

# VI. IMPLEMENTATION AND MONITORING



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This section discusses how SCAG, as the MPO for the six-county region, monitors the implementation of the 2008 RTP and monitors its progress in achieving its stated goals and system performance.

As discussed in Chapter II, the 2008 RTP comes at a time of great challenges. SCAG and its partners believe they have addressed these challenges from a planning perspective. However, as with any plan, its success or failure depends on the execution.

SCAG intends to continue its longstanding role as the monitoring agency for Plan implementation in all its facets.

## Implementing the RTP

### REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (RTIP)

The RTIP is the tool for the Metropolitan Planning Organizations (MPOs) to monitor and implement their RTP. The RTIP is updated every two years, the most recent being in 2006.

The RTIP provides a listing of projects proposed for implementation in the Region during the six-year period covered by the document. The RTIP projects are described in detail, including the funding amounts allocated by source and fiscal year. RTIP projects are categorized according to the transportation system to which they apply: state highways, local highways, or transit.

The passage of SAFETEA-LU in 2005 has created additional requirements for the RTP and RTIP, including an expanded public participation plan with expanded consultation requirements, the use of visualization techniques, publication of an annual list of obligated projects and the requirement that all regionally significant projects be listed individually.

One of the first steps in RTP implementation is that during each RTIP development cycle, SCAG provides the county transportation commissions (CTCs) and Imperial Valley Association of Governments (IVAG) with RTIP Guidelines. The RTIP Guidelines are used by the counties in the development of their

county transportation improvement programs (TIPs). These Guidelines are consistent with SAFETEA-LU and the Metropolitan Transportation Programming final rule: 23 CFR Parts 450 and 500, and 49 CFR Part 613.

The RTP non-motorized, rideshare, ITS, and TDM investments were developed in consultation with the county transportation commissions and the IVAG. These investments are annualized in the RTIP Guidelines in order to provide the county transportation commissions and IVAG with average yearly investments. The investments are reflected in the RTIP Guidelines by category in order to facilitate monitoring and ensure RTP implementation.

The RTIP Guidelines also contain the RTP constrained project listing. The counties need to program these projects for initiation within an appropriate time frame to ensure that they become operational during the time frame indicated in the RTP.

The projects identified within the RTP and RTIP must be financially constrained. The RTIP Guidelines provide the RTP funding forecasts for the programming years associated with the RTIP cycle under development. The CTCs and IVAG should program within the RTP forecasts. If a county programs more in project costs than can be accommodated by the RTP financial forecasts, then appropriate justification must accompany the county TIP documentation and be accepted by SCAG prior to TIP approval.

### CONGESTION MANAGEMENT PROCESS

The Congestion Management Process as implemented in the SCAG region provides for a comprehensive and integrated transportation planning process that links together the RTP, RTIP, and county-level Congestion Management Programs.

### BACKGROUND

The United States Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires the development, establish-

ment and implementation of a Congestion Management Process which is fully integrated into the regional planning process.

The Federal Highway Administration defines the congestion management process as a “systematic approach required in transportation management areas (TMAs) that provides for effective management and operation, based on a cooperatively developed and implemented metropolitan-wide strategy, of new and existing transportation facilities eligible for funding under Title 23 U.S.C. and Title 49 U.S.C., through the use of operational management strategies.”

SCAG’s Congestion Management Process is a comprehensive strategy designed to relieve traffic congestion and maintain high levels of service on roadways within the Southern California region. SCAG has facilitated efforts



by counties and subregions to develop County-level Congestion Management Programs (CMPs) in cooperation with regional and subregional transportation providers, local governments, Caltrans, and the South Coast Air Quality Management District.

In the SCAG region, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties are contained within Transportation Management Areas (TMAs). The Federal Highway Administration (FHWA) defines TMAs as the following:

1. All urbanized areas over 200,000 in population, and any other area that requests such designation
2. An urbanized area with a population over 200,000 (as determined by the latest decennial census) or other area when TMA designation is requested by the governor and the MPO (or affected local officials), and officially designated by the administrators of the FHWA and the FTA. The TMA designation applies to the entire metropolitan planning area(s) (23CFR500)

The County Transportation Commission in each county also functions as a Congestion Management Agency (CMA) under California regulations. To meet the federal Congestion Management Process requirements, SCAG and the county CMAs have come together to develop a Congestion Management Process for the region. Under California law, the Congestion Management Programs (CMPs) are prepared and maintained by the respective CMAs:

- The Los Angeles County Metropolitan Transportation Authority (LACMTA)
- The Orange County Transportation Authority (OCTA)
- The Riverside County Transportation Commission (RCTC)
- The San Bernardino Associated Governments (SANBAG)
- The Ventura County Transportation Commission (VCTC)

With the exception of small portions of Riverside and San Bernardino Counties, all counties within the TMA are designated as ozone non-attainment areas. SCAB covers the urbanized portions of Los Angeles, Orange, Riverside, and San Bernardino Counties.

Federal funds may not be programmed in the carbon monoxide and ozone non-attainment areas of the Transportation Management Areas (TMAs) for any project that will result in a significant increase in single-occupant vehicle (SOV) capacity unless that project is addressed through a CMP.

The CMPs work in collaboration with the AQMP in several areas, but most significantly through the TCMs. Most TCM projects identified in the RTIP are designed to help relieve congestion at the local level. Thus, implementation of the AQMP helps local governments tackle congestion, which, in turn, reduces emissions from idling vehicles or the number of vehicles traveling on congested roadways, and also helps maintain service level standards. At the same time, the CMP process provides local governments with a mechanism to contribute to the regional effort toward attaining the NAAQS.

## REGIONAL CONGESTION MANAGEMENT ELEMENTS

In compliance with the sections of the Metropolitan Planning Regulations [23 U.S.C. 134 and 49 U.S.C. 5303- 5305], SCAG's Congestion Management Process comprises the following Regional Congestion Management Elements:

- The Regional Transportation Plan (RTP)
- The counties' Congestion Management Programs (CMPs)
- The Regional Transportation Improvement Program (RTIP)

The functionality of each element is described in the following sections.

### Regional Transportation Plan (RTP)

SCAG's RTP establishes overall long-term mobility policies for the movement of people and goods, including congestion relief strategies for all regionally significant facilities and activities (projects and programs).

### Congestion Management Program (CMP)

There are five CMAs in the SCAG region and each develops a CMP for their respective county. The degree of urbanization varies from one county to another and consequently the magnitude of congestion will also vary. The CMPs' efforts have been brought together on a regionwide basis and integrated into the SCAG regional planning process.

SCAG's Regional Council and the Regional Transportation Agencies Coalition ensure consistency between the county CMPs and SCAG's RTP and RTIP, through project implementation.

In 1995, SCAG and the CMAs developed the following criteria to ensure consistency and compatibility between the regional transportation planning process and the county congestion management process:

- CMP consistency with the current RTP
- Interregional (inter-county) coordination between the CMPs' goals and objectives
- Consistency between countywide model/database and SCAG's model/database
- All regionally significant CMP projects are to be modeled and incorporated into SCAG's Regional Transportation Modeling System (network)

The purpose of these criteria is to hold each county CMP responsible for the goals and objectives of SCAG's RTP. Compliance with the above criteria is essential, particularly for CMP projects that are going to be programmed into the SCAG RTIP.

**TABLE 6.1 CMPS IN THE SCAG REGION**

County	Congestion Management Agency (CMA)	Congestion Management Program
Los Angeles	Los Angeles County Metropolitan Transportation Authority (LACMTA)	2004 Congestion Management Program for Los Angeles County (Updated Statement of Conformity issued in 2007)
Orange	Orange County Transportation Authority (OCTA)	2007 Orange County Congestion Management Program (November 2007)
Riverside	Riverside County Transportation Commission (RCTC)	2006 Riverside County Congestion Management Program
San Bernardino	San Bernardino Associated Governments (SANBAG)	2005 Congestion Management Program for San Bernardino County
Ventura	Ventura County Transportation Commission (VCTC)	2005 Ventura County Congestion Management Program

All county CMPs share the same goal of reducing congestion and applying congestion relief strategies. However, there are different priorities in the selection of related strategies based on the needs of each county. Therefore, each county CMP differs in form and local procedure. By state statute, all CMPs must perform the same functions outlined below and must be consistent with the federal requirements.

**Highway Performance** - Each CMA monitors the performance of an identified highway system. This allows each county to track how their systems, and their individual components, are performing in comparison to established standards, and how performance changes take place over time.

**MultiModal Performance** - In addition to highway performance, each CMP contains an element to evaluate the performance of other transportation modes, including transit.

**Transportation Demand Management (TDM)** - Each CMP contains a TDM component geared to reducing travel demand and promoting alternative transportation methods.

**Land-Use Programs and Analysis** - Each CMP incorporates a program to analyze the impacts of local land-use decisions on the regional transportation system.

**Capital Improvement Program (CIP)** - Using data and performance measures developed through the activities identified above, each CMP develops a CIP. This becomes the first step in developing the County TIP. Under state law, projects funded through the Regional Transportation Improvement Program (RTIP) must first be contained in the CMP.

**Deficiency Plan** - Despite the above-stated efforts, when unacceptable levels of congestion occur, the respective CMP contains a set of “deficiency plan”



provisions to address the problems. Deficiency plans may be developed for specific problem areas or on a countywide-system basis. Projects implemented through the deficiency plan must, by statute, include both mobility and air quality benefits. In many cases, the deficiency plan captures the benefits of the transportation projects beyond the SCAG RTIP such as non-federally funded/non-regionally significant projects.

Information on the CMP activities and resulting data are updated on a biennial basis by each CMA and supplied to SCAG and the respective air quality management district.

### **Regional Transportation Improvement Program (RTIP)**

All federally funded congestion relief strategies (projects and programs) are programmed into the RTIP in the SCAG region. Under state law, the CMP projects must be incorporated into the RTIP in order to receive federal and state funds. Under federal law, the RTIP must be updated every four years for funding. Note that the CMP documents list additional projects which are 100% locally funded and not regionally significant, such as the transportation demand management (TDM) and bike lane projects, as these also cumulatively help mitigate congestion.

In non-attainment and maintenance areas, the RTIP projects as a whole, including congestion relief projects, must fulfill the Transportation Conformity requirements. In project-level analysis, the projects requiring federal action (funding or approval) are subject to Environmental Impact Study (EIS) through the National Environmental Policy Act (NEPA). This is an evaluation and analysis of the alternatives. The selected alternative will then be incorporated into the RTP and RTIP for implementation.

## **Regionally Significant Transportation Investment Studies**

Within the context of regional transportation planning, the first step toward strategy or program development is the Regionally Significant Transportation



Investment Study (RSTIS), or a corridor feasibility study of alternatives including a National Environmental Policy Act (NEPA) “purpose and need” statement and preliminary environmental documentation.

SCAG, in cooperation with other stakeholders, will approve the initiation and scope of an RSTIS. Before a project may be included in the RTIP for construction, the project must be one of the alternatives in a completed RSTIS, and must have a completed project initiation document and cleared environmental documents.

Regionally significant alternatives must be evaluated by the RTP performance measures in order to be considered for incorporation in the RTP. RSTIS analyses are currently being performed for corridors in the region, including the South Orange County Major Investment Study and the Orange County/Los Angeles Intercounty Transportation Study. The 2008 RTP includes alternative modes and technologies (intelligent transportation vehicle and highway systems), general alignment, number of lanes, the degree of demand manage-

ment and operating characteristics. Furthermore, an RSTIS is required to evaluate the effectiveness and cost-effectiveness of alternatives in attaining local, regional, state and national goals and objectives. This analysis considers the direct and indirect costs (of capital, operating and maintenance, and rights-of-way) of alternatives; benefits or impacts of mobility improvements; air quality requirements; social, economic and environmental impacts, including environmental justice; safety, operating efficiencies; financing (federal, state and private sources); energy consumption; and public outreach. The results of the RSTIS help shape decisions by SCAG, in cooperation with participating public and private organizations, on the design and scope of the investment for the RTP. The preferred alternative of an RSTIS must meet the performance and financial criteria established by the RTP, and it must be approved by the Regional Council before being included in the RTP and RTIP.

An RSTIS is eligible for funds authorized under Sections 8, 9 and 26 of the Federal Transit Act, state planning funds, as well as planning and capital funds appropriated under Title 23, United States Code.

RSTIS or other analyses are appropriate when regionally significant investments in the RTP have not developed sufficient environmental analysis, design concept and scope (mode and alignment not fully determined). In cases requiring further analysis, the RTP may stipulate either a set of assumptions concerning the proposed improvement or a no-build condition pending the completion of a corridor or sub-area analysis. In either case, the RTP provides enough detail to provide a plan conformity determination.

## Monitoring Our Progress

As the designated MPO for the six-county region, SCAG monitors transportation plans, projects and programs for consistency with regional plans. SCAG also monitors the performance of the transportation system. This performance monitoring is especially important to the planning process for future RTPs. It is impossible to solve our regional transportation problems unless we are able to identify and measure them effectively.

SCAG prepares the RTP using performance-based measures that help public officials to better analyze transportation options and trade-offs and make informed decisions. By examining the performance of existing systems over time, SCAG monitors trends and identifies regional transportation needs that may be considered in the RTP. Performance measurements help clarify the link between transportation decisions and eventual outcomes, thereby improving the discussion of planning options and communication with the public. This also helps determine which improvements provide the best opportunities for maximizing the system's performance within the defined constraints.

SCAG has developed performance measures (see Chapters I and V) for the regional transportation system. New tools are also being developed that will help SCAG monitor system performance over time. The Freeway Performance Measurement System (PeMS), developed by UC Berkeley, Caltrans, and the California Partners for Advanced Transit and Highways (PATH), has the ability to measure freeway speeds, delay, and reliability for the regional freeway system. SCAG monitors a number of performance measures through a benchmarking process in the annual State of the Region report.



Transportation planning for the region requires continually improved information on the condition and utilization of the transportation system. Special reports are required periodically from SCAG to show the condition of the highway infrastructure and to monitor the region's overall traffic. The Highway Performance Monitoring System (HPMS) is a federally mandated program designed by the Federal Highway Administration (FHWA) to assess the performance of the nation's highway system. Under the Clean Air Act, SCAG is also required to report periodically on vehicle miles traveled in each air basin to determine whether traffic growth is consistent with the projections on which the State Implementation Plans (SIPs) are based.

The HPMS is one of the components of an Internet-based transportation system currently under development, the Regional Transportation Monitoring Information System (RTMIS). RTMIS is the source for real-time and historical transportation data collected from different local and regional transportation agencies as well as from private data sources. Based on a GIS mapping system, RTMS will be the main monitoring system for collection and distribution of highway and transit data, local and regional traffic information and activities, as well as hosting the subregional transportation monitoring programs.

The following sections outline several of the significant tools used by SCAG to monitor regional progress in advancing the 2008 RTP.

## **RTIP DATABASE MANAGEMENT**

To manage the RTIP process efficiently, SCAG has developed a web-based RTIP database. The new RTIP database serves as a listing for projects in the RTIP, as well as a mechanism for monitoring implementation of these projects. The new database includes a mapping component that allows the CTCs to view all the RTIP projects that have been modeled. The new database will play a pivotal role in the creation of an audit trail for programmed projects. Moreover, it will also make it easier to submit the draft and final RTIP lists to Caltrans and the California Transportation Commission for their review and approval. The CTCs, Imperial Valley Association of Governments and SCAG staff are responsible for inputting this data into the RTIP database. Once the SCAG Re-

gional Council has approved the RTIP, the data is then transmitted to Caltrans for incorporation into the statewide database, or California Transportation Improvement Program System (CTIPS).

## **CONFORMITY**

In federally designated non-attainment or maintenance areas, specific monitoring procedures and tests for conformity are required under the federal Transportation Conformity Rule. At the time of conformity determination, the RTIP must be consistent with the RTP. At any given time, there is only one federally approved and conforming RTP and RTIP in place as the operating documents. During project implementation, sponsor agencies must implement only those projects that are consistent with the conforming RTIP and RTP. The project design concept and scope also must be consistent with those reflected in the conforming RTIP.

SCAG must be informed of any projects that are regionally significant and modeled, regardless of their funding sources. Project sponsors must also inform SCAG (as the region's MPO) of any delay in implementing any TCM projects that are included in an approved SIP. In association with the CTCs and the TCWG, SCAG must report on the timely implementation of TCMs. The Timely Implementation Report is provided in the 2008 RTP Conformity Report. If a project cannot be implemented, the sponsor agency must officially substitute or replace the affected TCM project.

Additionally, SCAG monitors legal, legislative, and election processes that may impact the transportation conformity requirements, the implementation of any TCM or regionally significant projects. SCAG informs the sponsor agency of required actions to address any changes that may have been made.

SCAG's TCWG and Modeling Task Force are two official forums used for interagency consultation. There may be additional ad hoc forums, if needed, to facilitate the required course of action.

## **HIGHWAY PERFORMANCE MONITORING SYSTEM (HPMS)**

HPMS is used as a transportation monitoring and management tool to determine the allocation of federal aid funds, to assist in setting policies and to forecast future transportation needs as it analyzes the transportation systems' length, condition and performance. Additionally, HPMS is used to provide data to the Environmental Protection Agency (EPA) to assist in monitoring air quality conformity, and its data is used in support of the Biennial Report to Congress on the Status of the Nation's Highways. In California, Caltrans implements the program annually. SCAG's responsibility is to assist Caltrans in collecting data from local jurisdictions, and in the distribution, collection and administration of all HPMS survey packages in the six-county region.

## **VMT, EMISSION AND CONGESTION REPORT**

Six years after the enactment of the Clean Air Act Amendments of 1990, any state that contains serious and worse ozone non-attainment areas, or moderate and/or serious carbon monoxide non-attainment areas, is required to demonstrate whether current aggregate VMT, aggregate vehicle emissions, congestion levels and other relevant parameters are consistent with those used for the area's demonstration of attainment. As the region's MPO, SCAG is responsible for forecasting and tracking VMT, emissions and congestion, and submitting these reports to the ARB. VMT reports for ozone non-attainment areas are submitted every three years.

## **TRANSIT SYSTEM PERFORMANCE ASSESSMENT**

Implementation of the RTP requires changes in the operating practices of transit agencies and the integration of the three tiers of transit into a single functioning system. The process of integration is the responsibility of the operators. SCAG will be evaluating the performance of selected operators to provide feedback and to transfer applicable lessons to other operators in the

region. The application of advanced transportation technologies applied to the scheduling and routing of transit will be evaluated.

## **INTERGOVERNMENTAL REVIEW**

Under federal law, SCAG is designated as the Regional Clearinghouse for review of all submitted plans, plan changes, projects and programs for consistency with adopted regional plans and policies. Regionally significant transportation projects reviewed for consistency with regional plans are defined as: construction or expansion of freeways; state highways; principal arterials; routes that provide primary access to major activity centers, such as amusement parks, regional shopping centers, military bases, airports and ports; goods movement routes, including both truck routes and rail lines; intermodal transfer facilities, such as transit centers, rail stations, airports and ports; and fixed transit routes, such as light and heavy rail and commuter rail. Any project involving transportation improvements is reviewed to determine whether such improvements are included in the RTIP.

## **THE STATE OF THE REGION**

SCAG develops and publishes the annual State of the Region Report, which monitors the primary economic and transportation trends in Southern California and compares them to other major metropolitan regions in the country. The report helps to set goals for future RTP updates and provides indicators of regional progress from previous RTPs.

Each report presents the major socioeconomic trends in the region, including population, employment, wages, and ethnic composition. It then presents a Report Card for a number of critical indicators, including air quality, modal share, transit ridership, congestion, and income based upon the actual trend and comparison results. The latest update of the Report will be released by the Regional Council in December 2007 and can be accessed via the SCAG website.

## OTHER RELATED EFFORTS

There are other efforts that SCAG partner agencies undertake that provide assistance with the overall monitoring of the RTP implementation. Data collected through these efforts can be used by agencies to make more informed decisions. These efforts include:

**Caltrans Highway Congestion Monitoring Program (HICOMP)** – Caltrans compiles congestion information in an annual report that illustrates the trends in congestion in each Caltrans District. The report includes congestion magnitude, extent, and duration for the peak travel periods.

**Caltrans State Highway Operations and Protection Program (SHOPP) 10-Year Plan** – Caltrans updates their 10-year SHOPP Plan periodically, focusing on pavement conditions, safety, and operations. The Plan includes the programmed portion of the SHOPP as well as planned investments over a ten-year horizon.

**County-Level Congestion Management Program (CMP) Monitoring** – County Transportation Commissions monitor cities' performances regarding service levels on CMP systems and opportunities to mitigate the impacts of new development on the transportation system.

**County Long-Range Plans** – Several County Transportation Commissions have developed 20-year Long-Range Plans that serve as input to the subsequent RTP update. These plans are the blueprints for investments and expected performance for the county.

**Transit Operator Short-Range Transit Plans** – Transit operators also develop and publish short-range transit plans that define strategies and actions over the short term.

**Transit Operators' Performance Reports** – Transit operators compile various performance data and submit their reports to the Federal Transit Administration (FTA) annually. The FTA then compiles all the data provided by transit operators and stores them in the National Transit Database (NTD). The NTD

provides a wealth of data that can be used to compare trends over time and among operators throughout the United States.

**Transit Operators' Triennial Audits** – Transit operators undergo an audit every three years to ensure that they comply with state and federal regulations. The audit findings and recommendations are published and reviewed by Caltrans and other agencies.

**Regionally Significant Transportation Improvement Studies (RSTIS)** (formerly Major Investment Studies) Project sponsors develop these studies. SCAG monitors and assists the projects to ensure communication between the sponsors and SCAG, and to assure compliance with the RTP.

