

National Capital Region Transportation Planning Board

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Memorandum

Date: July 7, 2011

To: TPB Technical Committee

From: Ronald F. Kirby
Director, Department of
Transportation Planning

Re: Updated Scope and Process to Develop a TPB Regional Transportation
Priorities Plan

At its June 15 meeting the TPB requested that staff revise the June 9, 2011 version of the proposed scope and process to develop a TPB regional priorities plan to address concerns that were raised about the proposed timing of activities. The attached revised version dated July 8, 2011 provides more detail in the text (shown in bold) and the schedule about work products to be provided over the two-year time frame for the scope of work. Some editorial refinements have also been made to the June 9 version, particularly in Appendix B.

At its July 8, 2011 meeting the Technical Committee will be briefed on the revisions to the June 9 version, and asked for comments. A revised version of the scope and process will be presented to the TPB for approval at its July 20, 2011 meeting.

**SCOPE OF WORK AND PROCESS TO DEVELOP
A REGIONAL TRANSPORTATION PRIORITIES PLAN
FOR THE NATIONAL CAPITAL REGION**

July 7, 2011

Introduction

This document establishes the scope of work and process for developing a Regional Transportation Priorities Plan for the National Capital Region. The development of this plan will commence in July 2011 and is expected to last approximately two years. The National Capital Region Transportation Planning Board (TPB) will oversee the development of this regional plan, in collaboration with the TPB's member jurisdictions, other stakeholders and citizens.

Purpose of a Regional Priorities Plan

Under federal law, the TPB is required to develop and adopt a financially constrained long-range transportation plan (CLRP) based on revenues "reasonably expected to be available" for the maintenance, operation, and expansion of the region's transportation system over a planning period of at least 20 years. The CLRP must be updated every four years through a comprehensive assessment of revenue forecasts, land use projections, financially feasible transportation strategies and facilities, and expected system performance relative to regional goals. The most recent four-year CLRP update, adopted by the TPB in November of 2010, reveals a number of continuing challenges in meeting adopted regional goals, due in large part to the constraints placed on transportation system operations, maintenance, and expansion by available revenues.

The purpose of a Regional Transportation Priorities Plan is to identify those transportation strategies that could be recognized throughout the region as offering the greatest potential contributions to addressing continuing regional challenges, and to provide support for efforts to incorporate those strategies into future updates of the CLRP in the form of specific programs and projects. The high priority strategies identified in the Priorities Plan will also provide a source of specific programs and projects that could be advanced in response to particular discretionary funding opportunities, such as the federal TIGER grant program for which the TPB submitted a successful \$59 million regional priority bus project application in September of 2009. As for the successful TIGER application, matching regional priorities to the specific parameters and requirements of particular funding opportunities will require careful

review of these parameters and requirements in order to maximize the likelihood that TPB applications will be successful.

The term “regional” is used throughout this document to refer to the National Capital Region. While many worthwhile transportation strategies are developed in response to state, sub-regional or local challenges, not all of these latter strategies will contribute significantly to addressing regional challenges. Similarly, some strategies for providing facilities and services across regional or jurisdictional boundaries, such as adding “missing links” in the bicycle trail network, for example, may contribute significantly to addressing regional challenges while not being the highest priority for addressing individual state, sub-regional, or local challenges.

The TPB Regional Priorities Plan will articulate regional priorities for enhancing the performance of the adopted CLRP in advancing regional goals for economic opportunity, environmental stewardship and quality of life. Building upon the region’s successes and learning from its shortcomings, the process for developing this new plan will help build consensus around key strategies that people from all corners of the region can get behind. The priorities plan will outline long-range strategies for the region’s transportation system, and will also identify more immediate strategies which the region should aggressively pursue in the near future. Both the long-range and more immediate strategies will draw upon ongoing planning activities at the state, regional, sub-regional and local levels, which will be thoroughly documented through the TPB Citizens Guide and links to other related web-sites, as well as on comments and ideas generated through an extensive public involvement process.

The TPB Priorities Plan is expected to focus on identifying a limited number of regional priorities, perhaps ten to fifteen in total at any one time, in order to encourage concentrated regional efforts on addressing the most pressing regional challenges at the time. The Priorities Plan should also provide for prompt regional responses to new policy issues which may arise on relatively short notice, as occurred during the last decade with the need to address greenhouse gas emissions from the transportation sector, and the need for improved regional incident management strategies following the September 11, 2001 terrorist attacks.

Background

The concept of a priorities plan has its roots in more than a decade of TPB planning, including the establishment of regional goals through the *TPB Vision and Region Forward*, analysis of transportation and land-use scenarios using the adopted CLRP as a baseline, and various studies of the region’s transportation funding challenges. In 2010, the TPB extensively discussed how these activities might be better integrated.

On May 26, 2010 the TPB hosted an event called the Conversation on Setting Regional Transportation Priorities, which addressed the possibilities for more explicitly establishing regional priorities. The impetus for that event was a request by the TPB’s

Citizens Advisory Committee (CAC) for the TPB to develop a “Regional Priorities Plan” that would serve as a “financially unconstrained” regional vision for transportation operations and investment.

The Conversation generated broad interest among TPB stakeholders in developing a priorities plan. As a result, on July 21, 2010, the TPB voted to form a task force to determine the scope and process for developing such a plan. The task force included approximately 20 stakeholders in the TPB process – members of the TPB, CAC, Access for All Committee and the Technical Committee. All task force members were participants in the Conversation.

Between October 2010 and April 2011 the TPB Priorities Plan Scoping Task Force met four times and discussed planning processes and activities in the region, reasons for enhancing the current process, and options for change. At its first meeting, the task force also learned about the priorities planning activities of other Metropolitan Planning Organizations (MPOs) around the country.

The task force reached general consensus that the priorities plan should describe goals and performance measures, assess challenges, and develop priorities for addressing those challenges – both funded and unfunded. The work scope, tasks and schedule presented below follow that general sequence of steps.

Scope of Work

The attached chart illustrates the three major tasks prepared for the work scope, as discussed below.

Task 1: Reaffirm Regional Goals and Agree Upon Performance Measures

This task begins with a careful review and discussion of the *TPB Vision* goals, the goals identified in COG’s *Region Forward* Planning Guide, and the relationship between them.

Appendix A of this document provides a one-page comparison of the *TPB Vision* goals with *Region Forward*. This comparison shows that the goals of the *TPB Vision* and *Region Forward* are consistent. As a broad multi-sectoral planning guide, *Region Forward* provides two transportation goals that essentially consolidate a number of more detailed goals and strategies from the *TPB Vision*, while the *TPB Vision* provides a number of additional, detailed goals and objectives. The *TPB Vision* is identified in *Region Forward* as one of its four major “building blocks.” Specifically, the *TPB Vision* was the source of the regional activity center concept which led to the COG Regional Activity Center maps developed in 2002 and updated in 2007.

Proposed Tasks

Task 1

Regional Goals
(TPB Vision and Region Forward)
(e.g. Improve Safety of All Modes)



Performance Measures quantify progress toward regional goals
(e.g. Traffic Fatalities in the Washington Region; bicycle and pedestrian fatalities are now over 30 percent of the total, a percentage which has been growing)



Task 2

Regional Challenges identify actions the region needs to take in order to meet regional goals
(e.g. Reduce bike and pedestrian fatalities, as well as motorized fatalities)



Regional Strategies are designed to address regional challenges
(e.g. Support the implementation of effective safety measures for bicyclists and pedestrians)



Task 3

Regional Priorities are those strategies offering the greatest potential to address regional challenges as demonstrated through Benefit/Cost Analysis
(e.g. Promote public awareness of pedestrian and bicycle safety at the regional level)



Specific Programs and Projects
implement regional priorities through inclusion in the CLRP
(e.g. Street Smart Campaign)

Region Forward contains a number of performance measures and targets for transportation and other sectors. In combination with other key performance measures which have been developed in the TPB process, they provide a starting point for a baseline analysis of transportation and transportation-related measures. Appendix B of this document provides an initial list of regional performance measures.

An interim report describing the results of Task 1 will be completed by the middle of FY 2012 and released for public outreach and comment. The Task 1 report will be revised as needed throughout the remainder of the two-year period, and then incorporated into the final to be completed report in the first quarter of FY 2014.

Task 2: Determine Regional Challenges and Strategies to Address Them

Once a comprehensive and clearly understandable set of performance measures has been developed, regional challenges are determined by identifying actions the region needs to take in order to meet regional goals.

Appendix B provides an initial list of regional challenges derived from performance measure analysis, including, for example, 1) identifying funding and management strategies to eliminate projected Metrorail capacity constraints; 2) mitigating negative impacts of travel delays and unpredictable travel times on quality of life and the economy by reducing congestion; 3) identifying sufficient revenues to adequately maintain and operate the existing system; 4) dedicating sufficient resources to managing incidents; 5) reducing bike and pedestrian fatalities, as well as motorized fatalities; and 6) improving reliability, coverage and efficiency of transit services for people with disabilities.

As discussed in the introductory text for Appendix B, some of the performance measures presented are based solely on observed data from recent years, while others also forecast expected performance over the thirty-year time frame for the Constrained Long-Range Plan (CLRP) adopted by the TPB in November 2010. Challenges based on measures of current performance of the transportation system (such as reducing bike and pedestrian fatalities) call for strategies which can be implemented over the near-term, within the next few years. Other challenges based on both current and forecasted performance of the transportation system (such as reducing congestion) call for both near-term strategies (such as incident management and teleworking) and longer-term strategies (such as better coordination of transportation and land use). Consequently, the priorities plan should include strategies that can be implemented as needed throughout the planning period, not solely over the long-term.

The final section of Appendix B notes that many of the regional challenges derived from the performance measure analysis cannot be addressed through transportation strategies alone, but will require supportive strategies from other sectors such as land use, technology, education, and enforcement. Reducing congestion, for example, requires a synergistic combination of transportation, land use, and technology strategies over both the near-term and the longer-term. Meeting air quality and climate change challenges also requires a combination of transportation, land use, and technology strategies, with a heavy emphasis on vehicle and fuel technologies that can reduce emissions and fuel consumption by both passenger and commercial vehicles. The priorities plan should identify where such supportive strategies are required from other sectors and agencies, and recommend coordinated actions across sectors when appropriate.

An interim report describing the results of Task 2 with respect to near-term strategies will be completed by the middle of FY 2012, and released for public outreach and comment, an interim report describing the results of Task 2 with respect to longer-term strategies will be completed by the end of FY 2012, and released for public outreach and comment. Both interim and longer-term strategies will be revised as needed throughout the remainder of the two-year period, and then incorporated into the final report to be completed in the first quarter of FY 2014.

Task 3: Develop Regional Priorities, Both Funded and Unfunded

Once a set of regional challenges has been clearly articulated, regional priorities can be developed which will address these challenges and which the TPB and the region can “get behind”. Candidate priorities can be obtained from the various planning studies that have been conducted at the state, regional, sub-regional, and local levels throughout the region, such as the WMATA Priority Corridor Network study presented at the January 19, 2011 TPB meeting, and the TPB Transportation /Land-Use Scenario studies (the most recent of which is the CLRP Aspirations Scenario). These activities will be thoroughly documented through the TPB Citizens Guide and links to related web-sites. Several TPB Technical Subcommittees have also developed priorities for their areas of responsibility, including bicycle and pedestrian, regional bus, airport access, freight, and management, operations and intelligent transportation systems (MOITS). Finally, candidate priorities may be suggested from comments and ideas generated through the public involvement activities to be conducted throughout the process.

Candidate priorities can be organized in accordance with the particular regional goals, performance measures, and challenges which they are designed to address, and then evaluated using a comprehensive benefit-cost approach. A good model for the

benefit-cost approach is the process defined by the USDOT in the TIGER project solicitation. This approach provides for a comprehensive assessment of both benefits and costs, recognizing that some strategies may generate multiple benefits: bike-sharing, for example, generates direct benefits to the users as well as indirect benefits in terms of reductions in greenhouse gases. Those strategies that perform best in this analysis would be incorporated into the Regional Priorities Plan and advanced for consideration in future updates of the CLRP in the form of specific programs and projects.

Recognizing that improving regional performance will require combining transportation and land use strategies in a synergistic manner, candidate priorities should be incorporated into comprehensive land use / transportation scenarios which can be compared to the adopted CLRP baseline with respect to individual regional performance measures as well as in terms of a comprehensive assessment of regional benefits and costs. This can be accomplished by developing and evaluating an initial land use / transportation scenario, and then specifying and evaluating variations on the scenario that might improve its performance or increase its feasibility, as has been done, for example, with the TPB Aspirations Scenario...

Beginning in FY 2012, TPB staff will be able to use the new TPB Version 2.3 travel demand model and the latest version of the EPA Motor Vehicle Emissions Model (MOVES) to quantify the performance of alternative land use / transportation scenarios, and analyze changes in their performance relative to regional goals as well as in terms of regional benefits and costs.

A number of regional priority strategies, programs, and projects have already been identified and implemented through prior planning activities conducted by the TPB and other agencies in the National Capital Region. The Street Smart Campaign noted in the chart described earlier is one example of such a regional program; the Metropolitan Area Transportation Operations Coordination Program (MATOC) is another. The 2009 TIGER grant has given added impetus to a number of inter-related efforts to advance bus priority strategies throughout the region.

The FY2011 TIGER program announcement of July 1, 2011 provides a near-term opportunity for the TPB to pursue priority strategies, programs, and projects addressing important goals, such as promoting accessibility in activity centers through strategic transportation investments (some of which have been identified through the TPB's TLC Program). In this respect, the Regional Priorities Plan Work Scope builds upon recent and ongoing planning activities to help identify near-term opportunities for advancing priority strategies, programs, and projects, as well as providing an opportunity to identify additional priorities through further scenario studies and analyses conducted over a two-year period leading up to the next formal update of the CLRP.

An Interim report describing the results of Task 3 with respect to near-term regional priorities will be completed by the end of FY 2012 and released for public outreach and comments. An interim report describing the results of Task 3 with respect to longer-term regional priorities will be completed by the end of FY 2013, and released for public outreach and comments. Both interim and longer-term regional priorities will be revised as needed and incorporated into the final report to be completed in the first quarter of FY 2014.

Public Involvement

Public participation will be sought at each and every stage of the two-year process, including in particular the development of performance measures, strategies, and benefit-cost analysis. Through a variety of public outreach activities, citizens will discuss the benefits, desirability and feasibility of potential projects and plan components.

The public involvement process will incorporate the following features:

- Use the best public involvement techniques available, including a variety of tools and media, ranging from social media to public forums, including presentations at regular meetings of citizen organizations. The TPB will consider using innovative visualization techniques to allow the public to better understand the concepts under consideration.
- Reach out to a variety of constituencies, including community leaders and ordinary citizens not normally involved in the TPB process, as well as citizen partners such as members of the Citizen Advisory Committee and Access for All Advisory Committee.
- Ensure public involvement is woven into the entire process for developing the Priorities Plan, including at key milestones identified over the two-year period of plan development.

Schedule and Deliverables

The attached chart provides a schedule for each of the three tasks described above, including preparation of interim reports, formal public outreach and comment opportunities, and a final report. The timing of the final report for the beginning of FY 2014 is designed to ensure that the results of the regional transportation priorities plan are available for consideration in the development of the next four year update of the TPB's Constrained Long Range Plan (CLRP), due at the end of the calendar year 2014. As with the CLRP, the priorities plan should be revisited and updated on a periodic basis to reflect changes in the CLRP baseline, new land use developments and forecasts, and new challenges which will occur as new policy issues arise over time.

Deliverables will include interim reports on progress achieved by the **mid-points and end-points** of fiscal years 2012, and 2013, followed by a final report at the beginning of fiscal year 2014 reflecting public comment on previous interim reports. Regular

progress reports will be given to the TPB, the CAC and other regional agencies and groups throughout the two-year period.

Incorporation of Work Scope and Schedule into FY 2012 UPWP

Appendix C of this document provides current text for the Regional Studies work element of the TPB's FY2012 UPWP, as adopted by the TPB at its March 16, 2011 meeting. This text may need to be revised to reflect the work scope and process for the Regional Priorities Plan, once they have been finalized. The work scope and process was to be approved by the TPB Priorities Plan Scoping Task Force at its April 20 meeting presented to the TPB at its May 18 and June 15 meetings. The TPB will be asked to approve the work scope and process at its July 20 meeting, and to approve associated amendments to the FY 2012 UPWP at its September 21 meeting.

Proposed Schedule

| Tasks | FY2011 | | FY2012 | | | | FY2013 | | | | FY2014 | |
|--|--------|----|--------|----|----|----|--------|----|----|----|--------|--|
| | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | |
| Task 1 | | | | | | | | | | | | |
| Reaffirm Regional Goals and Agree Upon Performance Measures | | | | | | | | | | | | |
| Task 2 | | | | | | | | | | | | |
| Determine Regional Challenges and Strategies to Address Them --Near Term --Longer Term | | | | | | | | | | | | |
| Task 3 | | | | | | | | | | | | |
| Develop Regional Priorities, both Funded and Unfunded --Near Term --Longer Term | | | | | | | | | | | | |
| Interim Reports | | | | | ▲ | | ▲ | | ▲ | | ▲ | |
| Public Outreach and Comment | | | | | ● | | ● | | ● | | ● | |
| Final Reports | | | | | | | | | | | ■ | |

Appendix A

Comparison of the TPB Vision and Region Forward

At the task force's meeting on December 15, Chairman Turner requested a document comparing the *TPB Vision* with *Region Forward*.

Overview and Comparison of the Two Documents

The *TPB Vision* was adopted in 1998 following a three-year process that included public outreach and consensus building. The *Vision* comprises a policy statement, eight overarching policy goals, and objectives and strategies for reaching those goals. In total, it contains 84 goals, objectives and strategies, which touch upon a full spectrum of transportation challenges facing the region. The *Vision* is policy-oriented and in general, it does not provide targets that can be quantitatively measured.

The *Vision* has influenced TPB activities over the past decade on numerous levels. In particular, the *Vision* was the first regional policy statement to call for a focus on activity centers as the primary means to improve transportation and land-use coordination in the region. As followup to the *Vision*, COG developed and approved the regional activity centers maps in 2002 and updated them in 2007. The activity centers have been an essential component of the scenario analysis that the TPB has been conducting over the past decade.

Since the *Vision* was approved in 1998, two international concerns – terrorism and climate change – have been pushed to the top of the global agenda. These challenges have obvious transportation implications, which the TPB has been working to address.

Region Forward was overseen by the Greater Washington 2050 Coalition, which included community stakeholders, representatives from COG's member jurisdictions and participation from all of COG's departments. *Region Forward* explicitly builds upon past planning activities. According to the final report, "rather than launch a new visioning process that could take several years, the Coalition's challenge was to tie together earlier work in a comprehensive way." For transportation, the primary building block for *Region Forward* was the *TPB Vision*.

The *Region Forward* document was approved in 2010 following a two-year development process. It includes goals, targets, and a compact agreement to guide future planning and help measure progress in the areas of housing, transportation, the environment, health and the economy. The goals and targets relate to accessibility, sustainability, prosperity and livability. By the end of 2010, all of COG's member jurisdictions had signed the regional compact established in *Region Forward*.

Unlike the *TPB Vision*, *Region Forward* is multi-sectoral, covering a range of issues such as education and public safety. *Region Forward* includes transportation components, largely focused on promoting alternative modes, which are a subset of goals from the *TPB Vision*. Unlike the *Vision*, *Region Forward* includes a range of targets and indicators to evaluate progress toward its goals, including transportation. Regarding transportation specifically, the *Vision* is more comprehensive, including issues such as safety, freight, and the use of technology, which were not addressed in *Region Forward*.

From *Region Forward*:

We seek a broad range of public and private transportation choices for our Region which maximizes accessibility and affordability to everyone and minimizes reliance upon single occupancy use of the automobile.

From the *TPB Vision*:

- A comprehensive range of choices for users of the region's transportation system.
- Reasonable access at reasonable cost to everyone in the region.
- Reduction in reliance on the single-occupant vehicle (SOV) by offering attractive, efficient and affordable alternatives.

From *Region Forward*:

We seek a transportation system that maximizes community connectivity and walkability, and minimizes ecological harm to the Region and world beyond.

From the *TPB Vision*:

- A web of multi-modal transportation connections.
- Dynamic regional activity centers with a mix of jobs, housing and services in a walkable environment.
- A transportation system that enhances and protects the region's natural environmental quality, cultural and historic resources, and communities.

The boxes above compare *Region Forward's* transportation goals with language taken from the *Vision*. This comparison demonstrates the consistency between the two documents.

Appendix B

Initial List of Performance Measures

There are a multitude of different performance measures that can be developed and used to evaluate progress toward meeting regional transportation goals. The following presentation, *Measuring Progress Toward Meeting Regional Goals (April 20, 2011)*, includes a number of examples of transportation performance measures that can be used to assess current and expected performance of the regional transportation system.

Many of the measures presented here have been used by the TPB over the years, while others are new performance measures developed to support the TPB's priorities planning effort. Some measures are based on historical or current data sources, which can be used to identify current system performance and what trends exist, but cannot be readily calculated for the future (e.g. accident data). Expected future performance is assessed through measures derived from the outputs of the TPB Travel Forecasting Model, which allows for some measures to be forecast into the future (e.g. vehicle miles travelled).

In the priority planning process, performance measures will be used for two purposes:

- 1) to identify whether the region is meeting its transportation goals or falling short, and what regional transportation challenges exist and need to be addressed through the priorities planning process, and
- 2) to help assess the value of projects and programs that are recommended for inclusion in the priorities plan.

Below is an initial listing of regional challenges identified based on the performance measures that have been developed thus far, organized under seven regional transportation goals:

- I. Provide a Comprehensive Range of Transportation Options
 - Further reduce the percentage of commuters driving alone to work
 - Continue to reduce the percentage of people driving alone to meet their daily transportation needs
 - Continue to promote transit and other transportation alternatives for residents and workers
 - Further reduce VMT per capita by shifting more short trips to non-auto modes
 - Accelerate the rate of construction for the TPB's Bike and Ped Plan
 - Recognize the importance of time of day and time of year as factors influencing travel and congestion

- Identify funding and management strategies to eliminate projected Metrorail capacity constraints
- II. Promote Transportation Connections, Walkability, and Mixed Use Development in Activity Centers
- Continue to focus employment and housing in Activity Centers to promote an efficient transportation system
 - Improve the jobs and housing balance in Activity Centers
 - Increase bus stop coverage in the Activity Centers
 - Increase walkability in Activity Centers
 - Mitigate negative impacts of travel delays and unpredictable travel times on quality of life and the economy by reducing congestion
- III. Prioritize Maintenance Preservation, and Safety of the Existing System
- Identify sufficient revenues to adequately maintain and operate the existing system
 - Reduce bike and pedestrian fatalities, as well as motorized fatalities
 - Continue to focus on operating a safe transit system
- IV. Maximize System Effectiveness through the use of the best available technology
- Dedicate sufficient resources to managing regional incidents
 - Consider causes of incidents in designing incident response strategies
- V. Enhance Environmental Quality, Protect Human Health, and Improve Energy Efficiency
- Continue to meet federal air quality conformity requirements and address rising levels of some emissions beyond 2030
 - Reduce CO2 emissions, which accumulate in the atmosphere over time
- VI. Achieve Better Coordination of Transportation and Land Use Planning
- Seek opportunities for improving the match of rail transit and Activity Centers
 - Increase accessibility to and from Activity Centers
- VII. Support International and Inter-Regional Travel and Commerce
- Address the significant unmet freight transportation needs identified in the TPB Freight Plan
 - Improve reliability, coverage and efficiency of transit services for people with disabilities

The roster of performance measures included in the following presentation can be revised and expanded in the future in order to identify and utilize the measures that are most appropriate to the priorities planning process.



National Capital Region Transportation Planning Board

Measuring Progress Toward Meeting Regional Goals

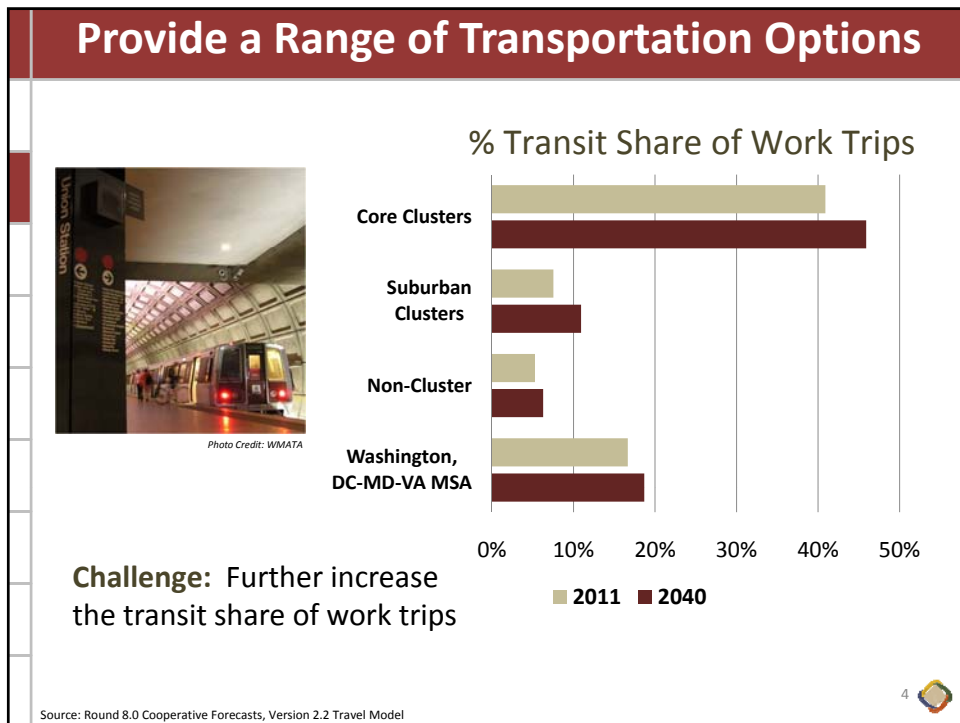
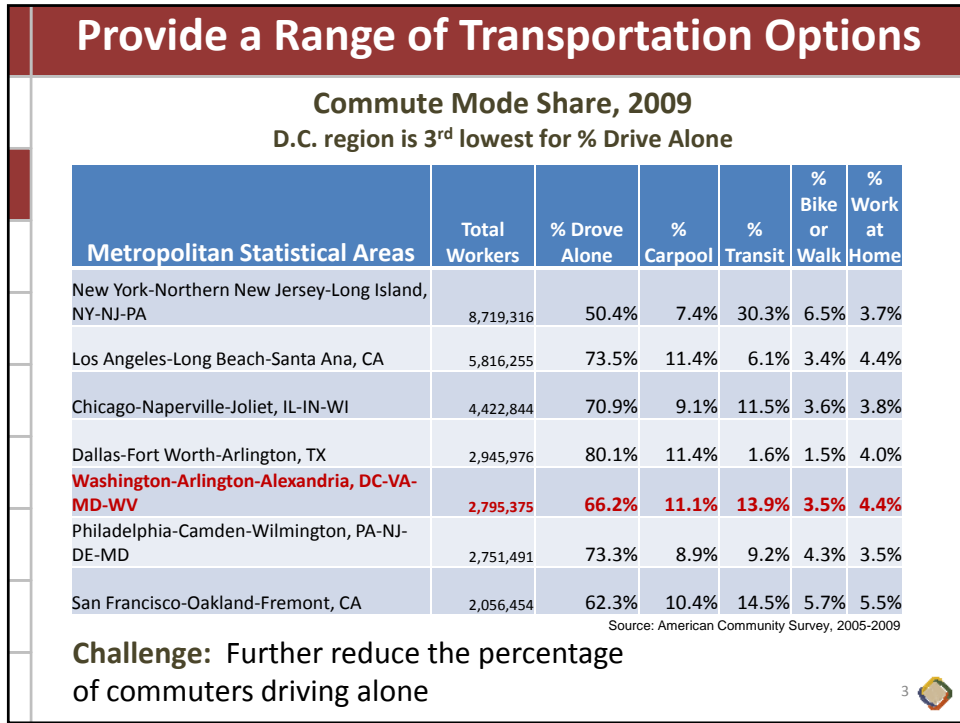
July 7, 2011

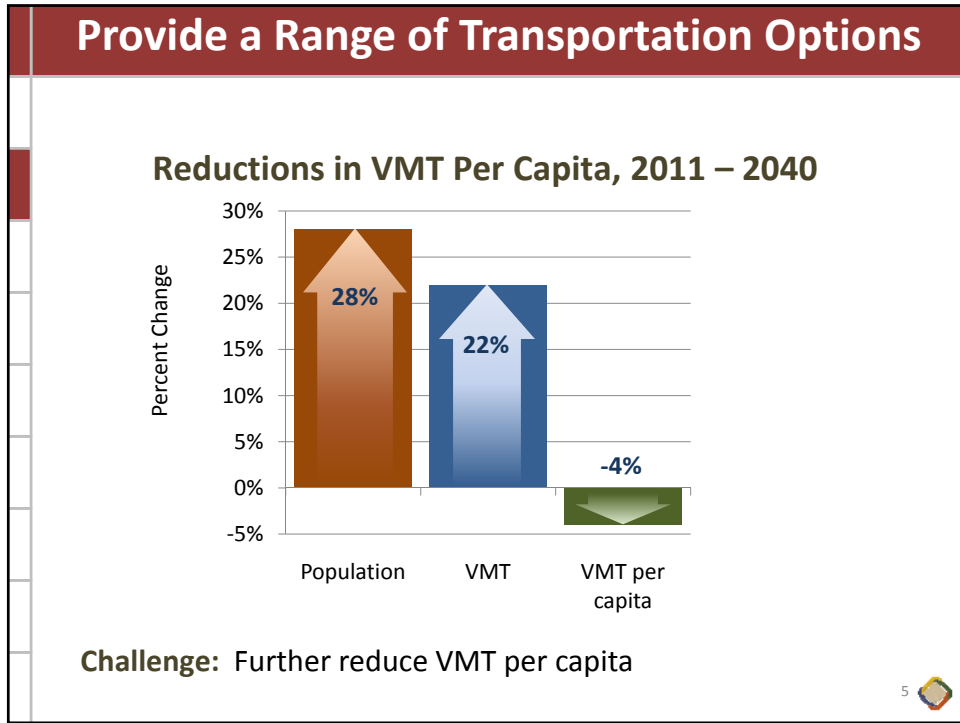
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Overview

- **Examples** of transportation performance measures that can be used to evaluate system performance
- **Performance measures** quantified using recent data and forecasts from the 2010 CLRP
- **Challenges** based on regional goals and performance data
- Many challenges require **supportive strategies** from outside the transportation sector

2 






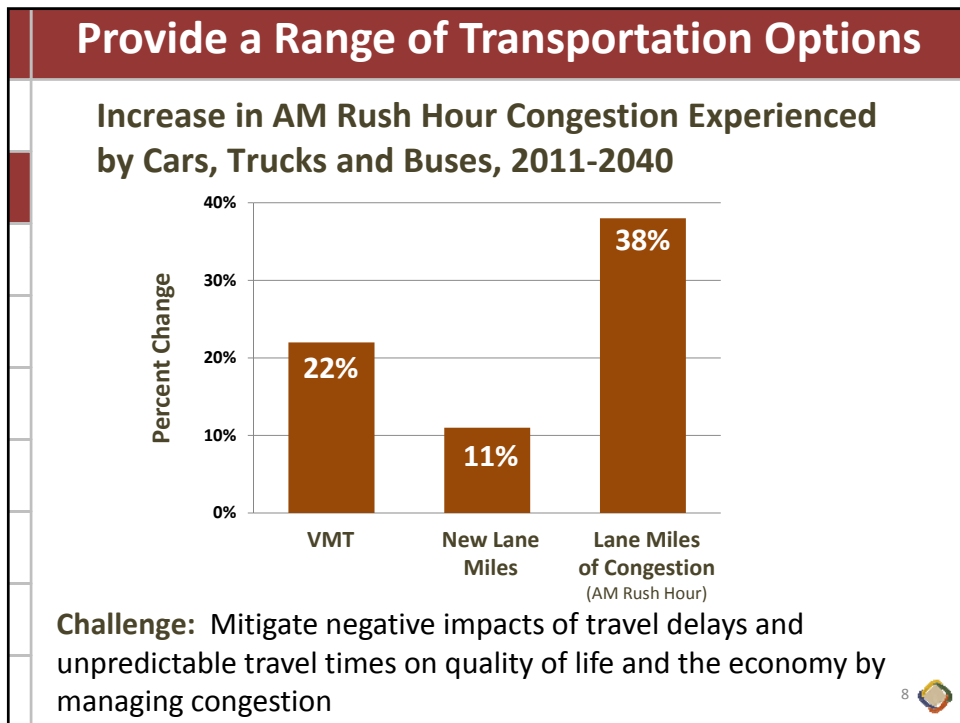
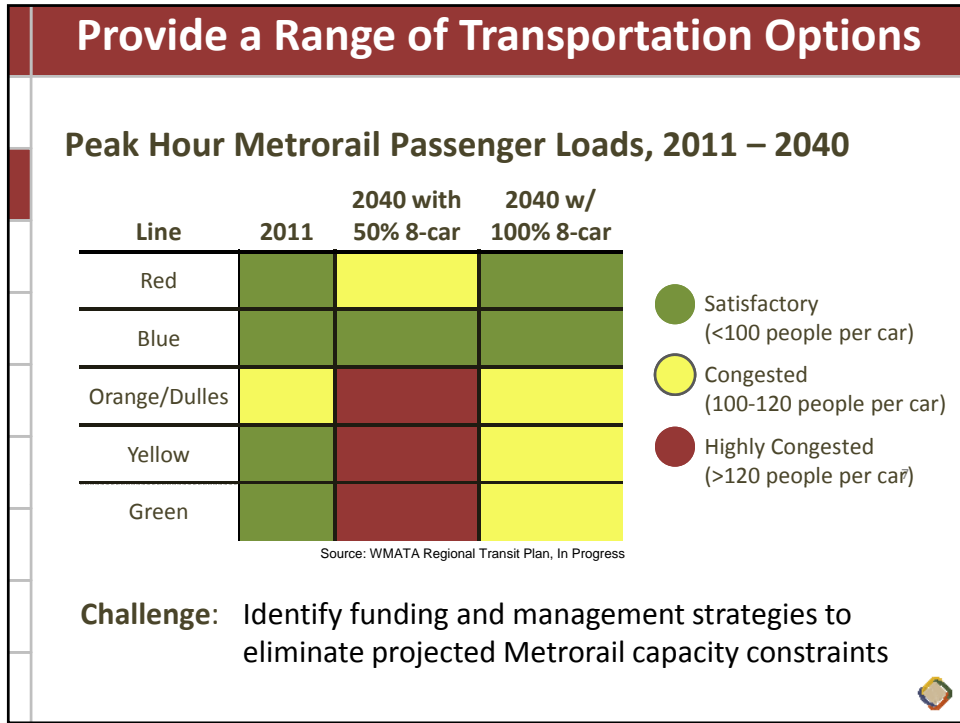
Provide a Range of Transportation Options

Progress in Implementing the TPB's Bicycle and Pedestrian Plan

| Facility Type (in miles) | Existing Facilities in 2010 | Planned New Facilities & Upgrades in 2010 Bike-Ped Plan | Total Planned Network for 2040 |
|--------------------------|-----------------------------|---|--------------------------------|
| Bicycle Lane | 91 | 450 | 541 |
| Shared-Use Path | 543 | 630 | 1173 |
| Total | 634 | 1080 | 1714 |

Challenge: Accelerate the rate of construction for TPB's Bike and Ped Plan, since at the current rate only 60% of the planned facilities will be built by 2040

6 




Provide a Range of Transportation Options


Access for People with Disabilities

Access to bus, rail and taxis has improved but challenges remain:

- Reliability of bus lifts and elevators
- Demand and cost of paratransit
- Many bus stops and sidewalks need improvements
 - About 40 % of the region’s 20,000 bus stops are not fully accessible



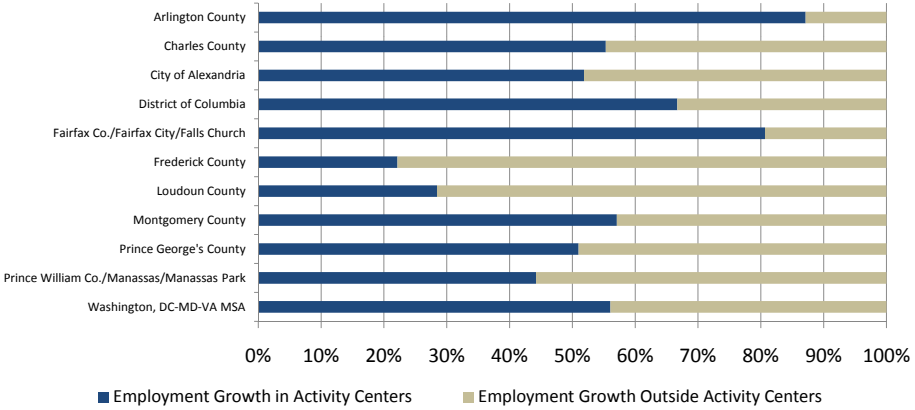
Challenge: Improve reliability, coverage and efficiency of transit services for people with disabilities

9 

Promote Connections, Activity Centers


Jobs & Housing Balance

Employment Growth & Activity Centers, 2011-2040

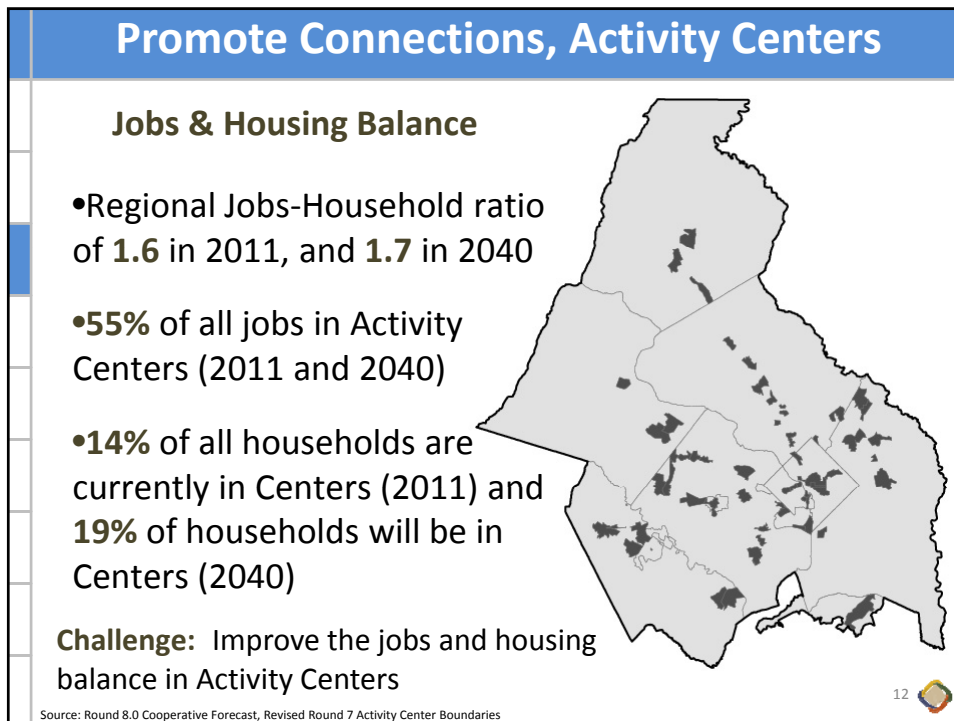
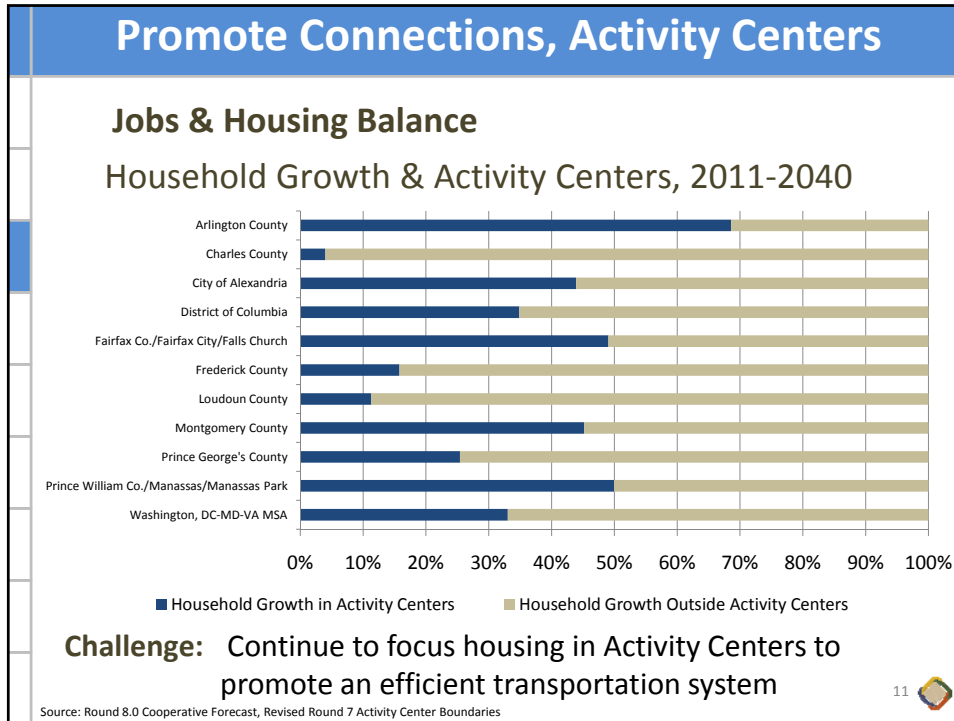


| Region | Employment Growth in Activity Centers (%) | Employment Growth Outside Activity Centers (%) |
|---|---|--|
| Arlington County | ~88 | ~12 |
| Charles County | ~55 | ~45 |
| City of Alexandria | ~52 | ~48 |
| District of Columbia | ~68 | ~32 |
| Fairfax Co./Fairfax City/Falls Church | ~82 | ~18 |
| Frederick County | ~22 | ~78 |
| Loudoun County | ~28 | ~72 |
| Montgomery County | ~58 | ~42 |
| Prince George's County | ~52 | ~48 |
| Prince William Co./Manassas/Manassas Park | ~45 | ~55 |
| Washington, DC-MD-VA MSA | ~55 | ~45 |

Challenge: Continue to focus employment in Activity Centers to promote an efficient transportation system

10 

Source: Round 8.0 Cooperative Forecast, Revised Round 7 Activity Center Boundaries



Promote Connections, Activity Centers

Jobs & Housing Balance

Jobs to Household Ratio in Activity Centers

| Activity Center | Jobs 2011 | Households 2011 | 2011 Jobs to HH Ratio | Jobs 2040 | Households 2040 | 2040 Jobs to HH Ratio | 2011-2040 Ratio Change |
|--------------------------------|--------------|--------------------|--------------------------|--------------|--------------------|--------------------------|---------------------------|
| DC Core | 596,798 | 61,284 | 9.7 | 718,492 | 84,990 | 8.5 | (1.3) |
| Mixed-Use Centers | 342,578 | 85,126 | 4.0 | 467,970 | 134,022 | 3.5 | (0.5) |
| Employment Centers | 295,681 | 22,400 | 13.2 | 401,778 | 51,520 | 7.8 | (5.4) |
| Suburban Employment Centers | 482,617 | 86,057 | 5.6 | 737,925 | 154,578 | 4.8 | (0.8) |
| Emerging Employment Centers | 85,337 | 28,375 | 3.0 | 152,610 | 67,491 | 2.3 | (0.7) |
| <i>All Activity Centers</i> | 1,803,010 | 283,241 | 6.4 | 2,478,775 | 492,601 | 5.0 | (1.3) |

Challenge: Improve the jobs and housing balance in Activity Centers

13

Source: Round 8.0 Cooperative Forecast, Revised Round 7 Activity Center Boundaries

Promote Connections, Activity Centers

In 2011, most Activity Centers are served by bus transit, and about 2/3 have a high level of access to bus stops.

| | within 1/4 mile of a bus stop |
|---|----------------------------------|
| Centers with High Bus Stop Coverage (>75% Area) | 38 (65%) |
| Centers with Medium Bus Stop Coverage (50%-75% Area) | 9 (15%) |
| Centers with Low Bus Stop Coverage (<50% Area) | 9 (15%) |
| Centers with No Bus Stop Coverage | 3 (5%) |
| <i>(59 Activity Centers in Total)</i> | |

Challenge: Increase bus stop coverage in the Activity Centers


14

Promote Connections, Activity Centers

Higher Street Block Density Means Greater Walkability (# of blocks per sq. mile)


Street Block Density in Activity Centers

| Activity Center Type | Street Block Density |
|-----------------------------|----------------------|
| DC Core | 131 |
| Mixed-Use Centers | 104 |
| Employment Centers | 41 |
| Suburban Employment Centers | 25 |
| Emerging Employment Centers | 16 |




Within the **2.2 sq miles** of Downtown Alexandria there are **303 blocks**, resulting in a street block density of **137.7 blocks per sq mile**.

Challenge: Increase walkability in Activity Centers


15 

Promote Connections, Activity Centers


How Future Street Block Density Can Be Measured: Tysons Corner

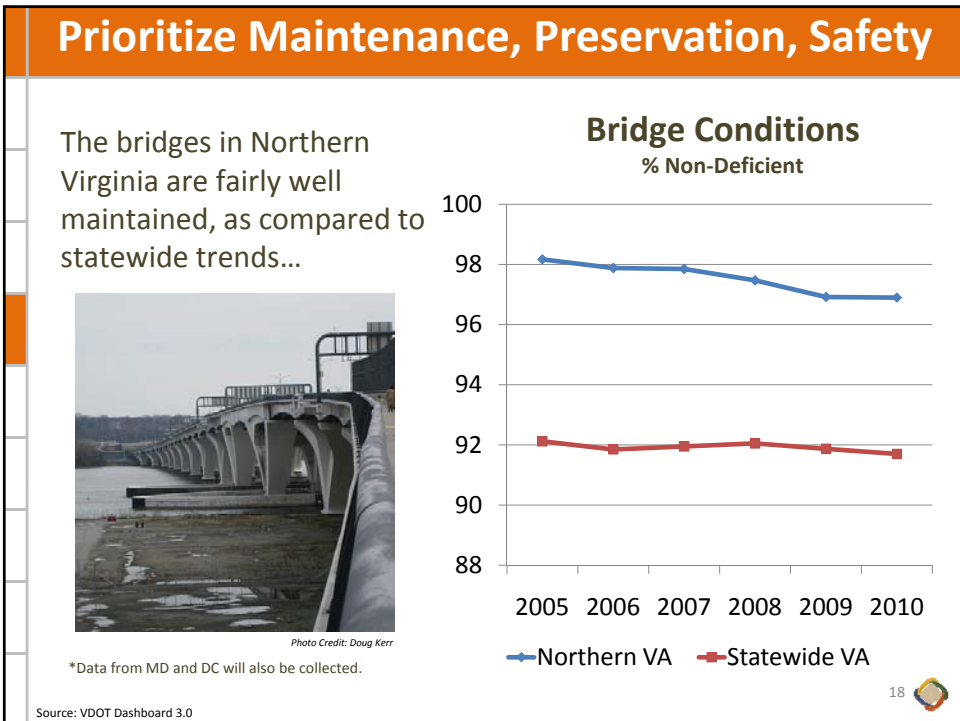
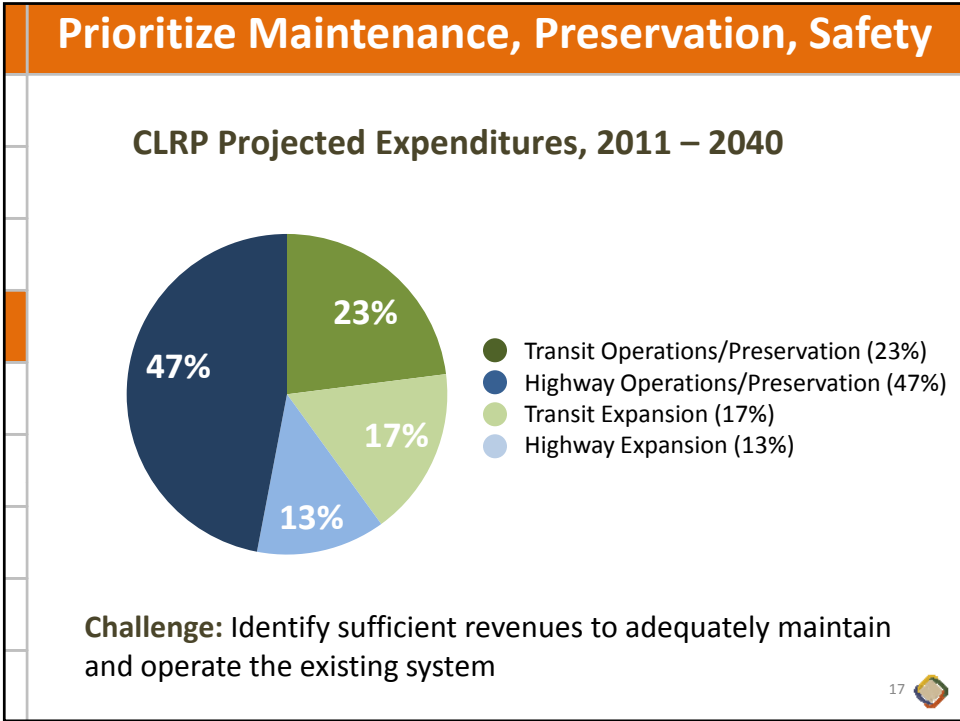


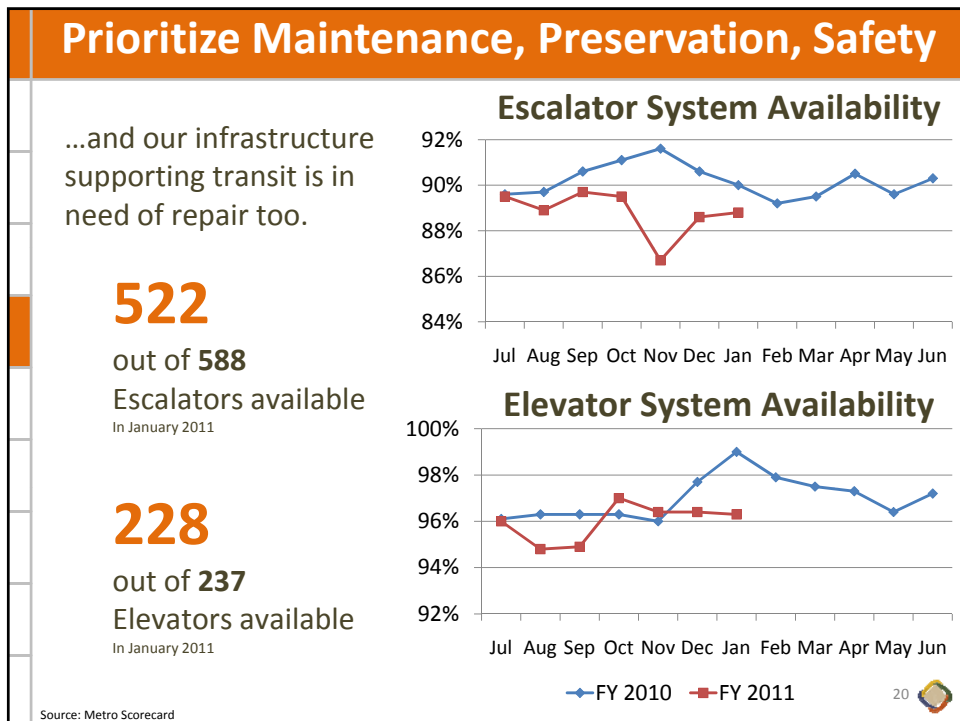
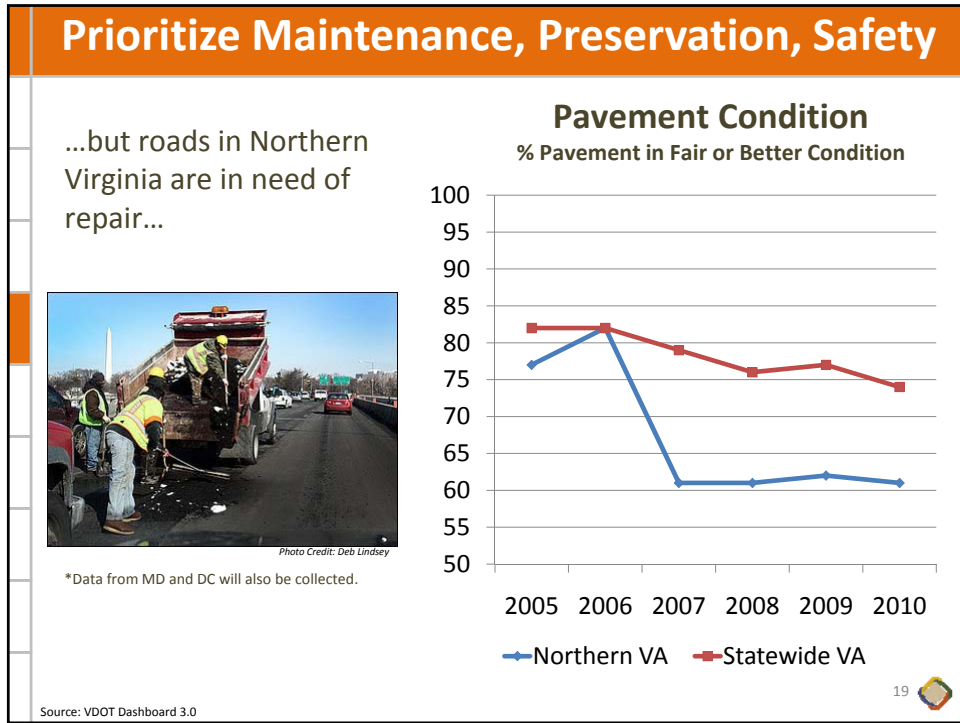
**2011 Street Block
Density: 45.3**

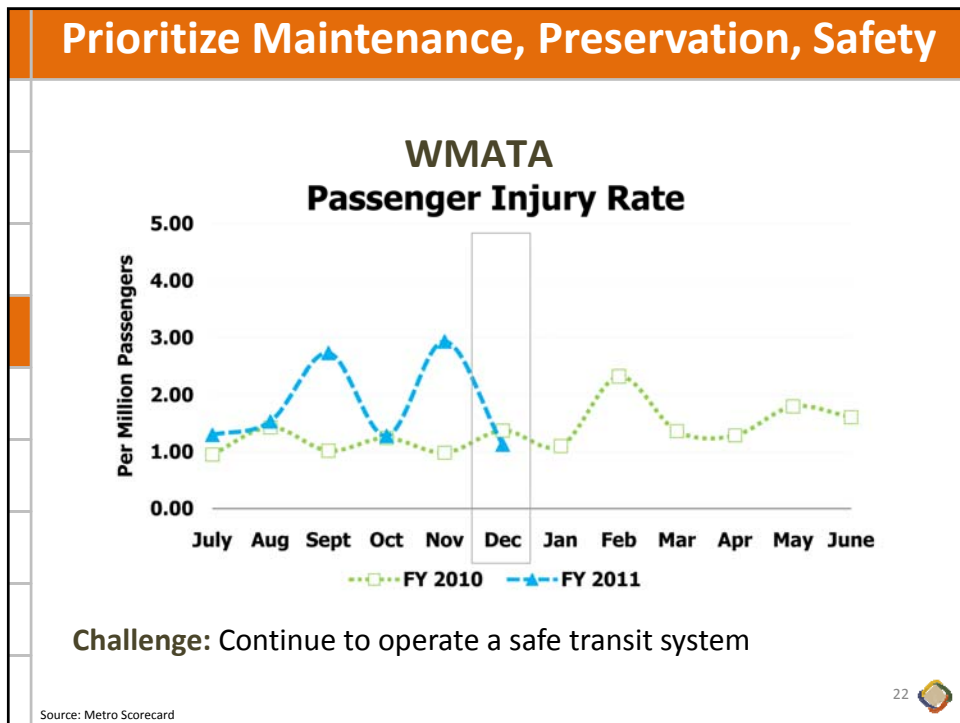
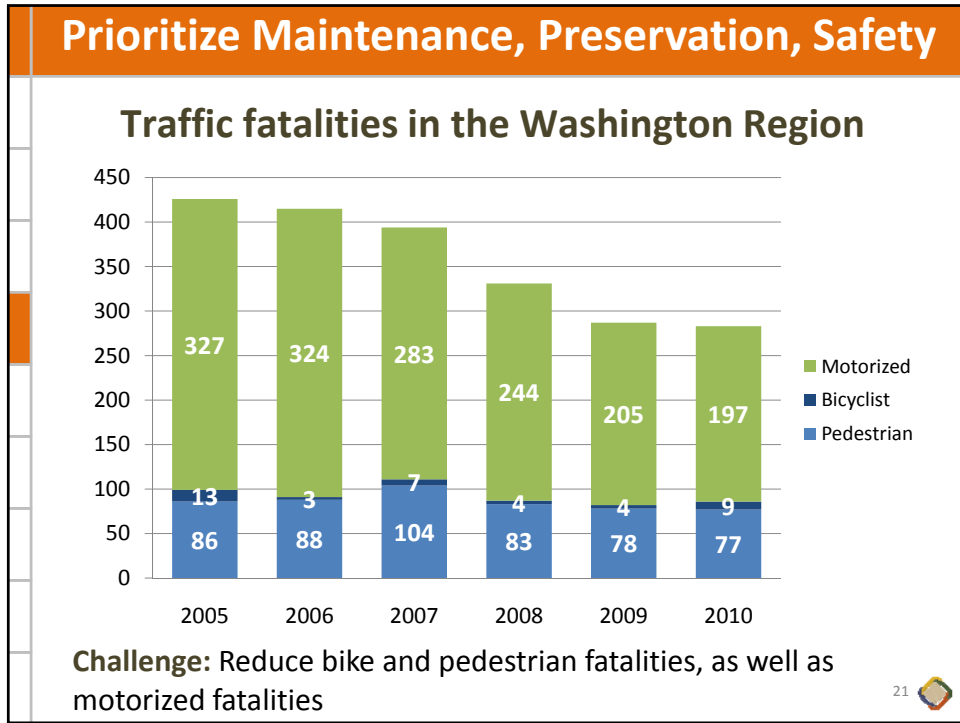


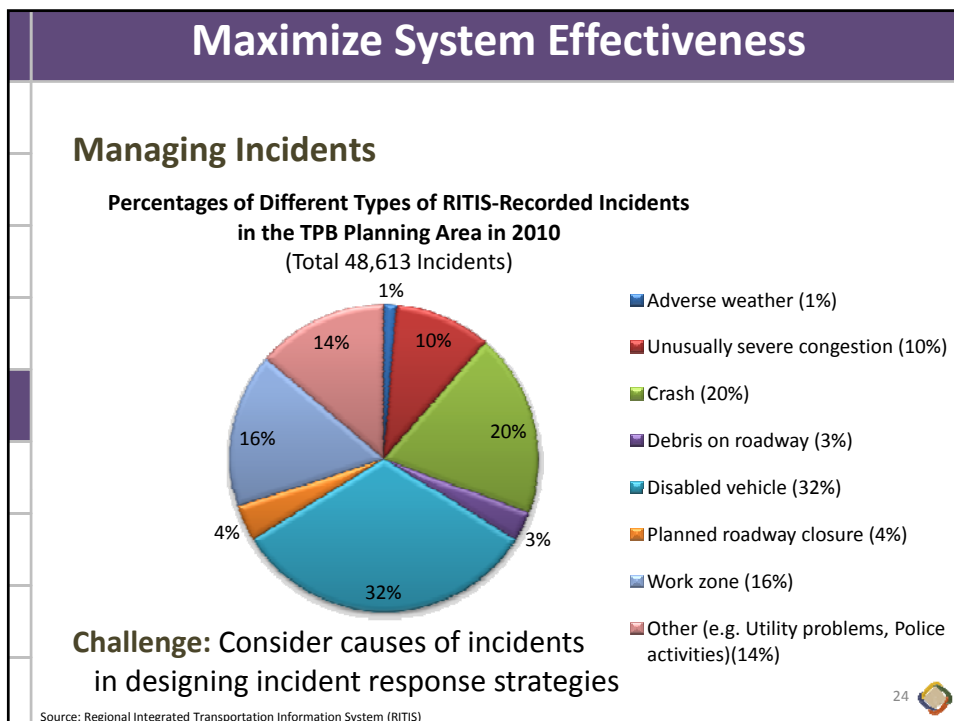
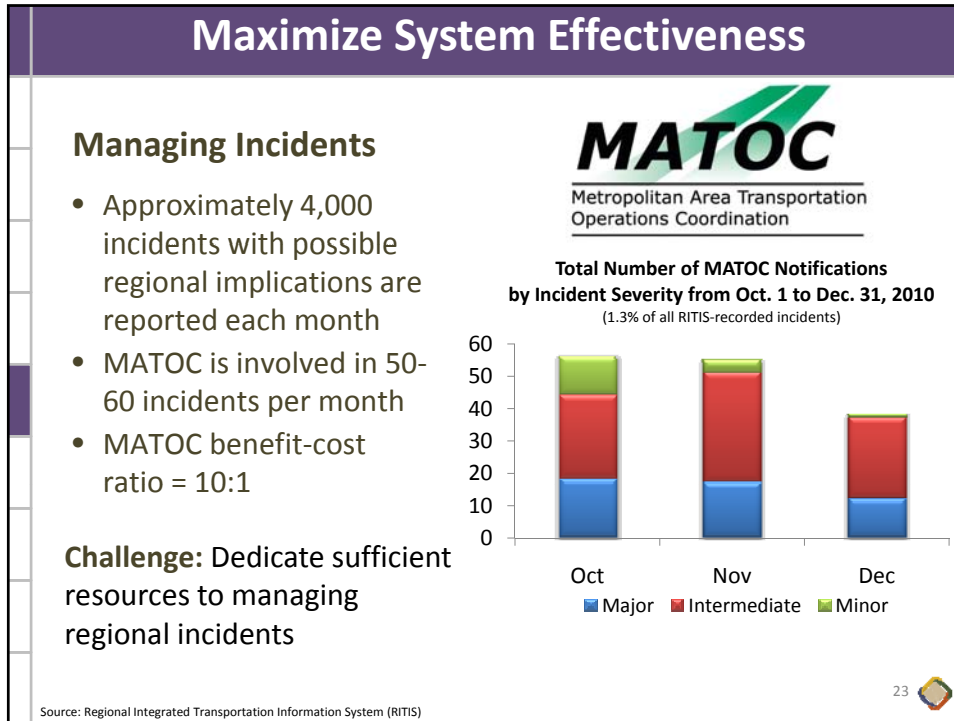
**2030 Street Block
Density: 96.1**

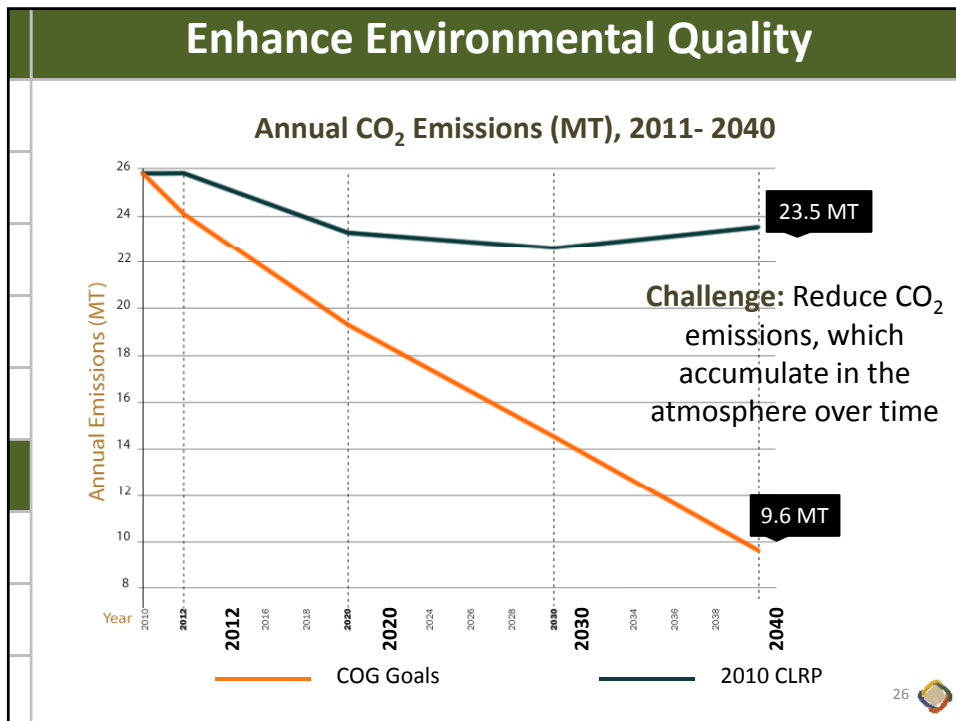
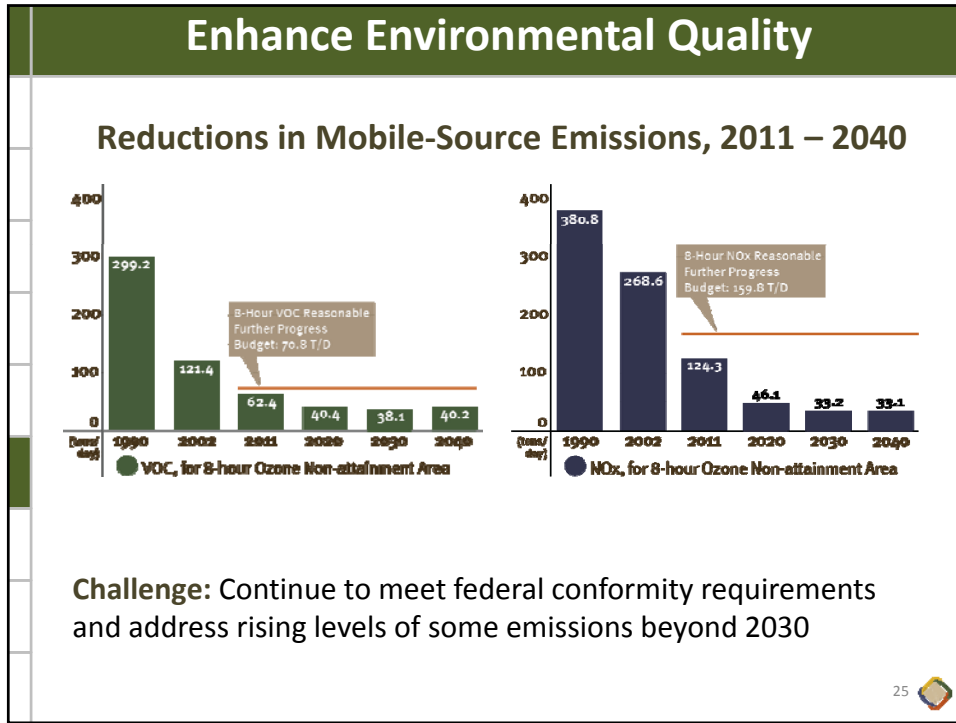
16 











Achieve Better Transport/Land Use Coord.

| | 2011 | 2040 |
|--|--|--|
| Regional Activity Centers | 59 | 59 |
| Metrarail Stations | 86 | 98 |
| Commuter Rail Stations | 52 | 53 |
| Regional Activity Centers with Rail Transit | 31 with rail 25 Metrorail 15 Commuter Rail | 37 with rail 31 Metrorail 15 Commuter Rail |
| Regional Activity Centers without Rail Transit | 28 | 22 |
| Rail Stations Not Located in Regional Activity Centers | 73 37 Metrorail 36 Commuter Rail | 76 39 Metrorail 37 Commuter Rail |

Challenge: Seek opportunities for improving the match of rail transit and Activity Centers

Achieve Better Transport/Land Use Coord.

Average number of other Activity Centers accessible within 45 minutes of a given Activity Center by Transit and Highway

| | 2011 | | 2040 | | Change | |
|----------------------|------|-----|------|-----|--------|-----|
| | HWY | TRN | HWY | TRN | HWY | TRN |
| DC Core | 25 | 18 | 21 | 18 | -4 | 0 |
| Mixed Use | 17 | 14 | 14 | 15 | -3 | 1 |
| Employment | 14 | 9 | 10 | 9 | -4 | 0 |
| Suburban Emp. | 9 | 4 | 7 | 5 | -2 | 1 |
| Emerging Emp. | 6 | 2 | 4 | 3 | -2 | 1 |

Challenge: Increase accessibility to and from Activity Centers

Source: Round 8.0 Cooperative Forecasts, Version 2.2 Travel Model

Support Inter-Regional Travel

Total Value of Goods Movement by all modes in the Region
forecast to grow 88% by 2040

Growth in Truck Trips 2011 to 2040

| Category | Growth (%) |
|---------------------|------------|
| Total Vehicle Trips | 27% |
| Truck Trips | 35% |

Challenge: Address the significant unmet freight transportation needs identified in the TPB Freight Plan


29

Addressing the Challenges


- Many of the challenges cannot be met through transportation strategies alone but **will require supportive strategies** from other sectors such as:
 - Land Use
 - Technology
 - Education & Enforcement

30


| | Summary of Challenges | Types of Strategies Needed | | | |
|----------------------------|---|----------------------------|----------|------------|-------------------------|
| | | Transportation | Land Use | Technology | Education & Enforcement |
| Provide a range of options | Further reduce the percentage of commuters driving alone | ● | ● | | |
| | Further increase the transit share of work trips | ● | ● | | |
| | Further reduce VMT per capita | ● | ● | | |
| | Accelerate the rate of construction for the TPB's Bike and Pedestrian Plan | ● | ● | | |
| | Identify funding and management strategies to eliminate projected Metrorail capacity constraints | ● | | | |
| | Mitigate negative impacts of travel delays and unpredictable travel times on quality of life and the economy by managing congestion | ● | ● | ● | |
| | Improve reliability, coverage and efficiency of transit services for people with disabilities | ● | ● | ● | |

31 


| | Summary of Challenges | Types of Strategies Needed | | | |
|---------------------------------------|--|----------------------------|----------|------------|-------------------------|
| | | Transportation | Land Use | Technology | Education & Enforcement |
| Promote Connections, Activity Centers | Continue to focus employment and housing in Activity Centers to promote an efficient transportation system | | ● | | |
| | Improve the jobs and housing balance in Activity Centers | | ● | | |
| | Increase bus stop coverage in the Activity Centers | ● | ● | | |
| | Increase walkability in Activity Centers | ● | ● | | |

32 

| | Summary of Challenges | Types of Strategies Needed | | | |
|--|---|----------------------------|----------|------------|-------------------------|
| | | Transportation | Land Use | Technology | Education & Enforcement |
| Prioritize Maintenance, Preservation, Safety | Identify sufficient revenues to adequately maintain and operate the existing system | ● | | | |
| | Reduce bike and pedestrian fatalities, as well as motorized fatalities | ● | ● | ● | ● |
| | Continue to operate a safe transit system | ● | ● | ● | ● |
| Maximize System Effectiveness | Dedicate sufficient resources to managing regional incidents | ● | | ● | ● |
| | Consider causes of incidents in designing incident response strategies | ● | | ● | ● |

33 

| | Summary of Challenges | Types of Strategies Needed | | | |
|-----------------------|--|----------------------------|----------|------------|-------------------------|
| | | Transportation | Land Use | Technology | Education & Enforcement |
| Environmental Quality | Continue to meet federal conformity requirements and address rising levels of some emissions beyond 2030 | ● | ● | ● | |
| | Reduce CO2 emissions, which accumulate in the atmosphere over time | ● | ● | ● | |
| Transport & Land Use | Seek opportunities for improving the match of rail transit and Activity Centers | ● | ● | | |
| | Increase accessibility to and from Activity Centers | ● | | | |
| Inter-Regional | Address the significant unmet freight transportation needs identified in the TPB Freight Plan | ● | | | |

34 

Alternative formats of this document and all meeting materials are available upon request. Contact Wendy Klancher at (202) 962-3321, TDD (202) 962-3213 or wklancher@mwkog.org and allow 7 days for preparation of the materials.