOT Dashboard  
Project View



## Stakeholder Perceptions and Analysis

Despite the variety and depth of reports produced by WSDOT stakeholders raised a number of concerns about WSDOT's current reporting efforts:

- **Clarity and Brevity** – It is perceived that WSDOT's existing reporting efforts focuses too much on detailed narratives, a more concise summary appears to be missing.
- **Consistency** – Whether this is the result of changes to project definitions discussed in Section 3.0, the evolution of WSDOT's reporting as exemplified by the improvements to the Gray Notebook, and/or from another source, there is a perception that WSDOT's reports lack consistency.
- **Changes to the Budget Project List** – As covered by the prior statement, one of the effects this has is to raise concerns about consistency, however, since its impacts go beyond consistency and it was raised by a number of stakeholders, it deserves to be individually highlighted.

- **Responsiveness** – Some of the stakeholders spoken with during the course of the study expressed concerns about WSDOT’s responsiveness to certain information requests.
- **Timeliness of Reporting of Significant Issues and Risks** – A number of the stakeholders wondered why, in some instances, WSDOT does not appear to report potentially significant issues or risks more quickly. The Alaskan Way Viaduct was provided as one example.
- **Missing Key Issues** – Despite the breadth and depth of reporting provided by WSDOT a number of stakeholders indicated that they felt certain things were missing from WSDOT’s reports. One example, that was mentioned by multiple stakeholders, is how WSDOT utilizes the Federal funds it receives.

**We suspect that the number, depth, and breadth of reports made available by WSDOT are overwhelming many interested observers** – It is critical that WSDOT has sufficiently detailed and varied reports in order to manage its program. However, WSDOT must be careful that both the number, format and content of the reports that it makes public do not end up effectively obscuring its performance. The Legislature and OFM also must be careful that they do not request from WSDOT so many and so detailed a set of reports that a true sense of WSDOT’s implementation performance gets lost. At the same time, OFM and the Legislature must be careful not to specify duplicative reports, especially if this is done at the expense of missing certain key elements of reporting.

**The narrative and discussion of projects and issues must be developed and made available, however, for external audiences it should be provided in support of clear and concise summary statistics** – The Gray Notebook and its “Performance Journalism” exemplify WSDOT’s commitment to comprehensive reporting on its programs. However, not unlike the budget presentation, the Gray Notebook is viewed by some as too lengthy and too detailed, and its form makes it difficult to extract from it a summary snapshot of WSDOT’s implementation progress. It must be noted that the Gray Notebook continues to evolve and recent changes to the project delivery performance summaries are noteworthy enhancements.

**WSDOT’s web site offers significant untapped potential as a vehicle for communicating implementation performance** – WSDOT already uses its web site to enhance the utility of, and navigation around, the Gray Notebook (recall the Gray Notebook Subject Index). However, the enhancements to date take the user directly to the section of interest of a particular issue of the Gray Notebook, i.e., they still open and display the entire PDF document. It would be entirely possible, and we believe preferable to many interested observers, for WSDOT to extract some of the summary information contained in its existing PDF reports and present it directly in set of rich web pages. This would not replace the PDF reports, but supplement them.

**Consistency in its reporting is key for WSDOT to maintain the highest level of credibility with and confidence of the Legislature, Governor, OFM and the**

**general public** – Currently, WSDOT faces many challenges to its achieving consistency in reporting. These challenges include: differences between legislatively mandated reporting requirements for different funding sources (although this is improving); the number of different reports; deficiencies in and lack of integration between its critical information systems; being responsive to ad hoc information requests; and differences between WSDOT accounting and financial systems and those of the rest of the state government – such as the way in which FTEs and positions are handled.

**The efforts and recommendations with respect to improving the consistency of mapping projects to contracts should be pursued to the extent that is practical** – There is no doubt that both the bundling of and disaggregation of certain projects that are included in lists that support the budget causes confusion and frustration and make consistency in reporting a challenge. To the extent that WSDOT is able to limit this practice it should. That said, we must observe that there are often benefits (cost, schedule, impact to the traveling public, other) associated with the practice of bundling and disaggregating projects which enhance WSDOT’s ability to deliver the program in a timely and cost-effective manner. We do not question the fact that these practices complicate reporting, however, we would suggest that Washington must strike a balance between reporting on the programs implementation versus actually getting the program implemented.

**Until a number of critical information systems at WSDOT are replaced there will continue to be practical limitations to WSDOT’s ability to provide all desired reports in a timely and consistent manner** – Deficiencies in, and lack of integration between its critical information systems mean that WSDOT must expend considerably more manual labor to produce many of its reports. This is compounded by the fact that there are a relatively small number of staff at WSDOT that are sufficiently familiar with these aging information systems to be able to extract and manipulate the data correctly in order to produce an accurate report. These two issues combined with the effort already required to produce the set of regularly scheduled reports described above, result in WSDOT having limited resources available to respond to ad hoc or additional reporting requests and, therefore, may not be as responsive to such requests as might be desired.

**Reporting on individual project delivery is critical, however, it needs to be balanced with reporting on system-level performance** – Capital project delivery is a critical component of the transportation program, however, care must be taken that this is not the only measure by which the implementation of transportation program is measured. WSDOT has been active in the area of performance measures for many years, however, we perceive that presentation and discussion of these measures tends to be less prominent than discussion on capital project delivery. For example, recall our observation about the focus of GMAP forums over the past year being exclusively on project delivery. In addition, the Gray Notebook reports on certain transportation benchmarks in certain quarters of the year, whereas, every issue includes capital project delivery statistics.

**WSDOT must strike a balance between immediate broadcasting of issues as they are encountered versus being able to accurately ascertain the extent of a problem** – It is perfectly reasonable to want WSDOT to communicate major issues as soon as it becomes aware of them. However, it also is reasonable for WSDOT to want to perform a certain amount of due diligence on an issue before broadcasting it, particularly for issues that WSDOT might ultimately be able to mitigate. One observation about the transportation budget and its implementation is that the amount of communication and volume of material produced is such that it has reached the point of saturation. We would therefore not recommend attempting to add any more reports, without first eliminating something else.

## Recommendations

Reporting is one of the topics that has been considered by the Transportation Working Group over the past year or so. Indeed some of the recent improvements with respect to definitions and consistency in reporting must be credited to this group. We would assert that the overall breadth and depth of implementation reports produced by WSDOT is as great, if not greater in most cases, than other state transportation agencies. Furthermore, WSDOT continues to make improvements to its implementation reports. Notwithstanding these observations, we have a number of recommendations intended to further enhance WSDOT's ability to communicate its implementation of the transportation budget.

1. Review, refine, standardize, and eliminate duplication from the existing external implementation reports. A working group of representatives from WSDOT, OFM and the Legislature should meet to review the existing reports and determine:
  - If basic reporting needs are met, and if not, what is missing?
  - Are any existing reports unnecessary or duplicative?
  - The appropriate frequency of issuance/publication for each report?

This review must be coordinated with:

- WSDOT's Critical Applications Replacement Design (CARD);
- Statewide Program Management (SPM) effort; and
- Requirements stemming from the GMAP initiative.

The goal of this review is the definition of an agreed upon set of reports that meet the reporting requirements for all parties external to WSDOT. The limitations of WSDOT's existing information systems are likely to make it impractical for WSDOT to produce all of the desired reports initially. Therefore, we would encourage the further classification of the reports into two groups, the "need to have" versus the "nice to have."

In order to ensure consistency, WSDOT must develop and document the procedures that it will follow each time in order to generate each “need to have” report. This specification must include:

- The system or systems that will provide the source data;
- The set of steps, automated and manual necessary to generate the report; and
- The content and layout of the report

For all reports in the “nice to have” category, we would suggest the group consider either postponing the implementation until WSDOT’s information systems are updated, or, at a minimum agree to reduce the frequency of reporting.

Although we have noted that there already has been movement toward greater standardization of reporting across all funding sources, we must underscore that continued standardization is critical for effective communication.

2. WSDOT should expand its use of web technology to present interactive summary program delivery statistics. Similar to the budget itself, there is a significant level of detail associated with reporting on the implementation of the transportation budget. The flexibility of presentation and ease of navigation that a web-based presentation can provide would be just as beneficial to implementation reports as the budget itself. For example, using current web technologies it would be possible to allow the user to present the project delivery statistics grouped by any one of the following characteristics:
  - Funding source (Nickel, TPA, Preexisting, Federal, Local);
  - Program and Subprogram;
  - Route/Corridor;
  - County; and
  - Region.

WSDOT already has the information necessary to generate these reports and indeed the existing Gray Notebook presents the first of these groupings. However, just as with the budget itself, with a document centric approach to presenting the material, it is impractical to include the variety of perspectives.

We are not proposing to eliminate the existing PDF version of the Gray Notebook, rather to supplement it by presenting some of its summary content directly in web pages. The full version of the Gray Notebook provides tremendous depth and breadth of reporting and has deservedly received considerable national praise and attention. It is an excellent source for anyone that wishes to obtain a more detailed understanding of the projects and other topics that it covers. The Gray Notebook also provides an invaluable source of information pertaining to the history and evolution of Washington’s transportation program.

3. Consider the implementation of a WSDOT program dashboard on its web site to better communicate system and program-level performance. This dashboard should use the higher-level program structure recommended in section two as its starting point and should present a small number of performance measures for each of the top-level program categories. These measures can be selected from a combination of the set already collected by WSDOT, the set recommended in the Lund Consulting report (submitted to present the results of TPAB Study of Transportation Goals, Benchmarks and Ten-Year Investment Criteria and Process), and possibly even others. We would suggest that the dashboard present for each measure a target value, current value, and trend.

## 4.4 BUDGET EDUCATION

The transportation program is fundamentally different than other state programs and the WSDOT budget, its development process, and the way in which its implementation is reported all reflect this difference. Some of the most significant differences include:

- **Number of Projects** - The Beige Pages section of the March 31, 2006 issue of the Gray Notebook identifies a total of 1,246 projects funded by all sources (Nickel, TPA, and Preexisting funds).
- **Size and Duration of Projects** - Although transportation projects range in size and duration there are a good number where the cost gets into hundreds of millions of dollars and their schedules will span several bienniums. For example, the Alaskan Way Viaduct, the new Tacoma Narrows bridge, and the Hood Canal Bridge are valued at \$2.4B, \$849M and \$470M respectively.
- **Sources of Funding and Restrictions on Use** - The transportation program is funded by a combination of state, Federal, and local funds as well as the proceeds from the sale of bonds. Within each of these basic sources there is yet further subdivision of the funds, many of which can only be used for very specific purposes. For example Nickel funds must be used on Nickel projects and TPA funds on TPA projects.
- **Federal Requirements** - Almost 14 percent of the funding for the 2005-2007 biennium is projected to originate from the Federal government. In addition to the restrictions on the use of this funding, there are a variety of other conditions, procedural and reporting requirements that must be met for projects or activities using these funds.
- **Right-of-way and Environmental Issues** - Transportation projects, particularly, but not limited to, major improvement projects, often require very significant efforts in the areas of environmental impact studies and mitigation, and with respect to right-of-way.

It is critical for anyone involved in the development, passage and/or monitoring of the transportation budget to understand these differences. Therefore, effective education about the transportation program is key.

The foundation for education efforts regarding the transportation program is encapsulated in the various documents and Internet resources described in Sections 2.0 and 3.0 of this report. These are the resources that people will most likely start with in order to better understand the transportation program.

## **Description of the Current Process**

In addition to the materials already covered in this section, Washington State uses a number of resources and activities that are designed to support the budget materials and enhance overall understanding of Washington's transportation program. Some of key resources and activities for education purposes are described below.

### *Transportation Resource Manual*

The 10<sup>th</sup> edition of The Transportation Resource Manual was released in January 2005. This 385-page document is prepared through the cooperation of a variety of transportation agencies and legislative transportation committees. Following a brief introduction, it is divided into six major sections as follows:

1. **Legislative Role** - 27 pages, including the identification of the different transportation committees, their purpose and membership, as well as presenting a summary of the transportation budget covering its major sources of funding, program areas, and related topics.
2. **Taxes, Fees and Other Revenue Sources** - 170 pages that present the details of every component of every revenue category (state taxes, local taxes, Federal funding, bonds, and public private initiatives), including a description, history, the account in which it is deposited, the agency that administers it, distribution and use, the estimate of the current biennium's amount, and a forecast of the next.
3. **Funds and Accounts** - 56 pages that details each account within every fund into which revenues used for transportation are deposited and from which transportation appropriations are made.
4. **Agencies and Jurisdictions** - 56 pages that summarizes the background, programs, organizational structure, and funding sources for each of the agencies, commissions and boards that participate in the delivery of the transportation program. As well as describing the various local jurisdictions and regional organizations involved planning, building, and managing transportation systems in the State.
5. **Modes** - 34 pages that summarizes the background, governance, funding and relevant statutes for each of the different modes of transportation, bro-



ken up in to the major categories of Roadways and Trails, Air and Water and Rail.

6. **Planning** – 11 pages that describe each of the various state, regional, and local plans pertaining to transportation, including the name, why or what statute requires them, the entities responsible for preparing, approving (or adopting) the plans, the timing of the next update, a brief description, and their purpose.

The remainder of the document includes a glossary of terms and a glossary of acronyms.

### *WSDOT Web Site*

In addition to the material already described in this section, WSDOT’s web site contains a variety of additional sources of information that help explain its plans, programs, policies and operating procedures. Selected materials include:

- WSDOT Business Directions;
- WSDOT Key Facts Book;
- Washington State Transportation Plan;
- Individual modal plans for highways, aviation, ferries, bicycle and pedestrian, public transportation, and rail;
- Manuals covering programming and operations, construction, project control and reporting; and
- A number of reports and papers on specific topics, for example, the Transportation Benchmarks Implementation Report and the Prioritization Process for State Highway Projects.

### *House and Senate Transportation Committee Activities*

The House and Senate Transportation Committees play a roll in member education through a variety of activities, including:

- The House Transportation Committee presents an overview of the transportation programs and the submitted budget request at the beginning of each odd year (or long session);
- Both House and Senate Committee staff prepare papers on a variety of transportation topics, including budget summaries, for example, the House Transportation Committee Briefing Book;
- The House Committee is investigating the implementation of e-mail alerts of major project issues;
- The Senate Transportation Committee currently has developed a “Citizen’s Guide to Transportation”;

- Both Committee also respond to member requests for information pertaining to specific issues or projects; and
- For any committee hearing or other legislative presentations pertaining to transportation both committees ensure that there is appropriate WSDOT representation to respond to detailed questions and comments.

## Peer State Review

CS has reviewed a selection of additional materials related to transportation that are available at the web sites of the peer state DOTs (ADOT, CDOT, and WisDOT), as well as these states' legislative committees involved in transportation. In each case, we found a combination of mandatory statewide and other plans, material relating to overall strategy, issue papers, and policy and procedural documentation and manuals similar to that found for Washington. Because of the similarity in nature of this material we do not believe that describing it in any further detail provides any value and therefore will continue on to the next section.

## Stakeholder Perceptions and Analysis

A number of stakeholders expressed concern that despite the fact that there is no shortage of information relating to transportation, substantive questions about the program are more common than expected. This leads them to the conclusion that there is a problem in the way that the information is communicated. Another observation made by several stakeholders was that they wonder whether the focus on the Nickel and TPA new revenue initiatives over the past three or so years has impacted the legislatures overall understanding of the transportation program.

**Education efforts associated with the transportation budget are hampered by the existing top-level program structure** - as mentioned previously, both the number of top-level programs (18) and the fact that they mix modes, primary and supporting activities makes succinctly describing the transportation program challenging.

**Transportation is sufficiently different from other state programs that even the most effective budget materials and implementation reports must be effectively supplemented to improve understanding** - There is no doubt that having some basic background about the transportation program does facilitate understanding the budget and implementation reports. To the extent that the types of supporting materials and activities described in this section provide this, they should be continued.

**Consideration must be given to the limited amount of time that a legislator, or anyone else for that matter, will be able to dedicate the issue of transportation and therefore material must be summarized to a reasonable level** - The amount of detail that is necessary to effectively plan and manage the program is far greater than can be absorbed and processed by many interested parties.

**As the level of granularity at which the legislature appropriates transportation funding increases, so will the level of effort necessary for effective education about the budget** - If the legislature appropriates at the subprogram and project level, it is going to need to understand the details of the different sub-programs and projects.

## Recommendations

1. Strengthen the existing program education sessions - recognizing the benefit of providing some support to the legislature with respect to understanding the transportation program and its budget, the existing House sessions should be continued. Furthermore, we recommend the Senate consider formalizing similar sessions for the benefit of its members.
2. Supplement existing education efforts with a regular session or sessions that focuses specifically on the aspects of the transportation program that make it different than other state programs. Examples of the topics that should be covered include:
  - Basic program structure and scope;
  - Funding sources;
  - Federal requirements;
  - Programming and prioritization;
  - Project development life cycle (needs to projects to contracts); and
  - Reporting, accountability, and performance.

The material presented in this session also should be published on WSDOT's web site and in a form that can be readily printed.

3. Consider the elimination of as many points of confusion as possible from initial budget presentations. Three examples that might be considered include:
  - The capital/operating distinction (e.g., when does maintenance become capital preservation? Where is the division of labor between capital and operating programs?);
  - A top-level program structure that mixes primary activities, modes, and support activities; and
  - Minimizing the extent to which project definitions change.



# 5.0 Study Conclusions and Summary Recommendations

## 5.1 PROGRAM STRUCTURE

### Study Conclusions

WSDOT's existing program structure includes too many top-level programs. The number (18) of top-level programs makes providing a succinct description of its overall program objectives difficult, if not impossible. Furthermore, by using the existing program structure as the starting point for communicating the budget, WSDOT effectively overwhelms many of the people that are interested in understanding it (including the general public, OFM and the Legislature). Finally, the mixture of modes and primary and supporting activities in the top-level programs makes creating/observing direct linkages between the program structure and the Governor's Priorities of Government initiative or WSDOT's own strategic initiatives, challenging.

### Summary Recommendations

1. WSDOT should reduce the number of top-level program categories used in its initial budget presentation;
2. Maintain the ability to distinguish between operating and capital expenditures; and
3. Add subprograms beneath the existing programs for Ferries and Rail.

## 5.2 BUDGET PROCESS

### Study Conclusions

In an attempt to ensure WSDOT accountability, the legislature has appropriated almost 40 percent of the current WSDOT's budget at the project level, and it has put in place strict requirements and authorization procedures that control when and how adjustments to individual project 'budgets' can be made. The extent of project-level appropriations, combined with restrictions concerning the use of different funding sources (specifically the Nickel and the TPA), have curtailed WSDOT's ability to be responsive (i.e. manage its cash flow and operations) to the types of changes that are to be expected in a diverse transportation program of the magnitude of WSDOT's. There is no debate about the need for accountability or about WSDOT's, the Governor's, and the Legislature's commitment to the delivery of the projects identified in the Nickel and TPA

revenue packages. However, ensuring accountability to this commitment can be achieved without limiting WSDOT's flexibility to the extent that is presently the case, which now only permits transfers between projects within a particular revenue package.

### **Summary Recommendations**

1. Clarify process for approving transfers between Nickel projects and between TPA projects;
2. Increase flexibility to transfer funds between Nickel projects and TPA projects;
3. Increase flexibility to manage multiple dedicated funding streams. For example, allow Federal funds to be used for Nickel and TPA projects and vice versa, as long as the total budget for the Nickel and TPA projects does not drop below the approved amounts;
4. For new revenue packages, appropriate funds at the program level (with associated project lists as appropriate) or by group of projects;
5. Over time, work towards consistent reporting and fund management protocols for all projects. Currently, the requirements for Nickel and TPA projects are different from those for other projects;
6. Incorporate project development milestones into the budgeting process; and
  - For external reporting purposes, select a consistent set of milestones for all projects;
  - Always indicate the current milestone when a project's scope, budget, or schedule is listed or reported; and
  - Consider reporting cost estimate ranges for more projects.
7. Revise project status reporting.
  - Define consistent definitions for on time and on budget for all projects. Building off of the recommendations of the Transportation Working Group;
  - Establish a threshold for reporting project status. For projects above the threshold, report detailed information by milestone. For projects below the threshold, report progress as a whole (e.g., percent of projects completed on time); and
  - Ensure that Critical Applications Modernization and Integration effort results in the ability to clearly map deficiencies, projects, and contracts.

## 5.3 COMMUNICATION

### Study Conclusions

WSDOT produces a significant amount of budget and reporting information, which is entirely consistent with the magnitude of its programs and essential for WSDOT to effectively manage its operations. However, the existing document centric approach to presenting this material combined with the current program structure and focus on reporting by source of funds, mean that there is practically no way for a person or entity outside of WSDOT to reasonably absorb and understand the information. The World Wide Web and associated technologies were created to help organize large amounts of information and facilitate navigation through it. WSDOT already utilizes its web site to present information about its budget, programs and implementation status. However, with respect to its efforts to communicate the budget and report on its implementation, WSDOT uses its web site primarily as a means allow people to locate PDF versions of physical documents. There is a significant opportunity to address many of the communication issues raised during this study by actually presenting material in rich web pages to supplement the existing PDF documents.

### Summary Recommendations

1. WSDOT should adopt a higher-level roll-up of its programs for the initial presentation and communication of its budget;
2. A concise summary of what the budget is designed to purchase in the context of its impact on the overall system should be included as part of the budget presentation;
3. WSDOT should either incorporate lists of project directly into the budget presentation or provide links to these lists, not simply reference one or more external lists;
4. WSDOT should consider increasing the prominence with which the debt service is explained in the budget presentation;
5. WSDOT should stop referring to programs and subprograms in budget presentations and related material by alphanumeric designator, and it should strive to make all of its program names descriptive and unambiguous;
6. WSDOT should supplement the existing paper document centric presentation of the budget by implementing a web-based system that provides multiple ways of viewing the budget, facilitates navigation around the budget, and allows the budget to be viewed in varying levels of details;
7. Review, refine, standardize, and eliminate duplication from the existing external implementation reports;
8. WSDOT should expand its use of web technology to present interactive summary program delivery statistics;

9. Consider the implementation of a WSDOT program dashboard on its web site to better communicate system and program-level performance;
10. Strengthen the existing program education sessions;
11. Supplement existing education efforts with a regular session or sessions that focuses specifically on the aspects of the transportation program that make it different than other state programs. The material presented in this session also should be published on WSDOT's web site and in a form that can be readily printed; and
12. Consider the elimination of as many points of confusion as possible from initial budget presentations. Three examples that might be considered include:
  - The capital/operating distinction (e.g., when does maintenance become capital preservation? Where is the division of labor between capital and operating programs?);
  - A top-level program structure that mixes primary activities, modes, and support activities; and
  - Minimizing the extent to which project definitions change.



# Budget Methodologies Study

executive

summary

*prepared for*

**State of Washington Joint Transportation Committee**

*prepared by*

**Cambridge Systematics, Inc.**



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*executive summary*

# **Budget Methodologies Study**

*prepared for*

State of Washington Joint Transportation Committee

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Cambridge Systematics, Inc.  
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*date*

July 2006

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# Executive Summary

## BACKGROUND

In the early 1990s, the Washington State Legislative Transportation Committee (LTC) conducted the Programming and Prioritization Study (PAPS) to examine the programming process used by the Washington State Department of Transportation (WSDOT). The topics addressed in that study included the overall program structure used for the highway program; the prioritization methods used to select projects within different program categories; the capital program and budget process; and the degree to which WSDOT was complying with Legislative requirements, particularly the requirements set forth in the Revised Code of Washington (RCW) Section 47.05. As a result of that effort, significant changes were made to RCW 47.05 and to the approach used by WSDOT for highway capital programming and budgeting. These changes included a simplified program structure, a revised prioritization process, and a stronger emphasis on performance measurement and accountability.

Since the conclusion of the PAPS, the transportation budget process in Washington has continued to evolve. This evolution has been driven by a variety of factors, including: WSDOT's programming and budgeting implementation efforts; the passage of two very significant new revenue packages (Nickel and TPA) that added \$11 billion to the transportation program over a period of 16 years; natural turnover in the legislature; changes to the legislative staff structures that support the transportation committees; and most recently, the transition of WSDOT to a cabinet agency. In light of these changes and with continued interest in the transportation budget process, funding was identified in the 2005 Legislative Session and included in the Transportation Budget for the Joint Transportation Committee (JTC) to conduct an analysis of the methodology used to structure, develop, and communicate the Transportation Budget for Washington State. In September of 2005, the JTC issued a request for proposals for a Budget Methodologies Study of the Washington State Department of Transportation. Cambridge Systematics, Inc. was selected for this work.

**This executive summary presents the Study's key findings and recommendations, for which additional support and discussion can be found in the complete version of the final report.**

## STUDY OBJECTIVE AND APPROACH

The objective of the Budget Methodologies Study of WSDOT was to identify specific and practical steps that can be taken to strengthen the transportation budgeting process' role in defining, evaluating, and communicating critical

policy issues that confront Washington. The specific areas addressed by this study included:

- **Program Structure** - Are there changes to the current program structure that will improve the budgeting process, better highlight key policy choices, and better communicate the core objectives and rationale for the transportation budget?
- **Budget Process** - Are there changes to the budget process that both address the Legislature's desire for accountability and enable the Governor's Office and WSDOT to manage and deliver the transportation program more effectively?
- **Communication** - Are there changes to the organization and presentation of WSDOT's budget that will help the Legislature and the public better understand it?

The findings and recommendations detailed in this study are the result of a variety of research activities, including: interviews with approximately 20 individuals from WSDOT, the Office of Financial Management (OFM), committee chairs, ranking and other members, and staff of both House and Senate Transportation committees, the Washington Transportation Commission, and the Legislative Evaluation and Accountability Program (LEAP). The findings and recommendations also are based on a comprehensive review of existing Washington State Transportation Budget material, as well as other related studies; and a review of the budget practices in a number of peer agencies - primarily the Departments of Transportation in Arizona, Colorado and Wisconsin.

It should be noted that as required by legislation, the budget methodologies study was coordinated with a number of other efforts that either overlapped with, or were otherwise closely related. These other efforts included: WSDOT's Critical Applications Replacement Design (CARD) Project; WSDOT's Statewide Program Management (SPM) effort; Washington State's Transportation Performance Audit Board's (TPAB) Study of Transportation Goals, Benchmarks and Ten-Year Investment Criteria and Process; and OFM's Roadmap Project.

## PROGRAM STRUCTURE

This portion of the study was designed to evaluate the effectiveness of WSDOT's current program structure as a framework for resource allocation and budget decisions. Specifically:

- Does the program structure facilitate policy and budget decision-making;
- Is the program structure useful as a tool for communicating budget decisions; and
- Does the program structure provide a reasonable basis for budget implementation and program delivery?

An effective program structure addresses these management needs while supporting transparency in budget decision-making and accountability for subsequent program expenditures.

Figure ES.1 illustrates WSDOT’s existing top-level programs along with the funding initially appropriated for the 2005-2007 budget by the passage of Engrossed Substitute Senate Bill 6091. The existing programs have been classified according to whether they are considered operating programs or capital programs or a combination of operating and capital programs.

**Figure ES.1 Existing WSDOT Program Structure**  
*Capital and Operating Programs*

Capital Programs	Capital and Operating Programs	Operating Programs		
Washington State Ferries Construction \$261.4M , 5.8%	Facility Maintenance, Operations, and Construction \$36.0M, 0.8%	Program Delivery Management and Support \$49.7M, 1.1%	Toll Operations and Maintenance \$8.6M, 0.2%	Transportation Planning, Data, and Research \$50.3M, 1.1%
Improvements (Highway) \$2,303.8M , 51.0%	Traffic Operations \$77.7M, 1.7%	Economic Partnerships \$1.0M, <0.1%	Information Technology \$66.8M, 1.5%	Public Transportation \$65.0M, 1.4%
Preservation (Highway) \$649.0M, 14.4%	Rail \$124.1M, 2.7%	Highway Maintenance \$302.4M, 6.7%	Transportation Management and Support \$27.8M, 0.6%	Charges from Other Agencies \$45.4M, 1.0%
	Local Programs \$85.5M, 1.9%	Marine (Puget Sound Ferries) \$354.1M, 7.8%		Aviation \$9.0M, 0.2%

Source: Engrossed Substitute Senate Bill 6091, Washington State Legislature, approved May 2005.

The existing WSDOT program structure is logical from the point of view that it effectively subdivides WSDOT’s overall program into a mixture of modes and primary and supporting activities. It is clearly well aligned with both the way in which WSDOT is organized and how it actually manages its work. With that said, in comparing WSDOT’s program structure to the three peer agencies and based upon the stakeholder interviews a number of key themes emerged and are summarized herein.

- **A Higher-Level Roll-Up of the Existing Program Structure Should be Implemented** - With a total of 18 programs, WSDOT's current top-level program structure is significantly broader than the top-level structures used by each of the Arizona, Colorado and Wisconsin departments of transportation, which have four, five and 10 top-level categories respectively. Without exception, all of the stakeholders interviewed during the course of the study indicated that a higher-level categorization of the programs would be helpful. The major benefits of such a higher-level roll-up would be i) to improve the ability to connect budget priorities to overall policy goals, and ii) to communicate the contents and objectives of the transportation budget to the legislature and the general public.
- **The Ability to Differentiate Capital and Operating Expenses Should be Maintained** - Regardless of how prominent this distinction might be in the selected higher-level roll-up of programs, it is believed that maintaining the ability to distinguish between operating and capital components of the budget is critical.
- **The Existing Level of Detail must be Maintained and Expanded in the Areas of Ferries and Rail** - Notwithstanding the interest in a higher-level categorization of the existing programs, the study also confirms that it is critical that the program structure supports the ability to incrementally drill-down to increasing levels of detail. This characteristic was observed in the program structures of each of the three peer agencies considered. There is no question that the legislature, OFM and other interested parties want to be able to view the level of detail currently provided (i.e., beneath whatever high-level categorization that might be used initially). Furthermore, in the areas of Ferries and Rail, it is perceived that the current program structure should be extended in order to improve understanding of the different types of expenditures in these areas.

## Program Structure Conclusions

WSDOT's existing program structure includes too many top-level programs. The number (18) of top-level programs makes providing a succinct description of its overall program objectives difficult, if not impossible. Furthermore, by using the existing program structure as the starting point for communicating the budget, WSDOT effectively overwhelms many of the people that are interested in understanding it (including the general public, OFM and the Legislature). Finally, the mixture of modes and primary and supporting activities in the top-level programs makes creating/observing direct linkages between the program structure and the Governor's Priorities of Government initiative or WSDOT's own strategic initiatives challenging.

## Program Structure Recommendations

1. WSDOT should reduce the number of top-level program categories used in its initial budget presentation;



2. Maintain the ability to distinguish between operating and capital expenditures; and
3. Add subprograms beneath the existing programs for Ferries and Rail.

## **BUDGET PROCESS**

Most of the issues raised in this area focused on the complexity of the transportation budget, the difficulties in tracking and communicating project changes, and the key policies, or policy context, that drive budget decisions. The basic budget process and the budget schedule were not identified as issues. While it was anticipated that the shift of WSDOT to a cabinet agency in 2005 might have significant implications for the budget process, during the time that this study was occurring, the shifting roles among WSDOT, OFM, the Legislature, and the Transportation Commission were still evolving and therefore could not be evaluated.

While most of the participants in the transportation budget process express frustration with some aspects of the process, there also is a clear willingness to consider some changes to the existing process to improve its effectiveness. Based on the interviews conducted as part of this project and a review of the large amount of budget-related materials available, the key to improving the existing budget process lies in developing the right balance between the Legislature's desire for oversight and its need to establish accountability, and the Governor's Office and WSDOT's need to manage and deliver the budget and the State's transportation program effectively. With this context, the budget process section of the study focused on three main areas: i) project versus program appropriations; ii) tracking project scope, budget and schedule; and iii) the policies that guide the budget development process.

### **Project versus Program Appropriation**

The manner in which funds are appropriated in the budget process can have a significant impact on the complexity of the budget, how accountability for project delivery is established, and on WSDOT's ability to manage both program delivery and the use of funds from different revenue sources. Prior to the 2003 - 2005 biennium, Washington State's transportation budget was appropriated by program. The peer agency review conducted as part of this study revealed that in general, appropriating transportation funding at the program level appears to be the most common approach, although other agencies also include specific project references in some cases.

The passage of the Nickel and TPA revenue packages in 2003 and 2005, with their associated lists of projects and project costs, represented a significant shift in the State's appropriation approach. Many stakeholders felt that the identification of the specific projects to be constructed with the new revenue was critical to passing the legislation. It also provided the Legislature with an opportunity to strengthen

its role in assuring accountability for delivering these projects. On the other hand, the project appropriation process also has created additional limitations on fund transfers and the use of different funding sources, which could adversely impact WSDOT’s flexibility to manage the project and program delivery process. Table ES.1 summarizes the impacts of different appropriation approaches. Please note that the “Resulting Ability To” values are in the context of the appropriation approach only and in each case there are other ways to achieve these results.

**Table ES.1 Evaluation of Appropriation Options**

Level of Appropriation	Resulting Ability To:			
	Gain Public Support for Revenue Increase	Manage Change	Manage Funds Use and Make Transfers	Monitor Delivery
Program	Low	High	High	Low
Groups of Projects	Medium	Medium	Medium	Medium
Projects	High	Low	Low	High

### Tracking Project Scope, Budget and Schedule

Accountability for project delivery is a critical factor in establishing and maintaining support for Washington’s transportation program and budget and is a concern for all projects not just Nickel and TPA projects. Reflecting the importance of project delivery accountability a working group with representation from WSDOT, OFM, and the Legislature continues to meet and work together to establish and improve a variety of performance and accountability reporting mechanisms and systems. However, despite significant efforts to address this issue, changes in project scopes, schedules, and budgets are the single biggest cause of frustration with the budget process. Unfortunately, information (especially cost) is provided in support of the transportation budget, even though this information is often provided very early in the project development life cycle, which all but guarantees it will change.

This study identified and investigates three key dimensions to this problem:

- Inherent uncertainty and risk in the project development process;
- Variations in the specific elements or geographic extent of projects that cause confusion and raise questions about the reliability of information; and
- Limitations, or a lack of integration and consistency, among the information systems that support project development, monitoring and reporting during different project phases.

This study can report that all of these issues are well known by the participants in the budget process and significant work is occurring to address them.

## Policies that Guide the Budget Development Process

There was some discussion about the policy context for the budget. This discussion was related to the following observations:

- **Legislative Involvement** - The first observation, that was raised by a number of legislative (members and staff) stakeholders, is the recognition that legislative involvement in the project selection process increased in the recent new revenue packages (Nickel and TPA). As noted previously, the identification of specific projects in these revenue packages was widely viewed as key to their passage, however, whether or how this is consistent with the legislatively mandated project prioritization process is unclear. Ultimately, because the projects included in the revenue packages were selected from a WSDOT provided prioritized lists of candidate projects, none of the stakeholders questioned that the selected projects were/are not all good investments on the merits.
- **Diffuse Legislation Includes Conflicting Priorities** - The second observation is that repeated attempts to try to clarify the transportation investment prioritization policy in the legislation has resulted in the topic being discussed in a number of places in the legislation, and in each case differently. In essence the existing legislative guidance in the area of investment prioritization is diffuse and in some cases even conflicting. This issue was well documented in the TPAB Study of Transportation Goals, Benchmarks and Ten-Year Investment Criteria and Process, which was completed shortly after the budget study commenced. The TPAB study included a number of recommendations designed to help Washington clarify its policy.
- **Future Operating and Preservation Costs of Improvements** - The third observation, that was raised by a number of stakeholders during the study, is that although the passage of the two new revenue packages was a considerable achievement, it is not clear that sufficient thought has been given to the additional operating and preservation costs that the resulting improvements will required in the future.

## Budget Process Conclusions

In an attempt to ensure WSDOT accountability, the legislature has appropriated almost 40 percent of the current WSDOT's budget at the project level, and it has put in place strict requirements and authorization procedures that control when and how adjustments to individual project 'budgets' can be made. The extent of project-level appropriations, combined with restrictions concerning the use of different funding sources (specifically the Nickel and the TPA), have curtailed WSDOT's ability to be responsive (i.e. manage its cash flow and operations) to the types of changes that are to be expected in a diverse transportation program of the magnitude of WSDOT's. There is no debate about the need for accountability or about WSDOT's, the Governor's, and the Legislature's

commitment to the delivery of the projects identified in the Nickel and TPA revenue packages. However, ensuring accountability to this commitment can be achieved without limiting WSDOT's flexibility to the extent that is presently the case, which now only permits transfers between projects within a particular revenue package.

### **Budget Process Recommendations**

1. Clarify process for approving transfers between Nickel projects and between TPA projects;
2. Increase flexibility to transfer funds between Nickel projects and TPA projects;
3. Increase flexibility to manage multiple dedicated funding streams. For example, allow Federal funds to be used for Nickel and TPA projects and vice versa, as long as the total budget for the Nickel and TPA projects does not drop below the approved amounts;
4. For new revenue packages, appropriate funds at the program level (with associated project lists as appropriate) or by group of projects;
5. Over time, work towards consistent reporting and fund management protocols for all projects. Currently, the requirements for Nickel and TPA projects are different from those for other projects;
6. Incorporate project development milestones into the budgeting process; and
  - For external reporting purposes, select a consistent set of milestones for all projects;
  - Always indicate the current milestone when a project's scope, budget, or schedule is listed or reported; and
  - Consider reporting cost estimate ranges for more projects.
7. Revise project status reporting.
  - Define consistent definitions for on time and on budget for all projects. Building off of the recommendations of the Transportation Working Group;
  - Establish a threshold for reporting project status. For projects above the threshold, report detailed information by milestone. For projects below the threshold, report progress as a whole (e.g., percent of projects completed on time); and
  - Ensure that Critical Applications Modernization and Integration effort results in the ability to clearly map deficiencies, projects, and contracts.

## **COMMUNICATION**

A significant volume of material is produced and made available to document WSDOT's budget and report on its implementation progress. However,

WSDOT's budget is still considered too complex and difficult to understand, even by many legislators that have been involved in transportation over a number of years. The central communication issue is the need to balance the size and complexity of the WSDOT budget with an appreciation of the variation in the audiences interest in the details. The communication section of the study focused on three main areas: i) the budget presentation; ii) reporting on budget implementation; and iii) budget education. Highlights from each area are provided below:

- **Budget Presentation**

- Transportation budgets are lengthy and complex and WSDOT's is no exception;
- Multiple budget presentations are common - these may be generated by different organizations and are intended for different purposes, but it is important to understand exactly what it is that you are looking at;
- Different readers may prefer to see the budget presented in different ways, but the paper document centric form of existing presentations limit the extent to which this can be practically provided;
- The distinction between capital and operating expenses is not prominent in all transportation budgets;
- The structure used to present the budget can differ from the agencies organizational structure and/or the structure that is used to develop the budget;
- WSDOT's initial budget presentation uses more top-level program categories than each of the peer agencies reviewed;
- Locating information about WSDOT's budget is very straight forward; and
- Washington's budget legislation is very consistent with WSDOT's Current Law Budget.

- **Reporting on Budget Implementation**

- The number, depth and breadth of reports made available by WSDOT tend to overwhelm many interested observer;
- The narrative and discussion of projects and issues must be developed and made available, however, for external audiences it should be provided in support of clear and concise summary statistics;
- WSDOT's web site offers significant untapped potential as a vehicle for communicating implementation performance;
- Consistency in its reporting is key for WSDOT to maintain the highest level of credibility with and confidence of the Legislature, Governor, OFM and the general public;

- Ongoing efforts to improve the consistency of mapping projects to contracts should be pursued to the extent that it is practical;
  - Until a number of critical information systems at WSDOT are replaced there will continue to be practical limitations to WSDOT's ability to provide all desired reports in a timely and consistent manner;
  - Reporting on individual project delivery is critical, however, it needs to be balanced with reporting on system-level performance; and
  - WSDOT must strike a balance between immediate broadcasting of issues as they are encountered versus being able to accurately ascertain the extent of a problem.
- **Budget Education**
    - Education efforts associated with the transportation budget are hampered by the existing top-level program structure (i.e., it has too many program categories);
    - Transportation is sufficiently different from other state programs that even the most effective budget materials and implementation reports must be effectively supplemented to improve a reader's understanding;
    - Consideration must be given to the limited amount of time that a reader/reviewer, including legislators, will be able to dedicate to the issue of transportation and therefore material must be summarized to a reasonable level; and
    - As the level of granularity at which the legislature appropriates transportation funding increases, so to will the level of effort necessary for effective education about the budget.

## Communication Conclusions

WSDOT produces a significant amount of budget and reporting information, which is entirely consistent with the magnitude of its programs and essential for WSDOT to effectively manage its operations. However, the existing document centric approach to presenting this material combined with the current program structure and focus on reporting by source of funds, mean that there is practically no way for a person or entity outside of WSDOT to reasonably absorb and understand the information. The World Wide Web and associated technologies were created to help organize large amounts of information and facilitate navigation through it. WSDOT already utilizes its web site to present information about its budget, programs and implementation status. However, with respect to its efforts to communicate the budget and report on its implementation, WSDOT uses its web site primarily as a means to allow people to locate PDF versions of physical documents. There is a significant opportunity to address many of the communication issues raised during this study by actually presenting material in rich web pages to supplement the existing PDF documents.

## Communication Recommendations

1. WSDOT should adopt a higher-level roll-up of its programs for the initial presentation and communication of its budget;
2. A concise summary of what the budget is designed to purchase in the context of its impact on the overall system should be included as part of the budget presentation;
3. WSDOT should either incorporate lists of project directly into the budget presentation or provide links to these lists, not simply reference one or more external lists;
4. WSDOT should consider increasing the prominence with which the debt service is explained in the budget presentation;
5. WSDOT should stop referring to programs and subprograms in budget presentations and related material by alphanumeric designator, and it should strive to make all of its program names descriptive and unambiguous;
6. WSDOT should supplement the existing paper document centric presentation of the budget by implementing a web-based system that provides multiple ways of viewing the budget, facilitates navigation around the budget, and allows the budget to be viewed in varying levels of details;
7. Review, refine, standardize, and eliminate duplication from the existing external implementation reports;
8. WSDOT should expand its use of web technology to present interactive summary program delivery statistics;
9. Consider the implementation of a WSDOT program dashboard on its web site to better communicate system and program-level performance;
10. Strengthen the existing program education sessions;
11. Supplement existing education efforts with a regular session or sessions that focuses specifically on the aspects of the transportation program that make it different than other state programs. The material presented in this session also should be published on WSDOT's web site and in a form that can be readily printed; and
12. Consider the elimination of as many points of confusion as possible from initial budget presentations. Three examples that might be considered include:
  - The capital/operating distinction (e.g., when does maintenance become capital preservation? Where is the division of labor between capital and operating programs?);
  - A top-level program structure that mixes primary activities, modes, and support activities; and
  - Minimizing the extent to which project definitions change.