



METROPOLITAN
TRANSPORTATION
COMMISSION

Joseph P. Bort MetroCenter
101 Eighth Street
Oakland, CA 94607-4700
Tel.: 510.464.7700
TTY/TDD: 510.464.7769
Fax: 510.464.7848
e mail: info@mtc.ca.gov
Web site: www.mtc.ca.gov

July 23, 2002

Sharan J. Brown, Chair
Cities of Contra Costa County

Steve Kinsey, Vice Chair
Marin County and Cities

Tom Amundson
City and County of San Francisco

Ralph J. Appenzato
Cities of Alameda County

Kath Axtell
U.S. Department of Housing
and Urban Development

James T. Beall Jr.
Santa Clara County

Mark DeSautier
Contra Costa County

Bill Dodd
Napa County and Cities

Dorene M. Giacopini
U.S. Department of Transportation

Scott Haggarty
Alameda County

Barbara Kaufman
San Francisco Bay Conservation
and Development Commission

Sue Lempert
Cities of San Mateo County

John McLomare
Cities of Santa Clara County

Michael D. Nevin
San Mateo County

Jon Rubin
San Francisco Mayor's Appointee

James P. Spering
Solano County and Cities

Pamela Torlutt
Association of Bay Area Governments

Sharon Wright
Sonoma County and Cities

Harry Yahata
State Business, Transportation
and Housing Agency

Steve Heminger
Executive Director

Ann Flauser
Deputy Director/Operations

Theresa W. McMillan
Deputy Director/Policy

The Honorable James M. Jeffords, Chairman
Committee on Environment and Public Works
United States Senate
Washington, DC 20510-6175

The Honorable Robert C. Smith
Committee on Environment and Public Works
United States Senate
Washington, DC 20510-6175

Dear Chairman Jeffords and Senator Smith,

I am responding to your July 3, 2002 request to provide information about the Metropolitan Transportation Commission's experience with Clean Air Act transportation conformity requirements. We have endeavored to answer your list of questions to the best of our ability in the attached responses.

Please do not hesitate to have your staff contact us if they seek additional information either before or after your July 30, 2002 hearing on Transportation and Air Quality.

Sincerely,

Steve Heminger
Executive Director

Attachments

CBV\COMMITTEE\Legislation\Letters\2002\TEA2\EPW.doc

Responses to Questions from the Senate Committee on Environment and Public Works on the Transportation Conformity Process

General Context

There have been both positive and negative consequences of the conformity regulations flowing from the 1990 Clean Air Act. On the positive side, there has been better integration of planning requirements under the Intermodal Surface Transportation Efficiency Act (ISTEA) and TEA 21 and the 1990 Clean Air Act Amendments (CAA). The conformity process and analysis has established a connection between these two pieces of federal legislation. In particular the Interagency Consultation process has provided a strong mechanism for building helpful working relationships between the U.S. Department of Transportation (DOT- Federal Highway Administration and Federal Transit Administration), the U.S. Environmental Protection Agency (EPA), metropolitan planning organizations (MPOs), as well as State and local transportation and air quality agencies. This collaborative process has generally been open to the public and environmental advocacy organizations.

On the negative side, the conformity process is a procedural morass, with multiple opportunities for legal challenge and delays in providing needed transportation improvements. The process is extremely resource intensive for MPOs and diverts these resources from the real air quality planning that is necessary to develop additional control strategies for future SIP updates. Challenges to TCMs, which deliver emission reductions in the order of tenths of a ton, can adversely affect approval of TIPs that involve billions of dollars of highway and transit improvements. Further it is difficult to ensure that planning assumptions in SIPs and Plans are compatible and kept current, leading to disconnects in the assumptions used to develop SIPs and in the conformity determinations for transportation Plans and TIPs that rely on these SIPs. As a result, transportation plans and programs are increasingly vulnerable to legal challenge.

Differences in Timing of Schedule

Schedule Compatibility. There is no federal requirement for compatible schedules between SIP updates and adoption of long-range regional transportation plans or TIPs. SIP updates are typically initiated by EPA actions, such as a SIP disapproval or SIP call. Transportation plans and TIPs are required by metropolitan planning regulations to be updated at least every three years. Because MPOs must use the latest planning assumptions in the conformity process, differences between SIP assumptions and conformity assumptions will have greater divergence over time. In general, changes in assumptions beyond the attainment year (2006 for the Bay Area) are not as important as changes that affect the attainment year, as even the slightest change in motor vehicle emission estimates for the attainment year could create problems conforming a Plan or TIP to the motor vehicle emission budget established in the SIP if the projections exceed the budget by as little as a tenth of a ton.

Impact of Schedules on Projects. MTC has been able to make timely conformity findings for Plans and TIPs and maintain an orderly project delivery process in the Bay Area up until 2001/2002. The 2001 Ozone Attainment Plan was intended to provide a more current motor vehicle emissions budget for transportation conformity, but delays arose in submitting the SIP and approving the budget leading to a short conformity lapse. The delays were caused by: 1) the California Air Resources Board which sent the draft 2001 Ozone Attainment Plan back to the local air agency for more public review, and 2) a delay by the EPA in finding the new motor vehicle emission budget to be adequate (EPA's action exceeded the 90 day review period that was agreed to in 1999 litigation over the grandfather clause). As a result, there was a conformity lapse in the Bay Area, which lasted about 8 weeks. The timeline of events leading up to the lapse is shown in Attachment A.

Prior to the conformity lapse, the Bay Area was under a conformity "freeze" due to EPA's disapproval of the 1999 Ozone Attainment Plan and the applicable conformity provisions therein. While Bay Area project sponsors could continue to work on projects in the adopted TIP, no projects could be added or modified. This freeze affected a small number of projects which were ready to be amended into the TIP.

Experience in Coordinating SIP and conformity process. Since the mid-90's, the Bay Area has been in a virtually continuous state of updating the Ozone Attainment Plan due to a series of EPA actions. These updates have generally provided timely information for the transportation planning decisions, and the coordination with the local and state air resource agencies has been excellent. As an example, the schedule for the most recent SIP update-the 2001 Ozone Attainment Plan-was accelerated to provide a conformity budget in time for MTC's adoption of the new 2001 Regional Transportation Plan in December 2001.

MOBILE6 Versus MOBILE5 Projections

EMFAC 2001. In California, the equivalent set of motor vehicle emission factors is called EMFAC. Metropolitan Planning Organizations in California will be required to use EMFAC 2001 for all conformity determinations after December 2002. While some MPOs may be able to demonstrate conformity with an older motor vehicle emission budget using EMFAC 2001, a number of others will not. Therefore, a number of metropolitan areas will require SIP revisions in order to incorporate new mobile source emissions calculations and the associated motor vehicle emission budgets for conformity determinations. Since the Bay Area is already required to update its currently submitted SIP by April 2004, the new conformity budgets will be available prior to MTC's next Plan update in 2004.

Mobile 6 versus Mobile 5. It is our understanding that MOBILE6 emission projections will be lower than MOBILE 5 for future years.

8-Hour Ozone Standard. We are currently unable to determine if the new 8 hour NAAQS will likely lead to an increase or decrease in the vehicle emissions budget for the Bay Area.

Additional Motor Vehicle Emission Controls

Additional Existing Controls. Existing measures that directly address tailpipe emissions and excess vapors from gasoline station nozzles will have a far greater impact on reducing ozone than any new TCMs that MTC may be able to identify and implement under its existing legal authority. Enhancements to the existing motor vehicle inspection program in the Bay Area could reduce smog-forming emissions by over 10 tons a day (although these improvements would, due to the region's air chemistry, provide larger benefits to downwind areas in the Central Valley than the Bay Area). Replacement of selected gasoline station fuel dispensing nozzles could reduce smog-forming chemicals by over 6 tons per day.

Additional TCMs. MTC has repeatedly undertaken efforts to identify new TCMs that could provide significant emission reductions but has been unsuccessful. More stringent TCM type measures would require authority which MTC does not presently have (e.g., raising bridge tolls significantly, charging for parking at work sites, or taxing gasoline at very high levels). In addition to the emission reduction considerations, it has been our experience that TCMs that are not directly implemented by MPOs and depend on actions by other agencies will create future legal problems and can affect an MPOs ability to make conformity findings on Plans and TIPs.

MTC has experienced continued legal challenges with TCMs generally and with disputes over one TCM in particular. Many TCMs were drafted over 20 years ago, but are still enforceable today although conditions have changed considerably. The arguments over the particular disputed TCM are unrelated to the air quality reductions that the TCM was intended to achieve and have led to expensive and protracted legal proceedings. In addition, there is a constant risk that legal disputes with this TCM, which provides only minor emission reductions, may eventually affect the conformity process, stalling the region's much needed transit and highway investment program. The dispute over this TCM further highlights the issue of the difficult process that is necessary to go through to even attempt to amend an existing TCM or substitute a new TCM into the SIP.

Episodic Controls. In addition to various existing controls, the Bay Area is increasingly interested in a set of control measures that are episodic, that is, are in effect only when needed to address an ozone episode. Episodic controls may involve more stringent regulatory controls coupled with significant incentives to change behavior, but for very short periods of time. These short-term measures may be more acceptable to the regulated community and the public if they are applied during the few very hot days when obvious ozone problems exist.

Sufficient Controls to Offset New EMFAC 2001 Emissions. The MTC region is the only area in California that has a submitted SIP based on the latest version of EMFAC

(EMFAC 2000). Since EMFAC 2001 may be similar to EMFAC 2000, the changeover to the newest set of emission factors may not have a significant impact on the need for additional motor vehicle emission controls beyond those in the submitted SIP. However, the answer to this question will not be fully known until further work is completed on the next SIP update in 2004.

Role of Transportation Control Measures

Impact of TCMs on Attainment. In general, traditional categories of TCMs play a relatively minor role in reducing total regional emissions. This is because they affect a small portion of daily travel and largely rely on indirect inducements for changing travel behavior, such as providing more convenient transit or carpooling options. This is not a new conclusion and is well documented in a number of past studies of TCM effectiveness, including studies jointly prepared by US DOT and EPA. TCMs that directly affect the operations of motor vehicles, such as signal timing coordination and freeway incident management, can have more significant air quality benefits, but are often viewed by environmental advocates as encouraging auto travel. The TCMs that have been adopted by MTC fall into three categories: 1) those in the 1982 Plan (one of which is under litigation), 2) a Contingency set of TCMs adopted in response to a SIP lawsuit in the early 90's, and 3) new TCMs adopted for the recently submitted 2001 Ozone Plan. The attached table (Attachment B) lists all these TCMs and the percentage reduction from the on road mobile source inventory associated with each. (Also note that many of the older TCMs have no direct impact on the "Baseline" emission reductions in the SIP but still have legal implications simply because they were once included in the SIP and remain in the SIP).

Emission Reductions from TCMs. While the current level of emission reductions is small, there are other issues with adopting new TCMs. First as the vehicle fleet becomes cleaner over time, the impact of TCMs becomes smaller and smaller. Secondly, TCMs often reduce the two smog precursors (Volatile Organic Compounds and Nitrogen Oxides) in nearly equal amounts. Because of the Bay Area's air chemistry, these equal reductions have limited impact on ozone reduction compared to strategies which focus on VOC reductions. Finally, the newer TCMs are progressively less cost effective. As an example one of MTC's newest TCMs, an expanded regional express bus program, will cost \$40 million dollars and produce emission reductions of less than half a ton per day.

CMAQ Projects and Emission Reductions. Most of the CMAQ projects and programs in MTC's long range Plan, while having some air quality benefits, are also important for mobility reasons and would be implemented with or without conformity requirements. This is also true in a larger sense, in that the current Regional Transportation Plan invests 77% of the region's transportation funding over the next 25 years in maintenance, operation, and expansion of the Bay Area's extensive public transit system. This investment in maintaining and improving the region's transit system is seen as an essential strategy to protect and improve mobility and quality of life in the Bay Area independent of any impetus from the Clean Air Act. Specifically in reference to CMAQ

funding, there are a number of projects funded by CMAQ, which are part of the regional toolkit to enhance mobility, but do not have specific emission credits in the SIP.

- Regional ridesharing program (starting in 2003)
- Translink universal transit fare card
- Traveler information systems (both highway and transit)
- Transit trip planning systems
- The Air District's Spare the Air program
- Freeway Service Patrol (start up service)
- Transportation for Livable Communities
- Certain transit improvements (e.g., transit signal priority systems and ITS strategies)
- Traffic Engineers Technical Assistance Program (signal timing coordination plans)
- Smart Arterial Projects (ITS applications at the arterial level)

Impacts of a Conformity Lapse

Effect of Recent Conformity Lapse on Bay Area projects. When it became apparent in 2001 that a conformity lapse was imminent (despite the best efforts of MTC and the local air agency to avoid a lapse), MTC developed a comprehensive list of transportation projects that would be "at risk" during the projected period of the lapse—essentially projects that were in the TIP and would need a federal approval between January and April of 2002. This list (Attachment C) was widely distributed to the Bay Area transportation project sponsors, the state DOT, FHWA, and Bay Area Congressional delegation. Because of the early identification of these at risk projects, many projects were able to obtain needed federal approvals prior to the lapse taking effect. The number of projects adversely affected during the 8 week lapse was about 5. The lapse was officially lifted after EPA found the motor vehicle emission budget in the 2001 Ozone Attainment Plan adequate for conformity purposes and FHWA/FTA approved MTC's conformity finding on March 18, 2002. Had MTC not focused political attention on the impact of a lapse on delivery of Bay Area projects, the lapse could have been longer and adversely affected a larger number of projects.

A second set of projects that was also affected included projects that were adopted as part of the 2001 RTP but were not yet in the TIP. These projects included local and state funded projects that were ready to go, but were prevented from being added to the TIP due to the combination Freeze/Lapse. This list of projects and the associated dollar amount is also shown in Attachment C (pages 2 and 3).

A conformity lapse or freeze has two deleterious impacts of project delivery. First delays can increase project costs due to normal cost escalation factors. Costs can also increase due to contractors needing to reschedule planned work. Second, the delays have indirect impacts on the regional economy when the construction dollars and other indirect spin off benefits of construction work are not realized in the planned timeframe.

Elimination of the "grandfather" provision. This action had no effect on MTC's long range Plan or specific projects as MTC was able to make conformity findings for amendments to the TIP up until the Freeze/Lapse starting in October of 2001.

Role of Motor Vehicle Emission Estimates and Models

Quality of estimates of motor vehicle emissions. The conformity analysis has focused attention on how well regional travel demand models forecast current and future vehicle activity which then can be translated into estimates of on road motor vehicle emissions. While the interagency consultation process has, over time, resulted in various improvements to MTC's travel forecasting model that are believed to improve its general predictive powers, it is not clear how these changes alone have improved the more global air quality planning process. This is because the larger air quality process depends on numerous additional inputs such as inventory estimates for stationary and biogenic sources and the calibration of complex photochemical models to estimate ozone concentrations. Calibrating photochemical models to accurately replicate ozone episodes and estimate emission reductions needed for attainment is perhaps the most challenging of tasks. Thus there is a continuing concern among the transportation planning community that the travel models are inappropriately being taxed to levels of accuracy (e.g. the pass/fail conformity budget test, where even a tenth of a ton of auto emissions over the budget can throw a Plan or TIP out of conformity) that are higher than required for other models used in the air quality planning process and well within the accepted margin of error for these types of analytical tools.

Consistency of Motor Vehicle Emission Estimates over Time. Differences in regional motor vehicle emission estimates for similar years (current or future) are largely a function of new/revised motor vehicle emission factors (MOBILE/EMFAC) as opposed to changes produced in the regional vehicle activity forecasts that are derived from regional travel models. The extent to which motor vehicle emission rates can change from model version to model version is illustrated in Attachment D which compares two recent California EMFAC series and shows changes of 30% to 200%, depending on the year (data are from the California Air Resources Board). In comparison, changes in vehicle activity forecasts for a similar future year would typically vary by 5% or less (these changes would be due to model refinements, new travel behavior data from surveys or the Census, new demographic projections, updated assumptions for bridge tolls, transit fares, parking charges, etc). Thus significant variations in mobile source emissions from forecast to later forecast are the norm rather than the exception given the often dramatic advances in the understanding of on road emission characteristics. Other than professional consensus on the best modeling protocol there is little that can be done to confirm that total vehicle emissions that are occurring in the real environment. This is because air quality monitors cannot separate motor vehicle emissions from other stationary and biogenic (plant) emissions that the monitor is recording.

Changes in Official Estimates of Emissions. Two recent SIP submittals highlight the change that can occur between regional emission estimates. The ozone attainment plan prepared in 1999 estimated on road motor vehicle emissions for volatile organic

compounds to be 175 tons per day in the year 2001, while the 2001 ozone attainment plan, prepared a short time later with more recent vehicle emission factors, estimated on road motor vehicle emissions to be 238 tons per day in 2000, a 36% increase. Although estimates of regional VMT and the amount of VMT in different speed ranges were adjusted between plan updates, the bulk of the increase is due to the new emission factors developed by the state air resource agency (EMFAC 2000). In general there are extensive difficulties in separating out the effects of multiple factors that lead to different motor vehicle emission estimates for the same year, but they would tend to be more related to the on road emission factors used at the time of the estimate. Going back 10 or 20 years and comparing emissions today is very problematic for this reason. For example an estimate of emissions made in the early 80's for the year 1987 is identical to what the current ozone plan is projecting for 2006. In reality the earlier emission estimates probably underestimated significantly the actual emission levels of motor vehicles in that era.

Role of Transportation Models

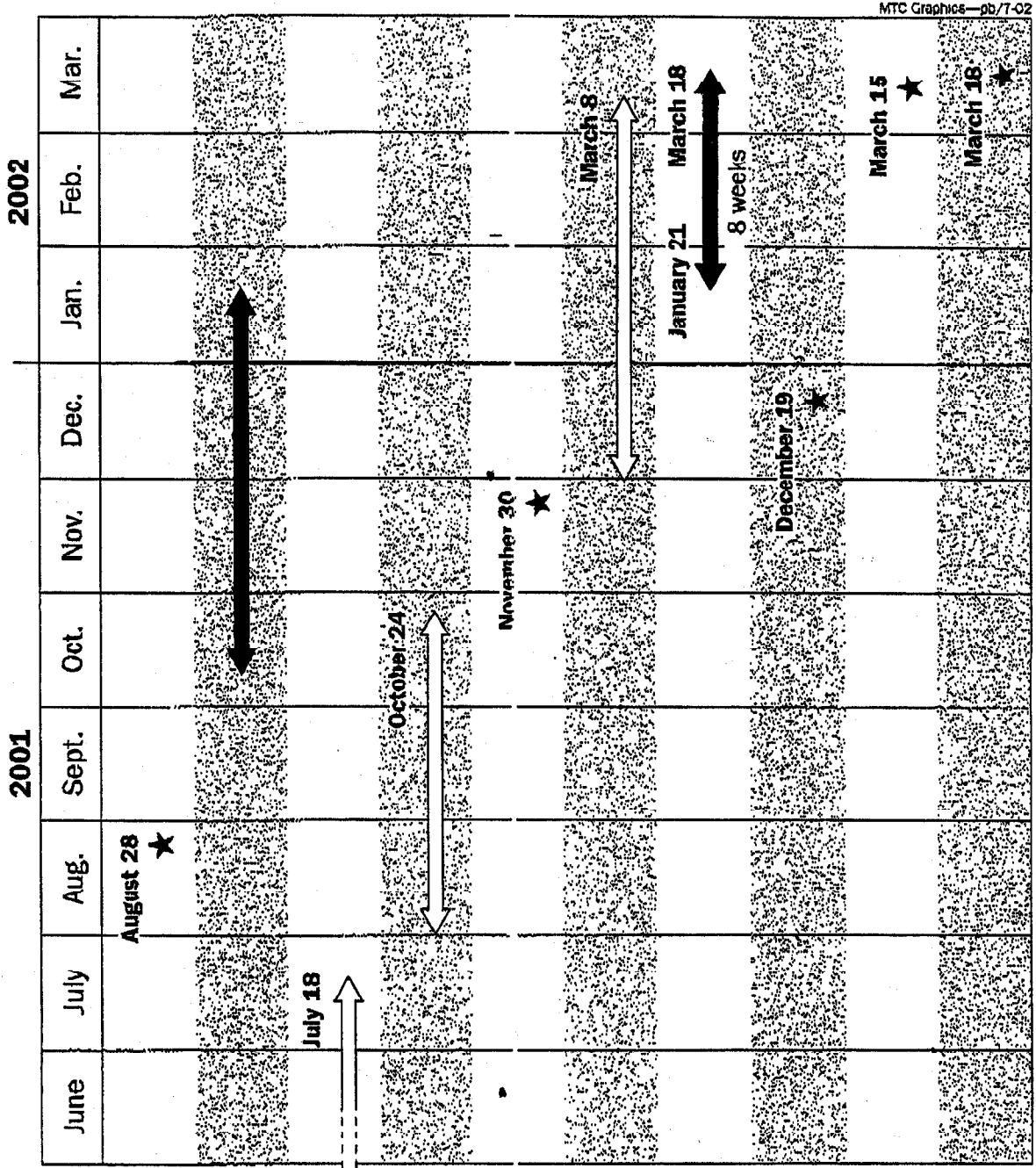
Adequacy of Transportation Models. MTC maintains a highly advanced travel demand forecasting model system that is supported by a major survey of regional travel behavior every 10 years. The model is extremely capable of assessing how changes in highway and transit capacity affect travel behavior and the resulting amount of daily vehicle activity at a regional scale (this model is routinely validated against traffic counts -where such information exists-and transit ridership counts). However, the travel demand models are only one part in a chain of models and estimates necessary to accurately assess motor vehicle emissions. The adequacy of downstream adjustments to the model outputs is just as important as the capability of the model itself. Differences in how the model output is treated can have large impacts on the end calculations of total emissions. As an example, whether motor vehicle emission calculations should be trip-based, meaning that they use average vehicle emission rates for a complete door-to-door driving cycle, or facility-based, meaning that the emission rates should relate to traffic characteristics on specific types of facilities (such as freeways, major arterials, and other local roads) will greatly influence the final regional emission calculation. Similarly, procedures for dividing model estimated travel into speed ranges and distributing vehicle trips by time of day are critical to the overall attainment assessment. Therefore the question concerning the adequacy of existing planning tools, cannot be isolated to the travel models alone, but must be extended to the post processing assumptions of model outputs, to vehicle emission factor models, and to the complex photochemical models which predict emission concentrations in the atmosphere.

VMT Growth. Despite what may seem to be an easy question to answer, there is no universally accepted way to measure or track "actual" vehicle miles of travel (VMT), particularly in a large region such as the Bay Area with 1,500 miles of state highways and 19,000 miles of local roads. Estimates of present year VMT depend on which method is used to measure it, and each approach has inherent limitations, whether it is: federal Highway Performance Monitoring System (HPMS)-based VMT, odometer-based VMT, or travel model-based VMT. Estimated VMT from these various approaches can differ by much as 15 to 20%. A protocol for estimating base year VMT is still under discussion.

The story is somewhat better in terms of being able to forecast future growth rates in VMT, at least for the VMT on freeways (. This is because travel model projections can be more directly compared to freeway traffic counts and the growth that they are registering at different freeway locations. In terms of comparing projected VMT from travel models with actual growth rates for VMT, there is a much greater ability to make reasonable comparisons, at least for freeway VMT (a number of Bay Area freeways have permanent traffic counting devices, whereas time series count data are more limited for local arterials). In general we have found that regional travel models do fairly well in estimating future VMT growth, which is highly correlated to the underlying growth rates for population and jobs. Thus, looking at past model projections, say for the last 5 or 10 year period, the model's projected growth rates will generally come close to actual growth rates, except to the extent that unanticipated economic events or fluctuations in gas prices fundamentally change the inputs to the travel model (e.g., population, jobs, auto operating costs, etc).

Induced traffic. Traditional MPO travel models address "induced" traffic to the extent that the traffic on any new road facility represents traffic shifted from another route, travel mode, or time of day. The question as to whether new transit or highway facilities actually stimulate a net increase in discretionary trips is a much harder one to answer. While some evidence suggests that these types of trips do exist, their impact over the long term is likely to be inconsequential. For example, in Bay Area demographic projections show that population will grow 14 % over the next 25 years, and jobs will grow 30%. This contrasts to a 5% increase in road miles, which is all the capacity that is funded given the financial constraints and policy choices in the current long range Regional Transportation Plan for the same period. It is therefore likely that as the overall road system becomes increasingly congested due to regional growth, the net effect would be to discourage trips rather than create new trips. In the near term, this same balancing effect would also be expected to occur, which is that any new discretionary trips attracted to a road facility would exist up until the point that the facility becomes heavily used and traffic levels would discourage such trips.

Timeline of Recent RTP and SIP Actions



Attachment B

Transportation Control Measures

- 1982 Plan -

Name	Tons/Day Reduction and (%)*	Can be Modeled?	Emissions in Baseline?
TCM 1: Reaffirm commitment to 28% transit ridership increase between 1978 and 1983	N/A	Yes	Yes
TCM 2: Support post-1983 improvements identified in transit operator's five year plans and, after consultation with the operators, adopt ridership increase targets for the period 1983 through 1987	.72 (.43%)	Yes	Yes
TCM 3: Seek to expand and improve public transit beyond committed levels	.37 (.22)	Yes	Yes
TCM 4: Continue to support development of HOV lanes	N/A	Yes	Yes
TCM 5: Support RIDES' efforts	N/A	No	No
TCM 6: Continue efforts to obtain funding to support long-range transit improvements	N/A	No	No

*Percent relates to on-road mobile source emissions

Attachment B

Transportation Control Measures

- 1982 Plan -

Name	Ton/Day Reduction and (%)*	Can be Modeled?	Emissions in Baseline?
TCM 7: Preferential Parking	N/A	No	No
TCM 8: Shared Use Park and Ride Lots	.04 (.05%)	No	No
TCM 9: Expand Commute Alternatives	.87 (.52)	No	No
TCM 10: Information Program for Local Government	.55 (.41)	No	No
TCM 11: Gasoline Conservation Awareness Program (GasCAP)	N/A	No	No
TCM 12: Santa Clara Commuter Transportation Program	N/A	No	Partial
Subtotal	2.55 (1.63%)		

*Percent relates to on-road mobile source emissions

Transportation Control Measures

- 1990 Contingency TCMs -

Name	Ton/Day Reduction and (%)*	Can be Modeled?	Emissions in Baseline?
TCM 13: Increase Bridge Tolls to \$1.00 on all Bridges	.19 (.15%)	Yes	Yes
TCM 14: Bay Bridge surcharge of \$1.00	.15 (.12)	Yes	Yes
TCM 15: Increase State Gas Tax by 9¢	.57 (.44)	Yes	Yes
TCM 16: Implement MTC Resolution 1876, Revised - New Rail Starts Agreement	.08 (.06)	Yes	Yes
TCM 17: Continue October 1989 Post-Earthquake Transit Services	.27 (.21)	Yes	Yes
TCM 18: Sacramento-Bay Area Amtrak Service	.07 (.05)	Yes	Yes
TCM 19: Upgrade Caltrain Peninsula Service	.11 (.08)	Yes	Yes
TCM 20: Regional HOV System Plan	.25 (.19)	Yes	Yes
TCM 21: Regional Transit Coordination	.05 (.04)	No	No
TCM 22: Expand Regional Transit Connection (RTC) Services	(.05)	No	No

*Percent relates to on-road mobile source emissions

Transportation Control Measures

- 1990 Contingency TCMs -

Name	Tons/Day Reduction and (%)*	Can be Modeled?	Emissions in Baseline?
TCM 23: Employer Audits	.16 (.13%)	No	No
TCM 24: Expand Signal Timing Program to New Cities	1.42 (1.1)	Yes	Yes
TCM 25: Maintain Existing Signal Timing Programs on Local Streets	Included in above %	Yes	Yes
TCM 26: Incident Management on Bay Area Freeways	.36 (.28)	No	No
TCM 27: Update MTC Guidance on Development of Local Transportation Systems Management (TSM) Programs	.09 (.09)	No	No
TCM 28: Local TSM Initiatives	Included in above %	No	No
Subtotal	3.8 (2.96%)		

*Percent relates to on-road mobile source emissions

Transportation Control Measures

- 2001 Ozone Plan TCMs -

Name	Ton/Day Reduction and (%)*	Can be Modeled?	Emissions in Baseline?
TCM A: Regional Express Bus Program	See Total	Yes	No
TCM B: Bicycle / Pedestrian Program	See Total	No	No
TCM C: Transportation for Livable Communities (TLC)/Housing Incentive Program	See Total	No	No
TCM D: Additional Freeway Service Patrol	See Total	No	No
TCM E: Transit Access to Airports	See Total	Yes	No
Subtotal	.5 (.3%)		

*Percent relates to on-road mobile source emissions

METROPOLITAN TRANSPORTATION COMMISSION
 PROJECTS THAT WOULD BE DELAYED BY A CONFORMITY LAPSE
 BETWEEN JANUARY AND APRIL 2002

TIP ID	COUNTY	PROJECT NAME	PROJECT DESCRIPTION	Projects with Environmental Delays	Projects with Design or Right of Way Delays	Projects with Construction Delays
1	ALAMEDA	ACE Track Improvements	Between Ala. & Santa Clara County: Track improvements: including siding upgrades and double tracking at various locations, replacement of rail and track bed stabilization.			X
2	ALAMEDA	Rt 84 - 4 Lane Express Way on new alignment	Rt. 84 - 4 Lane Expressway in Fremont/Union City/Hayward - Route 880 to Route 218	X		
3	ALAMEDA	6 lane freeway add 2 HOV lanes	Fremont, Newark, and Union City: On Highway 880 from Santa Clara county line to Alvarado-Niles Road; add 2 HOV lanes and reconstruction		X	
4	ALAMEDA	I-880/980 Bypass/Ramp	Broadway/Jackson and 5th Avenue to Adeline Street, and High Street ramp improvements, auxiliary and right turn lanes - environmental and preliminary engineering only until RTP update.	X		
5	ALAMEDA	Eastbound HOV Lane Extension	Oakland and Emeryville - San Francisco/Oakland Bay Bridge Toll plaza to Powell Street - widen from 5 to 6 lanes to extend eastbound high occupancy vehicle lane			X
6	ALAMEDA	Greenville Rd. Widening, UPRR Bridge Replacement	Widen Greenville Road from 2 lanes to 4 lanes from .6 mile north of UPRR tracks to 250 miles south and UPRR Bridge Replacement		X	X
7	ALAMEDA	Upgrade Industrial parkway SW	Upgrade Industrial parkway SW	X	X	
8	ALAMEDA	Dumbarton Express Park and Ride Lot	Acquire right-of-way and construct approximately 90 parking spaces on Decoto Road near I-880.			X
9	ALAMEDA	Osgood Road Widening	This amendment will add a project to widen Osgood Road. This project received TEA 21 demonstration funds, but was not included	X		
10	ALAMEDA	Third Street Extension	Third Street Extension			X
11	CONTRA COSTA	Ygnacio Valley Road Widening	Ygnacio Valley Road widening between Klungen Blvd. and Lowell Road (Environmental and PSE only until RTP air quality update).	X		
12	CONTRA COSTA	I-80 HOV westbound from Quincez Bridge to SR4	Link westbound HOV lane west of Rt. 4 with the westbound HOV lane that will be included on the new westbound Carquinez Bridge.	X		
13	CONTRA COSTA	Wilbur Avenue Bridge widening	Widen and add two lanes to Wilbur Avenue Bridge (P.W. 259-B)		X	
14	CONTRA COSTA	HOV - Marina Vista to North Main	Walnut Creek to Martinez: On Highway 680 from Marina Vista to North Main St; Construct HOV lanes.			X
15	CONTRA COSTA	I-680 Auxiliary Lanes	I-680 Auxiliary lanes from Diablo Road Bollinger road to Canyon Rd, NB and SB directions.	X	X	
16	CONTRA COSTA	Pittsburg / Bay Point Parking Expansion	Project will make various access improvements to station including adding 200-300 additional parking places and other access im	X		
17	CONTRA COSTA	San Pablo Corridor Transit System	San Pablo Corridor Transit System Improvements - Project includes Street Improvements, Bus Shelters, and Vehicle Purchase			X
18	MARIN	101 HOV Gap Closure Reversible Operation.	In San Rafael: From Lucky Drive to North San Pedro Road; Install/constr reversible devices and lanes for reversible HOV lanes operations and gap closure.	X	X	
19	MARIN	Manzanita Park & Ride Lot	Hwy 101/Manzanita Interchange: Park & Ride lot to meet the need for the park & ride shuttle transfer point to access Marinwoods; Purchase land & construct Park & Ride facilities.			X
20	NAPA	SR 29 Rio Del Mar Intermodal Station	In Napa County: adds an intermodal station at the southwest corner of SR29 and Rio del Mar in the City of American Canyon.	X		
21	NAPA	Yountville Intermodal Station	In Napa County: adds an intermodal station in the Town of Yountville on Washington Street just south of California Drive.	X		
22	SANTA CLARA	Central Expressway HOV lanes	Mountain View to Santa Clara: Santa Clara Expressway, from Shoreline Blvd to Scott Blvd; Environmental update and final design of HOV lanes		X	

**METROPOLITAN TRANSPORTATION COMMISSION
PROJECTS THAT WOULD BE DELAYED BY A CONFORMITY LAPSE
BETWEEN JANUARY AND APRIL 2002**

Project ID	County	Project Description	San Clara	San Mateo	Santa Clara	Santa Cruz	San Jose	San Luis Obispo	Stanislaus	Alameda	Alameda	Alameda	Alameda	San Francisco	San Francisco	San Francisco	San Mateo	Number of projects	Total Estimated Dollar Amounts (millions)	Grand Total
23	SCL	Route 87 Guadalupe Freeway Corridor																		
24	SM	Route 101/Ralston Ave. IC Improvements																		
25	SM	101 Aux Lanes - 3rd Ave to Millbrae Ave.																		
26	SM	Routes 35 to 280 slow vehicle lane																		
27	SM	Bayshore Blvd/Valley Dr. Interconnection. Mod.																		
28	SM	Rt 280/340 IC Local Access Improvements																		
29	SM	Marsh Rd. to Ralston - Auxiliary Lane																		
30	SOL	Marine Island Parkway widening																		
31	SOL	I-80 Reliever Route																		
32	SOL	Leisure Town road park & Ride Lot																		
33	SOL	Walters Road Project																		
34	SOL	Baylink Ferry Maintenance Facility																		
35	SOL	Bella Vista Park and Ride Lot																		
36	SOL	Electric Vehicle Program Expansion																		
37	SUN	Konzen Park expressway interchange ramp																		
38	SON	Roberti Park - Park & Ride Lot & On Ramp																		
39	SON	Roberti Park Expressway Pan N Ride Lot																		

Grand Total
50

Total Estimated Dollar Amounts (millions)
\$25,222 \$43,635 \$337,077 \$405,931

Project ID	County	Project Description	San Clara	San Mateo	Santa Clara	Santa Cruz	San Jose	San Luis Obispo	Stanislaus	Alameda	Alameda	Alameda	Alameda	San Francisco	San Francisco	San Francisco	San Mateo	Number of projects	Total Estimated Dollar Amounts (millions)	Grand Total
40	TBD	I-580/San Ramon Rd (Foothill Interchange Imp)																		
41	TBD	I-580/Fallon Rd - El Charro Rd Interchange Imp																		
42	ALA	N Livermore Avenue/580 interchange																		
43	SF	Muni 3rd Street Light Rail Transit Phase 2 New Central Subway																		
44	SF	Transbay Terminal Replacement Project																		
45	SM	Route 101 @ University Ave. Overcrossing and interchange Project Phase 1 & 2																		

PROJECTS READY TO GO THAT ARE PENDING NEW AIR QUALITY CONFORMITY ANALYSIS BEFORE BEING ADDED TO THE TIP, AND PROJECTS PENDING NEW AIR QUALITY CONFORMITY ANALYSIS BEFORE NON-EXEMPT PHASES CAN BE ADDED TO THE TIP.

Grand Total
15

Total Estimated Dollar Amounts (millions)
\$25,222 \$43,635 \$337,077 \$405,931

**METROPOLITAN TRANSPORTATION COMMISSION
PROJECTS THAT WOULD BE DELAYED BY A CONFORMITY LAJSE
BETWEEN JANUARY AND APRIL 2002**

46	SM-010031	SAN MATEO	101 Aux Lanes - 3rd Ave to Millbrae Ave	Highway US101 Auxiliary Lanes Between Third Avenue and Millbrae Ave. Add Construction Phase After RTP adopted.				X
47	SCL991073	SANTA CLARA	Route 85/US 101 Interchange Connector Ramps	Routes 85 and 101 interchange and connector ramps in South San Jose				X
48	SCL990027	SANTA CLARA	US 101 Widening	Widen Hwy 101 From 6 lanes to 8 lanes from Benard Ave. to Metcalf Rd including Hwy 85/101 interchange modification				X
49	SCL010031	SANTA CLARA	SR-17 Improvements and expansion.	SR-17 Various Improvements: Between Hwy 9 to Los Gatos and I-205 in San Jose; including the following elements braided ramps, reconfiguration of ramps, one auxiliary lane, 2 new lanes and various other improvements.	X		X	X
50	SCL010018	SANTA CLARA	Rd 85/US 101 NB Interchange Modification: Phase I	Mountain view: On US 101 @ Rte 85; Operational reconfiguration & re-orientation of ramps at Moffett Blvd, N. Shoreline Blvd & Old Middlefield Wy - Add the NB & SB HOV connector ramps.				X
51	SON010002	SONOMA	101 - Aux lane SB - Rd 116 to E. Wash.	Provide early operational improvements at northern end of Marin-Sonoma Narrows prior to highway widening phases to accommodate continuous HOV lanes connecting Marin and Sonoma Counties.	X		X	X
Total					2,525	31,837	343,480	\$377,842

GRAND TOTAL BOTH CATEGORIES (in Millions)

\$27,147 \$75,472 \$680,557 \$783,776