APPENDIX C TO THE 2030 REGIONAL TRANSPORTATION PLAN AIR QUALITY PLANNING AND TRANSPORTATION CONFORMITY: 8-HOUR OZONE STANDARD

Background

The federal Clean Air Act (CAA), which was last amended in 1990, requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. California has adopted state air quality standards that are more stringent than the NAAQS. Areas with levels that exceed the standard for specified pollutants are designated as non-attainment areas.

The U.S. EPA requires that each state containing non-attainment areas develop plans to attain the NAAQS by a specified attainment deadline. These attainment plans are called State Implementation Plans. The San Diego County Air Pollution Control District (APCD) prepares the San Diego portion of the California State Implementation Plan (SIP). Once the standards are attained, further plans – called Maintenance Plans – are required to demonstrate continued maintenance of the NAAQS.

The U.S. EPA has added two new standards to protect public health: measuring ozone levels over eight-hour periods and measuring smaller particulate matter (PM) in the air. The more stringent 8-Hour ozone standard will protect the public against longer exposure periods. The new fine particulate matter standard (PM2.5) will focus more protection against smaller particles, which pose an increased health risk.

On April 15, 2004, the U.S. EPA designated the San Diego air basin as non-attainment for the 8-Hour ozone standard. The air basin has been classified as a Basic non-attainment area under Subpart 1 of the
Clean Air Act and the attainment date for the 8-Hour Ozone standard is June 15, 2009. This designation took effect on June 15, 2004. Several areas that are tribal lands in eastern San Diego County were excluded from the non-attainment designation. As shown in Figure 1 on page 18, La Posta Areas #1 and #2, Cuyapaipe, Manzanita, and Campo Areas #1 and #2 are attainment areas for the 8-Hour Ozone NAAQS.

In cooperation with the San Diego APCD and SANDAG, the California Air Resources Board (ARB) must develop an 8-Hour Ozone Attainment Plan for submission to the U.S. EPA as a SIP revision by June 15, 2007.

Published in the Federal Register on July 1, 2004, the *Final Transportation Conformity Rule Amendments for the New 8-hour Ozone and PM2.5 National Ambient Air Quality Standards* requires that conformity of the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP) for non-attainment areas be determined to the 8-Hour ozone standard by June 15, 2005. Both SANDAG, as the Metropolitan Planning Organization, and the U.S. Department of Transportation (DOT) must make the conformity determination by that date to avoid a lapse.

The San Diego region attained the federal 1-Hour ozone standard in 2001. The U.S. EPA redesignated the San Diego air basin as attainment/maintenance and approved the 1-Hour Ozone Maintenance Plan as a SIP revision, effective on July 28, 2003. The U.S. EPA will revoke the federal 1-Hour ozone standard one year after the effective date of the 8-hour standard designation or on June 15, 2005.

The San Diego region also has been designated by the U.S. EPA as a federal maintenance area for the Carbon Monoxide (CO) standard. On November 8, 2004, ARB submitted the *2004 Revision to the California State Implementation Plan for Carbon Monoxide* to the U.S. EPA for approval. Conformity of the 2030 Revenue Constrained RTP and the 2004 RTIP, as amended, will be redetermined to the new CO budget included in the Plan once the U.S. EPA approves the SIP revision.

On December 17, 2004, the U.S. EPA designated the San Diego region as a non-attainment area for PM2.5. However, on April 5, 2005, the U.S. EPA modified the designation status of the San Diego air basin to attainment, based on monitoring data for the three-year period of 2002 to 2004.

Transportation Conformity: Regional Emissions Analysis & Modeling Procedures

Introduction

The 2030 RTP, as amended, includes policies and programs to improve mobility in the San Diego region to the year 2030. The RTP contains three long-range plans based on funding scenarios. Besides the 2030 Mobility Plan, which is based on reasonably expected transportation funding and the Unconstrained Revenue Plan, SANDAG developed a 2030 Revenue Constrained Plan for conducting the air quality conformity analysis.[1] Appendix A of the 2030 RTP Amendment No. 1 describes the Revenue Constrained Plan and Chapter 4 of the 2030 RTP provides information on revenue assumptions.

As explained in the Background section of this Appendix, SANDAG and the U.S. DOT must make a determination that the Revenue Constrained Plan conforms to the SIP for air quality. Conformity to the SIP means that transportation activities will not create new air quality violations, worsen existing violations, or delay the attainment of the national ambient air quality standards.

The U.S. DOT made the conformity determination for the 2030 RTP on April 9, 2003 and found the 2004 RTIP in conformity with the SIP on October 4, 2004. On January 28, 2005, the SANDAG Board of Directors made a finding of conformity of Amendment No. 1 of the 2030 Revenue Constrained Plan and Amendment No. 2 of the 2004 RTIP, and adopted Amendment No. 1 of the 2030 RTP. The U.S. DOT issued it conformity determination on March 15, 2005.

The air quality conformity analysis of the 2030 Revenue Constrained RTP and 2004 RTIP for the 8-Hour ozone standard is based on the amended RTP and RTIP.

Growth Forecasts

Every three to five years, SANDAG produces a long-range forecast of population, housing, and employment growth for the San Diego region. The most recent is the Final 2030 Cities/County

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[1] Consistent with 23 CFR 450, the *2030 Revenue Constrained Transportation Plan* includes only those facilities and programs that could be funded with existing state and federal programs and with the current *TransNet* local sales tax program, which expires in 2008. A 40-year extension of the *TransNet* local sales tax was approved by the voters in November 2004. The next update of the 2030 Revenue Constrained RTP will reflect *TransNet* revenues beyond 2008.

Forecast, which was accepted by the SANDAG Board of Directors on December 19, 2003 for use in planning studies.

The forecast process relies on three integrated forecasting models. The first one, the Demographic and Economic Forecasting Model (DEFM), provides a detailed econometric and demographic forecast for the entire region. The second one, the Interregional Commuting Model, provides a forecast of commuting between the San Diego region, southwest Riverside County, and Tijuana/Northern Baja California. The third one, the Urban Development Model, allocates the results of the first two models to subregional areas based upon the current plans and policies of the jurisdictions.

The Final 2030 Cities/County Forecast is based solely on the general and community plans of the 18 cities as adopted. For the unincorporated area, the forecast is based on the most recent (December 2002) version of the County's GP2020 plan update, as directed by the Board of Supervisors.

In December 2004, SANDAG consulted with the San Diego Region Conformity Working Group (CWG) on the use of the Final 2030 Cities/County Forecast for the air quality conformity analysis of the 2030 RTP and 2004 RTIP to the 8-Hour ozone standard. Both U.S. DOT and U.S. EPA have concurred that approved plans should be used as input in the air quality conformity process. Table C.1 shows the regional population and employment growth forecast for the San Diego region through 2030.

TABLE C.1—SAN DIEGO REGIONAL POPULATION AND EMPLOYMENT FORECAST

Final 2030 Cities/County Forecast		
Year	**Total Population**	**Total Employment**
2000	2,813,833	1,384,676
2010	3,211,721	1,528,522
2020	3,528,605	1,672,883
2030	3,855,085	1,824,030

Source: SANDAG, 2003

Transportation Modeling

SANDAG follows a widely used four-step transportation modeling process to forecast travel activity in the San Diego region. Travel forecasting procedures are described in more detail in SANDAG's *Regional Transportation Models* (1995) and the *Preliminary 2030 Forecast Process and Model Documentation* (April 2003), which are available upon request.

The estimates of regional transportation-related emissions analysis meet the requirements established in the Transportation Conformity Rule, Sections 93.122(b) and 93.122(c). These requirements relate to the procedures to determine regional transportation-related emissions,

including the use of network-based travel models, methods to estimate traffic speeds and delays, and the estimation of vehicle miles of travel.

Tranplan is the transportation planning computer package used to forecast travel activity utilizing datasets that are maintained in the geographic information system (GIS). The transportation modeling steps consist of:

1. Generating average weekday person trip ends in each zone
2. Estimating trip movements between zones using a trip distribution model
3. Allocating trips to different forms of transportation using a mode split model
4. Assigning vehicle trips to road segments using a traffic assignment model

Two iterations through the modeling process are made to reach equilibrium between transportation facilities and demand, where congested travel times from the first iteration are input to the second iteration.

The transportation models require two major inputs. One input is a zonal level households and land use forecast, which determines the number of trips generated. Highway and transit system networks are the other key input that affects the amount and location of vehicular travel.

Highway Networks

The regional highway networks in the 2030 RTP include all roads classified by local jurisdictions in their circulation elements. These roads include freeways, expressways, and the Regional Arterial System (RAS). The RAS consists of all conventional state highways, prime arterials, and selected major streets. In addition, some local streets are included in the networks for connectivity between zones.

The route improvements and additions in the 2030 RTP are developed as an integral part of San Diego's regional growth management and forecasting process. They are intended to provide adequate travel service that is compatible with adopted regional policies for land use and population growth. All regionally significant projects from the 2030 Revenue Constrained RTP are included in the quantitative emissions analysis. These include all state highways, all proposed National Highway System routes, all regionally significant arterials, and all FHWA functionally classified "Other Principal Arterials."

The networks also account for programs intended to improve the operation of the highway system, including high occupancy vehicle (HOV) lanes and ramp metering. Existing and proposed toll facilities also are modeled to reflect time, cost, and capacity effects of these facilities. The SR 125 South project and SR 241 are the only modeled toll facilities in the San Diego region.

In addition, several managed/HOV lanes are included in the Revenue Constrained Plan. Facilities with proposed managed lanes include I-5, I-15, I-805, and SR 52. It is assumed that the excess capacity not utilized by carpools and transit on HOV routes with two or more lanes in the peak direction as well as reversible HOV routes would be managed so that single occupant vehicles could use these lanes under a pricing mechanism. Traffic flows would be managed so that the facility would operate at level of service C or better.

Based on the networks and programs described above, the 2030 RTP transportation forecasts differentiate between single occupant and multi-occupancy or high occupancy vehicle travel times.

SANDAG normally maintains networks for 2000 (the 2030 Cities/County Forecast base year) and the years 2010, 2020, and 2030. A 2014 network also was created to conduct air quality conformity analyses of the 2030 Revenue Constrained RTP to the 2014 1-Hour ozone emissions budgets. Additionally, a base year 2002 network and a 2009 network were created to conduct the interim emissions test for the 8-Hour ozone standard attainment year.

Appendix A lists the major highway projects included in the analysis. Locally funded regionally significant projects also have been included in the air quality conformity analysis. These projects are funded with *TransNet* funds, a 20-year half-percent local sales tax for transportation that expires in 2008, and other local revenue sources.

Transit Networks

SANDAG also maintains transit network datasets for existing and proposed transit systems. Bus speeds assumed in the transit networks are derived from modeled highway speeds and reflect the effects of congestion. Regional and express transit routes on surface streets are assumed to operate out of congestion due to priority transit treatments. Higher bus speeds may result for transit vehicles operating on highways with HOV lanes and HOV bypass lanes at ramp meters, compared to those routes that operate on highways where these facilities do not exist.

Transit fares are an output of the transit network procedures, which replicate complex fare policies that differ between:

1. Buses which collect a flat fare of between $1.50 and $3.00 depending on the type of service,
2. Trolleys which charge a variable fare of between $1.25 and $2.50 depending on how many stations are traversed,
3. Commuter rail which has a zone-based fare of between $3.50 and $4.65,
4. Regional Bus Rapid Transit (BRT) which is assumed to charge a distance-based fare of between $0.14 and $0.60 per miles that replicates limited express and commuter rail fares, and
5. Corridor BRT, which is assumed to use trolley station-based fares.

Fares are assumed to remain constant in real dollars over the forecast period.

Locally funded regionally significant transit projects have been included in the air quality conformity analysis of the 2030 RTP. These transit projects also are funded with *TransNet* funds or other local revenue sources. Once network coding is completed, the transportation models are run for the applicable scenarios (2002, 2009, 2010, 2014, 2020, and 2030). Appendix A lists the major regional transit projects included in the analysis.

Trip Generation

Trip generation is the first step in the transportation modeling process. Average weekday trip ends by all forms of transportation starting and ending in each zone are estimated for ten trip types: home-work,
home-college, home-school, home-shop, home-other, work-other, and other-other, serve passenger, visitor, and airport.

The trip generation model works by applying trip rates to zone level growth forecasts. Trip production rates are expressed as trips per household. Trip production rates vary by trip type and structure type. Trip attractions are expressed as trips per acre of nonresidential land use or trips per household. Trip attraction rates vary by trip type and land use category. The Final 2030 Cities/County Forecast was used to produce trip generation forecasts for the years 2002, 2009, 2010, 2014, 2020, and 2030.

In recent years, urban planners have engaged in a debate about whether increasing highway capacity generates induced travel. Most opinions revolve around the following ideas:

- Households will make new trips because adding highway capacity reduces the cost or time spent traveling to a location. However, travel costs or travel times will ultimately increase over time as more vehicles use a facility and the new road begins to experience congestion.
- New facilities may cause a diversion of existing trips from more congested roads to less congested ones. New land uses along a corridor also may result in redistribution of trips to a new destination using an alternative route, but do not necessarily cause more trips overall.

SANDAG's regional transportation model uses a relatively high trip generation rate for households (8.1 vehicle trips per day), which may account for possible increases in trip making as new facilities are built. Also, the model accounts for travel diversion among facilities.

Trip Distribution

After trip generation, trip movements between zones are determined using a trip distribution gravity model. Inputs to the trip distribution model include zone level trip generation forecasts by trip type, zone-to-zone travel times, and friction factors by trip type.

Travel times are based on the 2030 RTP network scenarios. Highway improvements may induce longer trip lengths by allowing motorists to travel farther in the same amount of time. This effect is represented with the trip distribution model. Travel times differ between initial and final model iterations. Initial travel times reflect free-flow conditions, and final times reflect the effects of congestion.

Mode Choice

At this point in the modeling process, total person trip movements between zones are split into different forms of transportation: drive alone, 2-person carpools, 3+ person carpools, transit, and other (bicycling and walk). Trips between zone pairs are allocated to modes based on the cost and time of traveling by a particular mode compared to the cost and time of traveling by other modes. For example, vehicle trips on a congested route would be more likely to be diverted to light rail than vehicle trips on an uncongested freeway.

Income level also is considered since surveys show that high-income travelers are more concerned about the level of service offered by a mode than those with lower incomes. The mode choice model is calibrated using 1995 Travel Behavior Survey trip tables by mode and income and 1995 Regional Transit Survey transit trip characteristics. Preliminary Census 2000 journey-to-work data and 2000 onboard transit passenger counts also are used in the calibration process.

A number of data files are input to the mode choice model. These include:

- Zonal incomes
- Trip tables from the distribution model
- Peak and off-peak period highway times
- Peak period HOV times
- Peak and off-peak period transit times
- Transit fares
- Auto driving and parking costs
- Transit accessibility measures

Highway and transit travel time datasets differ between initial and final passes through the modeling process. Final iteration times reflect congestion effects identified in the first iteration.

The model produces a.m. peak, p.m. peak, and off-peak period trip tables for vehicles and transit riders. The a.m. peak period is from 6 to 9 in the morning and the p.m. peak period is from 3 to 6 in the afternoon. The off-peak period covers the remaining 18 hours of the day. A series of mode choice model runs were performed in the course of analyzing the 2030 RTP scenarios through two model iterations.

Highway Assignment

Highway assignment produces traffic volume estimates for all roadway segments in the system. These traffic volumes are an important input to emissions modeling.

The highway assignment model works by finding roads that provide the shortest travel time between each zone pair. Trips between zone pairs are then accumulated on road segments making up minimum paths. Highway travel times consider posted speed limits, signal delays, and congestion delays. The model computes congestion delays for each segment based on the ratio of the traffic volume to roadway capacity. Four iterations of equilibrium assignment and capacity restraint are performed within each assignment model run.

Motorists may choose different paths during peak hours when congestion can be heavy and off-peak hours when roadways are typically free flowing. For this reason, traffic is assigned separately for a.m. peak, p.m. peak, and off-peak periods.

Vehicle trip tables for each scenario reflect increased trip-making due to population growth and variations in travel patterns due to the alternative transportation facilities/networks proposed.

Model accuracy is assessed by comparing model estimated 2000 traffic volumes with actual traffic counts obtained through SANDAG's traffic monitoring program and Highway Performance Monitoring System (HPMS) estimates of vehicle miles of travel (VMT).

Post-Tranplan Processing

Standard Tranplan output needs to be reformatted and adjusted to be useful for emissions modeling. Several routines and computer programs have been written to accomplish the following major functions:

- Correcting link specific traffic volume forecasts for calibration error
- Adding in estimated travel on roads not in the transportation modeling process
- Computing link speeds based on corrected link volumes, Highway Capacity Manual relationships between congestion and speed (or signal delay)
- Splitting link volumes into heavy-duty truck and other traffic to obtain speed distributions by vehicle class
- Preparing a data set that contains total VMT, number of trip starts, and VMT by speed category by time of day for each vehicle class

Post-Tranplan processing routines are performed twice. First, they are run after the initial model iteration to provide travel times for the final model iterations. Second, they are performed on the final model assignments to provide inputs for emissions modeling.

Motor Vehicle Emissions Modeling

Emissions Model

In October 2002, ARB released EMFAC 2002, an emissions inventory model that calculates emissions for motor vehicles operating in California. It is an integrated model that combines emission rate

data with vehicle activity to calculate regional emissions. The U.S. EPA approved EMFAC 2002 for use in conformity determinations on April 1, 2003.

The EMFAC 2002 model supports calculation of emissions for the Burden mode. The Burden mode is used for calculating regional emission inventories. In this mode, the model reports total emissions as tons per day for each pollutant, by vehicle class and the total vehicle fleet. The Burden mode uses emission factors that have been corrected for ambient conditions and speeds combined with vehicle activity to calculate emissions in tons per day. Vehicle activity includes the number of vehicles, daily vehicle miles traveled, and the number of daily trips.

The air quality analysis of the 2030 Revenue Constrained RTP for the 8-Hour ozone standard was conducted using EMFAC 2002's Burden mode. Projections of daily regional emissions were prepared for reactive organic gases (ROG) and nitrogen oxides (NOx).

On-road motor vehicle emissions are attributed to several different processes:

- Starting exhaust
- Running exhaust
- Idle exhaust (calculated for heavy-duty trucks only)
- Resting and diurnal evaporation
- Running losses
- Hot soak evaporation

Emission factors vary by vehicle class, fuel usage, and technology. Thirteen vehicle classes are modeled: passenger car, two types of light-duty trucks, medium-duty truck, two types of light-heavy-duty trucks, medium-heavy-duty truck, heavy-heavy-duty truck, line-haul vehicle, urban bus, school bus, motorcycle, and motor-home. The fuels modeled are gasoline, diesel, and electrically powered vehicles. Technology categories can be grouped into catalyst, noncatalyst, and diesel.

Emission factors for processes that vary by temperature (i.e., starting exhaust, hot soak, and running exhaust) are broken down further by specified temperature ranges. Exhaust emission factors also are broken down by speed range.

Regional Emissions Forecasts

Regional transportation forecasts were initiated in December 2004. Output from the Tranplan model was then reformatted and adjusted to be useful for emissions modeling.

8-Hour Ozone Standard

The transportation conformity rule prescribes different conformity tests for 8-Hour ozone areas that have
1-Hour Ozone State Implementation Plan (SIP) budgets and for areas that do not have 1-Hour Ozone SIPs. The San Diego 1-Hour Ozone Maintenance Plan established ROG and NOx budgets for 2010 and 2014, but not for 2009. On June 26, 2003, The U.S. EPA approved the Maintenance Plan and motor vehicle emissions budgets as SIP revisions. These SIP revisions became effective on July 28, 2003.

In August 2004, SANDAG consulted with the CWG on various options for interim emissions analysis. The approach agreed by the CWG is described below:

- Under the new 8-hour ozone standard, the San Diego air basin falls under Boundary Scenario 2, where the 8-Hour ozone area is smaller than and within the 1-Hour ozone boundary. Figure 1, on page 18, shows the Eastern San Diego County attainment areas, which are tribal lands (Cuyapaipe, La Posta # 1 and #2, Campo # 1 and #2, and Manzanita). The CWG agreed to use the existing approved budget for the entire 1-Hour ozone non-attainment area for the analysis years for which 1-Hour ozone budgets are available (2010 and 2014) and for the remaining analysis years (2020 and 2030).
- To conduct the interim emissions test for 2009, the CWG agreed to use the no-greater-than-2002 test for the attainment year 2009.

Therefore, countywide forecasts of average weekday ROG and NOx emissions were produced for 2002, 2009, 2010, 2014, 2020, and 2030 using the EMFAC 2002 model. ROG and NOx emissions are based on the summer season.

The analysis years were selected to comply with Sections 93.106(a) (1) and 93.118 (a) of the Transportation Conformity Rule. According to these sections, the first horizon year (2010) must be within ten years from the base year used to validate the regional transportation model (2000), the last horizon year must be the last year of the transportation plan's forecast period (2030), and the horizon years may be no more than ten years apart (2020). In addition, as explained above, the interim regional emissions analysis for the 8-Hour ozone standard must be conducted for the emissions budgets in the applicable SIP (ROG and NOx budgets for 2010 and 2014). Finally, emissions forecasts for 2002 and 2009 were prepared to conduct the interim attainment year 2009 test.

CO Standard

CO regional emissions were projected for 2010, 2014, 2020, and 2030 for the conformity determination of Amendment No. 1 of the 2030 RTP and Amendment No, 2 of the 2004 RTIP, which was approved by the SANDAG Board of Directors on January 28, 2005. The U.S. DOT issued its conformity determination on March 15, 2005. The current conformity determination relies on the previous analysis. CO emissions are based on the winter season.

Emissions Modeling Results

An emissions budget is the part of the SIP that identifies emissions levels necessary for meeting emissions reduction milestones, attainment, or maintenance demonstrations.

To determine conformity of the 2030 RTP and the 2004 RTIP to the 8-Hour ozone standard, the plan and the program must comply with the interim emission analysis described in the Regional Emissions Forecast section.

Table C.2 summarizes the 2030 Revenue Constrained RTP and 2004 RTIP air quality conformity analysis and interim emissions analysis for the 8-Hour ozone standard. This analysis shows that both the 2030 Revenue Constrained RTP and the 2004 RTIP (including interim years) meet the applicable budgets and interim tests. Projected ROG and NOx emissions for 2009 are lower than the base year 2002 and those for 2010, 2014, 2020, and 2030 are below the SIP budgets for 2010 and 2014.

TABLE C.2—2030 SAN DIEGO REVENUE CONSTRAINED PLAN & 2004 RTIP AIR QUALITY CONFORMITY ANALYSIS FOR 8-HOUR OZONE

Year	Average Weekday Vehicle Starts (1,000s)	Average Weekday Vehicle Miles (1,000s)	ROG		NOx	
			SIP Emissions Budget Tons/Day	ROG Emissions Tons/Day	SIP Emissions Budget Tons/Day	NOx Emissions Tons/Day
2002	14,217	79,045	---	76	---	135
2009	15,125	82,651	---	44	---	84
2010	15,242	83,032	46	43	88	80
2014	15,789	86,912	36	33	66	58
2020	16,784	93,281	36	26	66	40
2030	18,383	104,922	36	18	66	24

Table C. 3 shows that projected CO emissions from the 2030 RTP and 2004 RTIP, as amended, are below the 1993 CO budget. In November 2004, ARB submitted the *2004 Revision to the California State Implementation Plan for Carbon Monoxide* to the U.S. EPA for approval. This plan established a 2003 CO budget at 730 tons per day. Once the U.S. EPA approves this SIP revision, the new CO budget will become the applicable budget for conformity determinations for 2003 and subsequent years. The projected CO emissions from the 2030 Revenue Constrained RTP and 2004 RTIP, as amended, also are below the new CO budget.

TABLE C.3—2030 SAN DIEGO REVENUE CONSTRAINED PLAN & 2004 RTIP AIR QUALITY CONFORMITY ANALYSIS FOR CARBON MONOXIDE

Year	Average Weekday Vehicle Starts (1,000s)	Average Weekday Vehicle Miles (1,000s)	CO	
			SIP Emissions Budget Tons/Day	CO Emissions Tons/Day
2010	15,242	83,032	1,195	423
2014	15,789	86,912	1,195	315
2020	16,784	93,281	1,195	219
2030	18,383	104,922	1,195	142

Exempt Projects

Section 93.126 of the Transportation Conformity Rule exempts certain highway and transit projects from the requirement to determine conformity. The categories of exempt projects include safety, mass transit, air quality (ridesharing and bicycle and pedestrian facilities), and other (such as planning studies).

Table C.4 illustrates the exempt projects considered in the 2030 Revenue Constrained Plan. This table shows short-term exempt projects. Additional unidentified projects could be funded with revenues expected to be available from the continuation of existing state and federal programs.

TABLE C.4—EXEMPT PROJECTS

Project/Program Description
Bikeway, Rail Trail and Pedestrian Projects
Camino Del Mar/Jimmy Durante Blvd. Bicycle Bridge
Cliff Street Pedestrian Overcrossing
Coastal Rail Trail
Escondido Creek Bike Path Phases 4 & 5
Escondido Creek Bike Path Undercrossings
Inland Rail Trail Phase 2
Lake Hodges Bicycle-Pedestrian Bridge Approach Improvements
Lake Hodges Bicycle-Pedestrian Bridge
Pacific Highway/Barnett Interchange Improvements
Rosa Street Pedestrian Overcrossing
Rose Creek Bicycle Bridge
San Diego River Bikeway
SR 56 Bike Path Interchanges
Sweetwater River Bike Path
Via de la Valle Bikeways
Regionwide Traffic Incident Management
Freeway Service Patrol
Transportation Demand Management
RideLink Regional Rideshare Program
Regional Vanpool Program
Transportation Management Systems
Automated Traveler Information System
Traffic Management System (I-805, SR 94)
Fiber Optic/Closed Circuit Camera (I-8/15/805)
Ramp Meters (I-5/805, SR 94)
Traffic Monitoring Stations (I-5/805, SR 94)
Other traffic management systems

Implementation of Transportation Control Measures

There are four TCMs that must be implemented in San Diego, which the SIP refers to as Transportation Tactics. They include ridesharing, transit service improvements, traffic flow improvements, and bicycle facilities and programs.

These TCMs were established in the 1982 SIP, which identified general objectives and implementing actions for each tactic. The TCMs have been fully implemented. Ridesharing, transit, bicycling, and traffic flow improvements continue to be funded, although the level of implementation established in the SIP has been surpassed. No TCMs have been removed or substituted from the 1-Hour Ozone Maintenance Plan, which is the applicable SIP.

Interagency Consultation Process and Public Input

The consultation process followed to prepare the air quality conformity analysis for the 2030 Revenue Constrained Plan complies with the San Diego Transportation Conformity Procedures adopted in July 1998. In turn, these procedures comply with federal requirements under 40 CFR 93. Interagency consultation involves SANDAG (as the MPO for San Diego County), the APCD, Caltrans, ARB, DOT, and U.S. EPA.

Consultation is a three-tier process that:

1. formulates and reviews drafts through a conformity working group
2. provides local agencies and the public with opportunities for input through existing regional advisory committees and workshops
3. seeks comments from affected federal and state agencies through participation in the development of draft documents and circulation of supporting materials prior to formal adoption

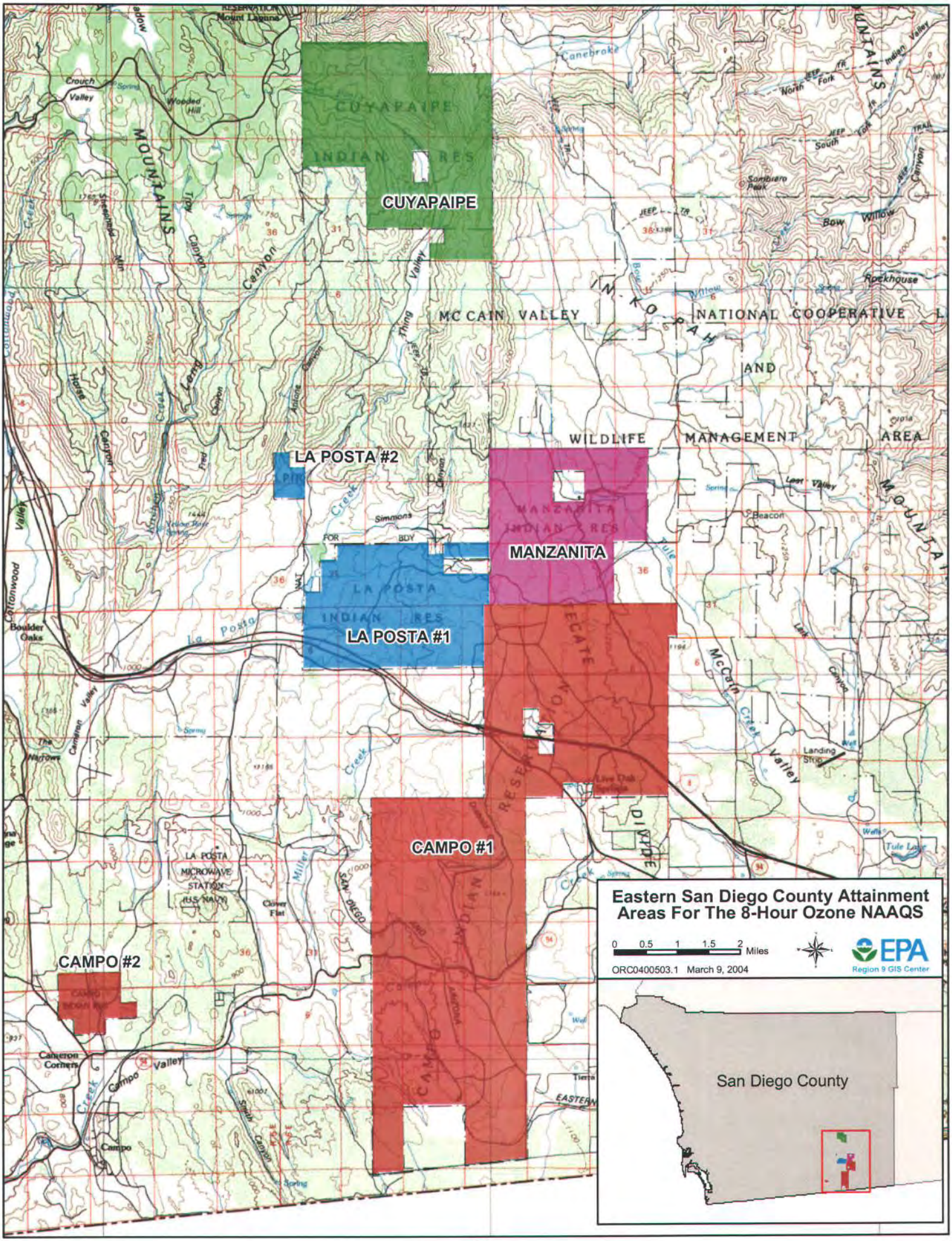
SANDAG consulted on the development of the air quality conformity analysis of the 2030 RTP and 2004 RTIP (as amended) for the 8-Hour ozone standard, at meetings of the San Diego Region Conformity Working Group (CWG), as follows:

- On August 18, 2004, the CWG discussed relevant sections of the Final Transportation Conformity Rule Amendments for the New 8-hour Ozone and PM2.5 National Ambient Air Quality Standards. Particularly, the CWG discussed the conformity grace period and revocation of the 1-Hour ozone standard, the initial 8-Hour ozone conformity determination, and regional conformity tests before 8-Hour Ozone SIP budgets are found adequate. The outcome of this discussion was reviewed at the September 22, 2004 meeting of the CWG.
- On December 15, 2004, SANDAG staff presented the schedule for the preparation of the conformity analysis and consulted on criteria and procedures for determining conformity. Items discussed included interim emissions analysis, the use of latest planning assumptions, implementation of TCMs, emissions model and budgets, as well as consultation and public involvement.
- On January 18, 2005, SANDAG released the draft air quality conformity analysis of the 2030 RTP and 2004 RTIP, as amended, for a 30-day public review and comment period. On that date, it also was distributed to the San Diego Region CWG.

- On February 16, 2005, the draft air quality analysis was discussed at the meeting of the San Diego Region CWG.

Members of the public are welcomed to provide comments at meetings of the San Diego Region CWG, the Transportation Committee, and the SANDAG Board of Directors.

On March 4, 2005, the Transportation Committee accepted for distribution the draft conformity analysis of the 2030 RTP and 2004 RTIP (as amended) for the 8-Hour ozone standard for a subsequent 30-day public review and comment period. No public comments were received. A Public Hearing is scheduled at the April 22, 2005 meeting of the SANDAG Board of Directors.


CUYAPAIPE
LA POSTA #2
MANZANITA
LA POSTA #1
CAMPO #1
CAMPO #2
Eastern San Diego County Attainment Areas For The 8-Hour Ozone NAAQS
0 0.5 1 1.5 2 Miles
ORC0400503.1 March 9, 2004
EPA
Region 9 GIS Center
San Diego County