

Item # 4

Draft 2008 Congestion Management Process (CMP) Technical Report

Andrew J. Meese COG/TPB Staff

Commuter Connections Subcommittee May 20, 2008

Background

A Congestion Management Process (CMP) is a requirement in metropolitan transportation planning

– SAFETEA-LU

Federal regulations for metropolitan planning issued February 14, 2007 address CMP requirements

- March 2006 Federal certification of the TPB process

Metropolitan long-range plans developed after July 1, 2007 must have a CMP

CMP components were developed in concert with the updated 2007 CLRP

Three Major FY2008 CMP Activities

1. CMP components of 2007 CLRP

- Identified congestion in the region, through Skycomp and other data
- Developed and documented a congestion management process
- TPB approved the 2007 CLRP January 16, 2008
- Status: Completed
- 2. CMP documentation forms for the CLRP and TIP
 - Supporting CMP reference material
 - Reviewed and accepted by Travel Management Subcommittee and TPB Technical Committee April 2008
 - Status: Completed

3. 2008 CMP Technical Report

Status: Currently under development and review for completion by June 30

Development of Draft CMP Report

Report developed following an outline approved by the TPB Technical Committee in May 2007

- Based upon SAFETEA-LU legislation and regulations and mid-1990's Congestion Management System (CMS) annual reports
- Two major sections:
 - Chapters 1 6 provide an overview of the CMP, where congestion occurs, and what strategies are being considered or pursued
 - Chapter 7 and Appendices delve into data and methodologies of major TPB studies

Chapter 1 – Executive Summary

Summary of CMP Technical ReportTo be written

Chapter 2 - Introduction

Need for a CMP Technical Report

- Federal legislation
- Federal certification of TPB planning process

Institutional Context of CMP in the Washington region

- Overview on the TPB and the Technical Committee
- Previous CMP (CMS) activities

Chapter 3 – Where Congestion Occurs or Will Occur in the Washington Metropolitan Area

Congestion on Major Highways

- Freeways (Skycomp)
- Arterials (Arterial Monitoring Program)
- Safety and Congestion
- Congestion on the area's transit systems
- Park-and-Ride facilities
- Airport access (TPB Studies)
- National Comparison of the Washington region's congestion (TTI)

Chapter 4 – Impacts of Previously Implemented Congestion Management Strategies

- Demand Management Strategies
 Commuter Connections Programs
 - Local Jurisdictional Activities
 - Operational Management Strategies
 - HOV Facilities
 - Variably Priced Lanes (VPLs)
 - Transit Systems
 - Bicycle and Pedestrian Transportation
 - Traffic Management

Chapter 5 – Recent Studies of Congestion Management Strategies

Project-related congestion management strategies

- Woodrow Wilson Bridge
- Springfield Interchange
- 11th Street Bridges
- South Capitol Street Project

 Congestion management impacts of Transportation Emissions Reduction Measures (TERMs)

Regional Mobility and Accessibility Scenario Study

Chapter 6 – How the Results of the CMP are Integrated into the CLRP

Congestion analysis of the 2007 CLRP
Demand management in the CLRP
Roadway and systems management in the CLRP

Interlinks in the on-line format of the 2007 CLRP provide connections between congestion management and other CLRP components

Chapter 7 – Data and Methodologies

- Details that support Chapters 1 through 6
- Definition of CMP network
- Performance measures
- Detailed review of congestion management strategies
 - Qualitative criteria long lists
- Monitoring activities
 - Summary of Travel Forecasting program activities
 - Congestion monitoring
 - Cordon counts
 - Household Travel Survey
 - Special Studies and programs
- Details of Highway Monitoring (freeway and arterials)

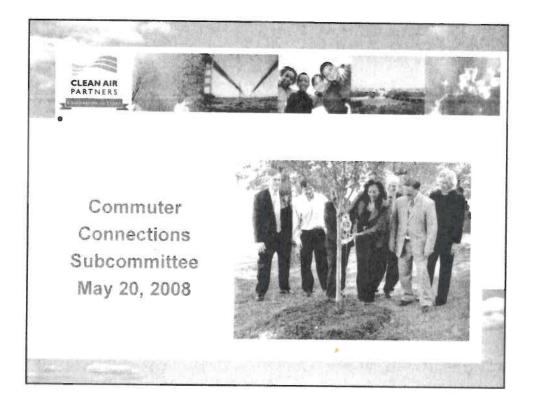
Next Steps

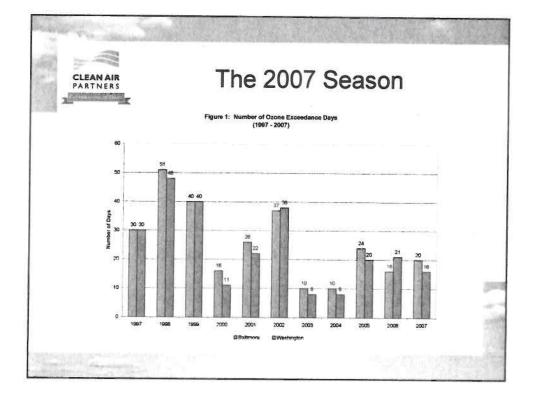
Committee reviews during April, May, and June

- Commuter Connections, Travel Management Subcommittee, MOITS
- TPB Technical Committee first review June 6 and anticipated final review June 27
- Comments that cannot be accommodated this year will be looked at for a revised report during FY2009
 - Additional data and analyses
 - Beyond FY2009, frequency of update (e.g., annually, biennially) still under consideration

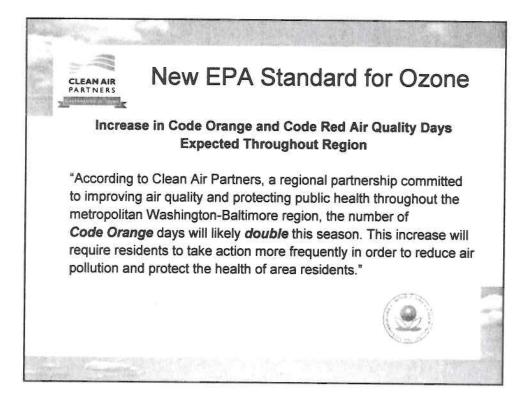
CMP Technical Report anticipated to be completed and approved by July 2008

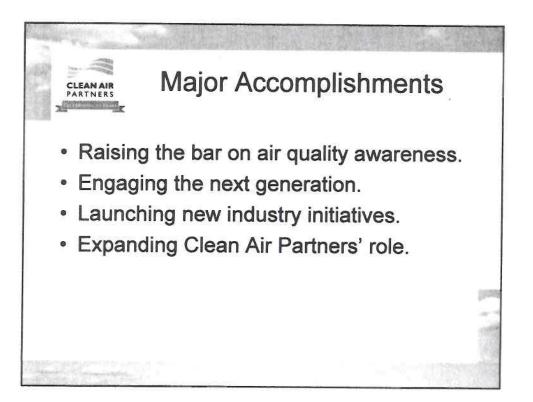
Comments and Feedback are welcome: Andrew Meese <u>ameese@mwcog.org</u>

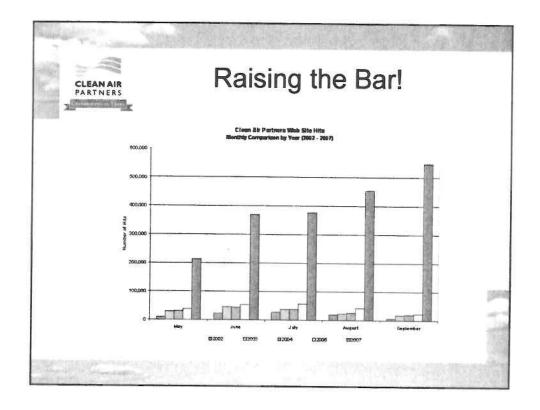


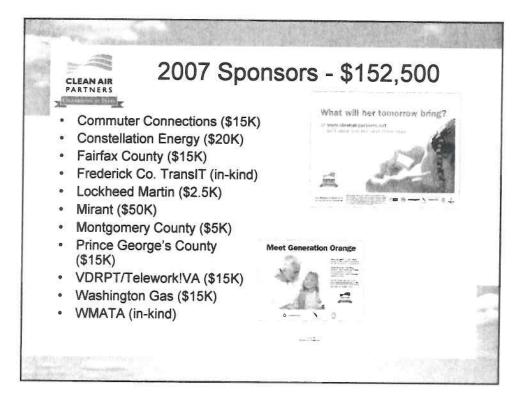


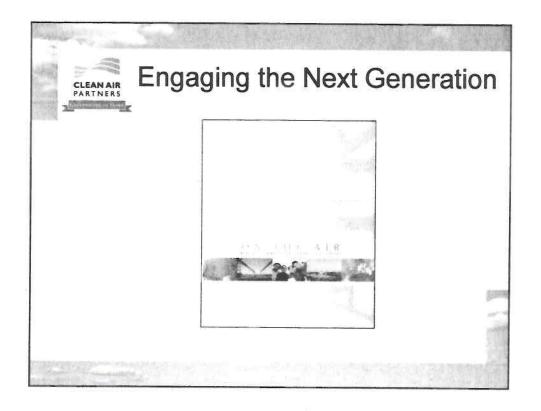
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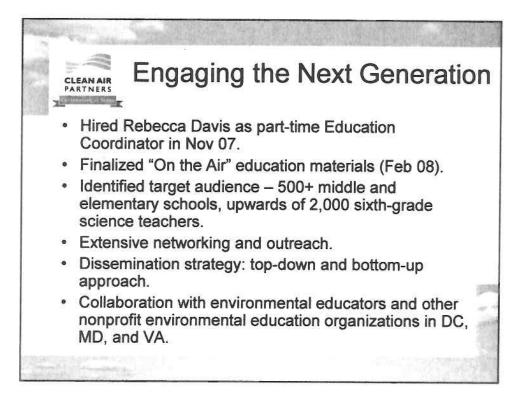


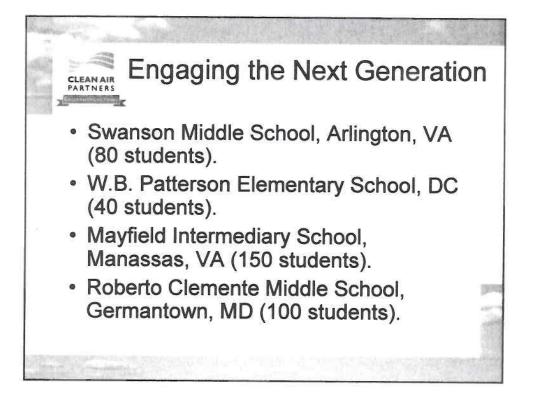




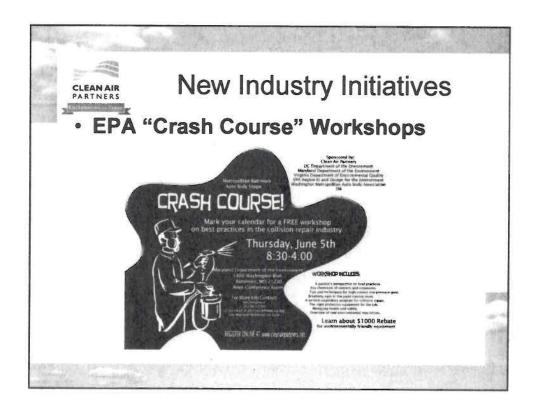


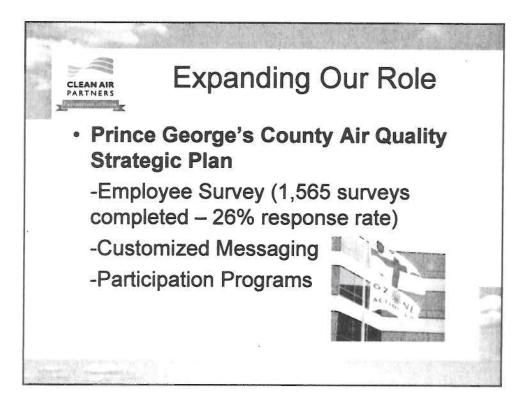


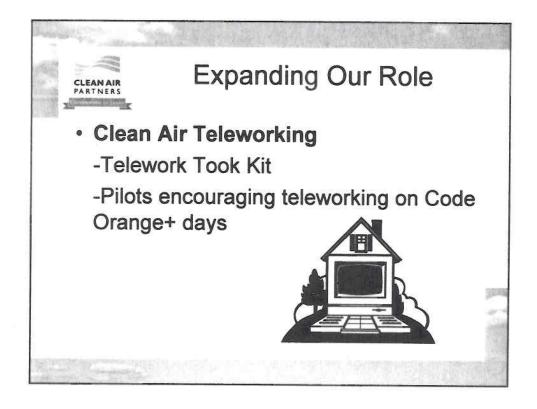


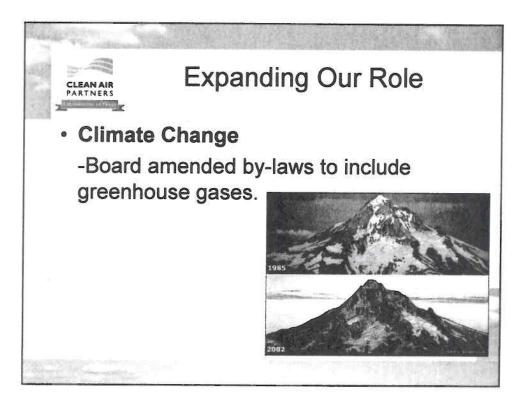


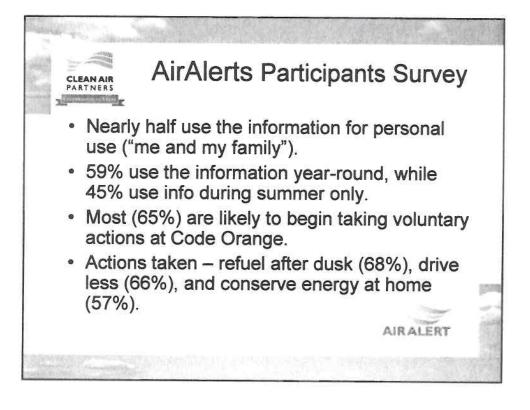


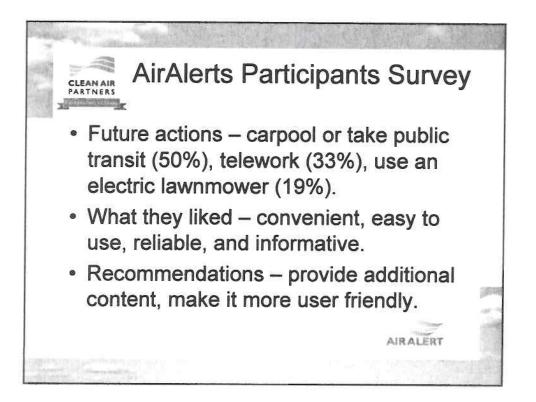


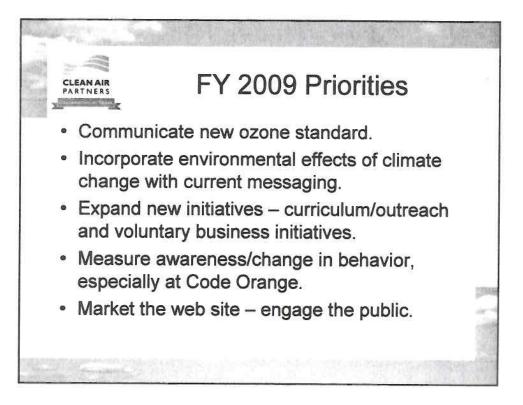


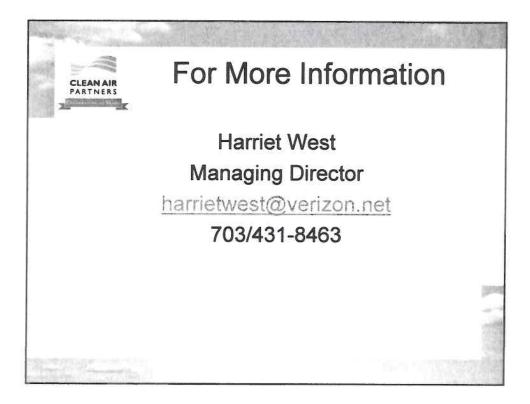














ATTENTION TEACHERS:

Clean Air Partners is pleased to announce the development of an exciting new air quality education program:

On the Air: Exploring Air Pollution Sources and Solutions

On the Air is an interactive teaching kit. *On the Air* engages students in the exploration of their environment as they study important air pollution topics such as Criteria Air Pollutants, the Air Quality Index, Ozone, Particulate Matter, Our Lungs and Health, Community Sources and Solutions and what is on every one's mind Climate Change.

The On the Air kit includes seven units that are:

- tied to and cross referenced to both your required curriculum and your state's education standards
- interactive--including hands-on activities, labs, and investigations
- inquiry based and designed to develop critical thinking skills
- complete with background information, student worksheets, teaching props, and visual aids
- relevant, fun, and engaging for students

In addition to addressing important science concepts, *On the Air* addresses math, technology, social studies, language arts, and health education standards. *On the Air* was developed specifically for sixth grade students in Washington D.C., Virginia, and Maryland and includes relevant and local data, examples, and issues.

Understanding air pollution is an important part of maintaining a clean, healthy environment!

If you are interested in using this engaging kit of air quality education materials or if you have any questions, please contact:

Rebecca Davis Science Education Coordinator Clean Air Partners (703) 340-6875 rdavis@cleanairpartners.net <u>www.cleanairpartners.net</u>



ATTENTION SUMMER CAMPS & SUMMER SCHOOLS:

CLEAN AIR PARTNERS

Clean Air Partners is proud to offer a new exciting air quality summer outreach program:

On the Air: Exploring Air Pollution Sources and Solutions

On the Air is an interactive outreach program. On the Air engages young people ages 10-14 in the exploration of their environment as they study important air pollution topics such as Criteria Air Pollutants, Ozone, the Air Quality Index, Particulate Matter, Our Lungs and Health, Exploring Air Pollution Solutions and what is on every one's mind Climate Change.

The On the Air interactive outreach program focuses on the following questions:

- What are the six- criteria air pollutants?
- How ground level Ozone is created?
- What is Particulate Matter and how do PM affect our lungs?
- What is the impact of pollution on our lungs and our health?
- What is the AQI? How is air quality measured? What actions should we take?
- What are some solutions to air pollution?
- What is Climate Change? And what are our responsibilities?

Understanding air pollution is an important part of maintaining a clean, healthy environment!

Students will participate, with a specially trained presenter from Clean Air Partners, in a classroom based interactive program for over an hour of fun and learning. For additional information please contact:

Rebecca Davis Science Education Coordinator Clean Air Partners (703) 340-6875 rdavis@cleanairpartners.net <u>www.cleanairpartners.net</u>

What do 11 million people in the Baltimore-Washington region have in common?





CLEAN AIR 777 North Capital St. NE PARTNERS Washington, DC 20002

Suite 300

"

Washington Gas is proud to be a founding member of Clean Air Partners. Through our membership we are able to promote clean air initiatives to our employees and the communities we serve. 77

James H. DeGraffenreidt, Jr. Washington Gas Chairman and CEO

www.cleanairpartners.net

Non Profit Organization U.S. Postage PAID Washington D.C. Permit No. 90770

We ALL breathe the same air.

About Clean Air Partners

Air quality affects us all. Our region's air quality has improved steadily over the past 10 years, but we still experience a significant number of days where poor air quality presents a health risk. Those most susceptible to poor air quality are children, older adults, and those with heart and lung conditions. More than likely, you or someone you know feels the effects of poor air quality. Clean Air Partners and its members are dedicated to changing that. For more than 10 years, Clean Air Partners has been providing the public with simple steps on how to improve air quality. Hundreds of organizations throughout the metropolitan Washington, northern Virginia, and Baltimore region have joined us in our efforts to raise awareness about the environmental and health effects of air pollution, including *ground-level* ozone, particle pollution and greenhouse gases.

CLEAN AIR PARTNERS

Join our efforts to increase public awareness of the health and environmental effects of air pollution and take simple actions to improve our region's air quality.

Become a Member

Become a member of Clean Air Partners and you'll support our efforts to improve the region's air quality through:

- Our annual public awareness campaign which reaches millions of people in the Washington-Baltimore region.
- Timely and reliable air quality forecast information.
- Our new air quality curriculum (On The Air: Exploring Air Pollution Sources and Solutions), being introduced into schools in 2008.

Member Benefits

As a member, your organization will receive the following:

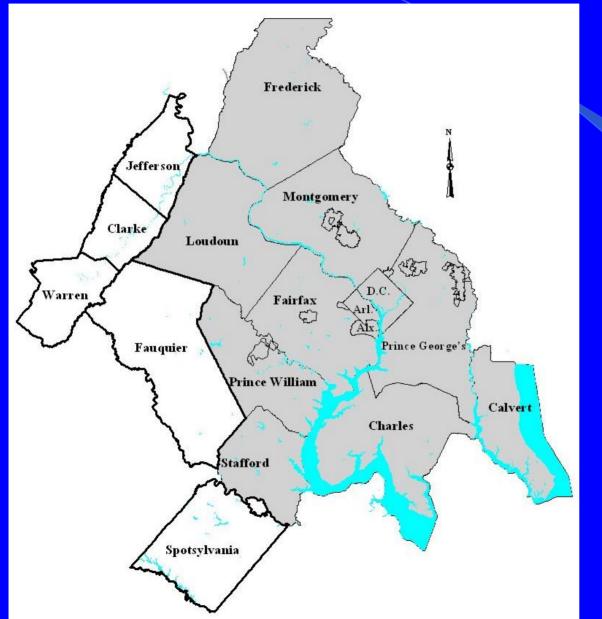
- Daily Clean Air Partners' AirAlerts: Timely and accurate air quality forecasts which you can distribute by email to your employees.
- Air Quality Action Guide: Our easy-to-read guide provides your employees and customers with simple steps to improve air quality.
- Fact Sheet and Tips: Information on how your organization and employees can reduce air pollution.
- Template Materials: Template newsletter articles for employees and customers and press releases announcing your organization's commitment to improving air quality.
- Website Link: Members are hyperlinked on Clean Air Partners' website, which receives several million hits each year.

Regional Travel Trends 2000 - 2006

Presentation to the Commuter Connections Subcommittee

> Robert E. Griffiths Technical Services Director May 20, 2008

Washington DC-MD-VA-WV MSA (2003)



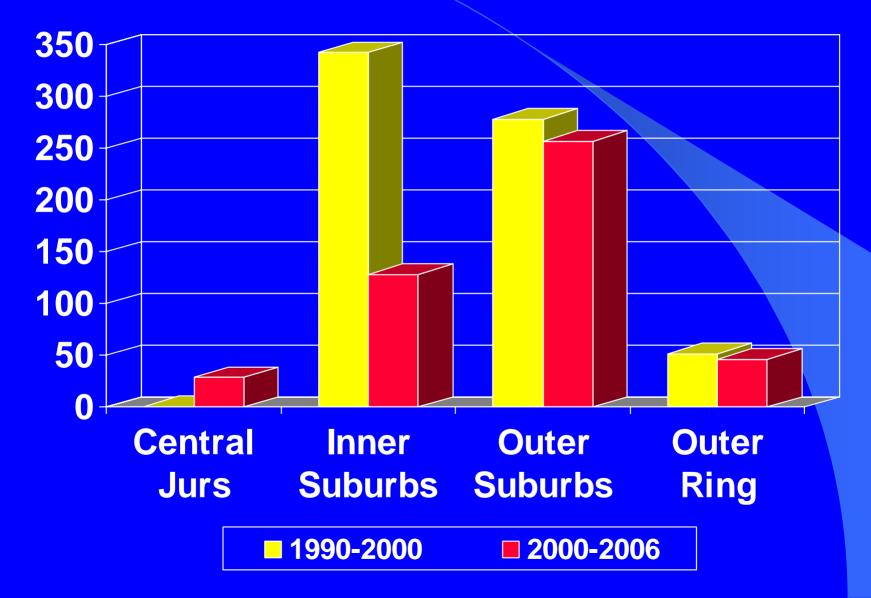
• 22 Cities and Counties

• 5,600 Sq Miles

5.3 Million
 People

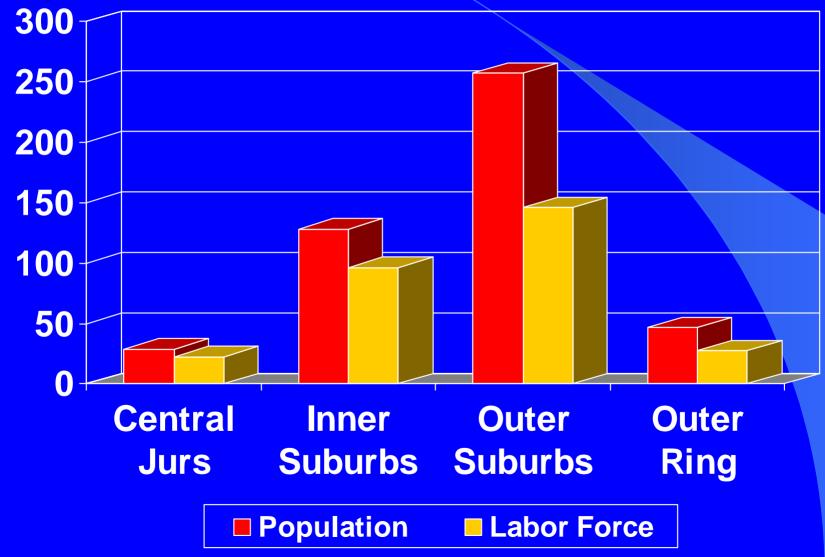
Population Growth

(Change in Thousands)



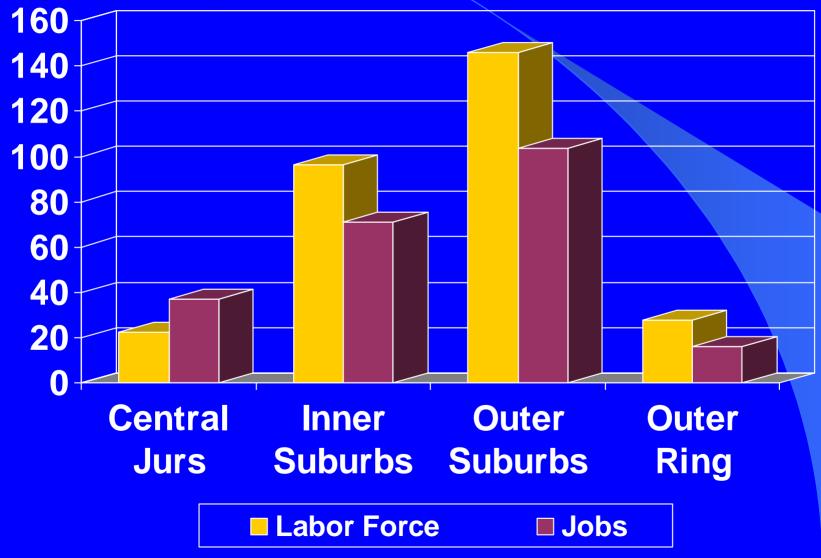
Growth in Population Compared to Growth in Labor Force 2000 – 2006

(Change in Thousands)



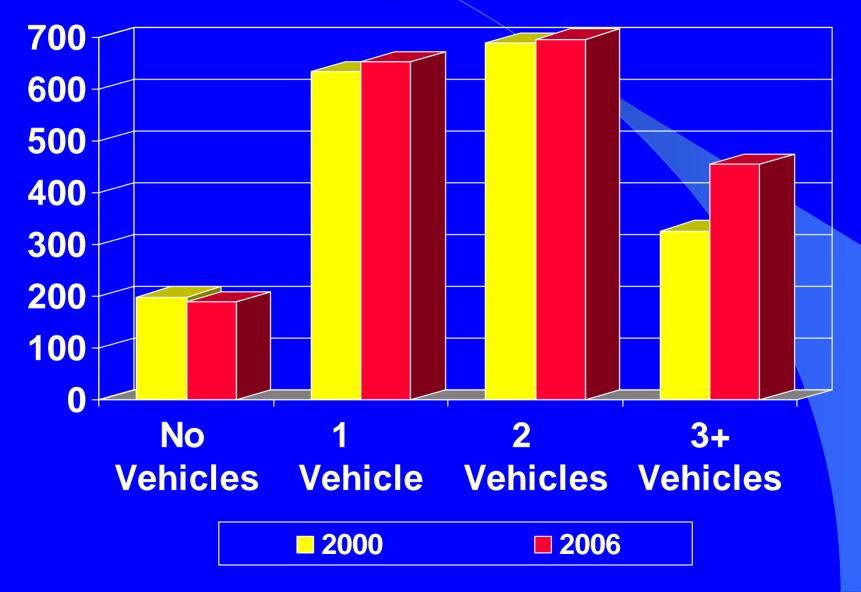
Growth in Labor Force Compared to Wage & Salary Jobs Growth 2000 – 2006

(Change in Thousands)



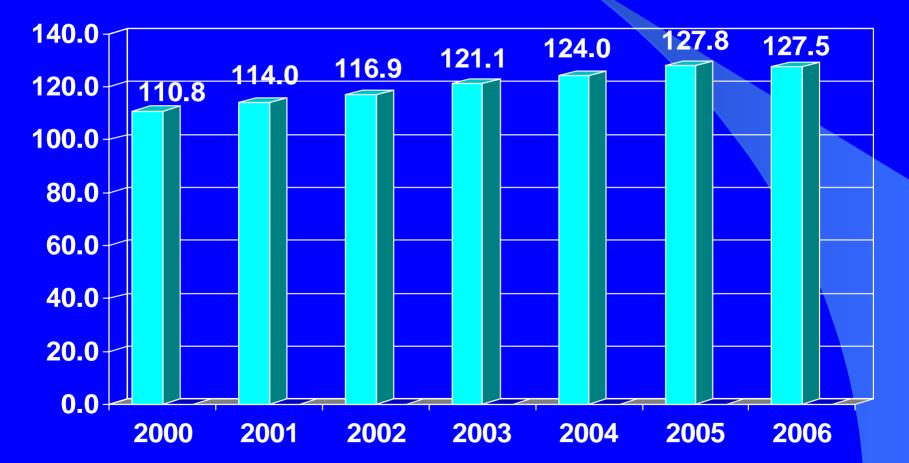
Household Vehicle Availability 2000 – 2006

(Number of Households in Thousands)

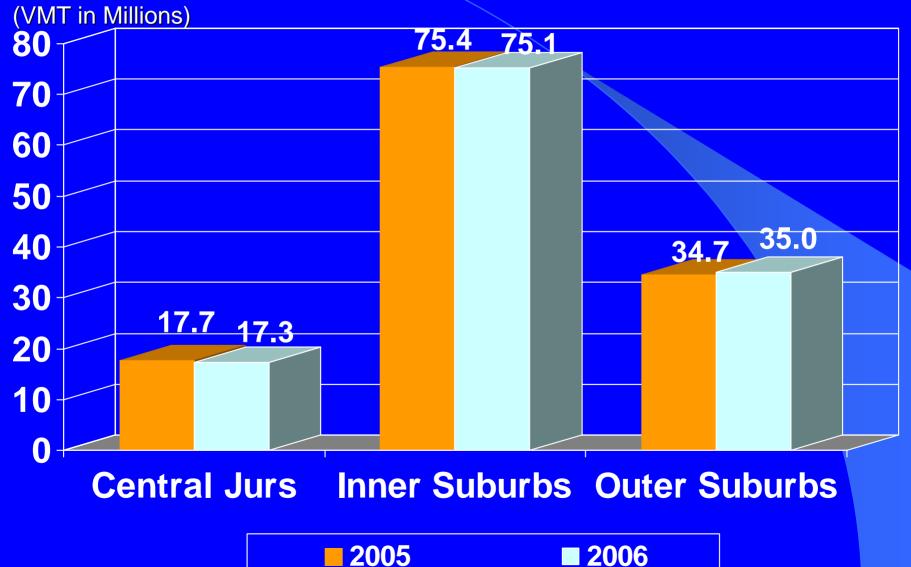


Weekday Vehicle Miles of Travel 2000 – 2006

(VMT in Millions)

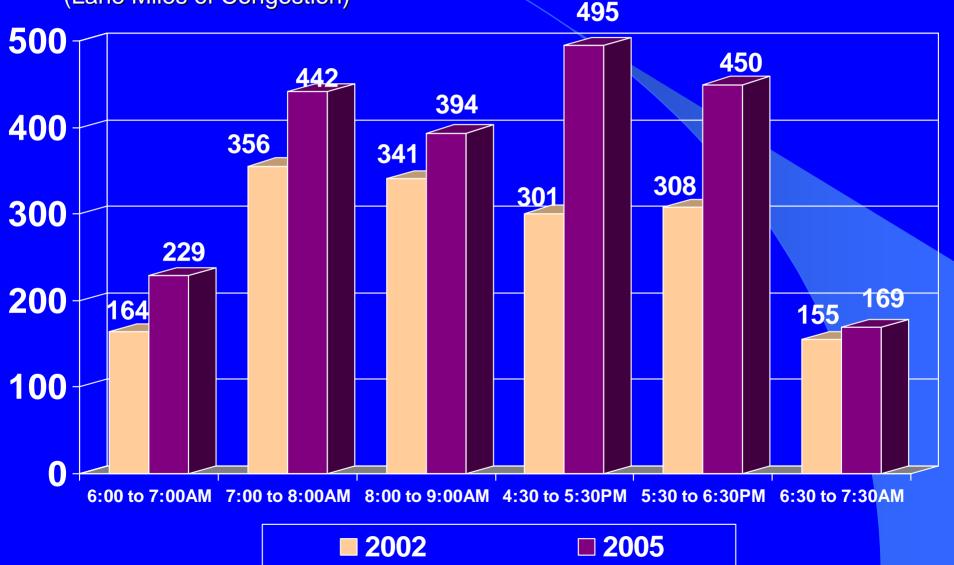


Daily Vehicle Mile of Travel by Subarea 2005 - 2006



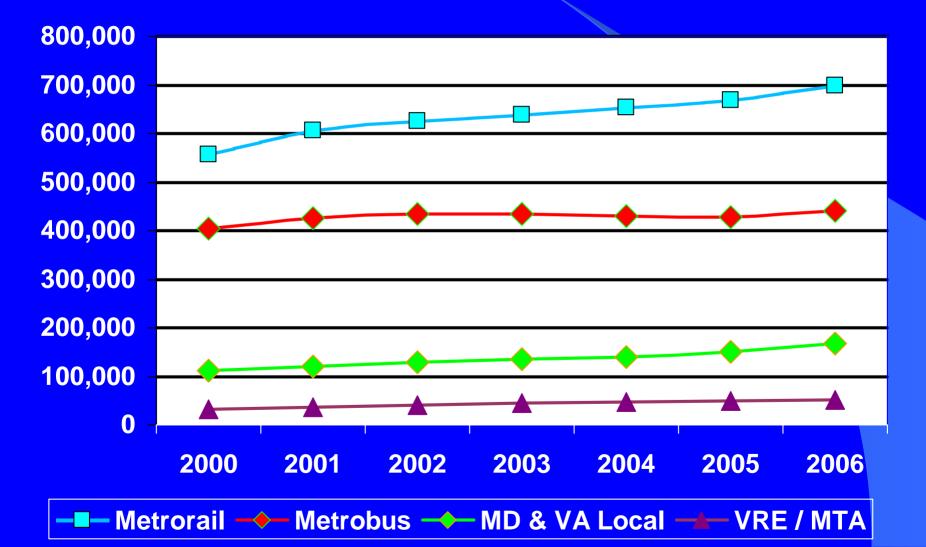
Increase in Freeway Congestion 2002 – 2005

(Lane Miles of Congestion)

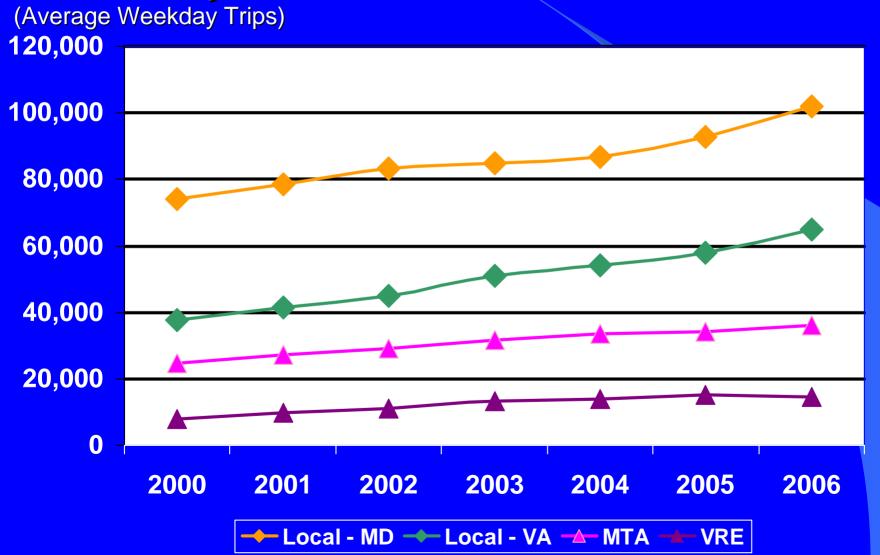


Growth in Weekday Metrorail, Metrobus and Local Transit Ridership FY 2000 - 2006

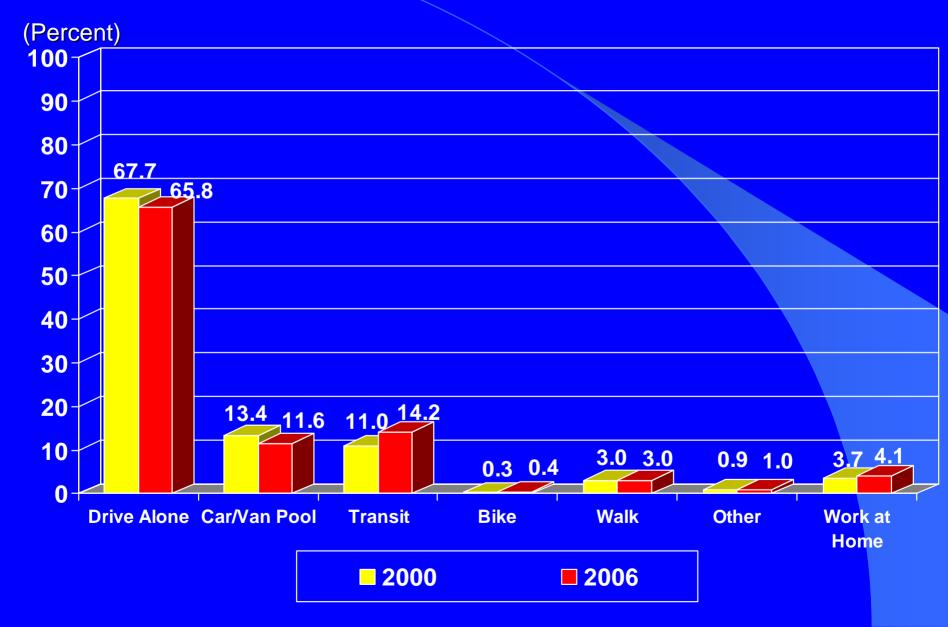
(Average Weekday Trips)



Growth in Ridership on Local Jurisdiction Transit Systems FY 2000 - 2006

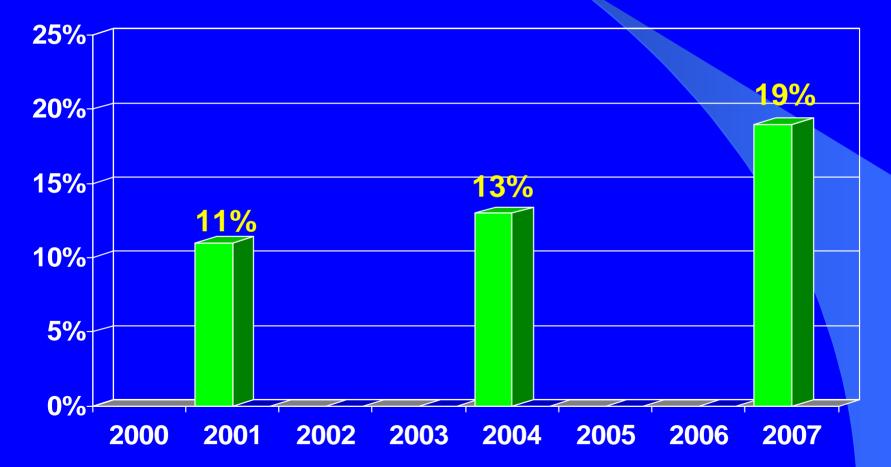


Commuting Mode Shares (2000 – 2006)



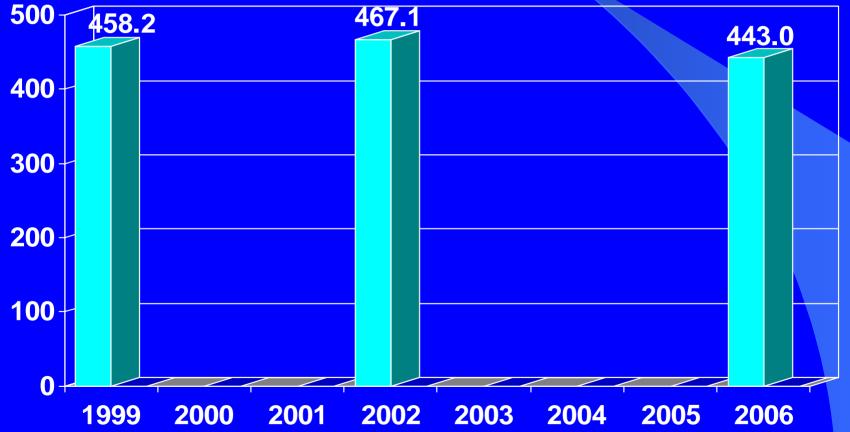
Increase in Teleworking 2001 – 2007

(% of Commuters Telecommuting 1 or more days per week)

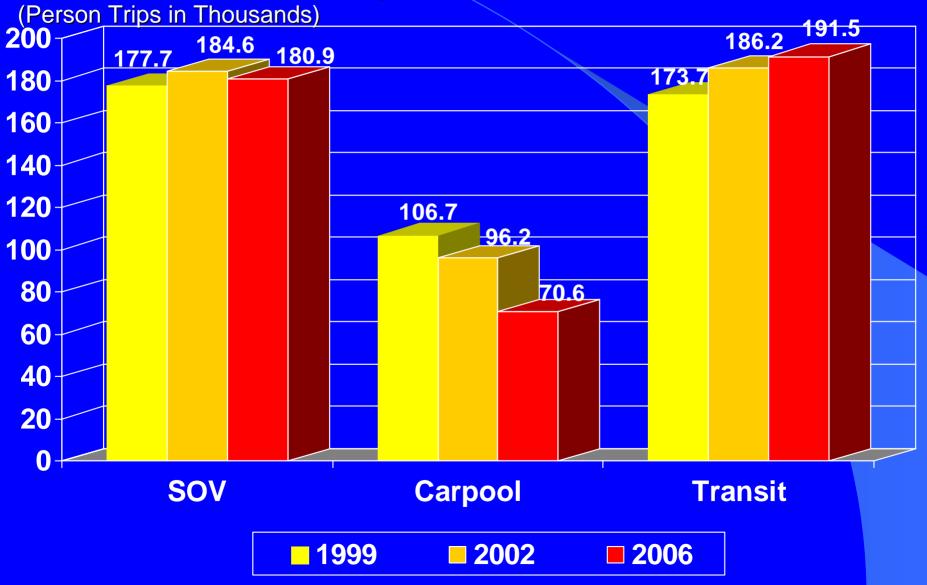


AM Peak Period Travel to and through the Central Employment Area 1999 – 2006

(Inbound Person Trips in Millions)



AM Peak Period Modal Shares to Central Employment Area

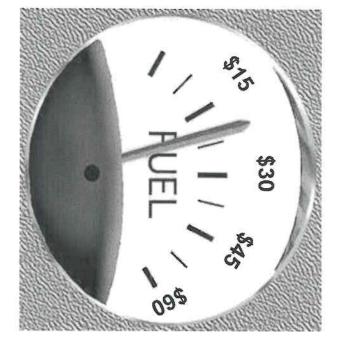


Major Findings and Conclusions

- Locus of Population and Employment Growth has shifted to Outer Suburbs
- Turn Around in Population and Employment Growth in DC
- Saturation in Vehicle Availability
- VMT Growth Still Faster than Pop and Jobs
- Increase in Freeway Congestion
- Modal Shift to Transit
- Decline in Percent of Commuters Driving Alone and Carpooling
- Trends Moving toward TPB Vision Goals

National Capital Region Transportation Planning Board Nicholas Ramfos May 21, 2008

Responses to Rising Gasoline Prices



COMMUTER CONNECTIONS

High Gas Prices Policy Responses

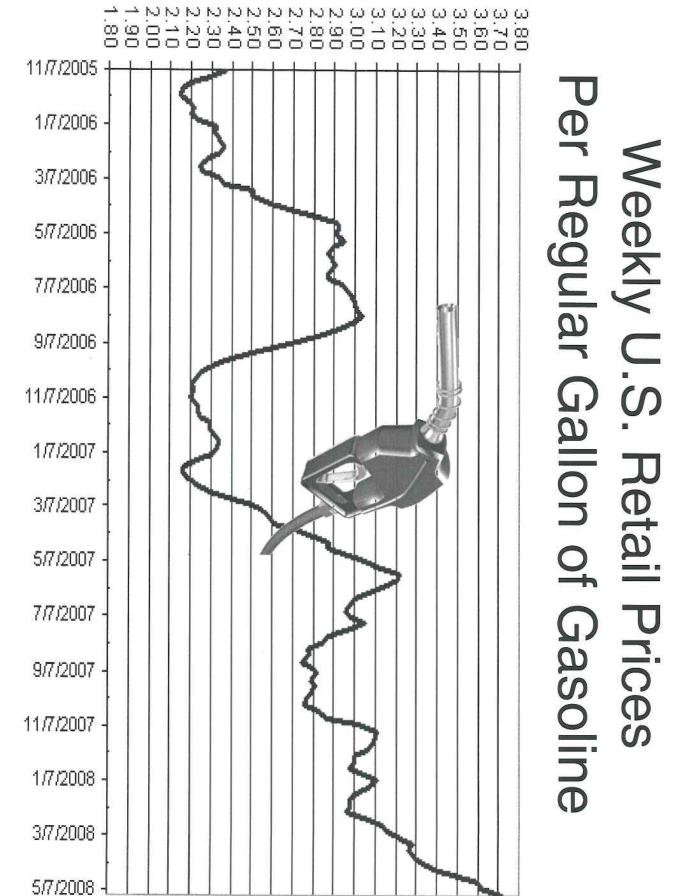
- To drill or not to drill in Arctic National Wildlife Refuge?
- Ethanol, wind, coal, nuclear energy?
- Wave the Federal Gas Tax for summer?
- Bi-partisanship halt to adding to the Strategic Oil Reserve!

High Gas Prices Public Reactions

➤SUV sales slumping, Hybrid car sales soaring!

Big Oil Company price gouging?

What is the breaking point that will change SOV behavior?



Dollars per gallon

Gas Consumption and Production

- The US consumes about 21 million barrels of petroleum products each day.
- Over 10 million barrels in the form of gasoline used each day
- For 210 million motor vehicles
- Traveling over 7 billion VMT's per day
- ➤ Crude oil prices avg \$72 per barrel in 2007 and over \$110 per barrel in 2008.

Gas Consumption and Production

- The cost of crude oil now accounts for almost 70% of the gasoline pump price.
- Projected gas prices approaching \$4 per gallon.
- World crude oil prices are at record highs due to:
- High worldwide oil demand relative to supply
- Conflicts in some major oil producing regions
- Declining value of the U.S. dollar

(the currency in which crude oil is traded globally).

Gas Prices and Commuting

- ➢ In 2007 and 2008, Americans have been faced offering ridesharing services. when Commuter Connections first began which have not been seen since the 1970s, with sky rocketing gasoline prices, the likes of
- ➢ In the 1990s, the average commute time rose by accounted for more than 3 out of 4 American workers, according to the 2000 Census. about 15 percent, and the share of SOV drivers

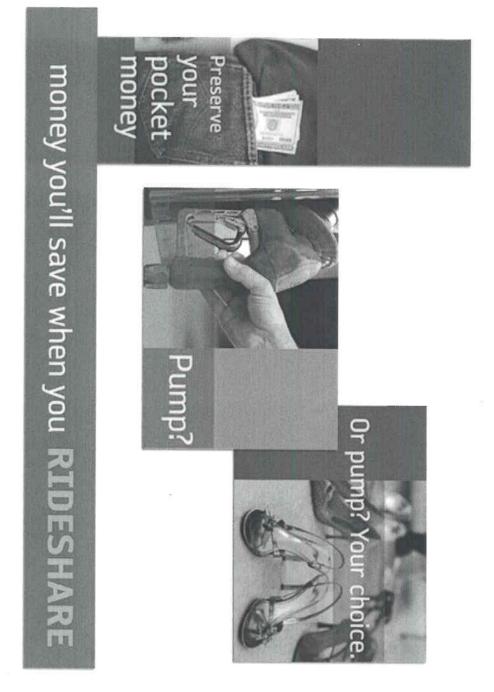
Management Marketing Campaign **Transportation Demand** 2008 Spring



COMMUTER CONNECTIONS	WFLS (93.3FM Real Country, Fredericksburg)	WMMJ (102.3FM Urban AC)	WWDC (DC101)	WASH (Soft Rock 97.1FM)	WTOP (News/Talk 103.5FM)	
	WFRE (99.9 Free Country, Frederick)	WJZW (Smooth Jazz 105.9FM)	WAFY (Key 103 1FM)	WMZQ (Today¹s Country 98.7FM)	WBIG (BIG 100 100.3FM)	Radio
	WSMD (Star 98.3FM Mechanicsburg)	WBQB (B101.5FM Fredericksburg)	WPGC (Urban AC)	WMAL (News/Talk 630AM)	WRQX (Mix 107.3FM)	

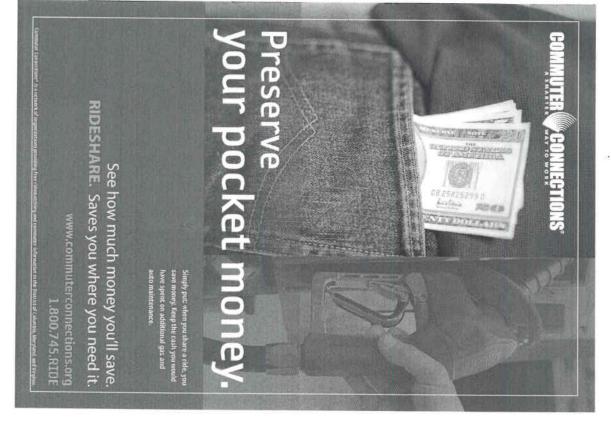






Internet Advertising

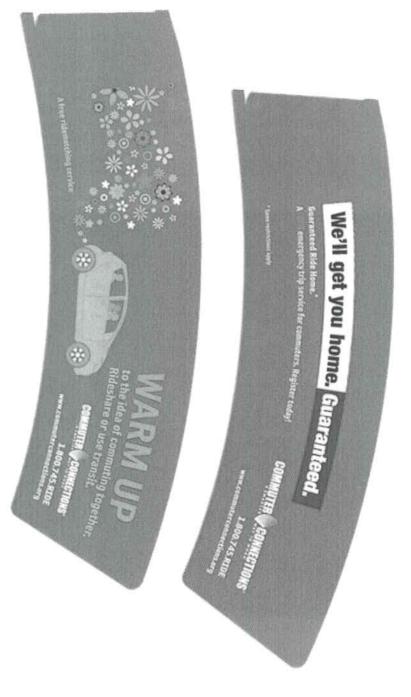
Bus Shelters



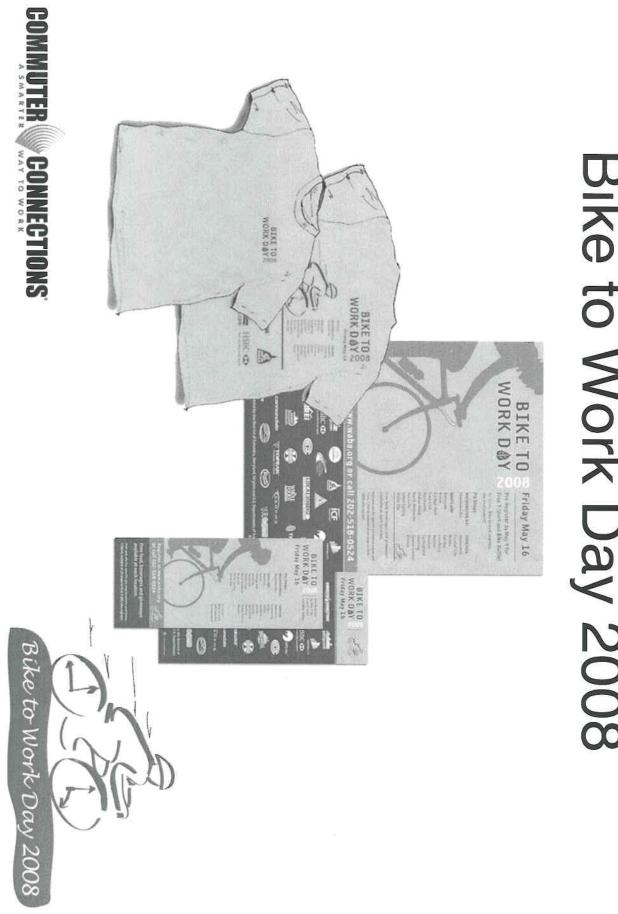


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Distributed at 145 Venues Coffee Cup Sleeves



COMMUTER CONNECTIONS



Bike to Work Day 2008

Live Near Your Work

Commuter Connections can assist employers work. with programs that enable them to live closer to housing needs, and help connect employees with finding the right solutions for workforce

- Events held in the District of Columbia, Bethesda, Prince George's, and Fairfax in FY 2007
- Events in Arlington, Frederick, Prince George's, Prince William, and the District of Columbia during FY 2008





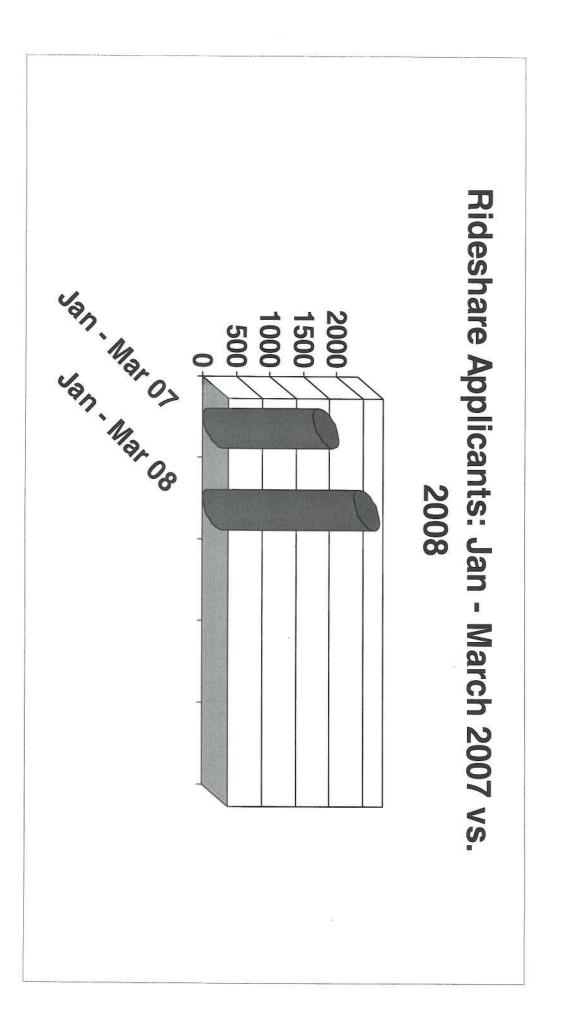
High Gas Prices PSA copy

Tired of paying too much at the pump? Try alternatives free information visit CommuterConnections.org today"! like carpooling, transit, bicycling and teleworking. For

Press Release

Provide Relief From High Gas Prices". "Commuter Connections Services

COMMUTER CONNECTIONS



COMMUTER

WAY

CONNECTIONS

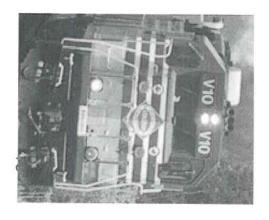
Ridesharing Bulletin Board

➤Jan-Mar 2007 vs. Jan-Mar 2008, Postings from Loudoun and Fairfax Counties have increased by 87.5%. on Commuter Connections Bulletin Board



Impact on Transit

- **Ridership on Virginia Railway Express** increased 12 percent over last April.
- VRE reported its 10th consecutive month of increased use
- \mathbf{V} MARC Commuter Rail service is up 7% in the past nine months.
- "The high gas prices have now suddenly Anderson, AAA Mid-Atlantic. made mass transit more attractive" Lon Washington Examiner, May 16, 2008



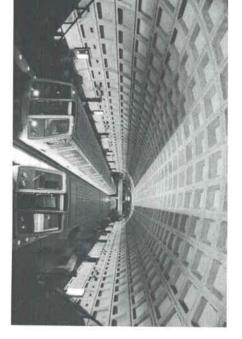
Impact on Transit

WMATA Press Release, May 5, 2008 "Ridership up Three Months After Fare Increase"

➤ Average weekday rail ridership grew 6% in January, 4% periods last year. in February and 3% in March compared to the same

WTOP, May 20, 2008

WMATA looking to spread out commutes over a longer period of time to ease overcrowding.



Commuter Bicycle Sales Rising

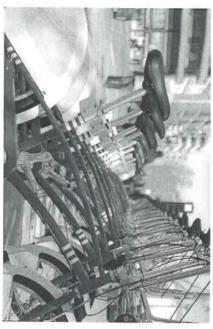
- Bicycle Product Suppliers Association annual report -January 2008
- Sales of "hybrid" commuteroriented bikes saw an increase of 6% in sales for '07."
- The National Bicycle Dealers this year. shops across the country are Association indicate bike reporting strong sales so far
- More people are also bringing in bikes for tune-ups that have been idling at home.



Bike Sharing

- District of Columbia automated bicycle rental system supported by Clear Channel
- 120 red four-speed "SmartBikes", at ten stations between Georgetown and Chinatown.
- Other jurisdictions in the region are exploring the concept.
- Participants in the program join online and pay an annual subscriber fee
- Cards are issued and swiped to calculate the hourly rental tee







Car Sharing

- Car Sharing can eliminate the need to own a vehicle.
- Reduce or augment current company vehicle expenses. fleets and associated maintenance and gasoline
- Companies should consider Car Sharing as an option for employees that have mid-day business appointments.
- Many Car Sharing vehicles are hybrids, which will have a more positive impact on pollution levels compared to non-hybrid vehicles within fleets.

Telework

- ➢ In 2004, 13% of the Workforce Teleworked on Average 1.3 days per Week
- 320,000 Teleworkers
- ➢ In 2007, 19% of the Workforce Teleworked an Average of 1.5 days per Week
- 456,000 Teleworkers



COMMUTER CONNECTIONS	570,000 potential new Teleworkers	>24% "Could and Would" Telework if Offered the Opportunity	>30% Have Telework Appropriate Job Responsibilities	Of Non-Telecommuters in 2007:	Telework Potential in the Region
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Commuting Costs

≥ 20 mile Round-Trip Commute

(Based on 22 work days per month, 30 mpg, and maintenance costs)

- In December 2005 gas @ \$2.25 per gallon would have cost \$3,168 per year.
- \$3,440 per year. Today @ \$3.80 per gallon cost will be
- Commuter could have saved \$1,584 in carpooling with one other person. 2006 and could save \$1,720 this year by

Call To Action

- Encourage formation of carpools and vanpools in the region.
- Encourage teleworking.
- Encourage transit use.
- Encourage bicycling and walking.
- Issue statements on these services to the media and to constituents.





How Drivers Feel

COMMUTER CONNECTIONS QUARTERLY BUDGET COMMITMENTS AND EXPENDITURES FOR COG FY08 (July 1, 2007 - March 31, 2008)

TOTAL \$4	Data & PC Contract Services/Consultants COG/TPB staff, indirect & direct costs	Data & PC Contract Services/Consultants COG/TPB staff, indirect & direct costs DC KIOSKS	ervices/Consultants local governments staff, indirect & direct costs EWORK	Data & PC Contract Services/Consultants COG/TPB staff, indirect & direct costs EMPLOYER OUTREACH \$:	Data & PC Contract Services/Consultants COG/TPB staff, indirect & direct costs \$ MONITORING AND EVALUATION	Data & PC Contract Services/Consultants User Subsidies COG/TPB staff, indirect & direct costs MARKETING	Data & PC Contract Services/Consultants COG/TPB staff, indirect & direct costs GUARANTEED RIDE HOME	E COMMUTER OPERATIONS CENTER
\$4,998,737	\$25,000 \$6,031	\$0 \$120,000 \$42,126 \$31,031	\$3,000 \$15,000 \$752,664 \$249,057 \$162,126	\$0 \$216,500 \$205,230 \$1,019,721	\$3,000 \$560,000 \$1,611,084 \$421,730	\$3,500 \$121,487 \$170,500 \$250,097 \$2,174,084	\$49,500 \$249,999 \$344,962 \$545,584	BUDGET TOTAL \$644,461
\$4,998,737		\$31,031	\$162,126	\$1,019,721	\$421,730	\$2,174,084	\$545,584	FUNDS COMMITTED* \$644,461
\$2,642,126	\$0 \$2,687	\$0 \$3,540 \$21,351 \$2,687	\$5,204 \$267,606 \$110,586 \$24,891	\$0,068 \$133,540 \$383,396	\$3,340 \$355,232 \$734,370 \$193,608	\$5,994 \$81,039 \$131,154 \$173,299 \$1,092,942	\$43,001 \$249,999 \$260,115 \$391,486	FUNDS EXPENDED** \$553,115
	\$0 \$0 \$87	351 351 367	904 906 991	540 540 596	40 70 08	42 99 42	86 86	15 U

Committed funds are based on funding commitment letters received.
 Preliminary funds expended are through March 31, 2008.
 Percentage is based on Budget Total Column

ITEM #9

16 May 2008