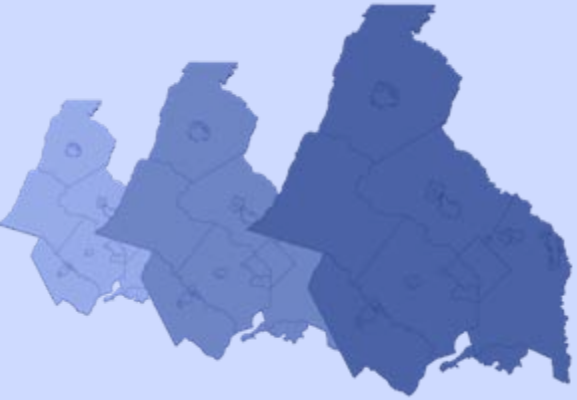
TPB SCENARIO STUDY

Progress on "CLRP Aspirations" and "What Would it Take?" Scenarios

Ronald F. Kirby
Director, Department of Transportation Planning

Presentation to the TPB

June 18, 2008



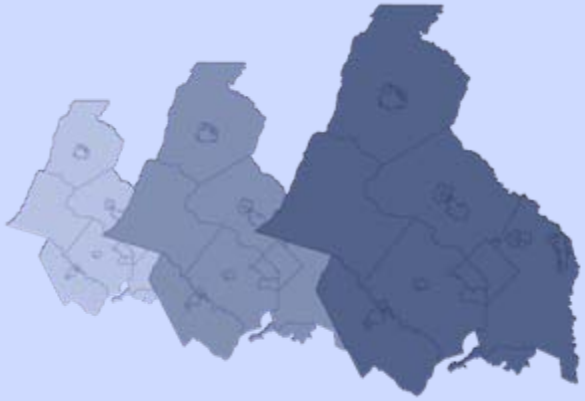
Two New Scenarios

What Would it Take?

Starts with CO2 goals (80% below 2005 levels in 2050 and 20% reduction by 2020) and assess what scales and combinations of interventions will be necessary to achieve the goal.

CLRP Aspirations

Draws on past scenarios (5 transportation/land use scenarios and 2 value pricing scenarios) to provide an ambitious yet attainable vision of land use and transportation for the 2010 CLRP update.



Schedule

April 2008

Scenario Development

June 2008

Scenario Analysis

February 2009

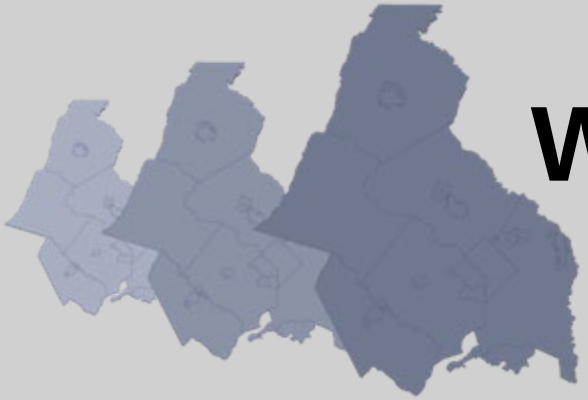
Public Outreach

June 2009

2010

CLRP four-year full update:

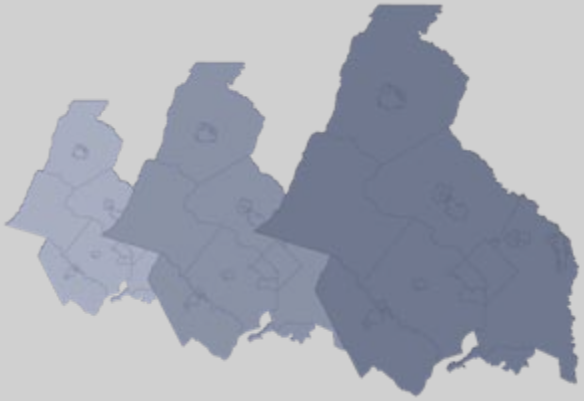
- New survey results
- Finer grained analysis zones
- Extended planning horizon: 2040
- Opportunity for incorporating scenario results



What Would it Take? Scenario Goals

COG Climate Change Steering Committee goals:

2012	10% reduction in CO2 below 2012 business as usual levels, getting us to 2005 levels
2020	20% reduction in CO2 below 2005 levels
2050	80% reduction in CO2 below 2005 levels



Building the Scenarios
What Would it Take?

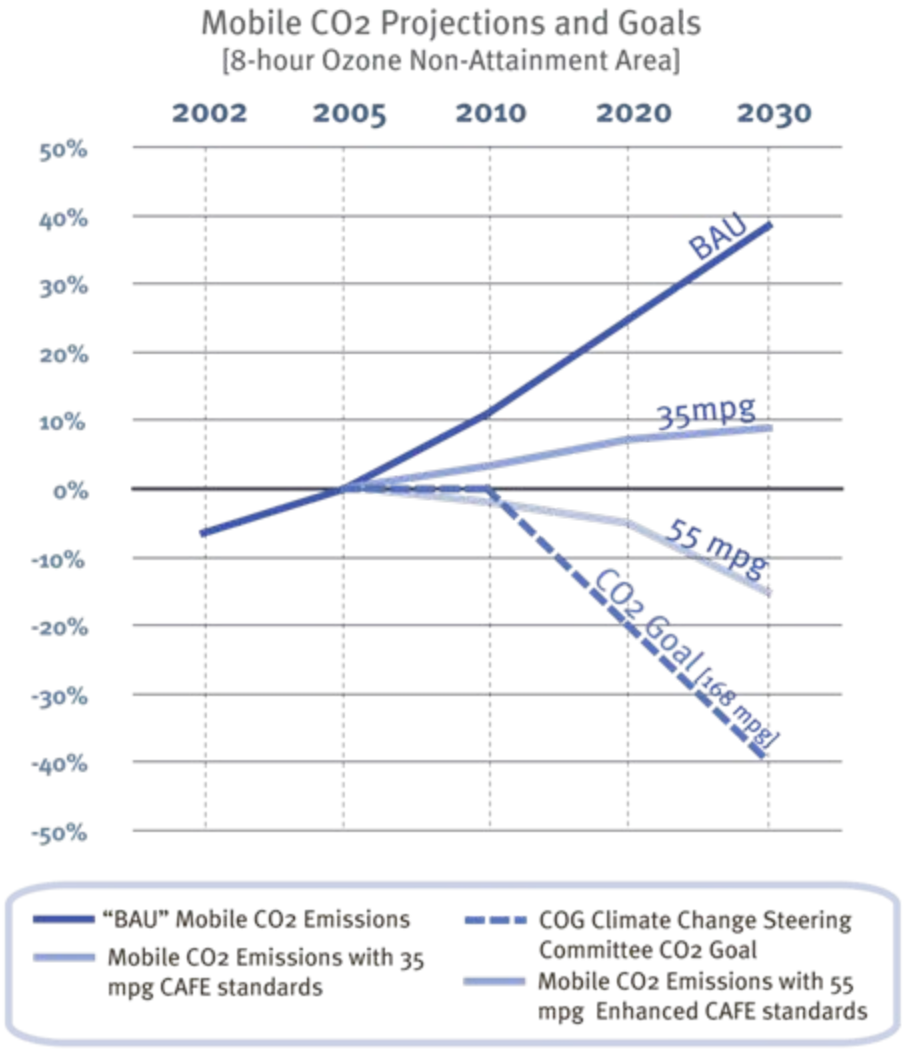
Three categories of strategies to reduce mobile CO2 emissions

Fuel Efficiency	Fuel Carbon Intensity	Reduce VMT
Beyond CAFE standards [currently 35 mpg by 2020]	Alternative fuels (biofuels, hydrogen, electricity) Vehicle technology (hybrid engine technology)	Changes in land use development Changes in travel behavior Changes in prices for travel

What Would it Take with Fuel Efficiency?

Fuel Efficiency

Beyond CAFE standards [currently 35 mpg by 2020]



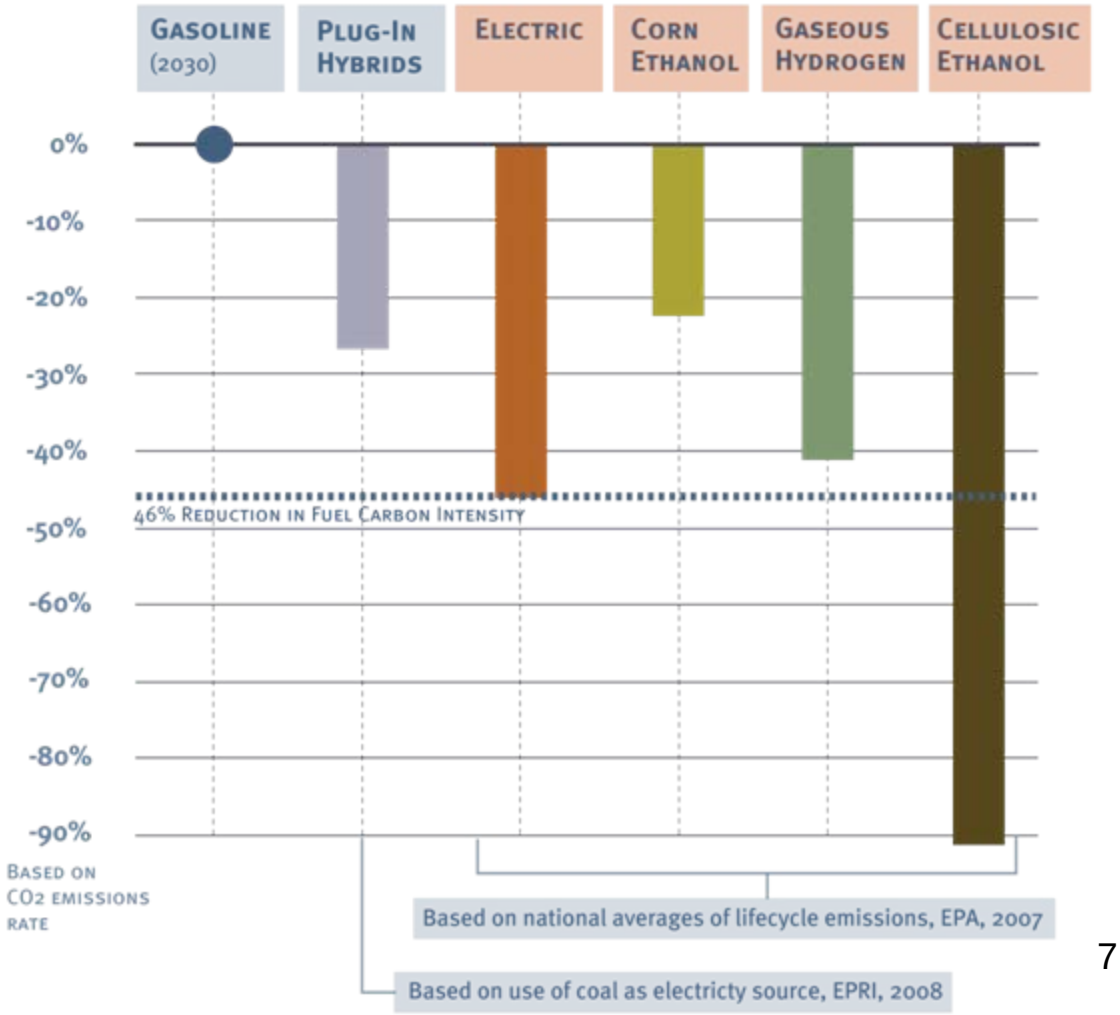
What Would it Take with Alternative Fuels?

Fuel Carbon Intensity

Alternative fuels (biofuels, hydrogen, electricity)

Vehicle technology (hybrid engine technology)

How would this look with lifecycle emissions for the region?



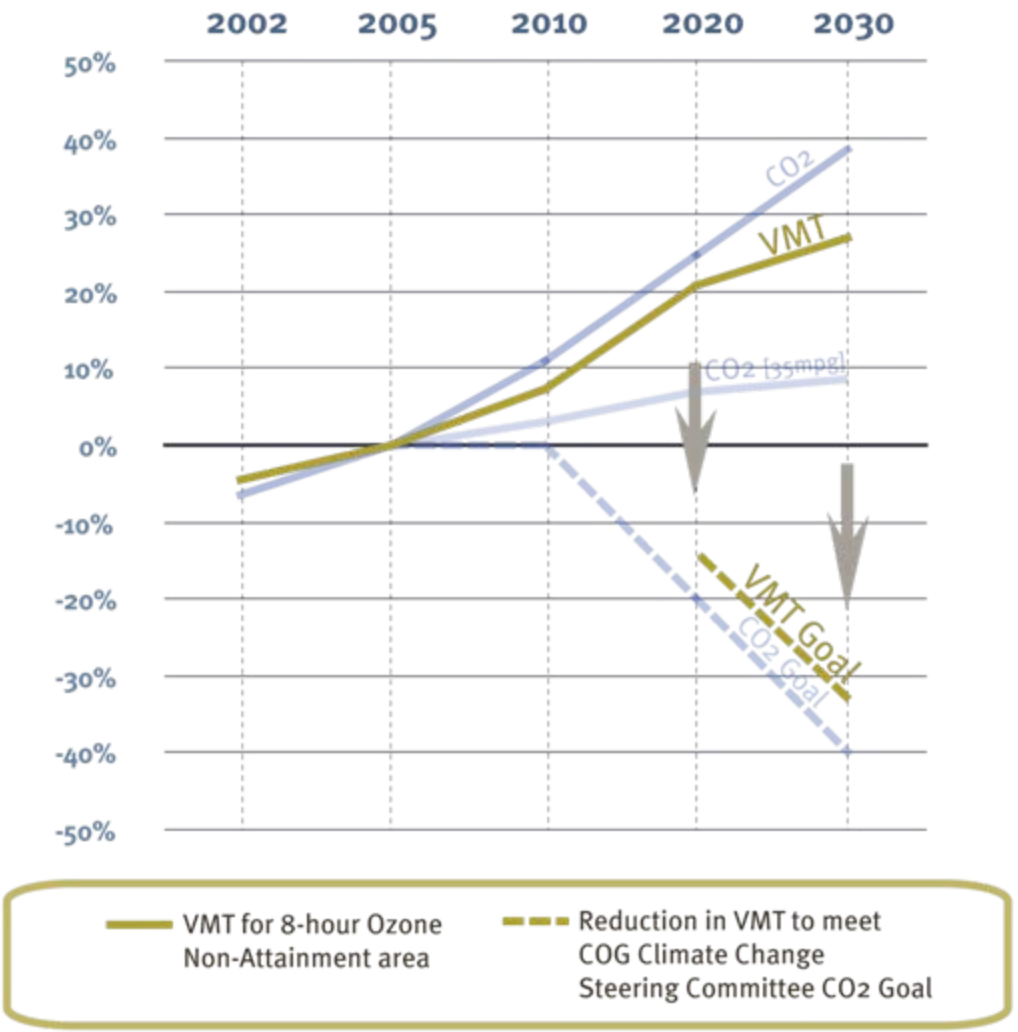
What Would it Take with VMT?

Reduce VMT

Changes in land use development

Changes in travel behavior

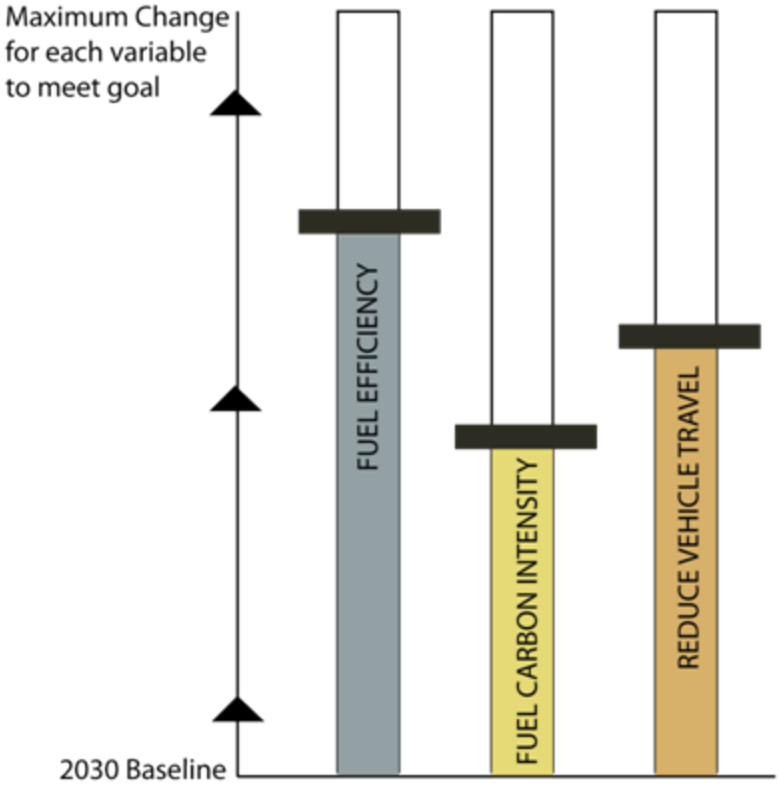
Changes in prices for travel

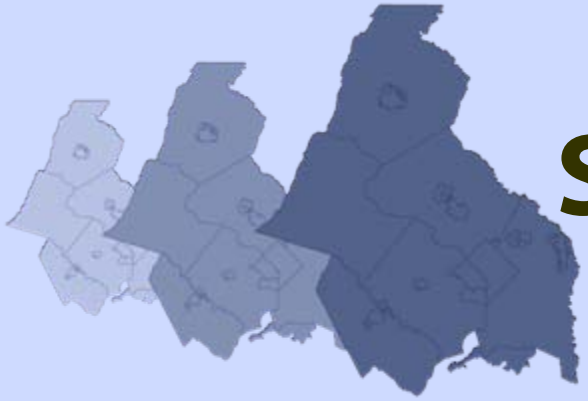


Scenario Outcomes

Different combinations of interventions can be assessed for cost-effectiveness and feasibility:

A series of **"sliders"**





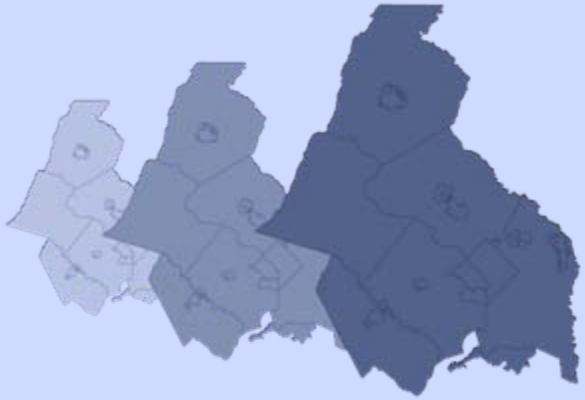
Starting Point

Baseline:

- Round 7.1 Cooperative Forecast
- 2007 CLRP

Two primary criteria:

- Land use shifts “within reach” for inclusion in the COG Cooperative Forecast
- Transportation projects “within reach” financially through tax revenues, developer contributions, or pricing.



Building the Scenario

Goal: To move jobs and housing closer together to create dense, accessible areas, and more efficient transportation systems

Land Use Component

- First cut using previous scenarios to determine what receiving zones can absorb
- Seek review and refinement by planning directors

→

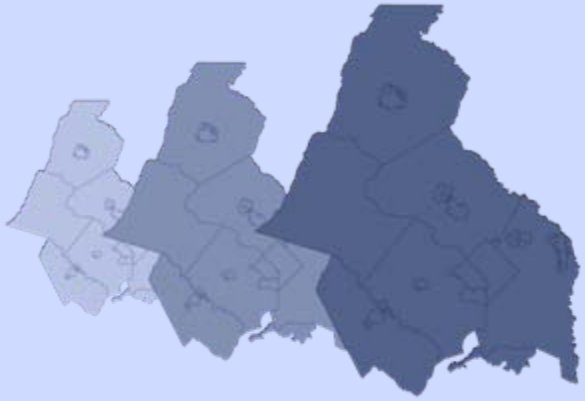
Supportive Transit

- Use menu of transit options from past scenarios
- Connect activity centers
- Work with TPB Bus Subcommittee

→

Pricing Options

- Address congestion through pricing of new and/or existing lanes
- Provide alternatives through enhanced transit



Land Use Component

(Version 1)

Step 1

Assess Previous Scenarios (Housholds In, Jobs Out, More Households, TOD, Region Undivided) for:

Growth shifts within TAZs

Goals and principles employed

ie: “Receiving” zones and “Donor” zones

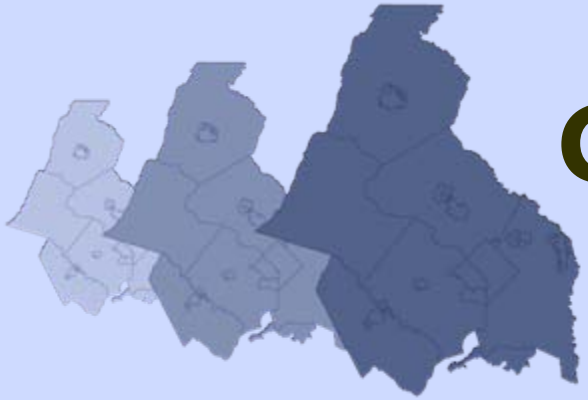
Step 2

Assess what shifts in growth from donor zones to receiving zones is “within reach”

Takes “maximum” shift across all past scenarios

Under review by Planning Directors

Starting point for revision and refinement



Goals of Transportation Component

Primary Goal: Support land use shifts through a variety of transportation options, including new transit and pricing.

Complement Land Use

- Develop a transportation scenario that complements the land use shifts proposed, emphasizing activity centers

→

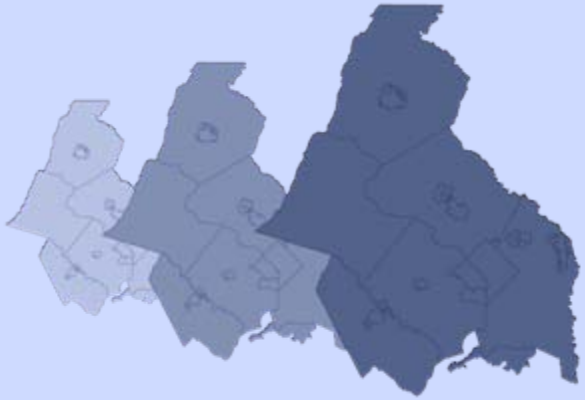
Explore Options

- Include heavy rail, light rail, transit-ways, bus-ways and variably priced highway lanes

→

Evaluate Pricing

- Evaluate the possibility of using variably priced lanes to provide funding and “dedicated” right-of-way for high-quality bus transit routes



Transportation Options

Process: Layering of transit and pricing options under consideration for the CLRP Aspirations Scenario

1: Illustrate interaction between existing Metrorail and Regional Activity Centers

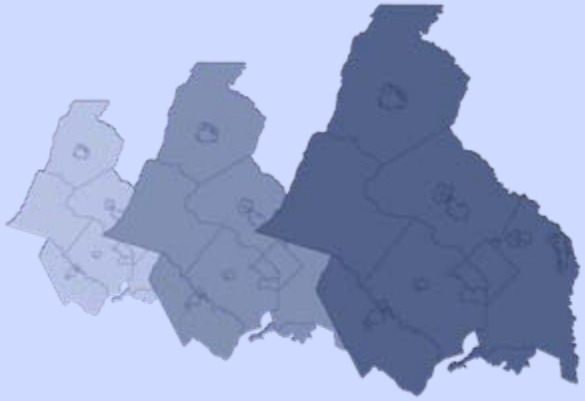
2: Map transit plans and prospects

- CLRP and RMAS projects
- Projects from other local or regional plans

3: Overlay the studied network of variably priced lanes (VPLs)

4: Evaluate rationale for including bus transit on the VPL network

5: Suggest potential bus stations at activity centers, existing park-and-ride lots and Metrorail stations



Next Steps

Review and refine initial transportation and land use components based on Planning Directors and Regional Bus Subcommittee feedback:

Do the current land use shifts and transportation projects represent what is "within reach" or should they be more or less aggressive?

Assess strategies within 3 major sliders and continue cost-effectiveness analysis

Present scenarios for detailed review by TPB Scenario Study Task Force at their July 16th meeting