### NATIONAL CAPITAL REGION FREIGHT PLAN

### Briefing

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TPB Technical Committee June 3, 2016

### **Presentation Items**

- Overview of Freight Plan status and next steps.
- Dry run of TPB presentation.



### Freight Plan Status and Next Steps

- Full document and Executive Summary
- Executive Summary in new TPB Report Template
- Final version of the full document will be in the new Template
- Most comments have been addressed
- "Summary of Key Points" to be added to front of full document
- Informational item at June 15 Board Meeting
- Action item at July 20 (or later) Board Meeting



## Why do Freight Planning?

- Freight transportation is vital to the economy of the Region and to the quality of life of its residents
- Hundreds of millions of tons of freight worth \$ billions move over the
   Region's roadways and railways and pass through its airports each year
- Growing employment, population, and wealth will continue to drive demand for freight
- Economic growth will result in greater quantities of goods moving into, out of, and through the Region
- Evolving supply chain practices, expansion of the Panama Canal, and increasing urbanization are some of the factors impacting freight flows
- Ensuring the safe transport of freight is a primary concern of the TPB



## The NCR Freight Plan

#### Two separate documents:

| Full Document  | Executive Summary   |
|--|---|
| <ul> <li>Seven sections plus Appendices</li> <li>Introduction</li> <li>The Multimodal Freight System</li> <li>Freight Demand</li> <li>Freight Trends and Issues</li> <li>Regional Freight Policies</li> <li>National Capital Region Projects<br/>Important to Freight</li> <li>Recommendations and Next Steps</li> </ul> | <ul> <li>Summary review of the full document</li> <li>Summary information from 6 of the 7 sections of the Plan</li> <li>No project lists or appendices</li> </ul> |
| 117 pages  | 24 pages  |
| Custom template (final version to utilize new TPB report template)   | New TPB report template   |

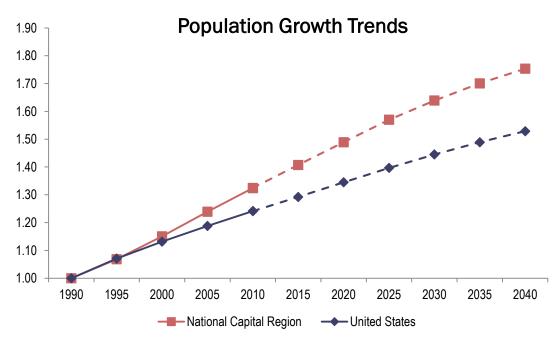


### The NCR Freight Plan...

- Builds on the 2010 edition
- Supports MAP-21 and FAST requirements
- Is a technical reference and a guide to future TPB planning activities
- Describes the role of freight in the Region
- Defines a regional freight-significant network
- Describes the drivers of freight demand and resulting freight flows
- Identifies significant freight issues
- Includes regional freight policies
- Identifies projects that are important to goods movement
- Recommends future freight planning actions



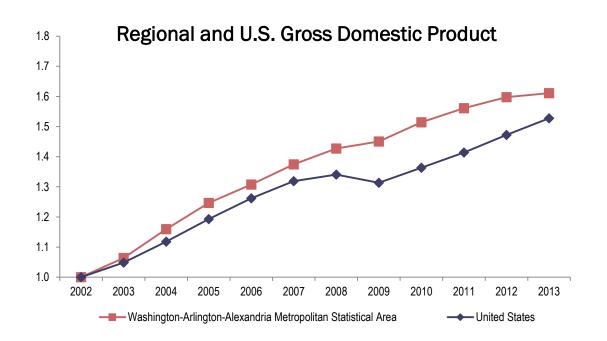
### **People Drive Freight Demand**



- Each new resident creates additional demand for goods and therefore freight.
- Households with higher disposable income generate greater demand for freight.
- The Region is growing at a faster rate than the nation overall.
- Regional median household income is 70% higher than the national average.



### **Businesses Drive Freight Demand**



- There is a direct relationship between growth in economic activity and demand for freight transportation.
- Every marginal dollar of GDP generates an additional 0.38 ton-miles of freight activity.



## **Top Commodities**

Top Commodities by Weight

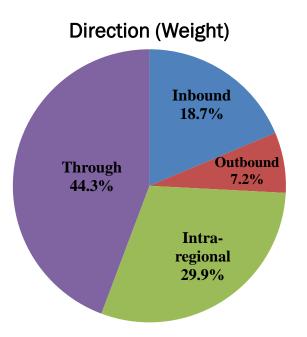
| Rank | Commodity Class              | Total<br>(thousands of tons) | Cumulative<br>Share |
|------|------------------------------|------------------------------|---------------------|
| 1    | Gravel & crushed stone       | 41,277                       | 19%                 |
| 2    | Waste & scrap                | 32,319                       | 35%                 |
| 3    | Nonmetallic mineral products | 25,212                       | 47%                 |
| 4    | Petroleum products           | 14,421                       | 53%                 |

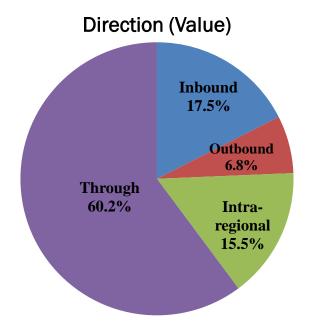
Top Commodities by Value

| Rank | Commodity Class                | Total<br>(millions of \$) | Cumulative<br>Share |
|------|--------------------------------|---------------------------|---------------------|
| 1    | Electronic & electrical equip. | 31,848                    | 13%                 |
| 2    | Machinery                      | 27,578                    | 25%                 |
| 3    | Mixed freight                  | 22,584                    | 34%                 |
| 4    | Pharmaceutical products        | 19,225                    | 42%                 |



### **Direction of Freight Movement**

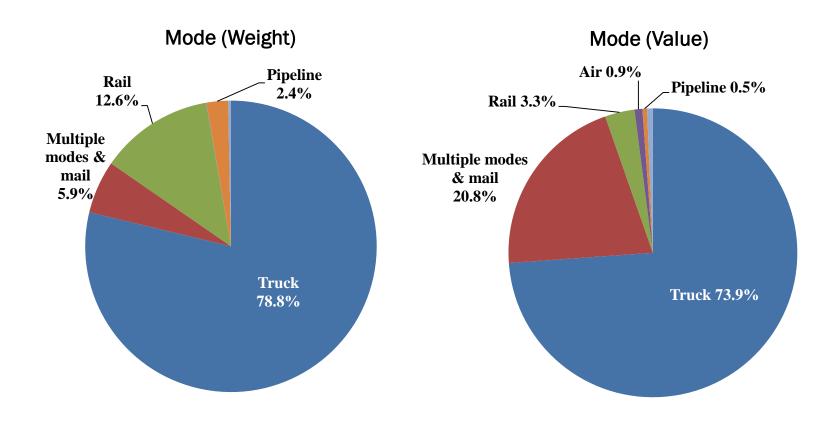




• The Region receives over 2 ½ times more inbound freight than it produces outbound freight.



## **Mode of Freight Movement**



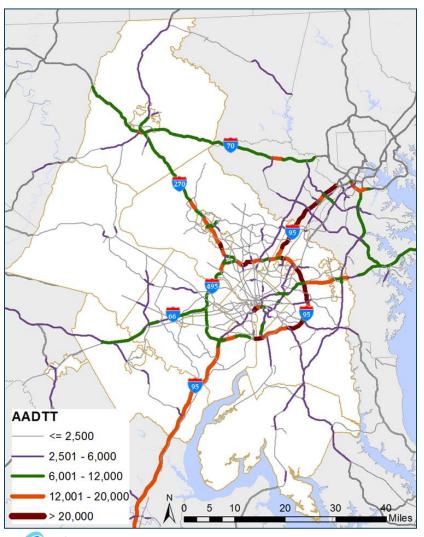


### The Freight Transportation System

- Roadways: more than 16,000 miles of roadways carrying more than 300 million tons of goods annually.
- Railroads: two Class I railroads CSX Transportation and the Norfolk Southern Corporation operating over 250 miles of mainline track and carrying more than 47 million tons of regional freight annually.
- Airports: two major cargo airports Washington Dulles International and Baltimore Washington International Thurgood Marshall.
- **Pipelines:** an extensive pipeline network that carries more than nine million tons of freight per year.
- Intermodal Connectors: a number of short roadway segments that tie rail terminal facilities, airports, and pipeline terminal facilities to the National Highway System (NHS).



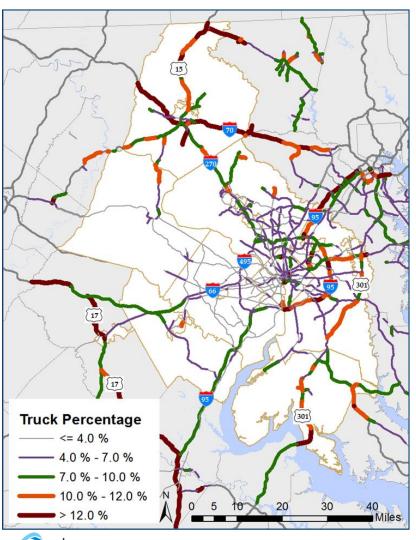
## Freight Transportation System: Roadways



Truck Volumes

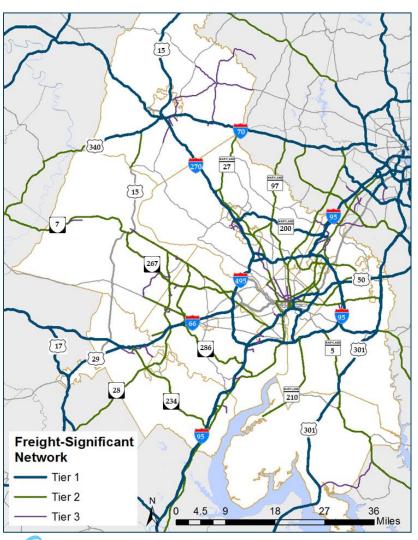


### Freight Transportation System: Roadways



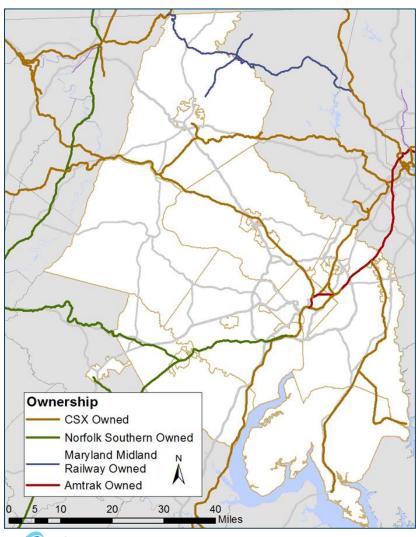
Truck Percentages

### Freight-Significant Network



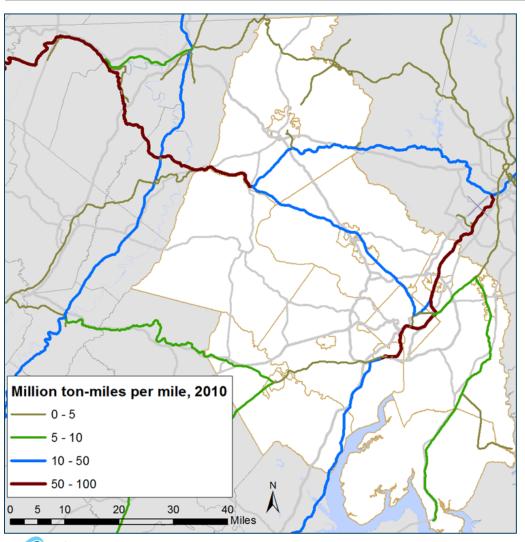
- **Tier 1:** state-designated truck routes, interstates, and other high volume roadways
- Tier 2: allows trucks to permeate the Region and provide access to important freight generators and attractors
- Tier 3: last mile connectivity

### Freight Transportation System: Railroads



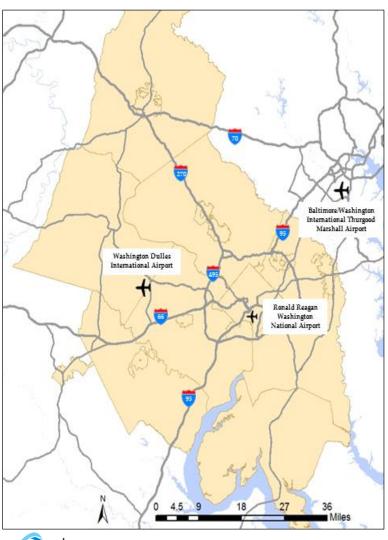
Rail Ownership

### Freight Transportation System: Railroads



Rail Density

### Freight Transportation System: Airports



- Dulles and BWI handle nearly all reported air cargo tonnage
- 23<sup>rd</sup> and 36<sup>th</sup> respectively according to ACI rankings of North American cargo airports

### Freight Trends: E- Commerce

#### **Customer demand...**

Customers increasingly expect instant gratification

Less time in stores and more time shopping on the internet



#### Planning considerations...

More (smaller) trucks on the road and more delivery movements

Fewer retail "sales floor" jobs and more fulfillment center jobs

More distribution and fulfillment centers

#### **Industry response...**

Trend is that e-commerce share of sales is increasing

Less demand for retail space

More demand for distribution and fulfillment centers

Retailers turning brick and mortar stores into urban distribution centers





### Rail Safety

- TPB has expressed particular concerns on the topic of rail safety
  - Recent incidents such as the May 1 CSX derailment highlight the need for improved safety on the freight rail system
- The Freight Plan addresses this through the regional freight policies
- The Plan also provides an overview of the freight rail safety regulatory structure



- supports the prioritized advancement of freight-related transportation projects that provide maximum value, efficiency, and safety with particular emphasis on those that improve freight access to activity centers.
- supports investments that maintain a state of good repair for the Region's freight transportation system.
- 3. supports the use of best practices for safety, engineering, and maintenance, of freight-related transportation infrastructure.



- 4. supports the alleviation of roadway bottlenecks where feasible to improve travel times and reliability for trucks and passenger vehicles.
- 5. supports maximizing opportunities to expand transportation options, address roadway congestion, and reduce pollution by increasing the use of passenger and freight rail.
- 6. supports the consideration of potential social, economic, and environmental effects of freight-related programs, policies, and activities on minority populations, low-income populations, and people with disabilities.



- 7. recognizes freight's role in economic development and supports efforts to maximize the use of important economic drivers, including airports, ports, and intermodal facilities serving the Region's residents and businesses.
- 8. supports the safe and community-friendly accommodation of freight deliveries within the Region's activity centers.
- supports improvements in truck safety using education, enforcement, and engineering strategies.



- 10. supports efforts to route hazardous materials away from the National Capital Region; for hazardous materials that must be transported to, from, within, and through the Region, the TPB supports the selection of the safest and most secure modes and routes.
- 11. encourages information sharing on explosive, toxic by inhalation, and radioactive materials being shipped to, from, within, and through the Region, including real-time notifications and long-term planning information.
- 12. supports robust first responder training and exercise activities regarding freight in general and hazardous materials transport in particular.



- 13. supports collaboration among agencies and with the private sector on freight planning and operations concerns to support mutual goals.
- 14. supports the proactive analysis of freight-related performance measures in the context of overall regional performance measurement to identify lessons learned and promote regional goals.
- 15. promotes sustainable methods of freight operations that are sensitive to environmental, cultural, and community resources.



- 16. encourages collaboration among transportation planners, land use planners, private railroads, elected officials, and other stakeholders to find creative ways to facilitate community-beneficial land use development (residential, commercial, or industrial as appropriate) while providing space for necessary future rail expansion along key rail corridors.
- 17. supports the review and study of new freight-related technologies, emerging business practices, and evolving commodity mixes and mode shares to advance regional goals.



# Actions Related to Maintaining and Strengthening the Regional Freight Planning Process

- Continue to Support the TPB Freight Subcommittee
- Maintain and Strengthen Private-Sector Participation in the TPB Freight Subcommittee
- Create Opportunities to Hold Joint Meetings with Other TPB Subcommittees
- Develop "Freight Around the Region" Brochures in Coordination with Member Jurisdictions



# Actions Related to Maintaining and Strengthening the Regional Freight Planning Process (continued...)

- Organize Periodic Regional Freight Forums
- Collect and Analyze Freight Data and Make Available to Member Jurisdictions and the Public
- Continue Coordination with Federal, State, Local, and Private-Sector Freight Partners
- Coordinate TPB's MAP-21/FAST Freight-Related Activities Including Performance Measures



# Actions Related to Maintaining and Strengthening the Regional Freight Planning Process (continued...)

- Identify and Communicate Freight-Related Infrastructure Issues to Member Agencies to Address in their Planning and Programming Activities
- Strengthen Relationships with Local Jurisdiction Planners
- Highlight Economic Development Aspects of Freight with Local Jurisdiction Planners



#### **Strategic Regional Freight Planning Activities**

- Identify and Communicate Freight-Related Infrastructure Issues to Member Agencies to Address in their Planning and Programming Activities
- Strengthen Relationships with Local Jurisdiction Planners
- Highlight Economic Development Aspects of Freight with Local Jurisdiction Planners
- Monitor Developments of Autonomous and Connected Freight Vehicles



#### **Strategic Regional Freight Planning Activities (continued...)**

- Monitor Key Economic and Industry Trends Impacting Goods Movement
- Monitor the Development of New and Emerging Freight-Relevant Data Sources and Incorporate them into Transportation Planning Activities as Appropriate
- Provide Information to the TPB and Freight Stakeholders on the Status or Progress on this Plan's Identified Freight Policies When Such Information Becomes Available



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