



## Climate & Air Quality Committee

January 28, 2010

### Preliminary Analysis of MTP and SB 375 Planning Scenarios

**Issue:** In preparation for next update of the Metropolitan Transportation Plan, and as part of SB375 implementation, SACOG staff has been working to evaluate potential GHG reduction and transportation benefits of various policy packages including land use, transportation projects, system and demand management, and pricing. This information will form the basis for SACOG's proposed GHG reduction target to the California Air Resources Board this spring

**Recommendation:** None, this item is for information and discussion only.

**Discussion:** At the August 6, 2009, meeting of this committee, a schedule for preparation of the next update of the MTP and implementation of SB375 was presented for information and discussion. One of the early steps in this process related to proposing to CARB the GHG reduction target for the region. Since that time, SACOG has been working with the Southern California Association of Governments, the Metropolitan Transportation Commission, San Diego Association of Governments, Council of Fresno County Governments, Kern Council of Governments, San Joaquin Council of Governments, and other MPOs to determine the format and content of individual MPO target proposals to the CARB, which is an option for each MPO. The attached is a summary of information which SACOG has prepared as part of such a proposal. For other MPOs submitting target proposals, similar information is being prepared. Staff feels that this information will be useful locally in starting discussions related to the MTP update.

The specific information, in particular the transportation indicators, on the table should be considered preliminary, and subject to change due to some substantive and some technical factors. One variable factor is the new growth forecasts which will be prepared and adopted for the next MTP—some changes in the calculated benefits will result from any changes to the amount of growth. Additionally, the future year “passenger vehicle GHG” indicator does not yet account for implementation of the state's low carbon fuel and fleet efficiency initiatives—resolution of that issue from a technical perspective will affect the numbers.

Some highlights of the attached summary table:

- The current adopted MTP (Scenario 1) would result in per capita reduction in GHG of 4 percent by 2020 and 7 percent by 2035.
- Adding land use that is more consistent with current market trends and the Blueprint, more transit, and more transportation system management to the adopted MTP (Scenario 6) would expand the reduction in per capita GHG to 8 percent by 2020 and 12 percent by 2035.
- Adding system pricing to Scenario 6 would further expand the reduction in GHG to 10 percent by 2020 and 16 percent by 2035.
- For each scenario which goes beyond the MTP, improvement in other key transportation metrics would occur: decreasing VMT per capita; increasing transit and non-motorized trip production; and decreasing congested travel.

Approved by:

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MM:BG:le  
Attachment

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SACOG MPO PLANNING SCENARIOS: PRELIMINARY CALCULATION OF BENEFITS FOR CONCEPTUAL POLICY OPTIONS

Planning Scenario	Scenario Project/Policy Bundle				Transportation Indicators /1/					
	Land Use Measures	Transportation Projects (Transit, HOV, Complete Streets, etc.)	System + Demand Management /2/	Pricing Policies /2/	Passenger Vehicle GHG Per Capita (lbs per day) /3/	Passenger Vehicle VMT Per Capita (miles per day)	Transit Trips Per Capita (trips per day)	Bike/Walk Trips Per Capita (trips per day)	Congested VMT Per Capita (miles per day)	
0: Base Year (2005)					24.9	24.2	0.049	0.804	1.58	
					% Change from 2005					
1: Adopted MTP	2020	Mainly (but not entirely) consistent with Blueprint	Per Adopted MTP	Per Adopted MTP	None	-4.2%	-2.5%	+24.1%	+7.6%	+18.6%
	2035	Mainly (but not entirely) consistent with Blueprint	Per Adopted MTP	Per Adopted MTP	None	-7.9%	-5.3%	+96.5%	+11.6%	+27.7%
2: Land Use Only	2020	Blueprint + Transit Oriented Development Emphasis	Per Adopted MTP	Per Adopted MTP	None	-7.2%	-5.3%	+82.8%	+16.3%	+12.5%
	2035	Blueprint + Transit Oriented Development Emphasis	Per Adopted MTP	Per Adopted MTP	None	-10.2%	-7.6%	+149.3%	+21.5%	+23.7%
3: Transportation Only	2020	Mainly (but not entirely) consistent with Blueprint	More Transit than MTP in 2020	Per Adopted MTP	None					
	2035	Mainly (but not entirely) consistent with Blueprint	More Transit than MTP in 2035	Per Adopted MTP	None					
4: Management Only	2020	Mainly (but not entirely) consistent with Blueprint	Per Adopted MTP	Employer-based TDM & ITS expanded from MTP; support for car-sharing programs added	None	-4.7%	-2.9%	+24.9%	+8.3%	+17.9%
	2035	Mainly (but not entirely) consistent with Blueprint	Per Adopted MTP	Employer-based TDM & ITS expanded from MTP; support for car-sharing programs added	None	-8.4%	-5.7%	+97.8%	+12.3%	+26.9%
5: Pricing Only	2020	Mainly (but not entirely) consistent with Blueprint	Per Adopted MTP	Per Adopted MTP	HOT Lanes; VMT charge; parking pricing; transit fare subsidy	-5.6%	-3.8%	+27.6%	+8.3%	+17.8%
	2035	Mainly (but not entirely) consistent with Blueprint	Per Adopted MTP	Per Adopted MTP	HOT Lanes; VMT charge; parking pricing; transit fare subsidy	-11.6%	-8.7%	+110.8%	+13.6%	+25.4%
6: All Enhanced, No Pricing	2020	Blueprint + Transit Oriented Development Emphasis	More Transit than MTP in 2020	Employer-based TDM & ITS expanded from MTP; support for car-sharing programs added	None	-8.4%	-6.7%	+125.6%	+21.3%	+4.9%
	2035	Blueprint + Transit Oriented Development Emphasis	More Transit than MTP in 2035	Employer-based TDM & ITS expanded from MTP; support for car-sharing programs added	None	-12.4%	-9.9%	+158.4%	+25.9%	+21.7%
7: All Enhanced, w/ Pricing	2020	Blueprint + Transit Oriented Development Emphasis	More Transit than MTP in 2020	Employer-based TDM & ITS expanded from MTP; support for car-sharing programs added	HOT Lanes; VMT charge; parking pricing; transit fare subsidy	-10.2%	-8.4%	+132.4%	+23.4%	+3.0%
	2035	Blueprint + Transit Oriented Development Emphasis	More Transit than MTP in 2035	Employer-based TDM & ITS expanded from MTP; support for car-sharing programs added	HOT Lanes; VMT charge; parking pricing; transit fare subsidy	-16.2%	-13.5%	+177.8%	+30.9%	+16.9%

Source: SACOG, January 2010

/1/ The results presented here are preliminary, and based wherever possible on direct results of SACOG's travel demand forecasting model (SACSIM). In some cases, indicators were reckoned or manually calculated based on the results of scenarios actually run using the model.

/2/ Effects of "System & Demand Management" and "Pricing" policy bundles were not modeled. Effectiveness of these policies in reducing GHG were based on information provided in the "Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions" (Cambridge Systematics, 2009), as well as published materials from the Metropolitan Transportation Commission for that agency's last RTP, plus other sources.

/3/ Passenger vehicle GHG was estimated using EMFAC2007 and SACOG's vehicle activity forecasts, WITHOUT accounting in any way for the State's non-SB375 GHG policy initiatives (i.e. low carbon fuels initiative, and the Pavley vehicle fleet efficiency initiative. For this reason, the percentage reduction in passenger vehicle GHG as shown in this column should NOT be taken as an SB375 GHG reduction target.

LEGEND:

GHG = Greenhouse Gas  
 HOT = High Occupancy Toll  
 HOV = High Occupancy Vehicle  
 ITS = Intelligent Transportation Systems  
 MPO = Metropolitan Planning Organization  
 MTP = Metropolitan Transportation Plan  
 TDM = Transportation Demand Management  
 VMT = Vehicle Miles Traveled

This information is provided to initiate discussions with SACOG's MPO partners around the state regarding the opportunity to propose SB 375 targets to CARB. None of the information should be cited elsewhere.