Strengthening the Linkages Between Transportation and Land Use Planning in the Washington Region

Presentation to the COG Board of Directors

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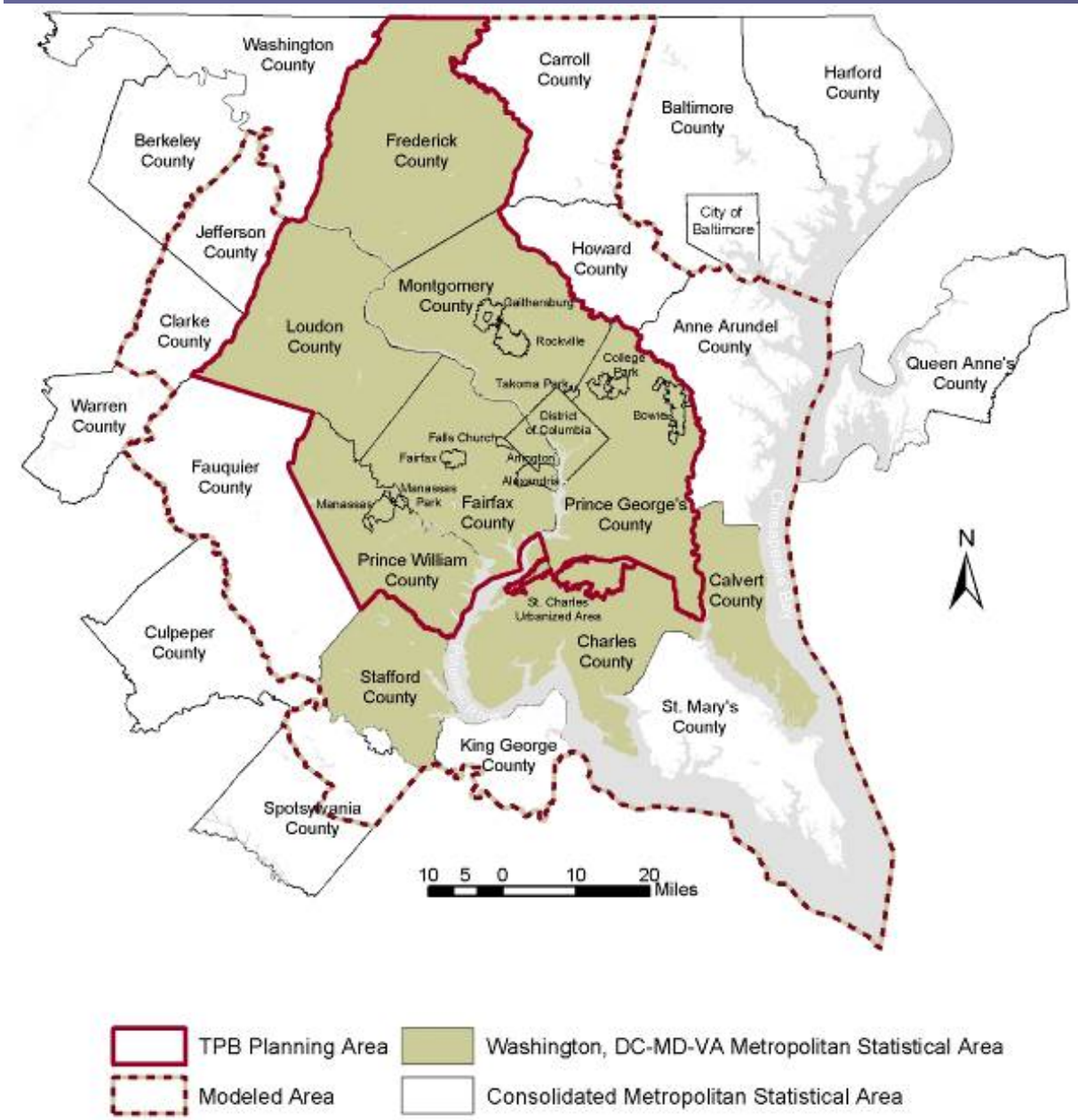
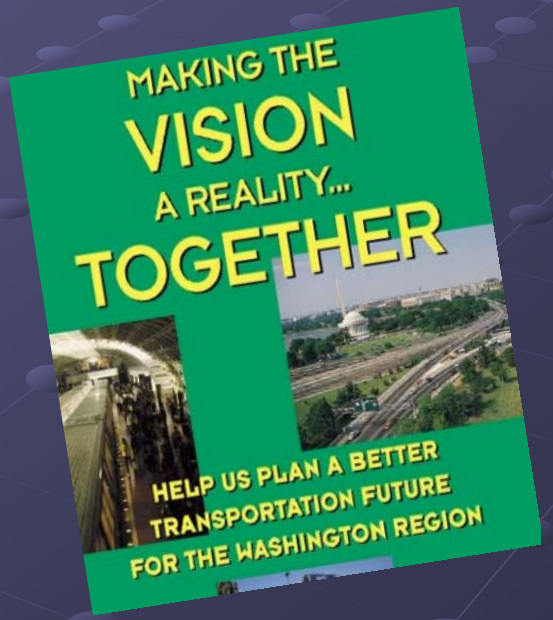
TPB Planning Area



- Approximately 3,000 square miles
- MSA includes **5 million people** and **3 million jobs** in 2005
- Growth of **1.6 million people** (32 percent) and **1.2 million jobs** (40 percent) projected by 2030

The TPB Vision
Approved in 1998

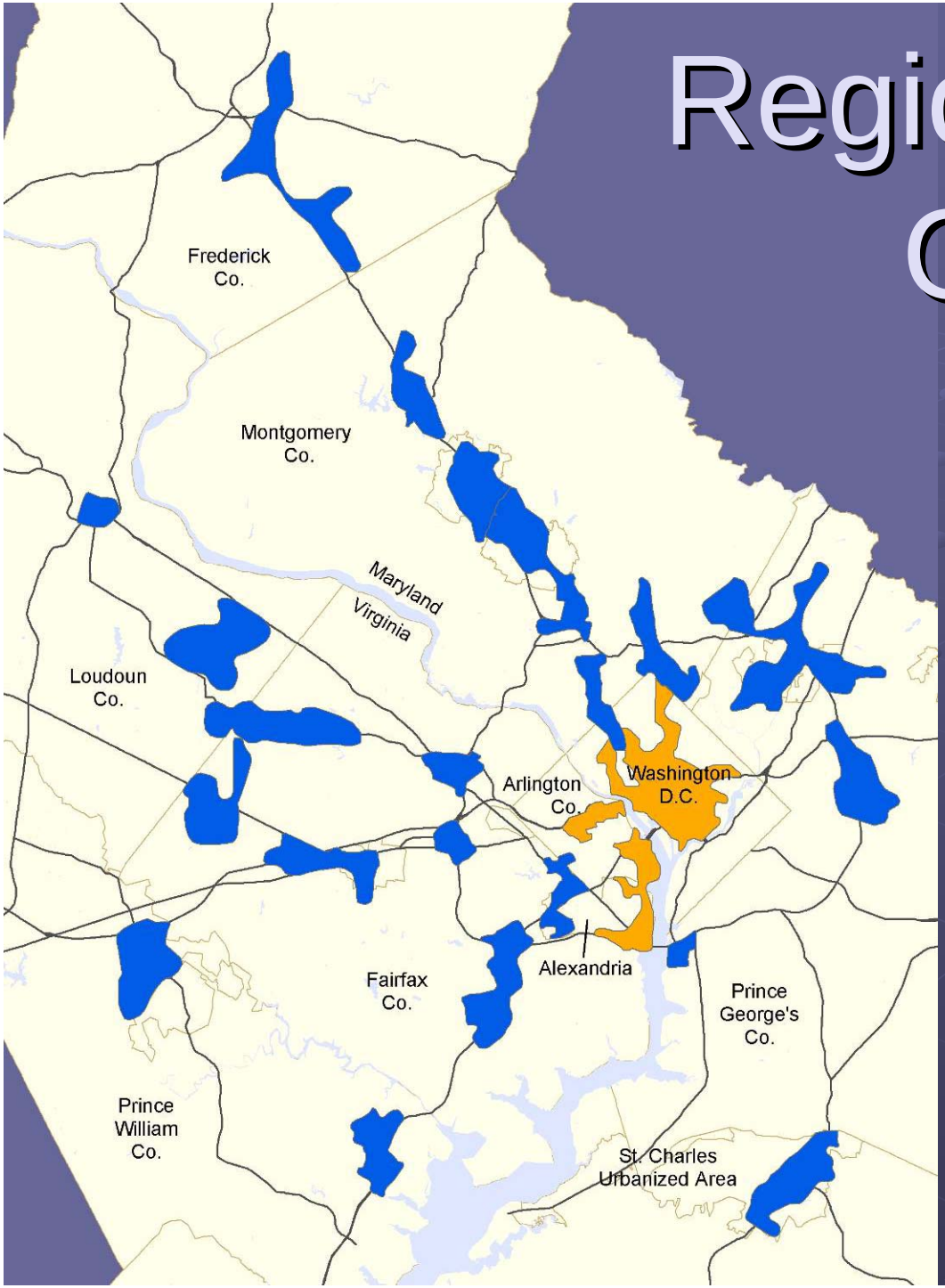
- A policy framework guiding the region's transportation investments in the 21st Century
- Goals Include:
  - Promoting Activity Centers
  - Increasing Transit Use
  - Reducing Driving



TPB Vision Background

- The TPB Vision is one element of ongoing COG/TPB visioning efforts
  - Legacy of Excellence (1991)
  - Partnership for Regional Excellence (1993)
  - **TPB Vision (1998)**
  - COG Regional Activity Centers (2002)
  - Update to COG Regional Activity Centers (2006)
  - Regional Mobility and Accessibility “Scenario” Study (ongoing)

Regional Activity Clusters



- Focal points for jobs and housing, and nodes for transportation linkages
- Adopted 2002; revised based on ongoing forecasts and analysis
- 2006 update will include a new activity center ("Konterra") associated with the Intercounty Connector

Core activity clusters

Suburban activity clusters

This region is already renowned for success in concentrating development in activity centers, especially those served by transit . . .

- “Metropolitan Washington D.C. is a true success story in part because shaping land use was a goal of the original transit investment. Signature Transit-Oriented Developments abound in the District of Columbia, surrounding cities, and increasingly in outlying suburbs, a result of rebounding markets for in-town housing and commercial space, unfettered market forces, and interventionist public actions.”

– 2004 Transportation Research Board report

. . . And the momentum appears to be building:

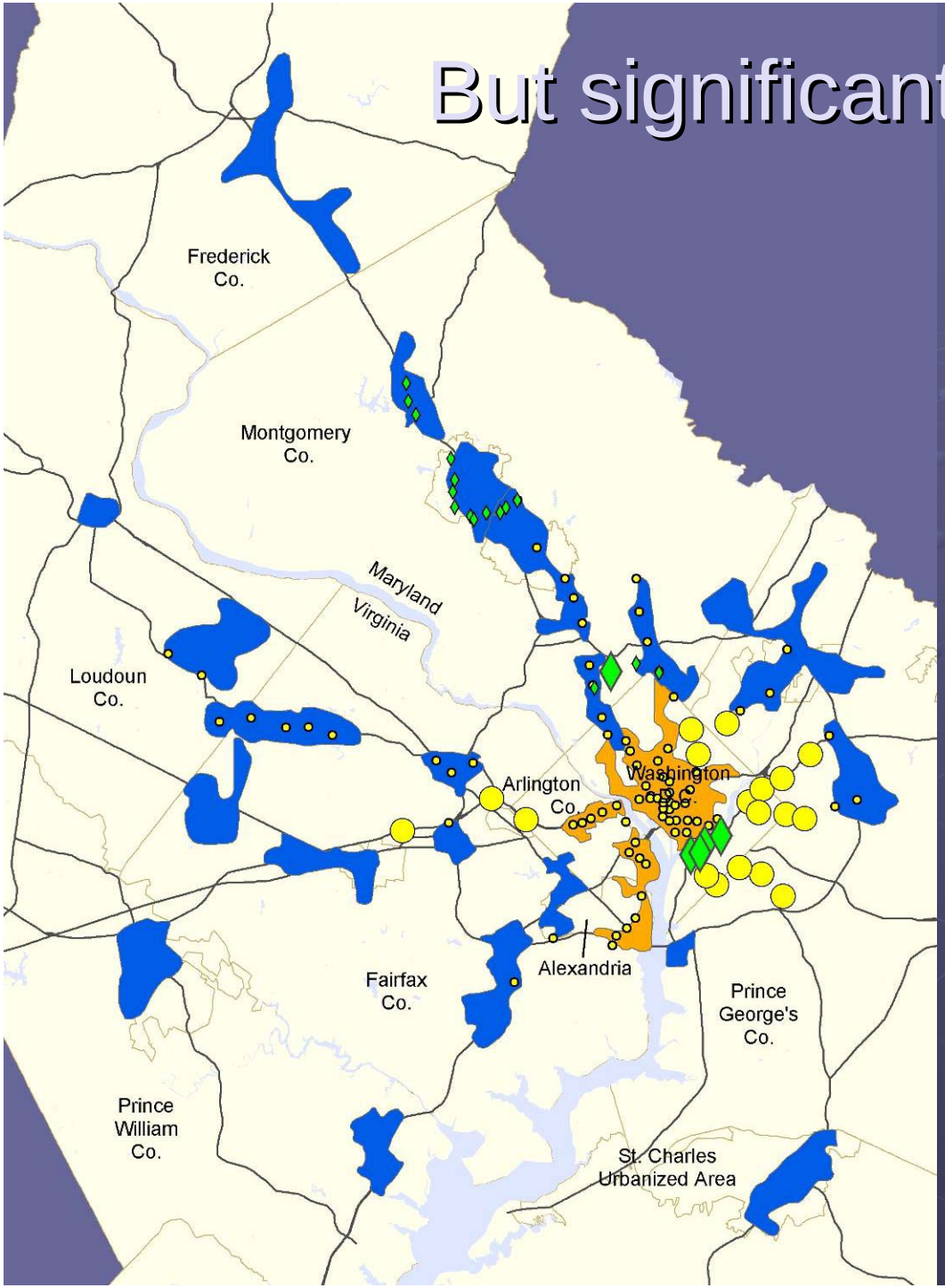
- MetroWest (Vienna)

  "It's a vision that's sweeping land-use decisions from Largo to Tysons Corner, where planners and politicians – to the chagrin of many neighbors – are accommodating the region's demand for housing with densely packed homes on slivers of land near public transit with the goal of coaxing people from their cars."

  - The Washington Post, 3/28/06

Sketch from MetroWest Concept Plan

But significant challenges remain



- Under current projections the percentage of housing and jobs within activity clusters will stay at about 40% and 70%, respectively
- Some activity centers without transit infrastructure (existing or planned)
- Some potentially under-utilized transit stations outside of activity centers
- Reflects East-West Divide

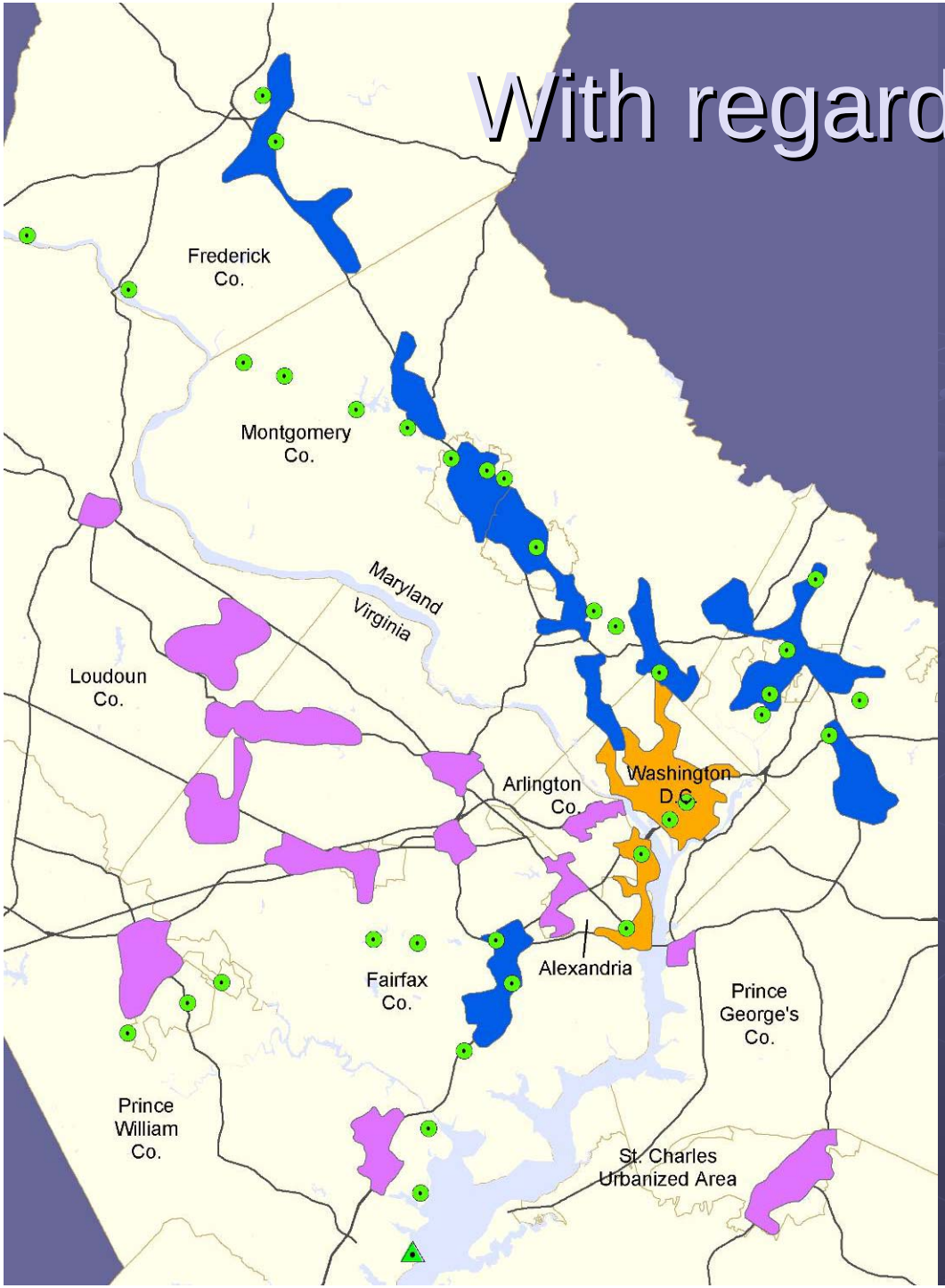
2030 Metrorail stations inside clusters

2030 Metrorail stations outside clusters

2030 light rail stations inside clusters

2030 light rail stations outside clusters

With regard to commuter rail:



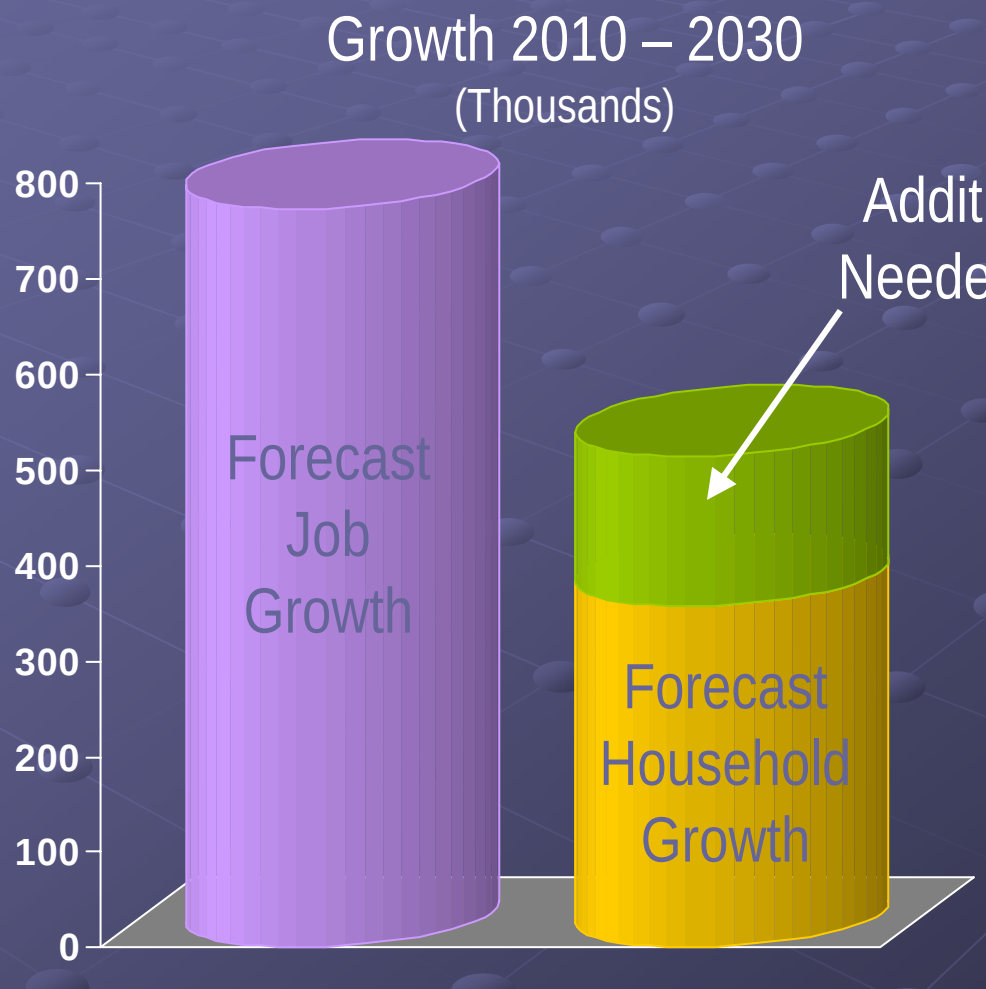
- In both 2005 and 2030, 11 out of 24 activity clusters have commuter rail stations
- More than half of area commuter rail stations outside of activity clusters

Activity clusters with *no* commuter rail station

Existing commuter rail stations

Planned commuter rail station

Job Growth is Outpacing Household Growth

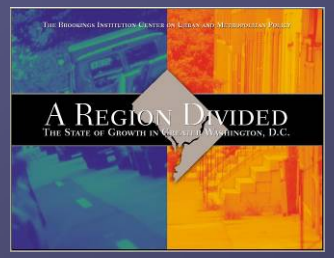


The region must "import" workers from as far away as West Virginia and Pennsylvania

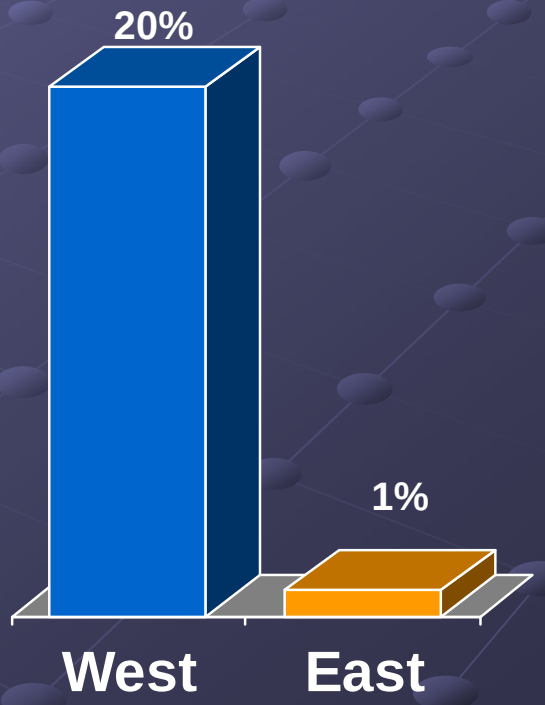
Assumes 1.5 Workers/Household

East-West Divide

A 1999 Brookings Institution report highlighted disparities between the eastern and western parts of the region

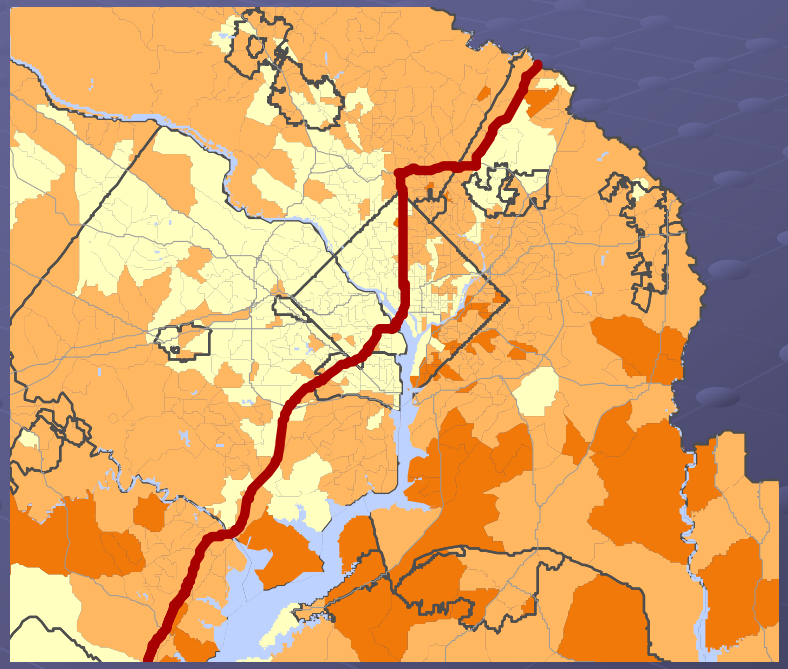


Job Growth Rate 1990 – 2000



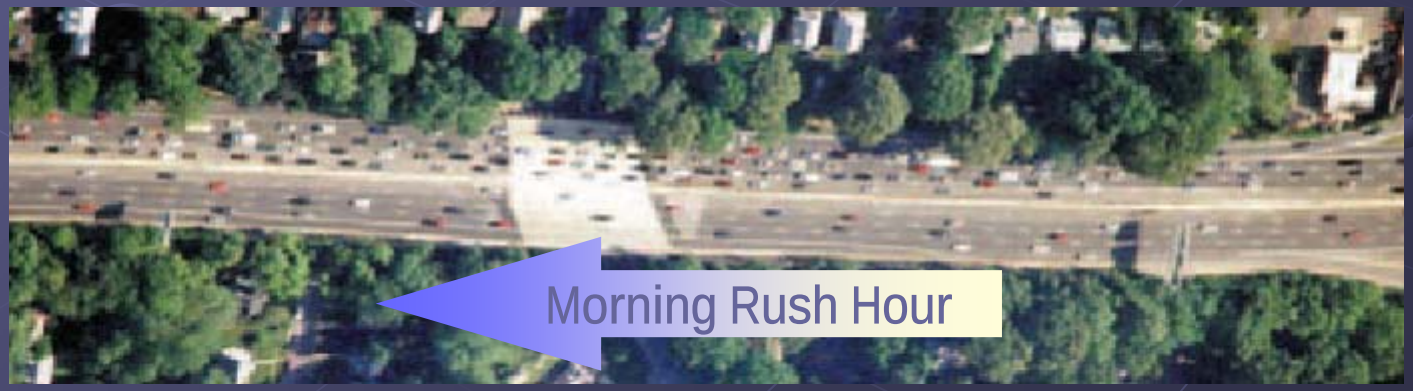
East-West Divide

West-bound travel clogs the roads during morning rush hour



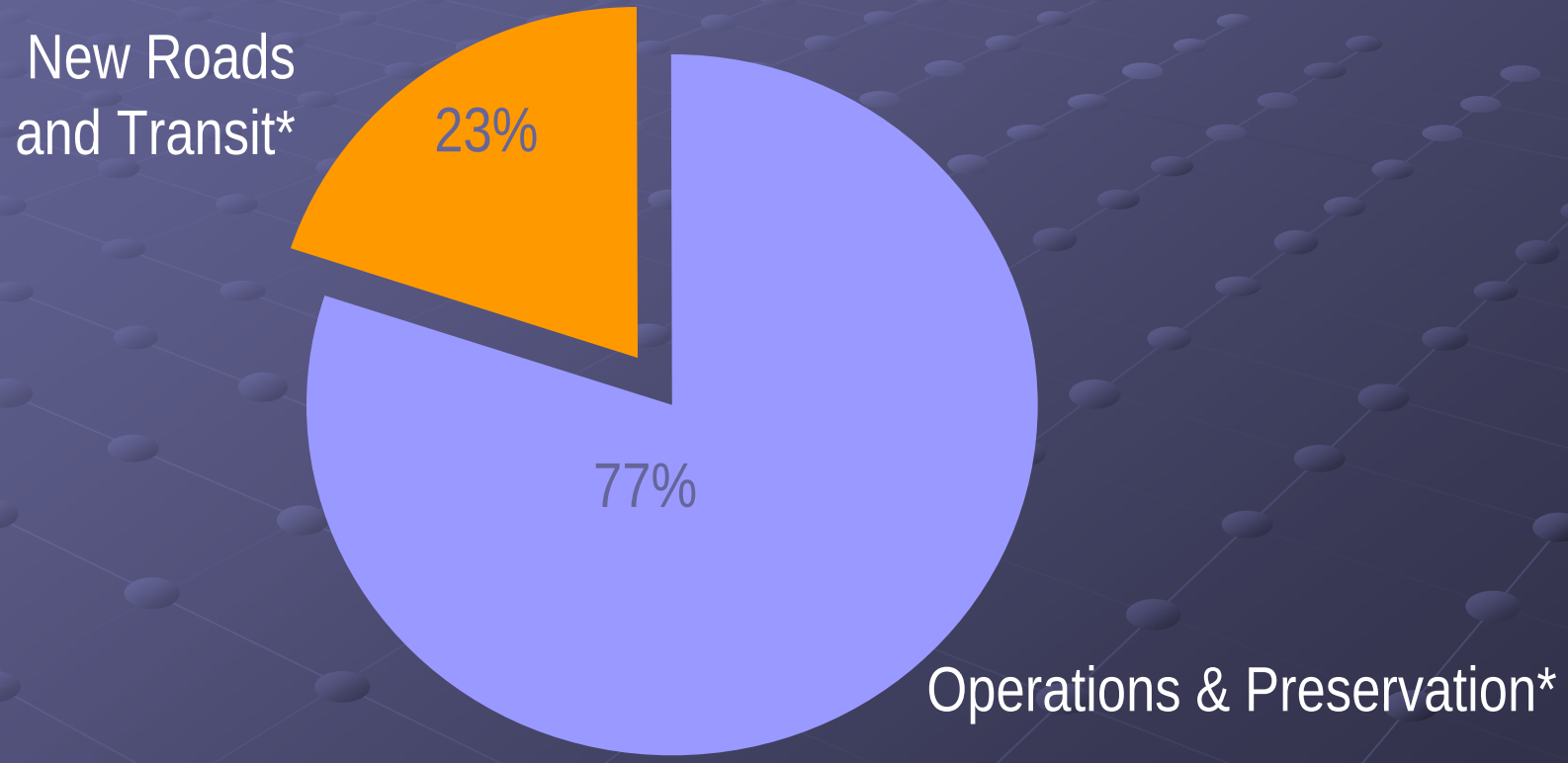
Average Commute Time

- Up to 30 minutes
- Up to 40 minutes
- Over 40 minutes



Most Transportation Dollars Are Needed for Maintenance

Little money is available for new transportation projects



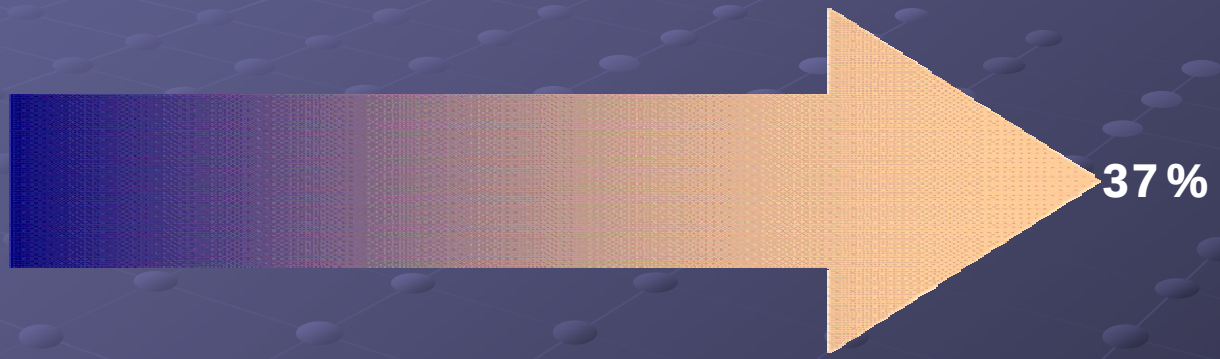
* Based on region's 2003 Constrained Long-Range Plan

The Highway System Won't Keep Pace with Growth

Forecast Trends 2000 - 2030

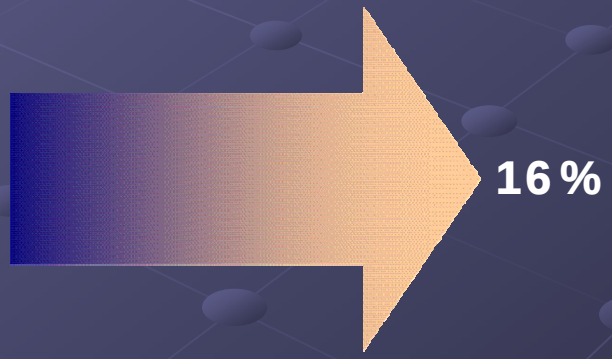
Daily Vehicle Miles Traveled

2000: 109 Million
2030: 150 Million



Freeway and Arterial Lane Miles

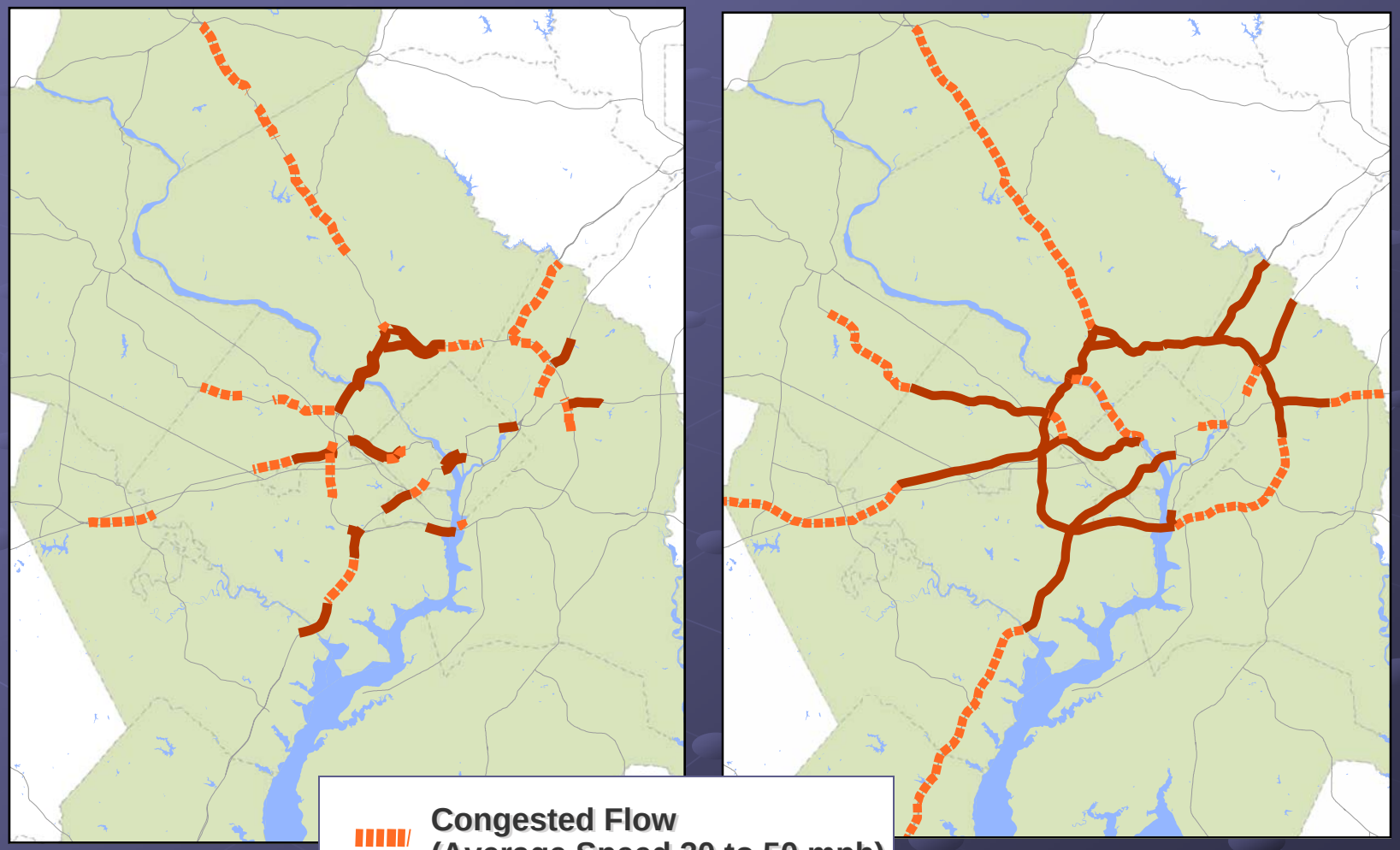
2000: 15,300 Miles
2030: 17,600 Miles



Based on region's 2003 Constrained Long-Range Plan

Most of the Beltway Will Be Stop and Go

Evening Highway Congestion 2000 and 2030

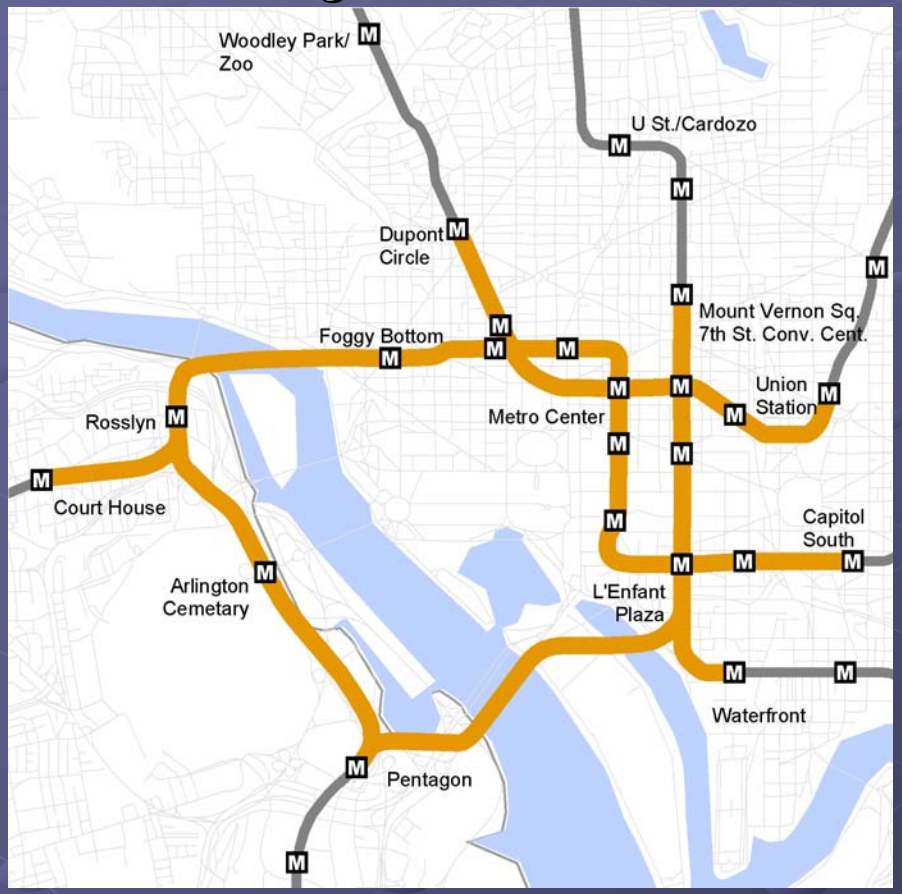


2000

2030

Metro Platforms and Trains Will Be Packed

Morning Peak-Hour Transit Congestion: 2000 and 2030



2000

2030

Congested
Highly Congested

Short-Term Strategies to address the Region's Transportation Challenges

- Capacity Increases To Address Bottlenecks
  - Connections between major facilities
  - Variably priced lanes
  - Adequate funding for road improvements
- Transit and Demand Management
  - Adequate transit funding and capacity
  - Ridesharing and telecommuting
- Management and Operations
  - Day-to-day operations
  - Incident management
  - Advanced technology provides new opportunities

Longer-Term Strategies have focused on Strengthening the Linkages between Transportation and Land Use Planning

- In 2000, the TPB initiated a study to investigate alternative land use and transportation futures – The Regional Mobility and Accessibility Study (RMAS)
- A study of "What If" scenarios:
  - *What if* job and housing growth were shifted? *What if* new roads or transit were built?
  - How would 2030 travel conditions change?

The Value of Scenario Modeling

- RMAS explores multiple scenarios that shift development and focus transportation improvements in different ways
  - Households In
  - Jobs Out
  - Region Undivided
  - Transit-Oriented Development
  - Variably-Priced Lanes (results in September)
  - Ad hoc scenarios to address specific challenges (e.g. BRAC)
- To date RMAS has not looked at “how to?” just **“what if?”**

What Have We Learned to Date from the Scenario Study?

- Moving people closer to jobs:
  - ↑ Increases transit use
  - ↓ Decreases driving and congestion
- The study has identified two key strategies that would significantly increase transit use, walking and biking and decrease driving and congestion for 2030:
  - Increase household growth in the region, and concentrate that growth in regional activity centers, with supporting transit improvements
  - Encourage more development on the eastern side of the region, with supporting transit improvements

Special Scenarios:
Base Realignment and Closure

- Scenario modeling can serve as a foundation for analysis of special issues and specific impacts
  - BRAC analysis resulted in identification of a crucial need – a transit link between the Springfield Metro station and the Engineer Proving Ground
  - The Department of Defense is exploring provision of shuttle bus service

How Has the Study Been Used So Far?

- Development of COG's Round 7.0 cooperative forecasts for population and employment growth
  - *Addresses need for more housing by including 2/3 of new households assumed under the "More Households" scenario*
- Public outreach meetings and presentations on study results

Growth Trends to 2030:
Cooperative Forecasting in the Washington Region

Membership of the Metropolitan Washington Council of Governments — Fall 2005

Local governments in the Washington region have worked cooperatively for many years to develop region-wide and neighborhood level forecasts of employment, population, and households. Through this effort, a consistent set of local and regional forecasts is developed for use in program and facilities planning throughout the region.

The Cooperative Forecasting Program, established in 1975 and administered by the Metropolitan Washington Council of Governments (COG), enables local, regional, and federal agencies to coordinate planning using common assumptions about future growth and development in the region. Each series of forecasts, or a "Round," provides land use activity forecasts of employment, population, and households by five-year increments. Each round covers a period of 20 to 30 years.

The Cooperative Forecasting process provides data necessary for regional planning activities including analyzing the effects of growth and developing policy responses to regional issues. In addition, the forecasts are used to determine the demand for public facilities including schools, parks, medical facilities, roads, stores, and services.

Process

The Cooperative Forecasts is a multi-stage, "top-down/bottom-up" process undertaken by COG's Planning Directors Technical Advisory Committee and the Cooperative Forecasting and Data Subcommittee and the Cooperative Forecasting Subcommittee that employs both a regional econometric model and local jurisdictional forecasts. The model projects employment, population, and households for the metropolitan Washington area based on national economic trends and local demographic factors. The model is based on the 1983 definition of the Metropolitan Statistical Area (MSA) that includes the COG member jurisdictions, as well as Calvert, Charles, and Stafford counties. Concurrently, local jurisdictions develop independent projections of population, households, and employment based on pipeline development, market conditions, planned transportation improvements, and adopted land use plans and zoning, taking into account the preliminary regional projections.

The Cooperative Forecasting and Data Subcommittee, which is comprised of local government planners, economists, and demographers, reviews and reconciles the two sets of projections. The model and the local jurisdictional projections must be within three percent of each other for the new set of Cooperative Forecasts to be reconciled.

1

From “What If?” to “How To?”

What are the Challenges to Further Concentrating Development in Activity Centers?

- Unique physical barriers and/or lack of market demand in some locations
- Public concerns about density and its effects
  - Compatibility with surrounding neighborhoods
  - Rising land values and displacement through gentrification
  - Uncertainty about ability of transportation and other public infrastructure to handle it

What Can Be Done from the Transportation Side?

- Large scale transit and highway projects can help steer land development and mitigate its effects by linking activity clusters to each other
  - Reduce congestion and facilitate concentrated development
- Small scale, multi-modal circulation improvements within activity centers can:
  - Catalyze land development, especially housing construction, where desired
  - Help mitigate the impacts of increased density and encourage alternative transportation modes

What Have Other MPOs Done?

- Funded selected planning activities that involve multiple stakeholders in coordinating land use and transportation planning and funding at target locations
- Funded selected small-scale transportation projects at target locations that otherwise may not have received high priority

Summary of Programs in Other Areas

Metropolitan Area	Multi-State	Inception Year	Eligible Activities	Annual Planning Grant Budget	Maximum Planning Grant	Annual Capital Grant Budget	Seed Funding Source(s)	Program Emphasis
San Francisco	No	1997	Planning and Capital	$500,000	$50,000	$29.5 million	TE, CMAQ, STP, State	Livability and Housing
Atlanta	No	1999	Planning and Capital*	$1 million	$150,000	$30 million*	STP (Q23)	Land Development and Density Concentration
Burlington	No	1999	Planning Only	$50,000	$20,000		TE, STP	Community Process and Bike/Ped
Philadelphia	Yes	2002	Planning Only	$1.5 million	$100,000		STP	Revitalization and Community Development

* The Atlanta grant program is for planning activities only, but an amount is earmarked in the TIP for use on projects in program communities

Program methods differ as do program emphases – what methods and emphases are appropriate for this region?

Some Options for Future TPB Activities

1. Administer a grant program for planning *and* capital projects, patterned after San Francisco
2. Administer a grant program for planning and technical assistance activities, patterned after Philadelphia
3. Use TPB planning funds to identify priority needs and promote solutions

Option 1
Patterned after MTC (San Francisco)

- Administer a grant program for both planning and capital activities, with funding awarded to projects based on merit and adherence to set criteria
  - Reserve around $30 million annually in funds from STP, TE, CMAQ, or other sources, to fund selected projects
  - Develop selection criteria to use in evaluating submitted projects
  - Oversee contract development
  - Track project progress
  - Carry out ongoing program review and assessment
- Based on MTC experience, could expect to fund only one in five submitted projects

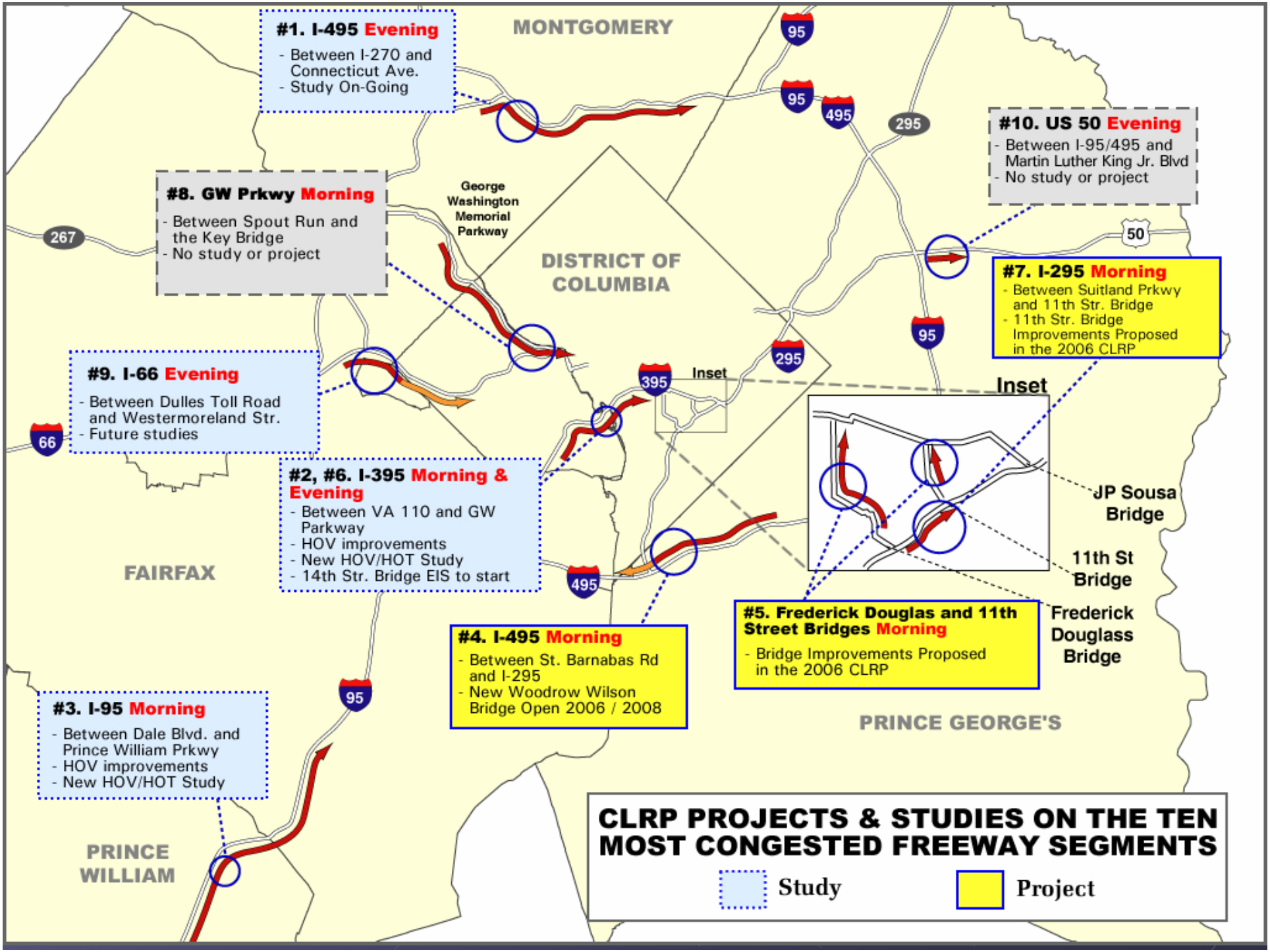
Option 2
Patterned after DVRPC (Philadelphia)

- Administer a grant program for planning activities only, with funding awarded to projects based on merit and adherence to set criteria
  - Reserve $1-2 million annually from STP funds or other sources to fund selected projects
  - Develop selection criteria to use in evaluating submitted projects
  - Oversee contract development
  - Track project progress
  - Carry out ongoing program review and assessment
- Based on DVRPC experience, could expect to fund only one in four submitted projects

Option 3

Use TPB Planning Funds to Identify Priority Needs and Promote Solutions

- Using resources out of the TPB Unified Planning Work Program, and informed by results of RMAS, identify priority needs and potential solutions
- Help build consensus around needs and be an information provider in project discussions
- Actively promote solutions to identified needs
- The recent Freeway Congestion analysis has begun to move in this direction


#1. I-495 Evening
- Between I-270 and Connecticut Ave.
- Study On-Going
MONTGOMERY
#10. US 50 Evening
- Between I-95/495 and Martin Luther King Jr. Blvd
- No study or project
#8. GW Prkwy Morning
- Between Spout Run and the Key Bridge
- No study or project
George Washington Memorial Parkway
DISTRICT OF COLUMBIA
#7. I-295 Morning
- Between Suitland Prkwy and 11th Str. Bridge
- 11th Str. Bridge Improvements Proposed in the 2006 CLRP
Inset
Inset
#9. I-66 Evening
- Between Dulles Toll Road and Westermoreland Str.
- Future studies
JP Sousa Bridge
11th St Bridge
Frederick Douglass Bridge
#2, #6. I-395 Morning & Evening
- Between VA 110 and GW Parkway
- HOV improvements
- New HOV/HOT Study
- 14th Str. Bridge EIS to start
FAIRFAX
#5. Frederick Douglas and 11th Street Bridges Morning
- Bridge Improvements Proposed in the 2006 CLRP
#4. I-495 Morning
- Between St. Barnabas Rd and I-295
- New Woodrow Wilson Bridge Open 2006 / 2008
PRINCE GEORGE'S
#3. I-95 Morning
- Between Dale Blvd. and Prince William Prkwy
- HOV improvements
- New HOV/HOT Study
PRINCE WILLIAM
CLRP PROJECTS & STUDIES ON THE TEN MOST CONGESTED FREEWAY SEGMENTS
Study
Project

Ten Most Congested Segments on the Freeway System (2005)

	Route	From	To	Current Status
1	I-495 IL PM	I-270	Connecticut Ave	Beltway Study on-going
2	I-395 NB PM	VA 110	GW Pkwy	HOV improvements New HOV/HOT lane study 14 Street Bridge EIS to start
3	I-95 NB AM	Dale Blvd	Prince William Pkwy	HOV improvements New HOV/HOT lane study
4	I-495 IL AM	St Barnabas Rd	I-295	New Woodrow Wilson Bridge open 2006/08
5	Frederick Douglass WB & 11th Street Bridges AM	Anacostia Bridges		Bridge improvements submitted for 2006 CLRP
6	I-395 NB AM	VA 110	GW Pkwy	HOV improvements New HOV/HOT lane study 14 Street Bridge EIS to start
7	I-295 NB AM	Suitland Pkwy	11th Street Bridge	11th Street improvements submitted for 2006 CLRP
8	GW Pkwy AM	Spout Run	Key Bridge	No study or project
9	I-66 EB PM	Dulles Toll Rd	Westmoreland St	Idea 66 Study (WB only) suggested future studies
10	US 50 EB PM	I-95/I-495	ML King Jr. Blvd.	No study or project

9

Could a similar list be made of the top location-specific transportation needs to enable concentration of development in activity centers?