

# Progress Report: Regional Value Pricing Study

TPB Technical Committee

*Ronald F. Kirby,  
Director of Transportation Planning  
March 2, 2006*

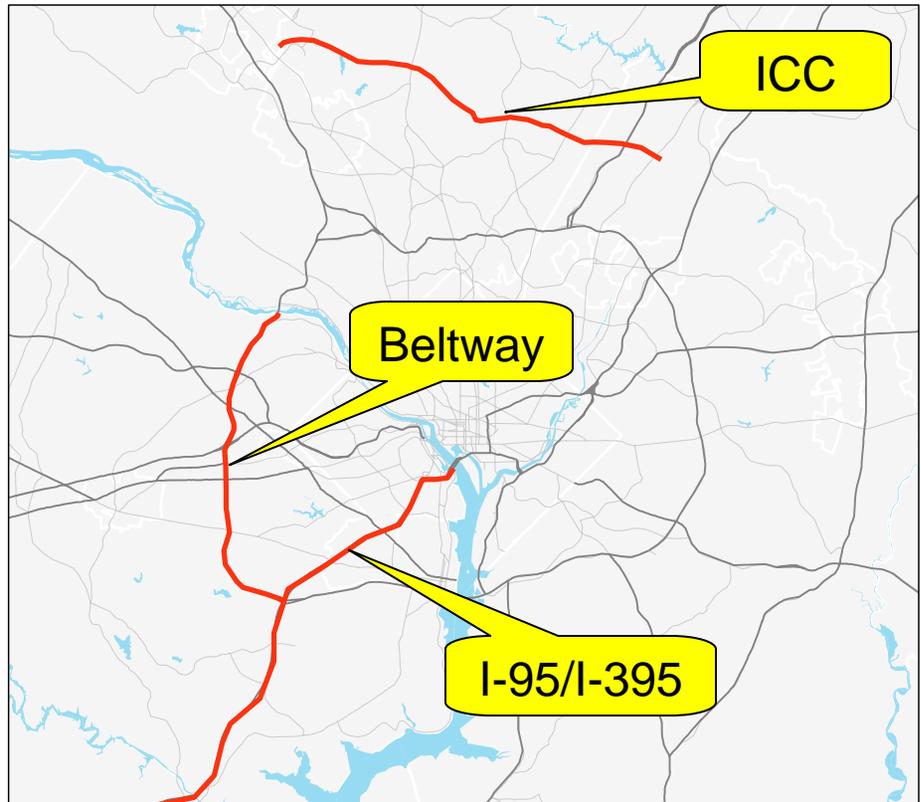
# TPB Value Pricing Task Force

- Created Fall 2003 following June 2003 Regional Conference
- Examine the benefits of value pricing for the Washington region
- Goals approved by TPB, April 2005
- Study a regional system of variably priced lanes (VPLs)



# Current Value Pricing Projects

- Intercounty Connector (ICC)
  - 2004 CLRP Update\*
- Beltway HOT
  - 2005 CLRP Update\*
- I-95/I-395
  - Under development
- Regional Network
  - Regional Mobility and Accessibility Study



\* Federal Record of Decision approved

# TPB Value Pricing Analyses to Date

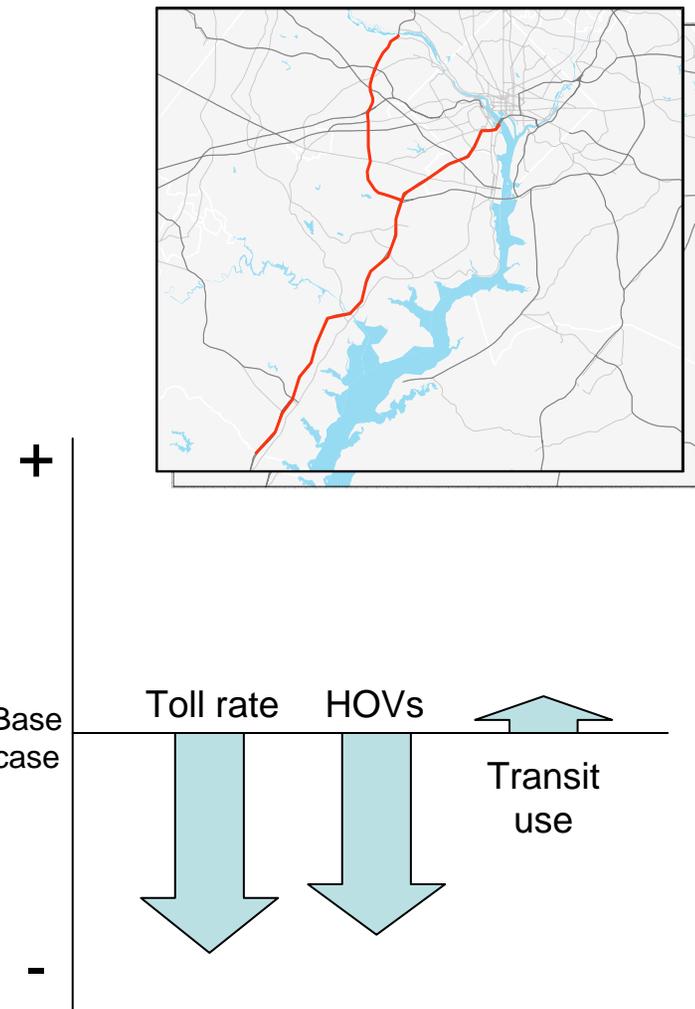
- Assisting Virginia DOT in analyzing key corridors
  - Beltway
  - I-95/I-395
- Sensitivity Analysis of Enhanced Transit on the Beltway and I-95/I-395 HOT Lanes for 2010
- Starting Point “Scenario A” developed and analyzed under Regional Mobility and Accessibility Study (RMAS).



# Sensitivity Analysis: Impacts of Enhanced Transit

Transit service levels increased on Beltway and I-95/395 HOT Lane transit routes for 2010:

- Decrease in toll rates and HOV use
- Increase in transit use
- Slight increase in VMT
- Total revenue essentially unchanged
- Slight increase in speeds on mixed use lanes



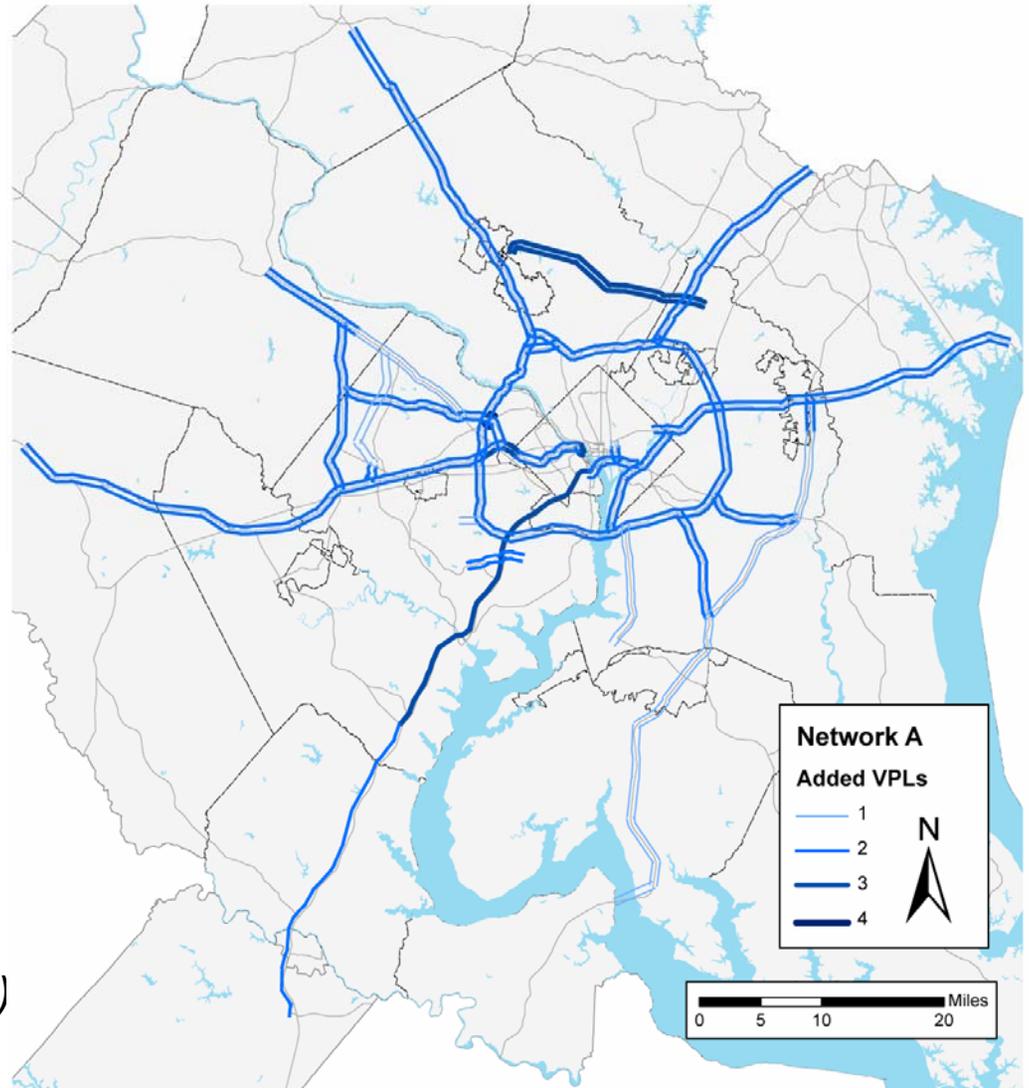
# Scenario A

In addition to the ICC, Beltway and I-95/395 as described previously:

- All Freeways:
  - Add 2 VPLs
- Arterials outside of beltway:
  - Add 1 VPL
- Existing HOV lanes:
  - Convert to VPLs
- Direct access ramps at key interchanges
- Incorporate existing transit service

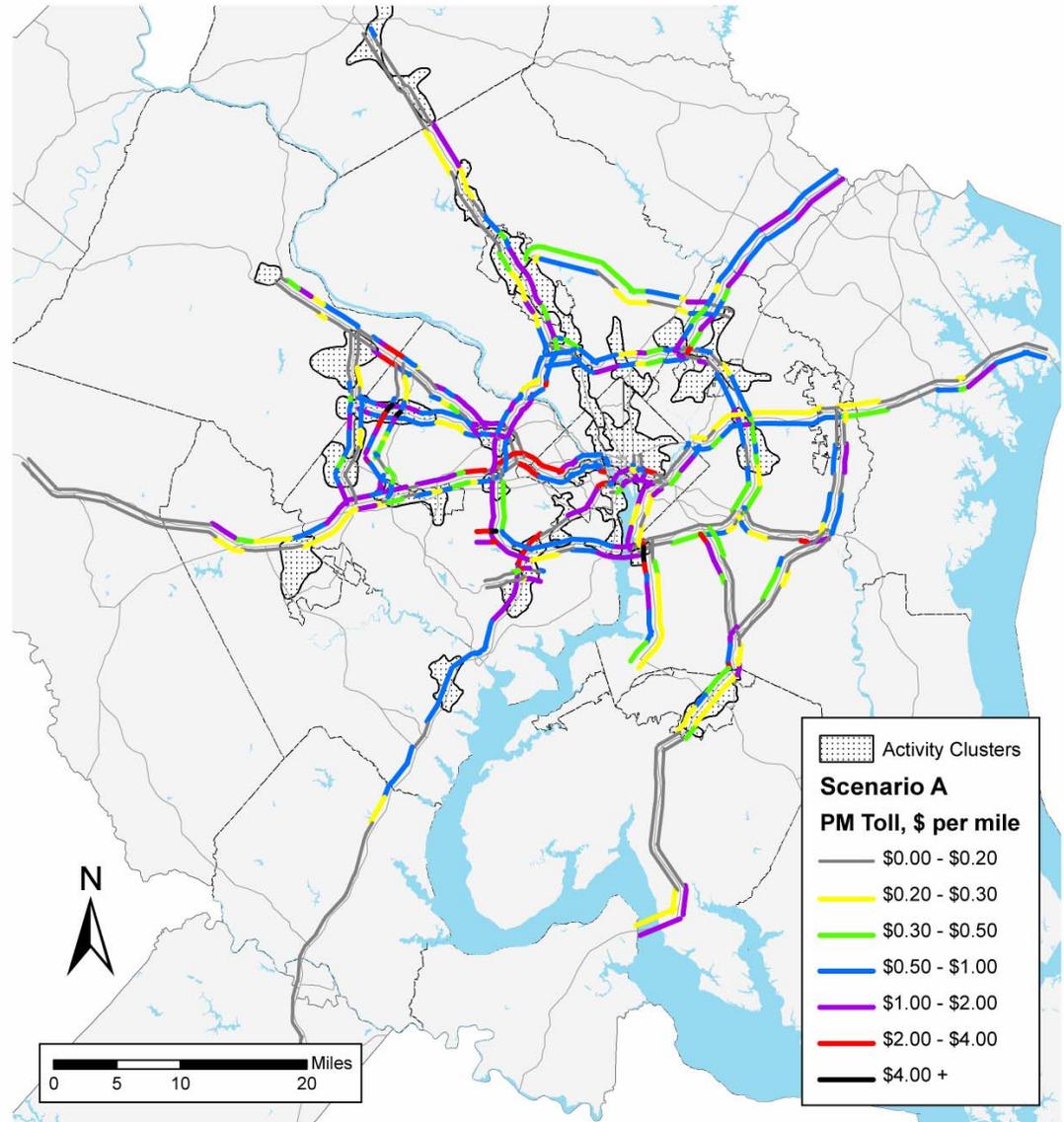
*Variably Priced Lanes (VPLs):*

- VA: HOT lanes, HOV 3+ free
- DC, MD: Express Toll Lanes (ETL) all pay



# Scenario A: Resulting Tolls

- To ensure free flow, toll rates vary significantly by segment, direction and time of day
- Tolls in 2010 dollars



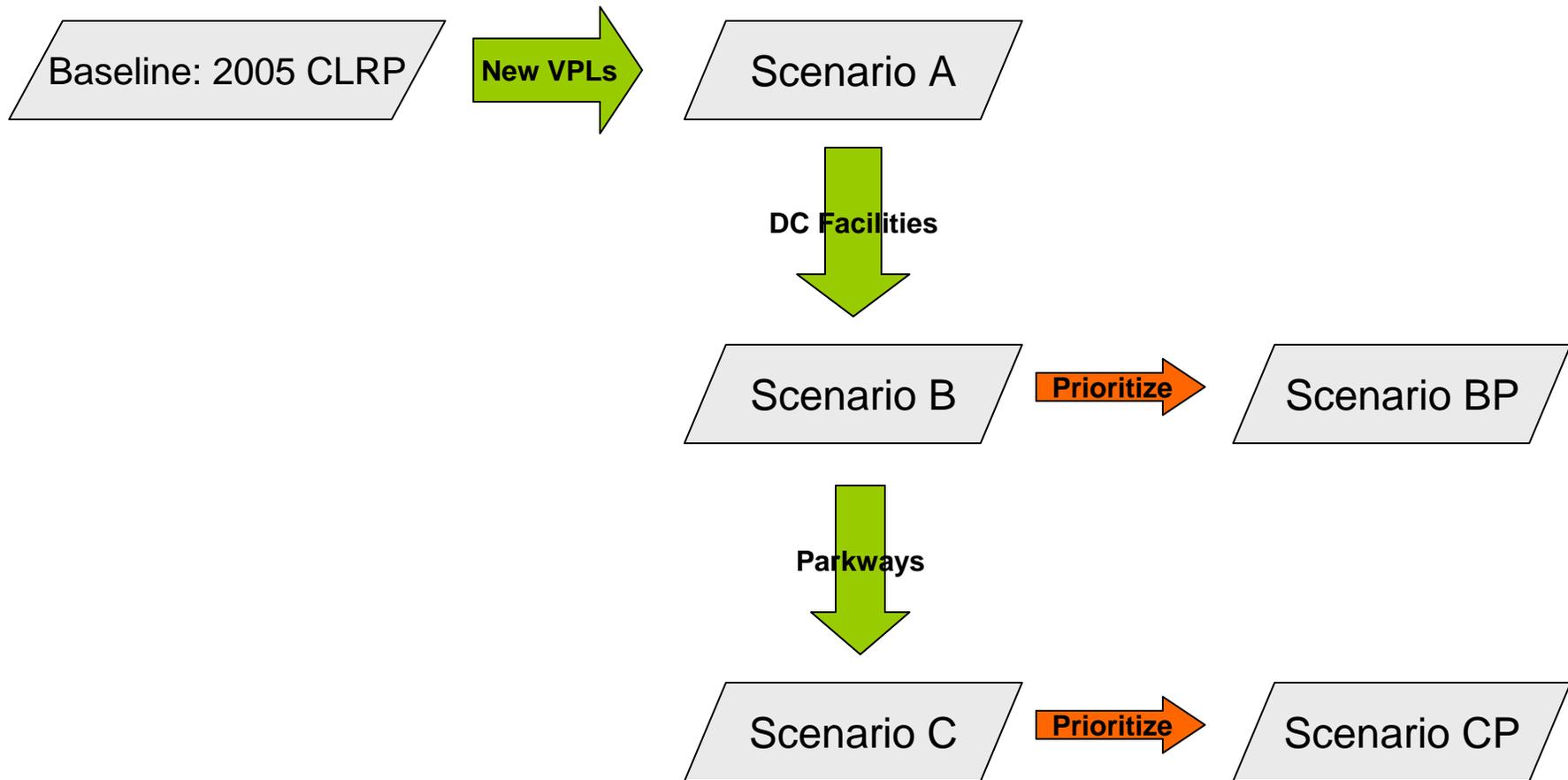
# New Grant Under FHWA Value Pricing Pilot Program

- Cooperative Agreement Approved Sept 2006
- \$300,000 Total Budget Over One Year
- Anticipated Completion Date: Sept 30, 2007
- Allows scenario developed under RMAS to be evaluated in greater detail, and includes additional corridors, such as parkways

# Regional Value Pricing Study (FHWA Value Pricing Pilot Program Grant)

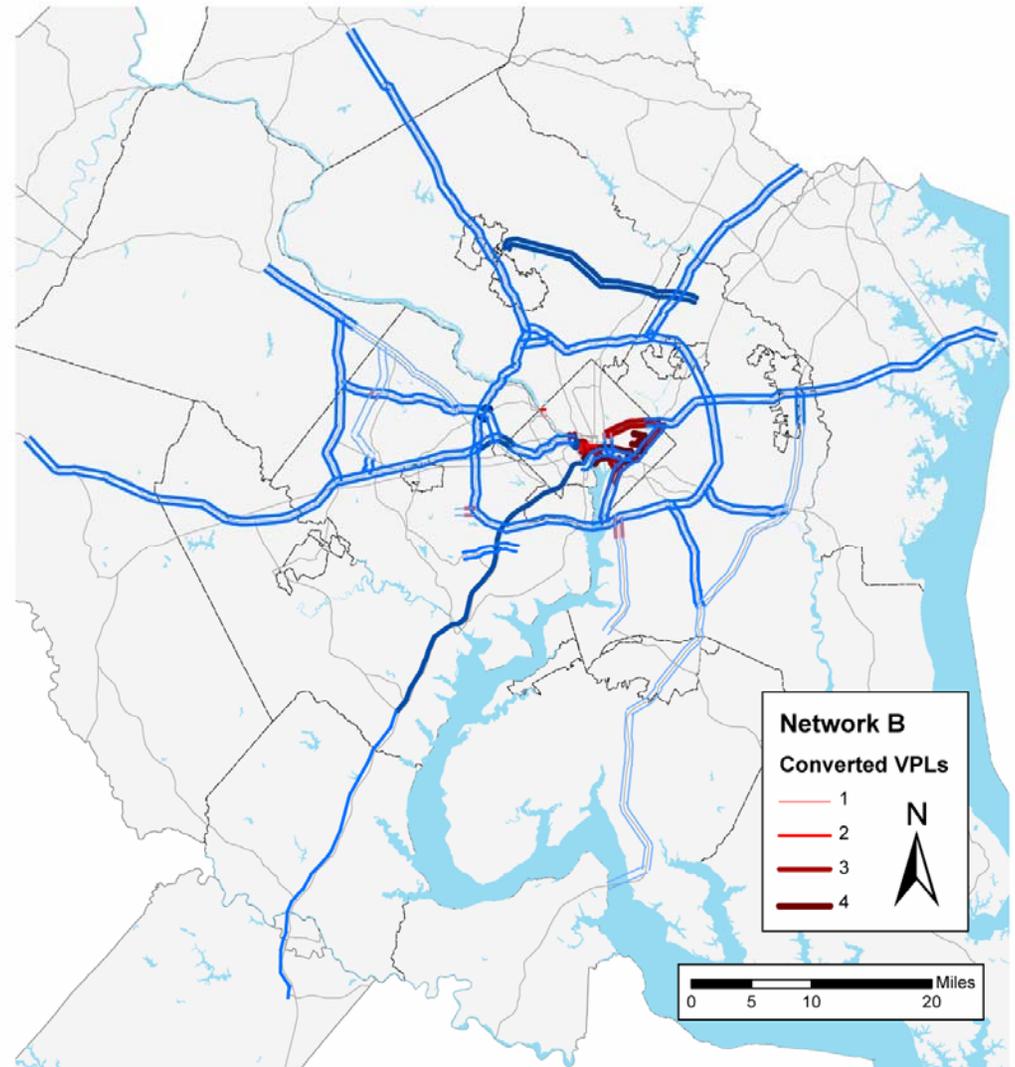
Task	2006			2007								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Task 1:</b> Examine high potential corridors for variably priced lanes. <i>Estimated Cost: \$100,000</i>	■											
<b>Task 2:</b> Identify potential toll revenues, costs, transit viability and land use activity changes for specific high potential corridors. <i>Estimated Cost: \$100,000</i>			■									
<b>Task 3:</b> Analyze high potential corridors as a Phase 1 regional network. <i>Estimated Cost: \$50,000</i>						■						
<b>Task 4:</b> Identify how potential impacts on low-income and minority populations could be identified. <i>Estimated Cost: \$40,000</i>							■					
<b>Task 5:</b> Develop a study report with major findings. <i>Estimated Cost: \$10,000</i>									■			
Update and Gather Input from the Value Pricing Task Force	■											
Brief the Joint Technical Working Group	■											
<i>Estimated Total Cost: \$300,000</i> <i>Federal: \$240,000 State/Local: \$60,000</i>												

# Task 1: Create Network of High Potential Corridors



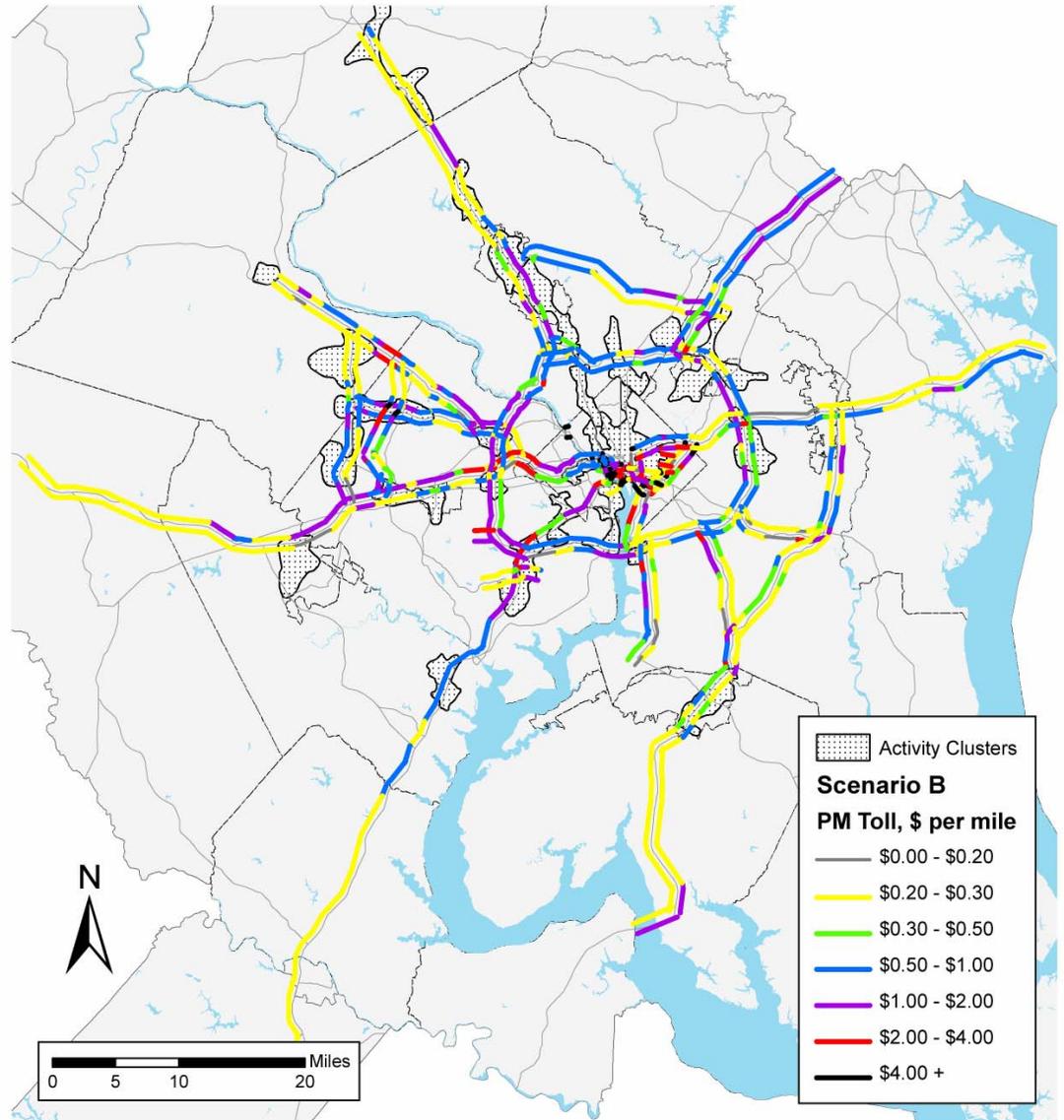
# Scenario B: Add Variable Pricing to Existing DC Bridges and Other Facilities

- **DC Bridges (Existing Capacity)**
  - Chain Bridge
  - Key Bridge
  - Memorial Bridge
  - South Capitol Street (Frederick Douglas) Bridge
  - Pennsylvania Avenue (John Phillip Sousa) Bridge
  - East Capitol Street (Whitney Young Memorial) Bridge
  - Benning Road Bridge
- **Other DC Facilities (Existing Capacity)**
  - New York Avenue from the District line to I-395 at 4<sup>th</sup> St NW
  - Independence Ave SW and Maine Ave SW between the Memorial Bridge and the Southeast/Southwest Freeway
  - Remove added capacity on Southeast/Southwest Freeway and I-295 and toll all existing lanes.
- **Additional VPLs to Address Scenario A Chokepoints**
  - Fairfax County Parkway northbound and southbound at the Dulles Toll Road (VA-267)
  - Braddock Road westbound at the Capital Beltway (I-495)
  - Indian Head Highway (MD-210) southbound at the Capital Beltway (I-495)



# Scenario B: Resulting Tolls

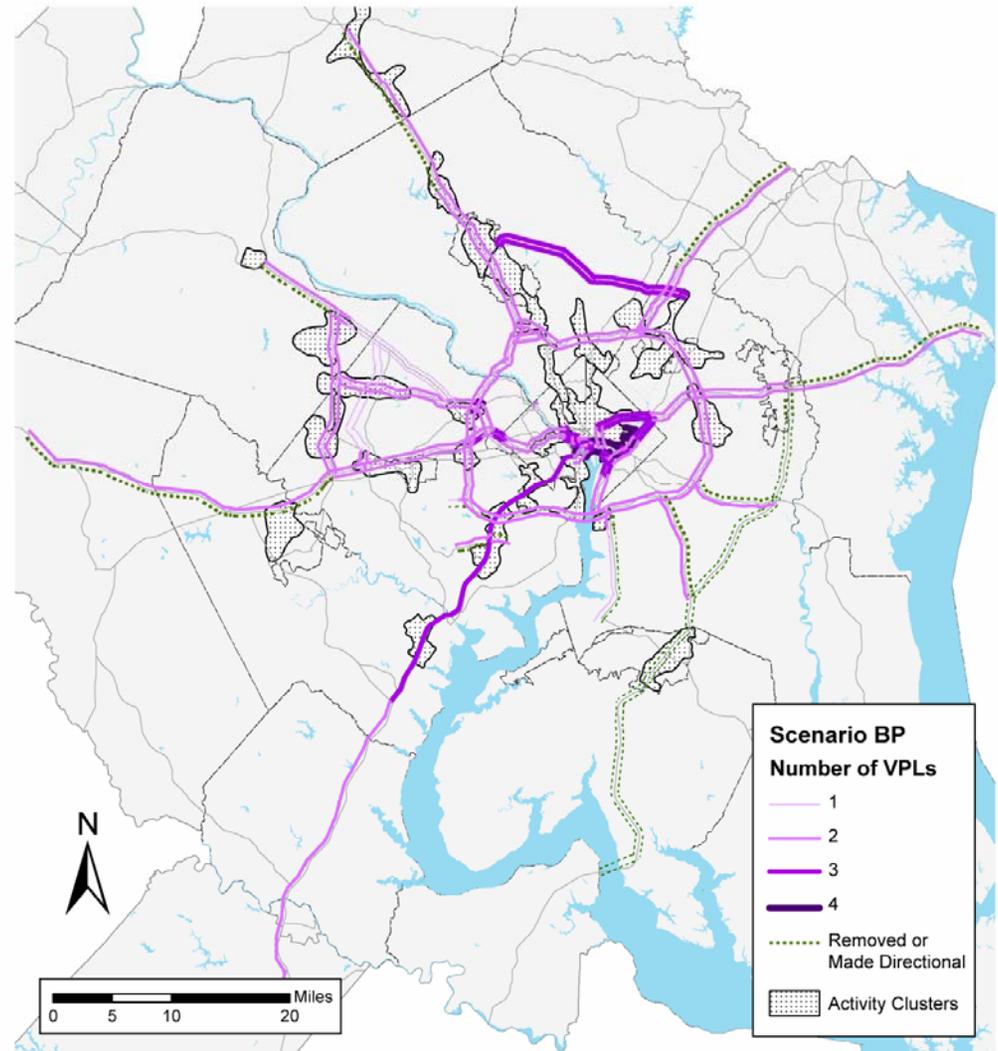
- Compared to Scenario A:
  - High toll rates on DC Bridges (mostly between \$4 and \$7 per mile; between \$0.50 and \$2.50 per one-way crossing)
  - System-wide toll revenue increases by 50%
  - Small reduction in system-wide VMT (<1%)
  - HOV use increases by 6%
  - Transit trips increase by 2%



# Scenario BP: Prioritizing from B

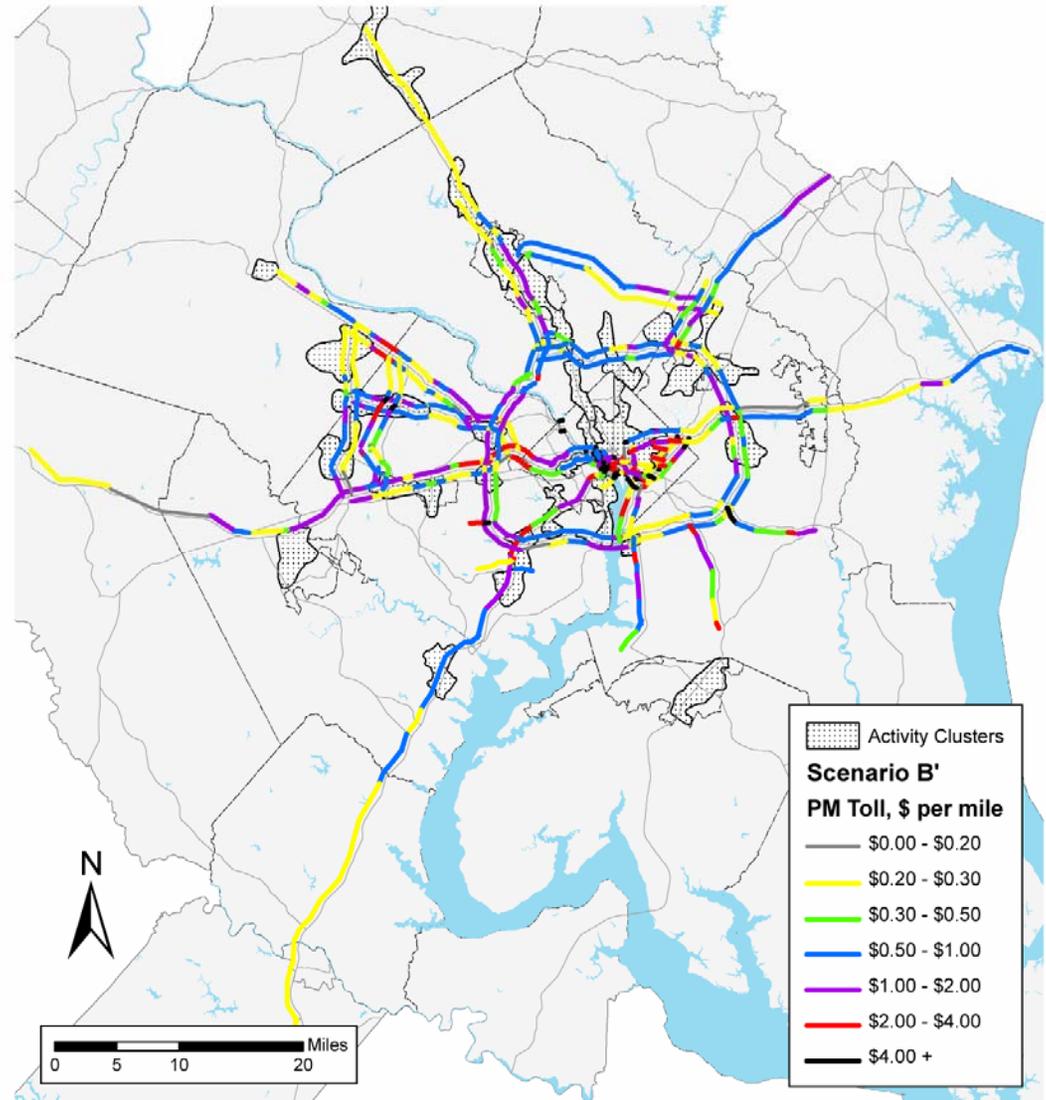
-Drop facilities/directions with low toll rates

- 2030 Scenario B network pared back where demand is low, as indicated by low toll rates:
  - Segments that have high toll rates in the peak direction only are changed to directional toll lanes
  - Segments with low toll rates in both directions are removed from the network



# Scenario BP: Resulting Tolls

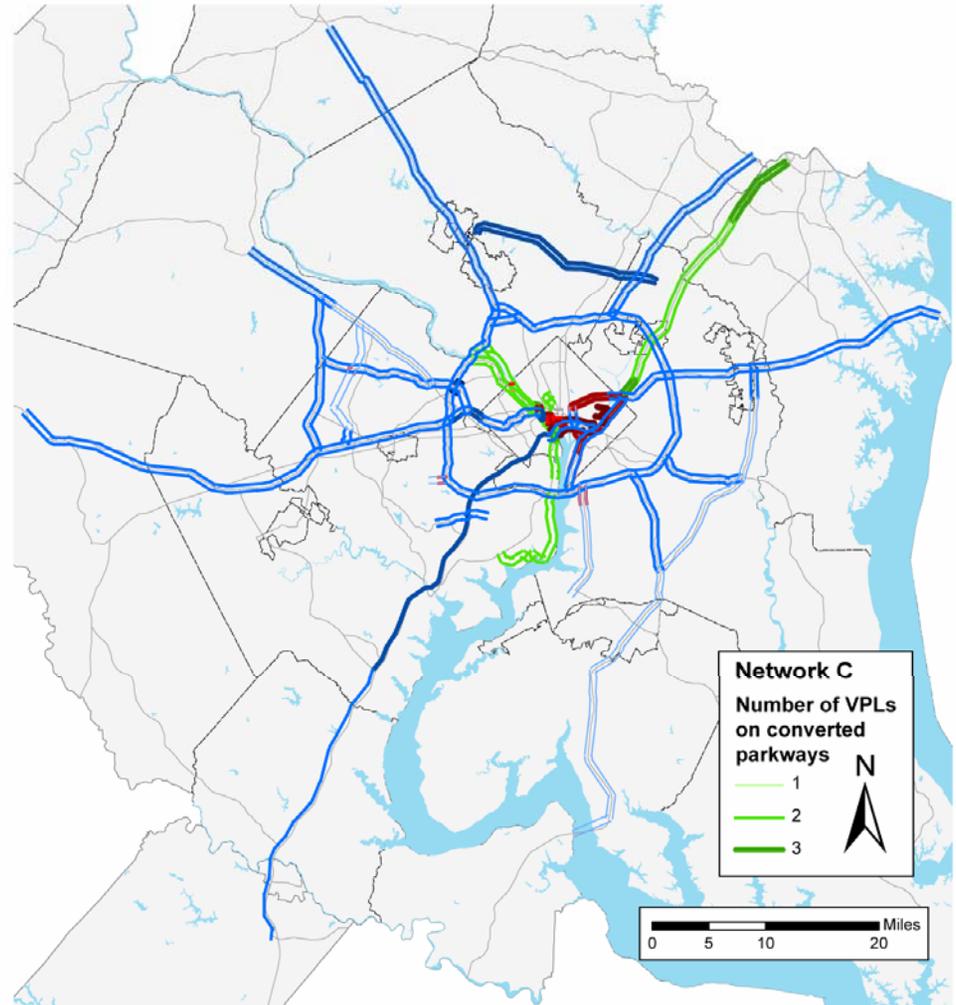
- Compared to Scenario B:
  - System-wide toll revenue decreases by 6%
  - Small reduction in system-wide VMT (<1%)
  - HOV use decreases by 2%
  - Transit trips unchanged



# Scenario C: Add Parkways to Scenario B

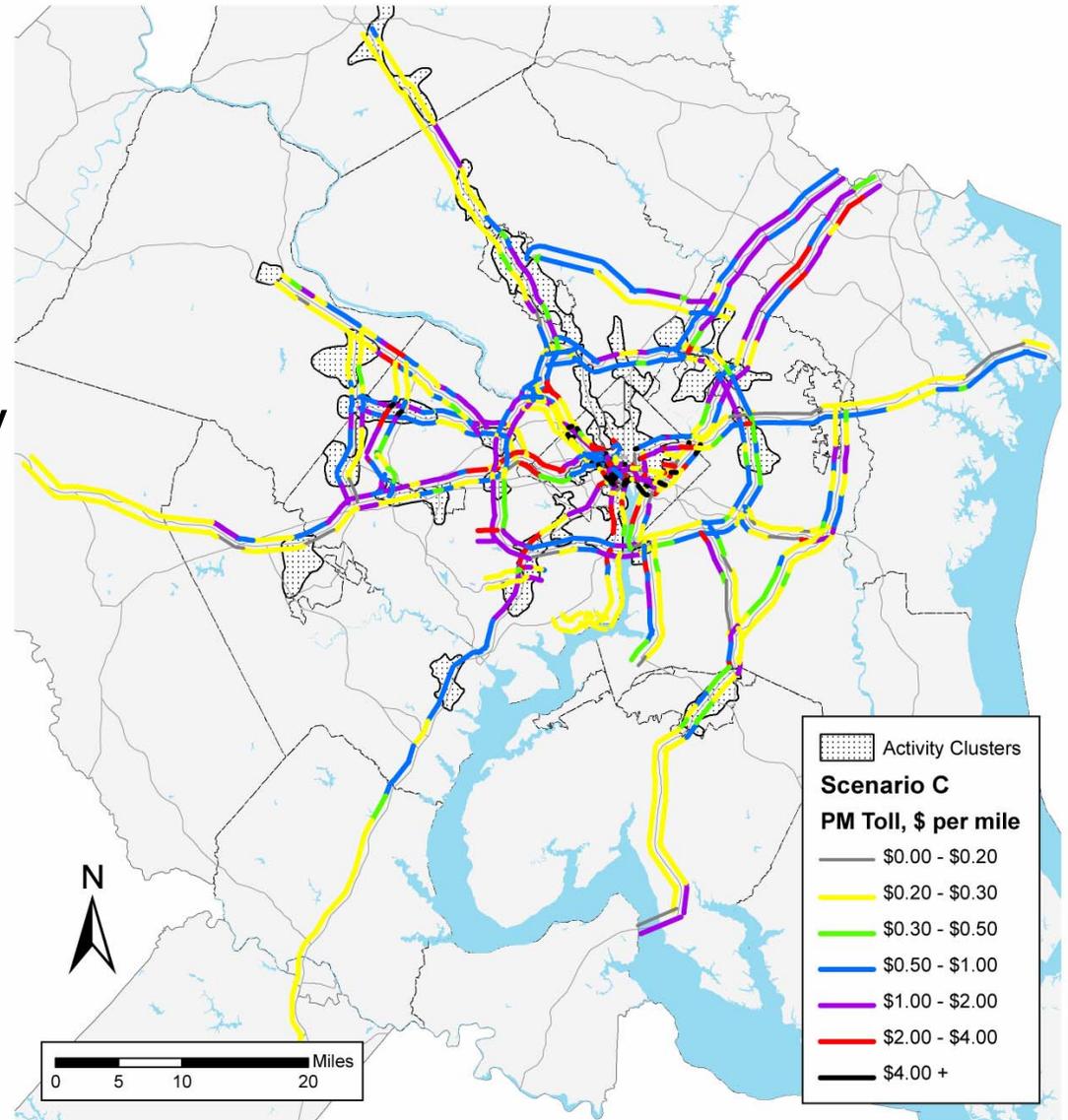
-Tolls applied to existing capacity

- Baltimore Washington Parkway (MD-295)
- George Washington Parkway
- Rock Creek and Potomac Parkway
- Clara Barton Parkway



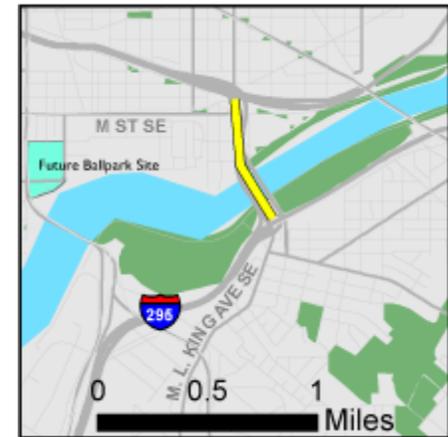
# Scenario C: Resulting Tolls

- Compared to Scenario B:
  - System-wide toll revenue increases by 30%
  - Small reduction in system-wide VMT (<1%)
  - HOV use decreases by 5%
  - Small increase in transit trips (1%)



# Update: The 2006 CLRP

- Current analyses have been based upon the 2005 CLRP
- Capacity-increasing projects have been added to the CLRP in 2006 for two Anacostia Bridges
- Analysis will be rerun to include these projects
- Will provide opportunity to determine impact of capacity increases on toll rates



# Next Steps

## Task 2

- Transit Sensitivity Tests
  - How does adding enhanced transit to the toll lanes affect the network?
- Land Use Changes
  - Which areas might experience changes in land use due to increased accessibility?
- Phasing Plan
  - Which corridors could be included by 2020? 2010?

## Task 3

- Network of High Potential Corridors: Financial Analysis and Feasibility

## Task 4

- Equity Analysis
  - What will be the impacts on low-income and minority populations?