



Testimony

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MASS TRANSIT

WMATA Is Addressing Many Challenges, but Capital Planning Could Be Improved

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Madam Chairwoman and Members of the Subcommittee:

We appreciate the opportunity to testify on the challenges faced by the Washington Metropolitan Area Transit Authority (WMATA). In recent years, WMATA's public transit system has experienced problems related to the safety and reliability of its transit services, including equipment breakdowns, delays in scheduled service, unprecedented crowding on trains, and some accidents and tunnel fires. Moreover, WMATA's ridership is at an all-time high and WMATA managers expect the number of passengers to double over the next 25 years.

Our statement today is based on a report we issued in July 2001.¹ We will discuss (1) the challenges WMATA faces in operating and maintaining its Metrorail system and the steps WMATA is taking to address those challenges; (2) the efforts WMATA has made to establish and monitor safety and security within its transit system; and (3) the extent to which WMATA follows established best practices in planning, selecting, and budgeting for its capital investments.

In summary, we found:

- In operating its Metrorail system, WMATA is examining ways to ease crowding on the system's rail cars and determining whether and how to expand Metrorail's maintenance and repair shop capacity as WMATA acquires nearly 200 new rail cars to help meet increasing ridership demands. WMATA has also undertaken a comprehensive program for infrastructure renewal and it is currently studying what improvements or modifications will be required to Metrorail's "core" capacity to accommodate the agency's goal of doubling ridership by the year 2025.
- WMATA's safety program has evolved since the mid-1990s, when a series of accidents and incidents led to several independent reviews citing the need for program improvements. Since then, WMATA has updated its safety and security plans and upgraded its internal safety organization. Despite a recent rise in the number of rail and bus safety incidents, WMATA has experienced low rates of injury and serious

¹ *Mass Transit: Many Management Successes at WMATA, but Capital Planning Could Be Enhanced* (GAO-01-744, July 3, 2001).

crimes over the years. WMATA monitors safety and crime statistics and has a number of ongoing targeted efforts to reduce safety incidents and deter specific types of crime on its transit systems. WMATA also has formal protocols in place for responding to accidents, natural disasters, and acts of terrorism, but we did not evaluate the adequacy of these protocols.

- WMATA has adopted several of the best capital investment practices used by leading public and private sector organizations, but it could benefit by establishing a more formal, disciplined framework for its capital decision-making process. We note that although WMATA has articulated a goal of doubling ridership by the year 2025, it has not fully developed a strategic planning process that defines long-term, multiyear goals and objectives and clearly links its capital projects to achieving them. We also note that WMATA has incorporated some elements of an investment approach—that is, one that builds upon an assessment of where an agency should invest its resources for the greatest long-term benefit—when evaluating and selecting its capital improvement projects. However, it does not have a formal framework for periodically reviewing, prioritizing, and deciding on capital investments; and it has not developed a long-term capital plan that defines its capital decisions. Finally, WMATA has used a wide variety of innovative financing techniques for capital projects, but it has not developed plans that describe how it would address large anticipated shortfalls in its capital programs. Our report contained several recommendations to strengthen WMATA’s strategic and capital planning processes and WMATA agreed with most of them.

Background

WMATA was created in 1967 by an interstate compact that resulted from the enactment of identical legislation by Virginia, Maryland, and the District of Columbia, with the concurrence of the U.S. Congress.² WMATA began building its Metrorail system in 1969, acquired four regional bus systems in 1973, and began operating the first phase of Metrorail operations in 1976. In January 2001, WMATA completed the originally planned 103-mile Metrorail system that now includes 83 rail stations on 5 rail lines.³

²Washington Metropolitan Area Transit Authority Compact, Public Law No. 89-774 (1966).

³WMATA operates five rail lines: red, blue, orange, green, and yellow.

WMATA operates in a complex environment, with many organizations influencing its decision-making and funding and providing oversight. WMATA is governed by a Board of Directors, which sets policies and oversees all of WMATA's activities, including budgeting, operations, development and expansion, safety, procurement, and other activities. In addition, a number of local, regional, and federal external organizations affect WMATA's decision-making, including (1) state and local governments, which subject WMATA to a range of laws and requirements; (2) the Tri-State Oversight Committee, which oversees WMATA's safety activities and conducts safety reviews; (3) the National Capital Region Transportation Planning Board (TPB) of the Metropolitan Washington Council of Governments (COG), which develops the short- and long-range plans that guide WMATA's capital investments; (4) the Federal Transit Administration (FTA), which provides oversight of WMATA in many areas; and (5) the National Transportation Safety Board, which investigates accidents on transit systems as well as other transportation modes.

WMATA estimates that its combined rail and bus ridership will total 324.8 million passenger trips in fiscal year 2001, making it the second largest heavy rail rapid transit system and the sixth largest bus system in the United States, according to WMATA officials. WMATA experienced dramatic ridership growth over the past year, with systemwide ridership increasing by 7 percent from July 2000 to July 2001. WMATA's proposed fiscal year 2002 budget totals nearly \$1.9 billion. Of the total amount, about 56 percent, or \$1.06 billion, is for capital improvements; 42 percent, or \$796.6 million, is for operations and maintenance activities; and the remaining 2 percent, or \$37 million, is for debt service and other projects.

WMATA's funding comes from a variety of federal, state, and local sources. Unlike most other major urban transit systems, WMATA does not have dedicated sources of tax revenues, such as local sales tax revenues, that are automatically directed to the transit authority. WMATA receives grants from the federal government and annual contributions by each of the local jurisdictions that WMATA serves, including the District of Columbia and the respective local jurisdictions in Maryland and Virginia. For example, in its fiscal

year 2002 proposed operating budget totaling \$796.6 million (for rail, bus, and paratransit⁴ services), WMATA projects that approximately 55 percent of its revenues will come from passenger fares and other internally generated revenues, and 45 percent will come from the local jurisdictions served by WMATA. In its capital program for infrastructure renewal, WMATA projects that about 47 percent of its proposed 2002 budget will come from federal government grants, 38 percent from federally guaranteed financing, and 15 percent from the local jurisdictions and other sources. WMATA has also received funding directly through the congressional appropriations process over the past 30 years—totaling about \$6.9 billion—for construction of the originally planned subway system. WMATA did not have to compete against other transit agencies for this funding, which ended in fiscal year 1999.

WMATA Is Addressing Significant Metrorail Operations and Maintenance Challenges

One of the key operating challenges facing WMATA's Metrorail system has been the increasing problems caused by the advancing age of its existing infrastructure. The system has experienced vehicle, escalator, elevator, and other system equipment and infrastructure problems over the past several years. These problems have resulted in, among other things, a 64-percent increase in the number of train delays—from 865 in fiscal year 1996 to 1,417 in fiscal year 2000.⁵ WMATA attributes these problems primarily to its aging rail equipment and infrastructure. For example, 39 percent of Metrorail's 762-car fleet has been operating since 1976; another 48 percent went into service during the 1980s.

WMATA is addressing Metrorail's equipment and infrastructure problems through a number of projects in its capital-funded Infrastructure Renewal Program (IRP). Under one key IRP project—the Emergency Rail Rehabilitation Program—WMATA has made significant progress in implementing many rail system improvement projects. For example, by August 2000, WMATA had completed almost all of the program's accelerated

⁴WMATA coordinates a regional paratransit system called "MetroAccess" that provides public transit services to individuals with disabilities who either reside in or are visiting the WMATA service area.

⁵According to WMATA officials, non-equipment-related train delays accounted for about 14 percent of the delays in fiscal year 1996 and 18 percent in fiscal year 2000. Such delays increased by 108 percent, from 121 in fiscal year 1996 to 252 in fiscal year 2000. Officials attributed these delays to an increase in ridership and rail fleet miles.

car maintenance projects on such critical components as brakes and doors on over 600 rail cars. In addition, WMATA's statistics show that for the period covering July 2000 through January 2001, the number of passenger offloads had decreased by 15 percent, compared with the same period in the previous year. Furthermore, by June 2000, work was under way to maintain and rehabilitate 170 station escalators.

Metrorail also faces another significant operating challenge brought about by ever-increasing ridership. Metrorail is now operating at near capacity during peak demand periods, causing some uncomfortably crowded trains. WMATA's recent studies on crowding found that demand has reached and, in some cases, exceeded scheduled capacity—an average of 140 passengers per car—during the peak morning and afternoon hours. For example, of the more than 200 peak morning trips that WMATA observed over a recent 6-month period, on average, 15 percent were considered “uncomfortably crowded” (125 to 149 passengers per car); and 8 percent had “crush loads” (150 or more passengers per car). Metrorail's overcrowded conditions are primarily the result of the substantial growth in ridership it has experienced over the last several years, an insufficient number of rail cars to operate more and longer trains on a regular basis, and system and other constraints on expanding trains to eight cars—the maximum size that station platforms can accommodate.

WMATA has several actions under way to ease Metrorail's overcrowded conditions. Most notably, the agency ordered 192 new rail cars that it began deploying in August 2001. Over the next year or so, WMATA plans to deploy the majority of these cars where and when the heaviest ridership is occurring, allowing for adjustments to train sizes. For example, on some lines, the train size will change from four cars to six cars.

WMATA is also studying what improvements or modifications will be required to Metrorail's “core” capacity to accommodate the agency's goal of doubling ridership by the year 2025. Metrorail's core consists of 29 stations located in downtown Washington, D.C., and some of its immediate suburbs in Virginia. Although these core stations serve nearly 60 percent of all systemwide passengers, they contain only 17 to 36 percent of the total system's infrastructure.⁶ In the study, WMATA is projecting the extent to which

⁶For example, the core stations have 17 percent of the total system's station interchanges, 19 percent of total trackage, and 36 percent of the total platforms.

passenger demands will exceed the capacity of critical Metrorail elements (e.g., stations, platforms, rail line capacity, etc.) in the coming years and exploring alternative solutions for addressing those capacity constraints. WMATA expects to complete the study by the end of 2001.

Finally, Metrorail's maintenance and repair shop capacity could be challenged as early as the fall of 2001 with the scheduled delivery of the first group of new rail cars. Depending on the number of cars that can be repaired outside of the shops, WMATA could need up to 126 repair shop spaces, or 12 more than the 114 spaces that would be available for scheduled maintenance and unscheduled repairs at that time. Furthermore, Metrorail's repair shop capacity may be exhausted and could become even more of a problem after the fall of 2002, when delivery of the remaining new cars is expected to be completed. In addition, WMATA plans to acquire a total of at least 94 additional rail cars to accommodate new revenue service on the Largo extension to the Blue Line in Maryland (which is currently under construction); increased demand on the Orange Line in Virginia due to service expansion; and service growth on other existing rail lines, thus adding to the maintenance and repair shop capacity problem.

WMATA officials pointed out that they are taking steps to ease the capacity problem. For example, in the near term, WMATA has four "blow down pits"—spaces in its largest shops used to clean the underside of a car prior to its scheduled maintenance—that can also be used for maintenance and repair. In addition, WMATA plans to open a new facility in 2002 that will expand its current shop capacity to accommodate 126 rail cars. At the same time, however, WMATA recognizes that it currently does not have the capacity to maintain and repair the additional cars for the Largo extension. WMATA is taking two actions to address this problem. First, WMATA is surveying its existing shops to determine whether their capacity can be expanded. The agency expects to complete the survey in the fall of 2001, possibly beginning expansion efforts as early as 2002. Second, WMATA plans to build a new repair shop in the Dulles Corridor. However, this facility would not be available until about 2010, when construction of the Dulles Corridor extension is to be completed.

WMATA Has Established Safety and Security Programs

WMATA has established programs to address safety and security risks that affect its rail and bus systems. WMATA's safety program has evolved since the mid-1990s, when a series of rail accidents and incidents led to several independent reviews that cited the need for program improvements. For example, in 1997, FTA reported the results of a safety review it performed of WMATA's rail activities in response to several serious accidents and incidents that occurred in 1996. The review concluded that WMATA had not adequately maintained a planned approach to safety program tasks or dedicated appropriate financial and personnel resources to accomplish these tasks. In addition, FTA found that WMATA's safety efforts had been weakened by frequent changes in the organizational reporting level of its safety department and a deemphasis of safety awareness in public and corporate communications. The review also found that WMATA's safety department had been moved from place to place in the organization, making its work difficult, its priorities uncertain, and its status marginal.

WMATA's newly-appointed General Manager responded to these criticisms by upgrading and enhancing the agency's safety activities. For example, the General Manager made safety a priority by reviewing the transit authority's safety function and revising its system safety program plan, which contains detailed protocols for identifying and assessing hazards. WMATA's safety plan also includes requirements for identifying, evaluating, and minimizing safety risks throughout all elements of the WMATA rail and bus systems. The plan also identifies management and technical safety and fire protection activities to be performed during all phases of bus and rail operations. In addition, WMATA's General Manager delegated specific safety responsibilities to the transit agency's Chief Safety Officer, who reports directly to the General Manager and is now responsible for (1) managing system safety, occupational safety and health, accident and incident investigation, and fire protection; (2) overseeing construction safety and environmental protection; and (3) monitoring the system safety program plan. By elevating its internal safety organization and increasing its emphasis on safety activities, WMATA has given safety a higher degree of attention and priority.

More recently, following a serious tunnel fire in 2000, WMATA created a safety task force to review its Operations Control Center's handling of the incident. In addition, WMATA's

General Manager asked the American Public Transportation Association (APTA) to conduct a comprehensive peer review of the transit agency's emergency procedures for handling tunnel fires. APTA's findings and recommendations, in several ways, confirmed the findings identified in WMATA's internal investigation. For instance, both investigations supported the need for efforts to formalize and strengthen training for Operations Control Center personnel and ensure that emergency procedures are addressed in the training and certification of operations staff. The two reviews made 32 recommendations concerning, among other things, communications policy and training. At the time of our review, WMATA had taken actions to implement 30 of the 32 recommendations, including providing training to its staff on communicating more effectively with fire authorities and opening a fire training center for WMATA employees and local firefighters. WMATA is in the process of addressing the other two recommendations.

Despite a recent rise in the number of rail and bus safety incidents, which WMATA attributes to the large increase in rail and bus ridership and the recent hiring of many new bus drivers, APTA and FTA now believe that WMATA has a "very good" safety program as evidenced by the low injury rates on both its rail and bus systems. For example, WMATA has experienced low injury rates in its rail stations over the last 5 years—on average, only .37 injuries per 1 million passenger miles. Very few of these injuries were serious or fatal. However, the absolute number of rail station injuries increased from 366 in fiscal year 1999 to 474 in fiscal year 2000, and the rail station injury rate increased slightly during those years. WMATA documents also show that about 50 percent of all rail injuries occurred on escalators. According to WMATA's Chief Safety Officer, the root cause of the majority of these incidents is passenger behavior, not equipment failure, employee performance, or unsafe conditions. In fiscal years 1999 and 2000, for example, WMATA's records show that no escalator incidents were caused by electrical or mechanical failure or unsafe conditions. WMATA is promoting escalator safety by conducting public awareness campaigns and adding safety devices.

Similar to his initiatives affecting WMATA's safety program and plan, WMATA's General Manager has delegated authority to WMATA's Chief of Police to plan, direct, coordinate, implement, and evaluate all police and security activities for the transit agency. WMATA's Chief of Police heads the Metro Transit Police Department, which has an

authorized strength of 320 sworn and 103 civilian personnel. The Department has jurisdiction and arrest powers on WMATA property throughout the 1,500 square mile transit zone that includes Maryland, Virginia, and the District of Columbia. WMATA's Metro Transit Police Department addresses security through its system security program plan, participates in external security reviews, and collects and evaluates crime statistics. To emphasize the importance of system security, the Department established a set of comprehensive security activities in its system security program plan. The plan is designed to maximize the level of security experienced by passengers, employees, and other individuals who come into contact with the transit system; to minimize the cost associated with the intrusion of vandals and others into the system; and to make the transit system more proactive in preventing and mitigating security problems.

WMATA has also participated in FTA's voluntary transit security audit program, and FTA officials have concluded that WMATA's overall security program demonstrates a high level of attention to passenger and employee security. WMATA statistics indicate that serious crimes such as homicide and rape occur rarely on the transit system. During the period from 1996 through 2000, no rapes occurred, and there were two murders in the system. Most of the crimes committed in the transit system are far less serious, such as disorderly conduct and trespassing. More of the crimes are committed in the system's parking lots than on the rail and bus systems, and more crimes are committed on the rail system than on the buses. Some crimes, such as motor vehicle theft and robbery, increased somewhat from 1999 to 2000. To address those increases and the problem of crime in its parking lots, WMATA has increased undercover patrols of parking lots and rail stations.

WMATA's Chief of Police and Chief Safety Officer also have protocols and procedures in place for mitigating and responding to disasters and other emergencies involving mass casualties. For example, WMATA has entered into written agreements with local police, fire, and rescue departments to coordinate each organization's roles and responsibilities and define the procedures for responding to incidents. When an incident occurs, WMATA's role is generally one of "crisis management," identifying the level of threat, securing the scene and performing vital first response procedures until the local authorities arrive, and gathering evidence. WMATA officials also participate in numerous local committees and joint training exercises with local authorities and other

transportation providers in the metropolitan Washington region for the purpose of preparing for natural or man-made disasters and emergencies. In addition, WMATA is participating in a joint project with the U.S. Departments of Transportation and Energy to develop and install sensors that can detect and mitigate the release of chemical and biological agents in the Metrorail system.

WMATA Is Addressing its Major Capital Requirements but Could Benefit From a More Formal Capital Planning Process

WMATA operates in a complex environment that makes capital decision-making difficult. For example, unlike most other major urban transit systems, WMATA does not have a dedicated revenue source to fund its capital programs, thus subjecting the agency to the appropriations processes of the federal, state, and local governments that fund its programs. In addition, WMATA's General Manager and staff must achieve consensus and obtain final approvals for the agency's capital projects from many organizations and government levels, including its own Board of Directors; numerous local and state jurisdictions within the District of Columbia, Maryland, and Virginia that the transit agency serves; the Transportation Planning Board of the Metropolitan Washington Council of Governments; the Federal Transit Administration; and the U.S. Congress, which has provided WMATA with funding over the years to build its Metrorail system. While WMATA has incorporated some of the best capital investment practices followed by leading public and private sector organizations, we believe that WMATA could benefit by building on these practices by formalizing some aspects of its capital decision-making process and expanding its strategic and capital planning efforts.

WMATA created a Capital Improvement Program in November 2000 to consolidate its ongoing and planned capital improvement activities. This program has three elements to address all aspects of the agency's capital investments, including (1) an Infrastructure Renewal Program (IRP) for system rehabilitation and replacements, (2) a System Expansion Program (SEP), and (3) a System Access and Capacity Program (SAP). First, IRP is designed to rehabilitate or replace WMATA's existing assets, including rail cars, buses, maintenance facilities, tracks, and other structures and systems. WMATA officials have estimated that IRP will cost \$9.8 billion over the next 25 years. Second, SEP is

designed to expand fixed guideway services,⁷ selectively add stations and entrances to the existing Metrorail system, and improve bus service levels and expand service areas. WMATA has not yet estimated the total costs associated with its planned SEP projects. Third, SAP—which WMATA estimates will cost about \$2.5 billion over the next 25 years—was established to improve access to and the capacity of the transit system by providing additional rail cars and buses, parking facilities, and support activities to accommodate ridership growth. Under SAP, WMATA is also studying the modifications needed to Metrorail’s core capacity to sustain current and future ridership volumes; WMATA expects to complete the study by the end of December 2001. Estimated costs for SAP could significantly increase as a result of this study.

GAO issued a report in December 1998⁸ that identified capital decision-making principles and practices used by outstanding state and local governments and private sector organizations. In order to evaluate the extent to which WMATA followed best practices in planning, selecting, and budgeting for its capital investments, we compared WMATA’s practices with those of leading public and private organizations that we studied in 1998. In July 2001, we reported on the extent to which WMATA (1) integrates its organizational goals into the capital decision-making process through structured strategic planning and needs determination processes, (2) uses an investment approach to evaluate and select capital assets, and (3) maintains budgetary control over its capital investments. Appendix I describes the best practices that were applied within each of these three areas.

Strategic Planning and Needs Determination Processes

We have found that leading organizations begin their capital decision-making process by defining their overall mission in comprehensive terms and multiyear goals and objectives. This enables managers to identify the resources needed to satisfy the organization’s program requirements on the basis of the program’s goals and objectives. To do this, an organization must have identified its mission and goals through a strategic planning process. To assist with identifying any gap between an organization’s resource needs and

⁷Fixed guideway services use and occupy a separate right-of-way for the exclusive use of public transportation services. They include fixed rail, exclusive lanes for buses and other high-occupancy vehicles, and other services.

⁸*Executive Guide: Leading Practices in Capital Decision-Making* (GAO/AIMD-99-32, December 1998).

its existing capital capabilities, leading organizations maintain systems that capture and report information on existing assets and facilities. This information is frequently updated and accessible to decisionmakers when needed. Leading organizations also consider a full range of possible ways to achieve the organization's goals and objectives, including examining both capital and noncapital alternatives.

WMATA has articulated an overall organizational mission statement and a goal of doubling ridership by the year 2025 and is beginning to develop a business planning process. It has not, however, developed a formal strategic plan that defines multiyear goals and objectives for the agency, nor does it have annual performance plans that explain the specific ways in which WMATA will attempt to achieve those goals and objectives.

WMATA has completed a comprehensive assessment of its infrastructure renewal requirements, and it is in the process of assessing its system capacity requirements. With regard to its System Expansion Program, however, it has not conducted a comprehensive needs assessment, although it does consider regional transportation needs, costs, and benefits before deciding to support proposed expansion projects. For example, WMATA has established a "Project Development Program" to develop conceptual designs, "order of magnitude" cost estimates, and other information on some of the proposed projects contained in the expansion program.

WMATA plays a limited role in analyzing and evaluating alternatives for meeting its system expansion needs. This limited role stems from its relationships with (1) the Transportation Planning Board, which plays a key role in developing, coordinating, and approving plans for all regional transportation needs and alternatives, including transit, highways, and other transportation modes; and (2) the state and local jurisdictions served by WMATA, which have the lead role in identifying and evaluating transit expansion alternatives within a specific "corridor" or section of the Washington metropolitan area.

Investment Approach to Evaluating and Selecting Capital Assets

After leading organizations identify their strategic goals and objectives and assess alternative ways of meeting their capital needs, they go through a process of evaluating

and selecting capital assets using an investment approach. An investment approach builds on an organization's assessment of where it should invest its resources for the greatest benefit over the long term. Establishing a decision-making framework that encourages the appropriate levels of management review and approval is a critical factor in making sound capital investment decisions. These decisions are supported by the proper financial, technical, and risk analyses. Leading organizations not only establish a framework for reviewing and approving capital decisions, they also have defined processes for ranking and selecting projects. Furthermore, they also develop long-term capital plans that are based on the long-range vision for the organization embodied in its strategic plan.

WMATA has incorporated several elements of an investment approach to evaluating and selecting capital improvement projects, but the agency could benefit from a more formal, disciplined decision-making framework. With regard to its program for infrastructure renewal, WMATA officials told us that all appropriate managers were involved in deciding which projects should be selected after a comprehensive needs assessment was performed in March 1999. WMATA also performed a one-time ranking of those projects on the basis of preestablished criteria, including asset function, condition, and other factors. However, WMATA has not established a formal executive-level review group within the agency for making decisions on capital projects, nor does it have formal procedures or a standard decision package for considering the relative merits of its capital projects each year. Also, WMATA officials told us that they play a relatively small role in proposing, evaluating, and selecting system expansion projects. They said that the decisions on such projects are generally driven by the state and local jurisdictions sponsoring the projects. WMATA has contacted state and local transportation executives from Maryland, Virginia, and the District of Columbia to explore ways to increase WMATA's involvement in conducting alternatives analyses for system expansion projects, thereby increasing its influence on those decisions.

Furthermore, although WMATA has performed a comprehensive assessment of infrastructure renewal requirements and has taken a first step in outlining system expansion needs, it has not developed a comprehensive long-term capital plan that defines and justifies its internal capital asset decisions for all of the capital projects falling within WMATA's Capital Improvement Program. Such a plan would allow WMATA

to define its strategy and justification for selecting each capital project and would provide baseline information on each project's life-cycle costs and schedules, performance requirements, benefits, and risks. A more formal long-term capital planning process allows an organization to establish priorities and assist with developing current and future budgets. A well-thought-out review and approval framework can also mean that capital investment decisions are made more efficiently and are supported by better information. Furthermore, were WMATA to develop a more disciplined decision-making framework—with documented support for the alternatives that WMATA favors—the agency could potentially have more influence with the federal government and state and local jurisdictions that ultimately decide whether to provide funding for projects.

Budgetary Control Over Capital Investments

Finally, officials at leading organizations that we studied agreed that good budgeting requires that the full life-cycle costs of a project be considered when an organization is making decisions to provide resources. This practice permits decisionmakers to compare the long-term costs of spending alternatives and to better understand the budgetary and programmatic impact of decisions. Most of those organizations make a commitment to the full cost of a project up front and have developed alternative methods for maintaining budgetary control while allowing flexibility in funding. One strategy they use is to budget for and provide advance funding sufficient to complete a useful segment of a project. A useful segment is defined as a component that (1) provides information that allows an agency to fully plan a capital project before proceeding to full acquisition or (2) results in a useful asset for which the benefits exceed the costs even if no further funding is appropriated. Another strategy used by some leading organizations is to use innovative financing techniques that provide new sources of funding or new methods of financial return.

WMATA uses many of the funding strategies followed by leading organizations. For example, to comply with requirements imposed by FTA and its predecessor agencies, WMATA completed its Metrorail system by negotiating for funding in useful or “operable” segments. Furthermore, the agency has used a wide variety of innovative capital financing techniques to fund its Capital Improvement Program (CIP) and operations activities and to leverage its capital assets to generate additional income. However,

WMATA faces a number of uncertainties in obtaining the funding it believes it needs to meet its capital requirements, and the agency has not developed plans that describe how it would address large anticipated funding shortfalls in its programs for infrastructure renewal and system capacity. For example, WMATA has not developed alternate scenarios of how such funding shortfalls would be absorbed by the various asset categories under the Infrastructure Renewal Program or by the projects identified under the System Access and Capacity Program. The funding shortfalls are anticipated to total \$3.7 billion over the next 25 years and represent an average annual shortfall of about \$150 million for both programs. Furthermore, the budget shortfall could significantly increase when WMATA completes its ongoing assessment of Metrorail's core capacity by the end of 2001.

In our July 2001 report, we recommended that WMATA's General Manager and Board of Directors take several actions to improve the agency's strategic planning and capital investment practices. These included (1) developing a long-term strategic plan and annual performance plans that clearly define the agency's multiyear goals and objectives and its specific plans for achieving those goals and objectives, (2) developing a long-term capital plan, (3) formalizing WMATA's capital decision-making process by establishing standard procedures and decision packages for analyzing and deciding on projects, and (4) developing a process and procedures for taking a more active role in identifying, analyzing, and evaluating alternatives for expanding WMATA's transit system. WMATA concurred with all of our major recommendations and indicated that it has already taken steps to begin implementing them.

In summary, we found that WMATA has identified its operational and safety challenges and established sound policies, programs, and practices to meet those challenges. WMATA has also incorporated some of the best capital investment practices in its Capital Improvement Program and it plans to strengthen its capital and strategic planning by implementing our recommendations. In our view, WMATA's General Manager and other senior officials have adapted to changing circumstances by taking positive steps to address the challenges they face and they have created an organizational climate that is receptive to change.

Madam Chairwoman, this concludes my prepared statement. I would be happy to respond to any questions you or other Members of the Subcommittee may have at this time.

Contacts and Acknowledgements

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Appendix I

Principles and Practices for Planning, Selecting and Budgeting for Capital Investments

Principles	Practices
Integrate organizational goals into the capital decision-making process.	Conduct comprehensive assessment of needs to meet results-oriented goals and objectives. Identify current capabilities, including the use of an inventory of assets and their condition, and determine if there is a gap between current and needed capabilities. Decide how best to meet the gap by identifying and evaluating alternative approaches (including noncapital approaches).
Evaluate and select capital assets using an investment approach.	Establish review and approval framework supported by analyses. Rank and select projects on the basis of established criteria. Develop a long-term capital plan that defines capital asset decisions.
Maintain budgetary control over capital investments.	Budget for projects in useful segments. Consider innovative approaches to full up-front funding.

Source: *Executive Guide: Leading Practices in Capital Decision-Making* (GAO/AIMD-99-32, December 1998).

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