

ITEM 12 – Information
November 16, 2016

**WMATA – COG Technical Panel “Interim Report”
And Metro Safety Commission Update**

Staff

Recommendation: Receive briefing

Issues: None

Background: In June, the COG Board authorized the convening of a technical panel to prepare an assessment of Metrorail safety, reliability, and state of good repair needs and revenue. In addition, progress has been made on the development of the Metro Safety Commission. The Committee will be briefed on both issues.

COG TECHNICAL PANEL INTERIM REPORT ON METRO

October 2016

COG TECHNICAL PANEL INTERIM REPORT ON METRO

Prepared by the COG Chief Administrative Officers Technical Panel on Metro, October 2016

ABOUT COG

The Metropolitan Washington Council of Governments (COG) is an independent, nonprofit association that brings area leaders together to address major regional issues in the District of Columbia, suburban Maryland, and Northern Virginia. COG's membership is comprised of 300 elected officials from 22 local governments, the Maryland and Virginia state legislatures, and U.S. Congress.

CREDITS

PANEL MEMBERS

District of Columbia

Rashad Young, City Administrator
Jeffrey DeWitt, Chief Financial Officer

Maryland

Tim Firestine, Chief Administrative Officer, Montgomery County
Nicholas Majett, Chief Administrative Officer, Prince George's County

Virginia

Tim Hemstreet, County Administrator, Loudoun County
Mark Jinks, City Manager, City of Alexandria
Ed Long, County Executive, Fairfax County
Mark Schwartz, County Manager, Arlington County

Washington Metropolitan Area Transit Authority

Dennis Anosike, Chief Financial Officer
Andrea Burnside, Chief Performance Officer
Barbara Richardson, Chief External Affairs

COG STAFF

Chuck Bean, Executive Director
Monica Beyrouiti, Government Relations & Member Services Coordinator
Stuart A. Freudberg, Deputy Executive Director and Project Manager
Eric Randall, Principal Transportation Engineer
Kanti Srikanth, Director, Transportation Planning

CONSULTANT

Barbara M. Donnellan, President, Castle Gray Associates

ACCOMMODATIONS POLICY

Alternative formats of this document are available upon request. Visit www.mwcog.org/accommodations or call (202) 962-3300 or (202) 962-3213 (TDD).

TITLE VI NONDISCRIMINATION POLICY

The Metropolitan Washington Council of Governments (COG) fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations prohibiting discrimination in all programs and activities. For more information, to file a Title VI related complaint, or to obtain information in another language, visit www.mwcog.org/nondiscrimination or call (202) 962-3300.

COPYRIGHT © 2016 BY THE METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

TABLE OF CONTENTS

PURPOSE	3
SUMMARY	3
BACKGROUND	4
VALUE OF METRO TO THE REGION	5
The High Value of Properties Near Metrorail Stations	5
The Cost of Metro Disruptions and Delays	7
METRICS	7
Safety	8
Reliability	8
Customer experience	9
FINANCIAL MODEL OF WMATA'S OPERATING AND CAPITAL NEEDS	10
Application of Financial Model by DC CFO Using Existing WMATA Operating and Capital Budget Data	11
Use of Debt Financing	12
NEXT STEPS	13
APPENDIX	14

PURPOSE

The purpose of this Interim Report is to provide a preliminary analysis of data on the Washington Metropolitan Area Transit Authority (WMATA or Metro) - focused on safety, reliability, customer experience and the system's benefits to the region - to provide the technical foundation necessary to pursue a comprehensive, long-term approach to funding Metro and provide it with a solid financial foundation. It describes the essential role Metro plays in the continued prosperity and livability of the region, and seeks to define regional expectations on system performance focused on customer expectations. The Interim Report incorporates a robust financial forecasting model that enables projecting the long-term (ten year) financial needs of Metro. The model includes a range of revenue, cost and other critical assumptions that are still under active review by the Panel. The model was applied on a preliminary basis using existing operating and capital budget information derived from the currently adopted Metro budget and currently available estimates of capital funding needs. While there is a consensus among the panel members on the validity of the modeling tool, the panel has not reached a consensus on Metro's financial needs or is ready to provide recommendation regarding revenue options. The panel expects to provide its formal evaluation of needs and revenues later in 2016 after new Metro operating and capital budgets are available.

The Metropolitan Washington Council of Governments (COG) Chief Administrative Officers Technical Panel will present a final report to the COG Board of Directors in the first quarter of 2017.

SUMMARY

The Technical Panel is building a compelling technical picture of Metro's economic importance, performance goals, and funding needed to restore the system to a safe, reliable system in a state of good repair. Though restoration of Metro will take time and sustained investment, it is already clear that Metro – through its SafeTrack efforts and other actions by the WMATA General Manager and Board – is working hard to restore the system and rebuild the public's trust.

The entire region has a critical stake in the outcome of Metro's efforts.

While Metro must be held accountable, it must also be supported, politically and financially if it is to be successful and provide metropolitan Washington with the high-performing system needed for the region to prosper and thrive.

Failure is not an option.

The cost of doing nothing is too high. This report builds on the many existing studies and analyses on Metro's economic value, financial needs, performance metrics and goals – focused on key factors including Metro safety, reliability, and customer service. This information – coupled with ongoing improvements and new analysis planned in the coming months – will enable development of a clear roadmap for restoring public confidence in Metro. The region needs to be confident that Metro will continue to improve, increase ridership, and is worthy of sustainable long-term investment.

BACKGROUND

In January 2016, the COG Board of Directors, led by Chairman Roger Berliner (Montgomery County Council), identified restoring Metro to a world-class transit system as its top priority. To work towards that goal, the COG Board of Directors on June 8, 2016 created the COG Chief Administrative Officers Technical Panel¹ and charged it with three tasks:

- develop performance metrics for Metro, focused on safety and reliability;
- analyze operating and capital funding needs; and
- assess revenue options to meet operating and capital funding needs.

Later, the panel added a fourth task:

- analyze the economic value of Metro and its importance to the region. The panel felt this task was key to support the first three tasks by providing the larger context for the other three tasks.

The panel met on July 6, August 3, September 7, and September 28. The panel worked with WMATA, the District of Columbia Office of the Chief Financial Officer (DC CFO), and coordinated with the Greater Washington Board of Trade. In addition, COG, together with the Board of Trade, convened sessions on March 30 and June 17, to gain information regarding performance metrics and funding of other regional systems in the U.S. and abroad.

The panel has made significant progress on all four tasks. It surveyed reports that clearly illustrate the fundamental role that Metro plays in the region's economy, and, conversely, how a poorly functioning Metro system poses a threat to the region's economic prosperity.

Panel members relied on existing data and reports, including recent analysis by the Chief Financial Officer of the District of Columbia. Of particular use have been:

- December 2015 report: A Recommended Capital Planning Process for Remediation of Metrorail's Infrastructure Challenges², by the District of Columbia Office of the Chief Financial Officer.
- WMATA November 2011 Technical Report: Making the Case for Transit: WMATA Regional Benefits of Transit³

Other reports that have been helpful to the panel have been:

- 2005 report by COG, Board of Trade and Federal City Council on Funding Options for Metro⁴
- 1994 study by KPMG for Northern Virginia Transportation Commission (NVTC): Technical Report: Fiscal Impact of Metrorail on The Commonwealth of Virginia, which evaluated the benefits of Metro to Virginia on development⁵

¹ <https://www.mwcog.org/documents/2016/06/08/certified-resolution-r39-2016---metrorail-assessment-technical-panel/>

² Not online; hard copy available from COG staff.

³ <https://www.wmata.com/pdfs/planning/Wmata%20Making%20the%20Case%20for%20Transit%20Final%20Report%20Jan-2012.pdf>

⁴ <https://www.mwcog.org/documents/2005/01/06/report-of-the-metro-funding-panel-wmata-metro-funding/>

⁵ <http://69.195.124.133/~thinkou7/uploads/studiesarchive/1994FiscallImpactMetro.pdf>

VALUE OF METRO TO THE REGION

Review of the reports reveals the same fundamental conclusion: the Metrorail system is *essential to the prosperity of the region*. Despite this vital role, Metro is currently subject to a year-to-year funding method, while transit systems of other major cities have more reliable, sustainable (dedicated) funding, which enables use of long-term planning for necessary capital needs. While it is premature to definitively quantify Metro's long-term funding and financing needs until it completes its operating budget and capital needs inventory later this year, the panel's review of preliminary operating and capital needs analysis prepared by the District of Columbia's Chief Financial Officer indicates that the recent pattern of underinvestment in preventative maintenance and capital upgrades will certainly need to change to ensure safe, reliable, high-quality customer service.

Panel members concurred with the December 2015 District of Columbia Office of the Chief Financial Officer's report, which stated that Metro's overall health is "absolutely imperative to accommodate business and population growth" across the region. Metro fosters smart growth and without it will encourage more sprawl and a more car-dependent community.

A poorly functioning Metro that is unsafe, unreliable, and lacks adequate capacity harms the region by causing delays that keep workers from getting to their jobs on time; increasing traffic congestion and disrupting the flow of people and commerce in the region; and harming Metro's ability to operate and improve as it loses riders and fare revenues.

The answer is "focused and prioritized infrastructure investments ... to increase safety," the Office of the District of Columbia Chief Financial Officer report found.

The 2005 Report of the Metro Funding Panel similarly found: "there is, and will continue to be, an expanding shortfall of revenues available to address both capital needs and operational subsidies of the Metrorail and Metrobus systems." Noting that Metro not only plays a vital role in carrying federal employees to and from work, but also is a key component of the region's emergency response system, the report warned that "continued success in this role is at material risk by failure to invest adequately in the system's capital needs and to provide funding for critical operating requirements with a resulting decline in the system's condition and unacceptable levels of performance."

The High Value of Properties Near Metrorail Stations

The 2011 WMATA technical report, *Making the Case for Transit*, measured and assessed benefits such as avoidance of additional road capacity and parking costs; travel time savings; travel cost savings; accident reduction savings; emissions reduction savings; and land value premium impacts. "With Metro, the region works. Without Metro, the region would be less wealthy, harder to get around, and have less economic activity," the report found. Furthermore, the report found that properties near Metro stations had higher real estate values and produced more property tax revenues.

Table 1: Real estate value premiums - properties within 1/2 mile of a station

Type of property	Premium value
Residential	6.8%
Multi-family	9.4%
Commercial office	8.9%

Source: Making the Case for Transit, WMATA

Table 2: Higher property tax revenues from real estate near stations

Distance	Additional revenue
Within ¼ mile	\$133 million
Within ½ mile	\$224 million

Source: Making the Case for Transit, WMATA

Real estate located within ¼ mile and ½ mile of Metrorail stations generated approximately \$1.8 billion and \$3.1 billion (respectively) in property tax revenues for the Compact area in 2010.

Table 3: Property Tax Revenues -- located within ½ mile and ¼ mile of Metrorail stations

	Within ¼ mile	Within ½ mile
D.C.	\$1.37 billion	\$2.26 billion
Virginia	\$290 million	\$470 million
Maryland	\$124 million	\$355 million
Totals	\$1.78 billion	\$3.09 billion

Source: Making the Case for Transit, WMATA

Researchers at Jones Lang LaSalle estimate that more than 105 million square feet of development is planned within a half-mile of a Metrorail station.⁶ Based on square footage, WMATA shows a rough estimate of this projected new construction of \$50 billion either under construction or planned.

In 1994, KPMG’s study found that “without Metrorail, the region loses an important attraction: fixed-route, rapid, and reasonably priced transportation.”

This second study (updating a 1985 study) investigated the real estate price premium of properties near Metrorail stations, as reflected in higher property tax revenues. A 2011 study by Metro found that properties within a ½ mile of a Metro station command a premium ranging from 6 to 9 percent for commercial and multi-family properties.

Virginia’s investment in the rail system, the KPMG report found, was \$941 million for 1978-2000, with a net return in tax revenue of \$2.1 billion, for a net gain to the Commonwealth of \$1.2 billion on a dollar-for-dollar basis.

⁶ <http://planitmetro.com/2015/04/07/going-up-why-the-construction-pipeline-means-higher-metrorail-ridership-part-two/>

The Chief Financial Officer's December 2015 report based its conclusions on two studies conducted by its Office of Revenue Analysis on the economic and fiscal importance of Metrorail to the region and the District of Columbia. Their main findings:

1. Metro delays impose an economic cost on the region.
2. A reliable Metro system boosts tax revenue to the District and the region.

The D.C. CFO's report concludes that failure to invest in Metro, to restore it to a safe, reliable system in state of good repair, could reduce regional economic growth by $\frac{1}{4}$ to $\frac{1}{2}$ percent or more, reducing regional economy and tax revenues by \$1 billion to \$2 billion.⁷

The Cost of Metro Disruptions and Delays

The first study examined detailed data of disruptions and delays on the system, and then combined that data with income data from a 2012 Metro survey of riders.

The data allowed an estimate of the productivity loss of workers throughout the region due to delays (morning commute only). The report estimated the economic loss of these delays at \$51-\$61 million.

Between June 2014 and June 2015, there were 1,942 delays during morning rush hours, affecting approximately 9.8 million riders. With an average delay of eight minutes, and 10 percent of delays lasting more than 15 minutes, 1.2 million person hours total were lost – the equivalent of 586 full-time workers' annual hours. Anecdotal experience over the past year indicates the level of delay has likely increased.

METRICS

Metro tracks hundreds of metrics internally and reports a focused set of them publically on a quarterly basis that the panel reviewed to narrow down a few key metrics. Of the many metrics, the panel zeroed in on those relating to safety, reliability, and customer experience as the most critical factors to Metro's success - and addressing the public's most important concerns.

The metrics outlined below reflect the current interim analysis by the panel. The panel will continue to examine additional metrics and benchmarking data comparing Metro to other large transit systems. Metro tracks a range of performance metrics, reporting quarterly and annually to its Board of Directors. Those metrics are posted publicly, online in Metro's "Vital Signs"⁸ reports.

The Key Performance Indicators reported in Vital Signs provide a focused set of metrics, organized by the WMATA Board's adopted strategic goals, that "align actions to improve performance and deliver results." The detailed data answers two key questions for the WMATA Board and public: Why did performance change? What actions are being taken to improve it?

⁷ How this is calculated: the $\frac{1}{4}$ % that equals \$1.0 billion is the impact of reducing the total tax revenue growth derived from the COG demographic forecast that is estimated at 2.5% annually. In other words, the population, household and employment forecast translates into about 2.5% annual growth in the combined income, property, and sales taxes for the Metro Compact area. Keeping the math simple, that is about \$40 billion a year as the total tax base today. If, over 10 years, that grows at 2.5% per year, ignoring compounding, that is \$10 billion more in year 10 ($2.5\% \times 40$). If growth is reduced from 2.5% to 2.25%, or 0.25 percent, that is a 10% reduction in growth ($0.25/2.5$). Ten percent of \$10 billion in growth is \$1.0 billion. This is oversimplified, as the calculation would be a bit larger with compounding. (Source: Office of the Chief Financial Officer, District of Columbia.)

⁸ https://www.wmata.com/about_metro/docs/VitalSignsReport2015FINAL.pdf

The panel also reviewed WMATA's Customer Accountability Reports (CARE⁹) reports, as part of the data review. This online tool enables the public to track Metro's progress in the areas of safety, service reliability and fiscal accountability.

Safety

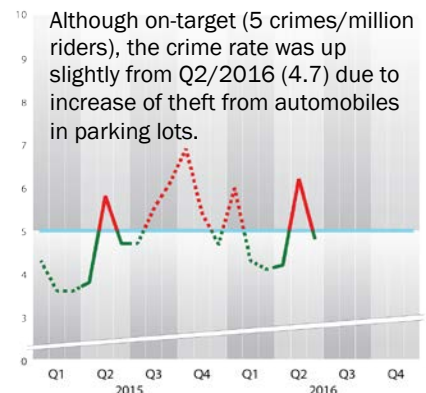
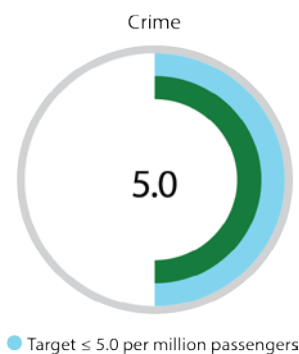
The panel focused on identifying metrics defining personal safety – these included crime rate, customer satisfaction which incorporates perceptions of personal safety, and passenger injuries and deaths per million passenger trips. For the purpose of the Interim Report the Crime Rate metric is provided below.

Figure 1: Regional Measures

Safety – How Metro is making safety its first priority and ensuring it will continue to significantly improve in a way that restores the trust of the public and regulators.

As measured by:

- Crime rate
- Customer Satisfaction (incl. perceptions of safety)



Source: WMATA

Additionally, Metro annually tracks safety metrics in the National Transit Database of Reportable Events. Reportable safety events in the following categories are included:

- Fatalities (confirmed within 30 days)
- Injuries
- Property damage
- Collisions
- Evacuations
- Derailments
- Collisions

The panel will work with Metro to further analyze and refine the application of these personal safety metrics to include in the final Technical Panel report.

Reliability

Metro must continue to improve its on-time performance to get riders to their destinations on time and attract riders back to the system.

Metro is tracking quarterly rail customer on-time performance - how often customers get to their destination on time - including factors such as railcar, fare gate, elevator and escalator availability;

⁹ http://www.wmata.com/about_metro/general_manager/performance/CARe.pdf

infrastructure conditions; single-tracking around scheduled track work; railcar delays or delays caused by sick customers.

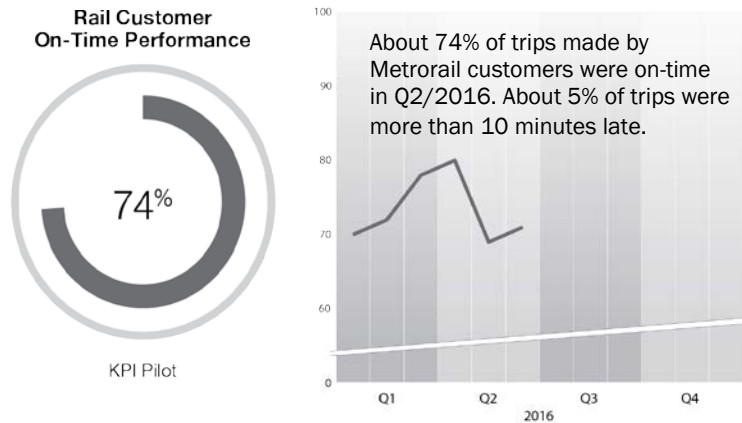
As of this writing, a performance target has not been established by the WMATA General Manager for reliability, but the panel expects that the target once set will be considerably higher than the current 74 percent for Metrorail to meet the public's expectations for a dependable system.

Figure 2: Regional Measures

Reliability – How Metro is ensuring riders will get to destination on time.

As measured by:

- Rail customers on time
- Customer Satisfaction (incl. perceptions of reliability)



Source: WMATA

Customer Experience

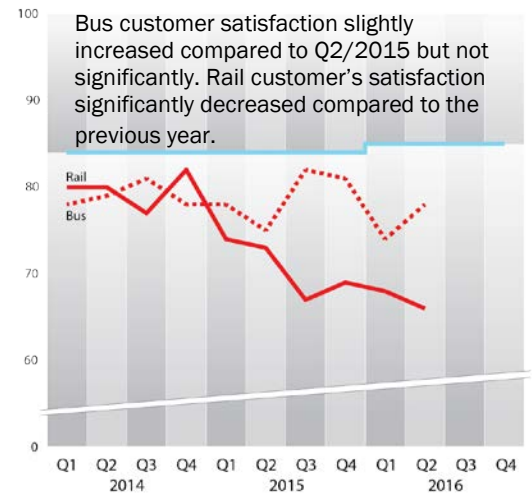
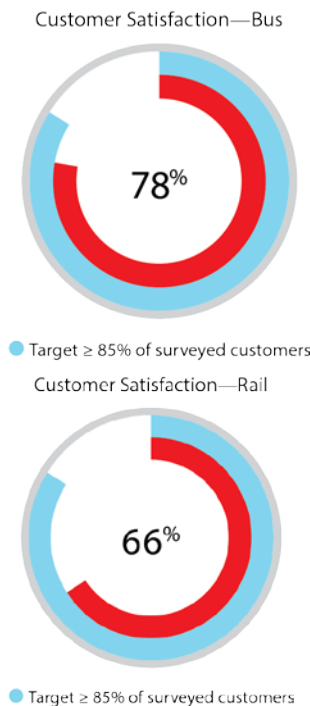
Metro uses a variety of tools to track the system's ability to deliver a trouble-free riding experience through a variety of means. It reviews the average number of problems a customer experiences in a trip and the percentage of customers who had a comfortable ride (e.g. vehicle temperature, seating availability, crowding on platforms, escalator and elevator performance, etc.) and overall problem-free experience.

Figure 3: Regional Measures

Customer Experience – How Metro is providing quality customer service.

As measured by:

- Customer Satisfaction



Source: WMATA

Metro also is examining, quarterly, customer feedback on service and the rider experience, using a scientific sampling of the region conducted by phone to residents who have used the bus or rail system in the past 30 days. It is working to rebuild community trust through efficiencies and building ridership.

FINANCIAL MODEL OF WMATA'S OPERATING AND CAPITAL NEEDS

As part of its deliberations, the Technical Panel was briefed on the application of the DC CFO's recently developed financial model using existing WMATA operating and capital cost data to estimate funding needs over a ten-year period, compare the needs with expected revenues over this time period, and then calculate a potential gap between revenues and operating costs.

The panel concluded that the DC CFO's model was a very robust tool enabling calculations of operating and capital needs as well as cost allocations to jurisdictions and has the capability to support analysis of revenue options.

The panel notes that while there is a consensus regarding the value of the financial model, it has not reached consensus on the DC CFO needs analysis in recognition that changing assumptions can yield significantly different conclusions.

Application of Financial Model by DC CFO Using Existing WMATA Operating and Capital Budget Data

The assumptions and results of the DC CFO analysis are provided below. The panel emphasizes the preliminary nature of the results, the significant sensitivity of the results to the major assumptions, and the expectation that a far more precise analysis will be prepared by early 2017 using Metro's FY 2018 operating budget and future estimates of operating costs and capital needs.

Key model input assumptions for 10 year needs assessment:

- Sources of data:
 - WMATA's FY 2017 adopted budget
 - Included inflation factors for projecting revenues and costs
 - Added additional amounts for continued Safe Track operations
 - Used WMATA's 6-year CIP as basis for capital needs
 - Added Metro 2025 CIP in addition to the baseline 6-year CIP
- Primary Revenue assumptions:
 - Federal funding (PRIIA) is reauthorized in FY 2020 and remains at current levels (\$150M annually)
 - Local jurisdictions continue to match federal funding at current levels
 - Existing jurisdictional contributions (local and state) rise 3 percent annually above FY 2017 levels
 - Assumes passenger revenues decline by approximately 10 percent in FY2017 to reflect decrease in ridership and remain flat until FY 2022 – then grow at 3 percent annually
- Primary Cost assumptions – Operating and Maintenance
 - Personnel, services, materials and supplies are grow at 3 percent annually compounded rate.
 - Continued annual Safe Track costs inflated 3 percent per year (\$100M base FY 2018)
 - Fuel, propulsion power and utilities are inflated at a 2 percent compounded annual rate.
 - Other Post-employment benefits (OPEB) contributions at recommended levels by WMATA CFO
- Primary Cost assumptions – Capital
 - 6 year CIP from WMATA's FY 2017 Proposed Budget – Effective July 1, 2016
 - Assumes complete Metro 2025 capital program (power supply and railcars for 8 car trains, core station improvements, new blue line connections, pocket tracks, maintenance facility, etc.)

Projected Operating Funding Gap: FY 2017-FY 2026

Estimated 10-year operating revenues: \$18.930 billion

Estimated 10-year operating funding needs: \$21.050 billion

Estimated total operating gap is approximately \$2.1B – over 10 years

Projected 10-year Capital Funding Gap: FY 2017-FY 2026

Estimated 10-year capital funding revenues: \$8.133 billion

Estimated 10-year capital funding needs: \$17.980 billion (complete Metro 2025 program; 18B scenario)

Estimated 10-year capital funding needs: \$11.734 billion (most of Metro 2025 deferred beyond 10 year period; \$12B scenario)

Estimated 10-year total capital gap is approximately \$9.846 billion for an \$18 billion CIP scenario (assumes complete Metro 2025 program)

Estimated 10-year total capital gap is approximately \$3.303 billion for an \$12 billion CIP scenario (assumes majority of Metro 2025 deferred)

The DC CFO concluded based on an assessment of Metro’s historical capacity to expend capital funds that the lower level of capital funding over 10 years of approximately \$12 billion is a realistic estimate of what Metro could actually execute for capital projects over 10 years.

Therefore, using the \$12B CIP scenario, which the DC CFO views as more realistic, the total combined 10-year operating and capital funding gap using all of the assumptions above would be:

Figure 2: Application of Financial Model by DC CFO

(\$ Millions)	
CIP Funding Gap	\$ 3,303.39
Operating and Maintenance Effort Budget Gap	2,119.16
Total	5,422.55
Annual Average	\$ 542.26

Source: DC CFO

Use of Debt Financing

Without debt financing, the DC CFO’s analysis results in an annual average funding gap of \$542 million. To mitigate the impact of this additional funding requirement, the DC CFO then applied an assumption of the use of bond funding to finance the capital funding gap. He notes that a reliable funding source, such as a dedicated tax or fee could be leveraged to achieve a reasonable borrowing cost. The reliable funding source would also be used to cover the additional annual operating costs.

Additional assumptions applied by the DC CFO for debt financing were an “A” credit rating or higher, 30-year financing term, and a 5 percent long-term borrowing cost, to debt finance the \$3.3 billion CIP funding gap. Use of long-term financing spreads the capital costs over the life expectancy of the capital assets as well as extends the repayment costs to the current and future beneficiaries of the projects.

Application of the above assumptions results in a 10-year total funding gap of \$2.9 billion or an average of \$290 million per year (operating average \$210 million plus debt service of \$80 million), thereby reducing the total average additional annual funding requirement from \$540 million to \$290 million, approximately a 54 percent reduction.

On October 12 the DC CFO Jeff DeWitt, presented the above analysis with estimates of Metro’s needs over the next 10 years to a joint meeting of the Mayor of the District of Columbia, the

Governor of Maryland, and the Governor of Virginia. It was characterized as a working draft assessment, to be revised once WMATA provides new updated operating and long-term capital cost needs. WMATA is scheduled to submit their operating and capital needs data by December 2016.

The panel again emphasizes its support for the DC CFO modeling tool, but notes it has not reached consensus on Metro's financial needs. The panel plans a detailed review of critical assumptions including fares, jurisdictional subsidies, operating costs, and operating efficiencies capital project assumptions, and other factors that will ultimately be considered to enable the panel to provide recommendations on how to meet Metro's long term financial needs.

NEXT STEPS

The WMATA General Manager is now presenting his proposed FY 2018 operating budget in October 2016. The capital needs inventory will be completed by year-end 2016, and will inform the FY 2018 budget and longer-term capital funding needs. Once WMATA's updated data is available, the DC CFO's funding model will be used to provide updated information including funding needs and financing alternatives.

By the end of the first quarter of 2017, the Technical Panel plans to complete its technical foundation work and provide the COG Board of Directors with its final report. The final report will include an update of the analysis of metrics and benchmarking, associated performance goals and targets, updated data on the economic value of Metro, and importance to the regional economic and tax base of a restored Metro system. The report will also provide the COG Board with its conclusions on funding needs, as well as revenue and financing options for regional consideration and action by policymakers.

APPENDIX

Resolution R39-2016
June 8, 2016

**METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS
777 North Capitol Street, N.E.
Washington, D.C. 20002**

RESOLUTION AUTHORIZING THE EXECUTIVE DIRECTOR TO CONVENE A TECHNICAL PANEL TO PREPARE A METRORAIL SAFETY, RELIABILITY AND STATE OF GOOD REPAIR NEEDS AND REVENUE ASSESSMENT AND COORDINATE WITH WMATA ON DEVELOPMENT OF OPERATING BENCHMARKS AND PERFORMANCE METRICS

WHEREAS, the Metro rail system is the most significant regional transportation system and plays a critical role in meeting the National Capital Region's socio-economic and mobility needs and has served this need for the past 40 years; and

WHEREAS, a series of recent events including the January 12, 2015 L'Enfant Plaza smoke incident, subsequent smoke, fire and other disruptive events in 2015 and 2016 have undermined Metrorail's reliability and strongly reinforce the urgent need to restore the safety of the aging Metrorail system; and

WHEREAS, these recurring issues led to a 29-hour complete shutdown of the system in March of this year and the region is now faced with an extended period of safety-related repair and maintenance work activities called SafeTrack, which is anticipated to cause significant inconvenience and disruption of socio-economic activities in the region; and

WHEREAS, on March 30, 2016 COG in partnership with the Greater Washington Board of Trade held a summit of the regional elected and business leaders to discuss the importance of restoring Metro rail to a World Class System by addressing the safety and service reliability challenges the system is facing at present; and

WHEREAS, the region's leaders are unified in their desire to help the Washington Metropolitan Area Transit Authority address the safety and service reliability issues faced by its Metro rail system; and

WHEREAS, the current safety and service reliability issues of Metro are partly due to the funding constraints it faces; and

WHEREAS, on January 6, 2005, COG, the Greater Washington Board of Trade and the Federal City Council issued "The Report of the Metro Funding Panel", and

WHEREAS, the 2005 report examined and documented Metrorail operating and capital funding needs for 2005-2015, and evaluated a range of financing alternatives for providing funding to meet the needs; and

WHEREAS, the 2005 report concluded that insuring safety, reliability, and state of good repair for the Metrorail system requires stable and predictable funding; and

WHEREAS, in 2008, the United States Congress adopted the Passenger Rail Investment and Improvement Act (PRIIA) which established an annual, ten year dedicated federal appropriation of \$150 million annually, matched by \$50 million each from the District of Columbia, Maryland and Virginia, and such funding has helped address some of the capital cost needs to bring Metrorail into a state of good repair identified in the 2005 study; and

WHEREAS, the current state of safety and service concerns associated with Metrorail and the resultant disruptions to mobility and commerce in the region reaffirms the need to thoroughly explore and address to the best of the region's ability the funding and revenue needs of the Metrorail system;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS THAT:

- A. The Board authorizes the Executive Director to convene a Technical Panel of Chief Administrative Officers and Chief Financial Officers, who in partnership with the Washington Metropolitan Area Transit Authority Chief Financial Officer will:
 - 1. Document current funding projections for:
 - a. Operating the current Metrorail system in a safe and reliable manner;
 - b. Fully implementing the Metrorail system's replacement/rehabilitation program.
 - 2. Provide the Board with an interim report by October 12, 2016 or in a timely manner following release of WMATA's needs assessment; and
 - 3. Explore potential sources for any additional revenue the region may need to meet the above safety and reliability funding needs of the Metrorail system, and
 - 4. Resources to carry out the work of the Technical Panel shall be mainly provided by in-kind contributions, however, the Executive Director is authorized to allocate additional resources to support this initiative drawn from the existing FY 2016 and FY 2017 approved work program and budget.

- B. The COG Board further authorizes the Executive Director to coordinate with WMATA on development of operating benchmarks and performance metrics for the Metrorail system for review and input from the Technical Panel with the report issued to the Board.

I HEREBY CERTIFY THAT the foregoing resolution was adopted by the COG Board of Directors on June 8, 2016.

**Laura Ambrosio
COG Communications Specialist**

CHIEF ADMINISTRATIVE OFFICERS TECHNICAL PANEL ON METRO

Interim Report

Transportation Planning Board
November 16, 2016



Metropolitan Washington
Council of Governments

Technical Panel

District of Columbia

- Rashad Young, City Administrator, District of Columbia

Maryland

- Tim Firestine, Chief Administrative Officer, Montgomery County
- Nicholas Majett, Chief Administrative Officer, Prince George's County

Virginia

- Mark Jinks, City Manager, City of Alexandria
- Mark Schwartz, County Manager, Arlington County
- Ed Long, County Executive, Fairfax County
- Tim Hemstreet, County Administrator, Loudoun County

Office of the Chief Financial Officer, District of Columbia

- Jeffrey DeWitt, Chief Financial Officer

Washington Metropolitan Area Transit Authority

- Dennis Anosike, Chief Financial Officer
- Barbara Richardson, Chief External Affairs
- Andrea Burnside, Chief Performance Officer

The Interim Report – An Overview

- Background – COG Board asks for help
 - Resolution R39-2016, June 8, 2016
- Process for CAOs
 - Meetings – July 6, Aug. 3, Sept. 7, Sept. 28
 - Work with WMATA, Office of DC Chief Financial Officer
 - Coordinated with Board of Trade; convened info sessions March 30 and June 17
 - Reviewed many existing studies, data

Four Key Technical Panel Focus Areas

1. **Value of Metro to the region** – outlining many earlier reports; DC CFO updates
2. **Metrics** – tracking the public’s concerns
3. **WMATA funding needs** -- analyzing them through financial model developed by District of Columbia Chief Financial Officer
4. **Revenues** – reviewing data; looking at funding options

1. Value of Metro to the Region

- Review of the many existing regional reports on the value of Metro have drawn similar conclusions
 - Metro spurs economic activity, jobs, incomes and sales that generate additional revenues for the region
 - Creates more efficient land use
 - Community and environmental benefits
 - Reduced traffic congestion
 - Enhances tax revenues to 3 major jurisdictions due to economic growth and increased land valuations



Value of Metro to the Region

- Regional benefits from Property Tax Revenue generated within half-mile of Metro Stations is estimate to bring in \$3.1 billion annually.
- In addition, an estimate 105 million square feet of development is planned within a half- mile. WMATA shows a rough estimate of this projected new construction of \$50 billion either under construction or planned.

Damage to Economy of Not Supporting Metro

- Cost of not supporting Metro
 - DC finance report suggests a conservative estimate of morning rush hour delays would cost the region \$51-\$61 million.
 - The second part of the study addresses the value of property around Metro stations where values are higher than a conservative 6-9% within $\frac{1}{4}$ and $\frac{1}{2}$ mile of a Metro station.
Without investment in Metro this “premium” would decrease.
- Failure to invest in Metro to restore to a safe, reliable system in state of good repair could reduce regional economic growth by $\frac{1}{4}$ to $\frac{1}{2}$ % or more, reducing regional economy and tax revenues by \$1B to \$2B.



2. Metrics

- **Safety**
 - How will Metro continue to make rider safety its first priority and ensure it will continue to significantly improve in a way that restores the trust of the public and regulators?
- **Reliability**
 - How will Metro ensure that riders will get to their destination on time and attract riders back to the system?
- **Customer Experience**
 - How is Metro measuring the system's ability to deliver a comfortable ride and trouble-free experience?



Metrics: Safety

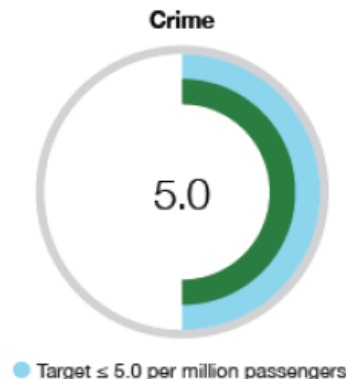
Safety - How Metro is making safety its first priority and ensuring it will continue to significantly improve in a way that restores the trust of the public and regulators

As measured by

- Crime rate ★
- Customer satisfaction (incl. perceptions of safety)

★The Panel focused on identifying metrics defining personal safety – these included crime rate, customer satisfaction which incorporates perceptions of personal safety, and passenger injuries and deaths per million miles. For the purpose of the Interim Report, the crime rate metric is provided.

CURRENT QUARTER PERFORMANCE



2-YEAR TREND IN PERFORMANCE



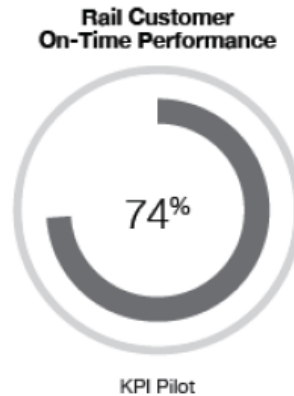
Metrics: Reliability

Reliability - How Metro is ensuring riders will get to destinations on time

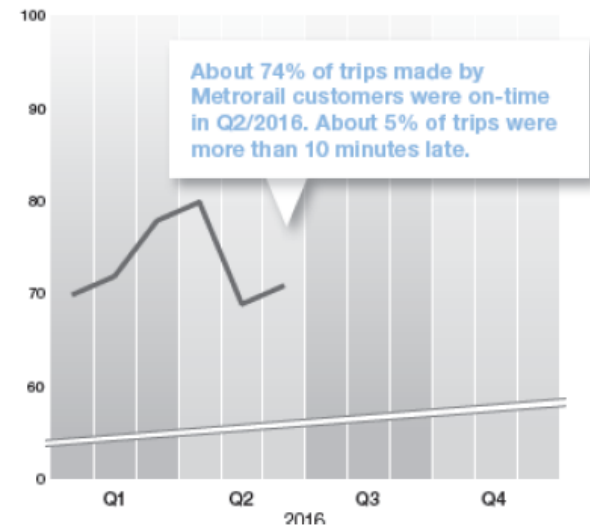
As measured by

- Rail customers on time
- Customer satisfaction (incl. perceptions of reliability)

CURRENT QUARTER PERFORMANCE



1-YEAR TREND IN PERFORMANCE



As of this writing, a performance target has not been established by the WMATA Board for reliability, but the Panel expects that the target once set will be considerably higher than the current 74% for Metrorail to meet the public's expectations for a dependable system.

Metrics: Customer Experience

Customer Experience -

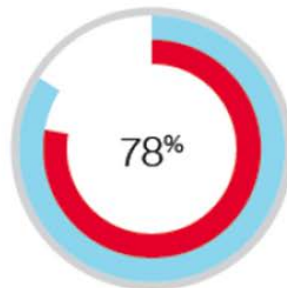
How Metro is providing quality customer service

As measured by

- Customer satisfaction

CURRENT QUARTER PERFORMANCE

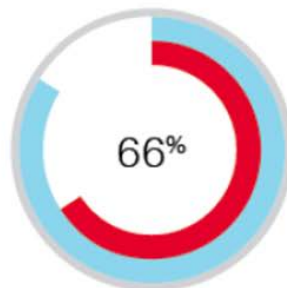
Customer Satisfaction—Bus



● Target ≥ 85% of surveyed customers

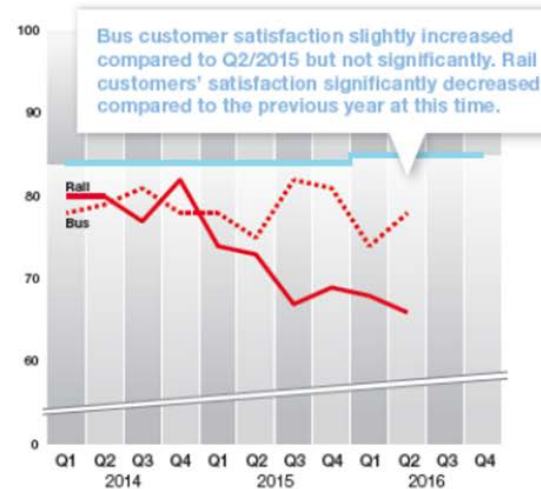
CURRENT QUARTER PERFORMANCE

Customer Satisfaction—Rail



● Target ≥ 85% of surveyed customers

3-YEAR TREND IN PERFORMANCE



3. Financial Model to Evaluate WMATA's Funding Needs

- District of Columbia Chief Financial Officer prepared financial model to provide rough order of magnitude of WMATA's funding needs for the region.
- Model “tested” using existing WMATA FY 2017 budget, existing 6 year CIP and Metro 2025 CIP.
- COG CAOs Technical Panel and financial/transportation staff and WMATA CFO reviewed the DC CFO model and concluded it was a robust tool that can be readily applied for supporting regional policy decisions on WMATA funding.

DC CFO Model: Key Revenue Inputs

- State and local capital funding contributions and future year growth rates
- State and local operating subsidy levels and future year growth rates
- Federal “PRIIA” (capital) funding and associated DC-MD-VA match
- Federal FTA grants
- Federal operating subsidy contribution
- Passenger revenues (fare box recovery)
- Miscellaneous other revenues (parking, advertising, etc.)

DC CFO Model: Key Capital Needs Inputs

Capital assumptions

- Timing of major capital expenditures over next 10 years, for example:
 - Replacement rate of 7000 series rail cars
 - Power supply needs for 8 car trains
 - Blue Line connections
 - Pocket tracks
 - Bus fleet size
 - Constructing additional maintenance facility
 - Metrorail system expansion



DC CFO Model: Key Operating Cost Inputs

Operating assumptions

- Personnel costs
- Materials, supplies, electric power, other utilities, insurance
- Preventative maintenance costs (extended Safetrack)
- Inflation
- OPEB (Other post-retirement benefits), such as retiree healthcare

Additional model elements

- Operating efficiencies
- Annual funding for capital projects (WMATA project engineering and management capacity)
- Pay-as-you-go vs. debt financing
- Interest rate on long-term debt
- Length of long-term bonds
- Allocation of costs to federal, state and local governments

WMATA Funding Needs: Application of DC CFO Model

- WMATA presenting its FY 2018 operating budget to WMATA and community (mid-October).
- WMATA capital needs inventory will be completed by the end of 2016. Will inform WMATA capital budget and longer-term capital funding needs.
- Once WMATA data is available, it will be input into DC CFO funding model to provide foundational data for policy makers on additional funding needs and financing alternatives (pay-go vs. debt financing).

4. Exploring Revenue Options

- Tax base work has been compiled by the DC CFO to identify the types of revenues that could be used to help meet the funding gap for Metro.
- A regional study was completed in 2005; comprehensively reviewed revenue options to support Metro.
- These are challenging times for the region, with many competing jurisdictional needs.
- This revenue discussion will be part of the later phase of the report.
- Also, many trade-offs must be factored into the discussion before funding is put in place.

Technical Panel: Next Steps

- Coordinate with WMATA General Manager and WMATA Board.
- Input updated operating and capital data into DC CFO financial model.
- Coordinate with Board of Trade/private sector on strategy for supporting WMATA.
- By March 2017: Technical Panel provides updated report to the COG Board of Directors covering metrics, economic value of Metro, funding needs and financing/revenue options.

COG Staff:

- Chuck Bean, Executive Director
- Stuart Freudberg, Deputy Executive Director and Project Manager
- Kanti Srikanth, Director, Transportation Planning
- Eric Randall, Principal Transportation Engineer
- Monica Beyrouti, Government Relations and Member Services Coordinator

Consultant:

- Barbara M. Donnellan, President, Castle Gray Associates

mwcog.org

777 North Capitol Street NE, Suite 300
Washington, DC 20002



Metropolitan Washington
Council of Governments



MEMORANDUM

TO: Transportation Planning Board
FROM: Chuck Bean, Executive Director of Metropolitan Washington Council of Governments
SUBJECT: Metro Rail Safety Commission Update
DATE: November 10, 2016

BACKGROUND

In April of 2015, a Memorandum of Understanding (MOU) between COG and Virginia, Maryland and the District of Columbia (referred herein as the three states) was executed to have COG serve as the designated recipient of FTA's 49 U.S.C. Section 5329(e) (State Safety Oversight SSO program) funds, and to provide decision support to the three states in their work to stand up the Metrorail Safety Commission (MSC). The MAP-21 Act required the states with an urban rail system to reconstitute the State Safety Oversight Agency (SSOA) established under earlier federal laws. The FTA provides grant funding to support the staffing and professional development of SSOA programs under its Section 5329 (e) program). Consistent with the previous law the three states established the Tristate Oversight Committee (TOC) to oversee Metrorail compliance with its safety plans and programs. The TOC was established in 1997 and the COG has been serving as the administrative agent of TOC since 1999. The TOC continues to operate while the three states work to reconstitute its responsibilities and authorities as required under MAP-21 and FAST Acts. In October 2015, the U.S. Secretary of Transportation directed the Federal Transit Administration (FTA) to assume temporary and direct safety oversight of the Washington Metropolitan Area Transit Authority (WMATA) Metrorail system. FTA is performing this safety oversight responsibility in collaboration with the TOC.

The FAST ACT (and previously MAP-21) directs States to assume greater responsibility for overseeing the safety of their rail fixed guideway systems. The new requirement was aimed to address the following deficiencies of the existing SSOAs: lack of adequate and consistent safety practices across the rail transit industry; lack of regulatory, oversight, and enforcement authority for state agencies; limited SSO program funding, staff, training, and other resources; and lack of SSO financial and legal independence from the rail transit agencies they oversee. The new law requires, among other things, that each SSOA be financially and legally independent from any rail transit agency it oversees, and has investigative and enforcement authority with respect to the safety of the rail transit system. To undertake this enhanced responsibility each state must ensure that its SSOA has the legal authority to review, approve, oversee, and enforce a rail transit agency safety plan and has staffing levels and qualifications commensurate with the number, size and complexity of the rail transit agencies in the program and that SSO program staff and contractors receive training and certification through FTA.

WORK ACTIVITIES TO ESTABLISH AN MSC

As the Designated Recipient for the FTA's SSOA program funds COG has been working since mid-2015 with representatives of the DC Department of Transportation, Maryland Department of Transportation and Virginia Department of Rail and Public Transportation on MSC-related work activities. A MSC Policy Working Group was established to conduct the work. FTA Grants totaling \$2,043,320 from federal FY 2013 and \$2,062,034 from federal FY14 funds have been approved and secured. Annual Work Programs for COG's FY16 and FY17 were also developed.

The MSC Policy Working Group has held both bi-weekly and monthly meetings with the FTA to discuss transitioning the current TOC that has been overseeing Metrorail safety to the MSC. A detailed Work Program has been developed in coordination with the FTA outlining the tasks to be completed that will lead to the FTA's certification of the Metrorail Safety Commission.

Most of the work activities can be sorted under two groups: legal and management. The legal work activities are associated with having laws enacted in the three states (and eventually ratified by the US Congress) that would provide the MSC with the legal authority it needs to conduct its work activities including having the authority to compel WMATA to take safety corrective actions developed by the MSC. The management work activities relate to all aspects of the MSC as an organization and includes tasks such as establishing a governance structure, operational by-laws, staffing plans, housing the entity, etc.

Under the legal work activities COG and the policy team is working with a legal consultant together with the State's Attorneys on developing an MSC Compact (Bill to be enacted by the legislators in the three states) that will allow for the MSC to be a legal independent agency with enforcement powers. Hearings on the MSC Compact occurred last month in DC and Virginia and earlier this week in Maryland. The expectation is that the Compact will be passed in identical form by the DC City Council and both the Maryland and Virginia state legislatures and then ratified by the US Congress by mid-to late Spring next year. Once the compact is ratified, the MSC will be implemented.

Under the management work activities, a milestone timeline to stand-up the MSC has been developed and approved by the FTA. Some of the activities underway includes: developing a Conflict of Interest Policy that centers on the policies and procedures for identifying, documenting, eliminating, or sufficiently mitigating instances where the MSC is not legally or financially independent from WMATA as required by law, and developing a Program Standard describing the Washington MSC's approach to implementing the requirements of its SSO program over the Metrorail system which has been submitted to FTA for their review and comment. Additionally, COG and the policy team are working with a management consultant to develop an organizational management structure for the MSC and has been working on drafting position descriptions, governance documents, recommended housing options, and an implementation schedule. The goal of these documents is to provide a basic framework that the eventual MSC Executive Director, staff and Board of Commissioners can use to fully implement the MSC. All of the management work activities are anticipated to be completed by late Spring of 2017.

The completion of the legislative and management activities will enable the Metrorail Safety Commission to be up and running with its enhanced responsibilities and authority and replace the existing TOC.