FINAL CONFORMITY ANALYSIS
FOR THE 2019 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM AND 2018 REGIONAL TRANSPORTATION PLAN

MAY 24, 2018

SAN JOAQUIN COUNCIL OF GOVERNMENTS

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TABLE OF CONTENTS

APPENDICES

TABLES

EXECUTIVE SUMMARY

This report presents the Conformity Analysis for the 2019 Federal Transportation Improvement Program (2019 FTIP) and 2018 Regional Transportation Plan (2018 RTP). The San Joaquin Council of Governments (SJCOG) is the designated Metropolitan Planning Organization (MPO) in San Joaquin County, California, and is responsible for regional transportation planning.

The Clean Air Act Section 176(c) (42 U.S.C. 7506(c)) and U.S. Environmental Protection Agency (EPA) transportation conformity regulations (40 CFR 93 Subpart A) require that each new RTP and TIP be demonstrated to conform to the State Implementation Plan (SIP) before the RTP and TIP are approved by the MPO or accepted by the U.S. Department of Transportation (DOT). This analysis demonstrates that the criteria specified in the transportation conformity regulations for a conformity determination are satisfied by the 2019 FTIP and the 2018 RTP; a finding of conformity is therefore supported. The 2019 FTIP, 2018 RTP and the corresponding conformity analysis were approved by the SJCOG Policy Board on June 28, 2018]. Federal approval is anticipated on or before December 31, 2018. FHWA/FTA last issued a finding of conformity for 2017 FTIP Amendment #9 and the 2014 RTP Amendment #4 on June 14, 2017.

The 2019 FTIP and the 2018 RTP have been financially constrained in accordance with the requirements of 40 CFR 93.108 and consistent with the U.S. DOT metropolitan planning regulations (23 CFR Part 450). A discussion of financial constraint and funding sources is included in the appropriate documents.

The applicable Federal criteria or requirements for conformity determinations, the conformity tests applied, the results of the conformity assessment, and an overview of the organization of this report are summarized below.

CONFORMITY REQUIREMENTS

The Federal transportation conformity regulations (40 Code of Federal Regulations Parts 51 and 93) specify criteria and procedures for conformity determinations for transportation plans, programs, and projects and their respective amendments. The Federal transportation conformity regulation was first promulgated in 1993 by the U.S. EPA, following the passage of amendments to the Federal Clean Air Act in 1990. The Federal transportation conformity regulation has been revised several times since its initial release to reflect both EPA rule changes and court opinions. The transportation conformity regulation is summarized in Chapter 1.

The conformity regulation applies nationwide to “all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is designated nonattainment or has a maintenance plan” (40 CFR 93.102). Currently, the San Joaquin Valley (or portions thereof) is designated as nonattainment with respect to Federal air quality standards for ozone, and particulate matter under 2.5 microns in diameter (PM2.5); and has a maintenance plan for particulate matter under 10 microns in diameter (PM-10). Therefore, transportation plans and programs for the

nonattainment areas for San Joaquin County area must satisfy the requirements of the Federal transportation conformity regulation. Note that the urbanized/metropolitan areas of Kern, Fresno, Stanislaus and San Joaquin Counties have attained the CO standard and maintained attainment for 20 years. In accordance with Section 93.102(b)(4), conformity requirements for the CO standard stop applying 20 years after EPA approves an attainment redesignation request or as of June 1, 2018. Therefore, the conformity analysis for the 2019 FTIP and 2018 RTP no longer includes a CO conformity demonstration.

Under the transportation conformity regulation, the principal criteria for a determination of conformity for transportation plans and programs are:

(1) the TIP and RTP must pass an emissions budget test using a budget that has been found to be adequate by EPA for transportation conformity purposes, or an interim emission test;

(2) the latest planning assumptions and emission models specified for use in conformity determinations must be employed;

(3) the TIP and RTP must provide for the timely implementation of transportation control measures (TCMs) specified in the applicable air quality implementation plans; and

(4) interagency and public consultation.

On-going interagency consultation is conducted through the San Joaquin Valley Interagency Consultation Group to ensure Valley-wide coordination, communication and compliance with Federal and California Clean Air Act requirements. Each of the eight Valley MPOs and the San Joaquin Valley Unified Air Pollution Control District (Air District) are represented. The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), the U.S. EPA, the California Air Resources Board (CARB) and Caltrans are also represented on the committee. The final determination of conformity for the TIP and RTP is the responsibility of FHWA, and FTA within the U.S. DOT.

FHWA has developed a Conformity Checklist (included in Appendix A) that contains the required items to complete a conformity determination. Appropriate references to these items are noted on the checklist.

CONFORMITY TESTS

The conformity tests specified in the Federal transportation conformity regulation are: (1) the emissions budget test, and (2) the interim emission test. For the emissions budget test, predicted emissions for the TIP/RTP must be less than or equal to the motor vehicle emissions budget specified in the approved air quality implementation plan or the emissions budget found to be adequate for transportation conformity purposes. If there is no approved air quality plan for a pollutant for which the region is in nonattainment or no emission budget has been found to be adequate for transportation conformity purposes, the interim emission test applies. Chapter 1 summarizes the applicable air quality implementation plans and conformity tests for ozone, PM-10, and PM2.5.

RESULTS OF THE CONFORMITY ANALYSIS

A regional emissions analysis was conducted for the years 2018, 2019, 2020, 2021, 2023, 2024, 2027, 2030, 2031, 2035, 2037 and 2042 for each applicable pollutant. All analyses were conducted using the latest planning assumptions and emissions models. The major conclusions of SJCOG's Conformity Analysis are:

- For 1997 8-hour ozone[1], the total regional on-road vehicle-related emissions (ROG and NOx) associated with implementation of the 2019 FTIP and the 2018 RTP for all years tested are projected to be less than the approved emissions budgets specified in the *2007 Ozone Plan (as revised in 2015)*. The conformity tests for ozone are therefore satisfied.
- For ozone, the total regional on-road vehicle-related emissions (ROG and NOx) associated with implementation of the 2019 FTIP and the 2018 RTP for all years tested are projected to be less than the adequate emissions budgets specified in the *2016 Ozone Plan.* The conformity tests for ozone are therefore satisfied.
- For PM-10, the total regional vehicle-related emissions (PM-10 and NOx) associated with implementation of the 2019 FTIP and the 2018 RTP for all years tested are either (1) projected to be less than the approved emissions budgets, or (2) less than the emission budgets using the approved PM-10 and NOx trading mechanism for transportation conformity purposes from the *2007 PM-10 Maintenance Plan (as revised in 2015)*. The conformity tests for PM-10 are therefore satisfied.
- For the 1997 annual and 24-hour and 2012 annual PM2.5 standards, the total regional on-road vehicle-related emissions associated with implementation of the 2019 FTIP and the 2018 RTP for the analysis years are either (1) projected to be less than the approved emission budgets, or (2) less than the emission budgets using the approved PM2.5 and NOx trading mechanism for transportation conformity purposes from the *2008 PM2.5 Plan (as revised in 2011)*. The conformity tests for PM2.5 for the 1997 and 2012 standards are therefore satisfied.
- For the 2006 24-hour PM2.5 standard, the total regional on-road vehicle-related emissions associated with implementation of the 2019 FTIP and the 2018 RTP for the analysis years are either (1) projected to be less than the approved emission budgets, or (2) less than the emission budgets using the approved PM2.5 and NOx trading mechanism for transportation conformity purposes from the *2012 PM2.5 Plan (as revised in 2015)*. The conformity tests for PM2.5 for the 2006 standard are therefore satisfied.
- The 2019 FTIP and the 2018 RTP will not impede and will support timely implementation of the TCMs that have been adopted as part of applicable air quality implementation plans. The current status of TCM implementation is documented in Chapter 4 of this report. Since the

[1] Note that FHWA/FTA *Interim Guidance on Conformity Requirements for the 1997 Ozone NAAQS* issued on April 23 does not require that areas in non-attainment of the 2008 Ozone Standard address 1997 ozone in their regional conformity analyses at this time. However, the SJV MPOs have voluntarily included 1997 ozone conformity demonstration for the 2018 RTP/2019 TIP to minimize project delivery risk.

local SJV procedures (e.g., Air District Rule 9120 Transportation Conformity) have not been approved by EPA, consultation has been conducted in accordance with Federal requirements.

REPORT ORGANIZATION

The report is organized into six chapters. Chapter 1 provides an overview of the applicable Federal and State conformity regulations and requirements, air quality implementation plans, and conformity test requirements. Chapter 2 contains a discussion of the latest planning assumptions and transportation modeling. Chapter 3 describes the air quality modeling used to estimate emission factors and mobile source emissions. Chapter 4 contains the documentation required under the Federal transportation conformity regulation for transportation control measures. Chapter 5 provides an overview of the interagency requirements and the general approach to compliance used by the San Joaquin Valley MPOs. The results of the conformity analysis for the TIP/RTP are provided in Chapter 6.

Appendix E includes public hearing documentation conducted on the 2019 FTIP, 2018 RTP and corresponding conformity analysis on June 23, 2018. Comments received on the conformity analysis and responses made as part of the public involvement process are included in Appendix F.

CHAPTER 1:
FEDERAL AND STATE REGULATORY REQUIREMENTS

The criteria for determining conformity of transportation programs and plans under the Federal transportation conformity regulation (40 CFR Parts 51 and 93) and the applicable conformity tests for the San Joaquin Valley nonattainment areas are summarized in this section. The Conformity Analyses for and the 2019 FTIP and 2018 RTP were prepared based on these criteria and tests. Presented first is a review of the development of the applicable conformity regulation and guidance procedures, followed by summaries of conformity regulation requirements, air quality designation status, conformity test requirements, and analysis years for the Conformity Analysis.

SJCOG is the designated Metropolitan Planning Organization (MPO) for San Joaquin County in the San Joaquin Valley. As a result of this designation SJCOG prepares the TIP, RTP, and associated conformity analyses. The TIP serves as a detailed four-year (FY 2018/19 – 2021/22) programming document for the preservation, expansion, and management of the transportation system. The 2018 RTP has a 2042 horizon that provides the long-term direction for the continued implementation of the freeway/expressway plan, as well as improvements to arterial streets, transit, and travel demand management programs. The TIP and RTP include capacity enhancements to the freeway/expressway system commensurate with available funding.

A. FEDERAL AND STATE CONFORMITY REGULATIONS

CLEAN AIR ACT AMENDMENTS

Section 176(c) of the Clean Air Act (CAA, 1990) requires that Federal agencies and MPOs not approve any transportation plan, program, or project that does not conform to the approved State Implementation Plan (SIP). The 1990 amendments to the Clean Air Act expanded Section 176(c) to more explicitly define conformity to an implementation plan to mean:

> "Conformity to the plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards; and that such activities will not (i) cause or contribute to any new violation of any standard in any area; (ii) increase the frequency or severity of any existing violation of any standard in any area; or (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area."

Section 176(c) also provides conditions for the approval of transportation plans, programs, and projects, and requirements that the Environmental Protection Agency (EPA) promulgate conformity determination criteria and procedures no later than November 15, 1991.

FEDERAL RULE

The initial November 15, 1991 deadline for conformity criteria and procedures was partially completed through the issuance of supplemental interim conformity guidance issued on June 7, 1991 for carbon monoxide, ozone, and particulate matter ten microns or less in diameter (PM-10). EPA subsequently promulgated the Conformity Final Rule in the November 24, 1993 *Federal Register* (EPA, 1993). The 1993 Rule became effective on December 27, 1993. The Federal Transportation Conformity Final Rule has been amended several times from 1993 to present. These amendments have addressed a number of items related to conformity lapses, grace periods, and other related issues to streamline the conformity process.

EPA published the Transportation Conformity Rule PM2.5 and PM10 Amendments on March 24, 2010; the rule became effective on April 23, 2010 (EPA, 2010a). This PM amendments final rule amends the conformity regulation to address the 2006 PM2.5 national ambient air quality standard (NAAQS). The final PM amendments rule also addresses hot-spot analyses in PM2.5 and PM10 and carbon monoxide nonattainment and maintenance areas.

On March 14, 2012, EPA published the Transportation Conformity Rule Restructuring Amendments, effective April 13, 2012 (EPA, 2012a). The amendments restructure several sections of the rule so that they apply to any new or revised National Ambient Air Quality Standards. In addition, several clarifications to improve implementation of the rule were finalized.

On March 6, 2015, EPA published *Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements* final rule (effective April 6, 2015), which shifted the San Joaquin Valley 2008 Ozone Standard attainment date from December 31, 2032 to July 20, 2032 (EPA, 2015). EPA's March 2015 ozone implementation rule also revoked the 1997 Ozone Standard for transportation conformity purposes. However, on February 16, 2018, the U.S. Court of Appeals ruled against parts of the EPA's 2015 Ozone Implementation Rule related to the revocation of the 1997 ozone standard and the relevant "anti-backsliding" requirements. While EPA has petitioned for a rehearing on April 23, the ultimate outcome and impacts of this lawsuit are currently unknown. Due to this uncertainty, the conformity analysis for the 2018 RTP and 2019 FTIP addresses the 1997 ozone standard.

On July 29, 2016, EPA released its Final Rule titled *Implementing National Ambient Air Quality Standards for Fine Particles: State Implementation Plan Requirements*. According to the implementation rule, areas designated as nonattainment for the 1997 PM2.5 standards, must continue to demonstrate conformity to these standards until attainment (EPA, 2016).

MULTI-JURISDICTIONAL GUIDANCE

EPA reissued Guidance for Transportation Conformity Implementation in Multi-Jurisdictional Nonattainment and Maintenance Areas in July 2012 (EPA, 2012c). This guidance updates and supersedes the July 2004 "multi-jurisdictional" guidance (EPA, 2004a), but does not change the substance of the guidance on how nonattainment areas with multiple agencies should conduct conformity determinations. This guidance applies to the San Joaquin Valley since there are multiple MPOs within a single nonattainment area. The main principle of the guidance is that one regional emissions analysis is required for the entire nonattainment area. However, separate modeling and conformity documents may be developed by each MPO.

Part 3 of the guidance applies to nonattainment areas that have adequate or approved conformity budgets addressing a particular air quality standard. This Part currently applies to the San Joaquin Valley for ozone and PM-10. The guidance allows MPOs to make independent conformity determinations for their plans and TIPs as long as all of the other subareas in the nonattainment area have conforming transportation plans and TIPs in place at the time of each MPO and the Department of Transportation (DOT) conformity determination.

With respect to PM2.5, the Transportation Conformity Rule PM2.5 and PM10 Amendments published on March 24, 2010 effectively incorporates the "multi-jurisdictional" guidance directly into the rule. The Rule allows MPOs to make independent conformity determinations for their plans and TIPs as long as all of the other subareas in the nonattainment area have conforming transportation plans and TIPs in place at the time of each MPO and DOT conformity determination.

DISTRICT RULE

The San Joaquin Valley Unified Air Pollution Control District (Air District) adopted Rule 9120 Transportation Conformity on January 19, 1995 in response to requirements in Section 176(c)(4)(c) of the 1990 Clean Air Act Amendments. In May 2015, the San Joaquin Valley Unified Air Pollution Control District requested ARB to withdraw Rule 9120 from California State Implementation Plan consideration.

In July of 2015, ARB sent a letter to EPA withdrawing Rule 9120 from the California State Implementation Plan. Therefore EPA can no longer act on the Rule. It should also be noted that EPA has changed 40 CFR 51.390 to streamline the requirements for State conformity SIPs. Since a transportation conformity SIP cannot be approved for the San Joaquin Valley, the Federal transportation conformity rule governs.

B. CONFORMITY REGULATION REQUIREMENTS

The Federal regulations identify general criteria and procedures that apply to all transportation conformity determinations, regardless of pollutant and implementation plan status. These include:

1) *Conformity Tests* — Sections 93.118 and 93.119 specify emissions tests (budget and interim emissions) that the TIP/RTP must satisfy in order for a determination of conformity to be found. The final transportation conformity regulation issued on July 1, 2004 requires a submitted SIP motor vehicle emissions budget to be found adequate or approved by EPA prior to use for making conformity determinations. The budget must be used on or after the effective date of EPA's adequacy finding or approval.

2) *Methods / Modeling:*

   Latest Planning Assumptions — Section 93.110 specifies that conformity determinations must be based upon the most recent planning assumptions in force at the time the conformity analysis begins. This is defined as "the point at which the MPO begins to model the impact of the proposed transportation plan or TIP on travel and/or emissions. New data that becomes available after an analysis begins is required to be used in the conformity determination only if a significant delay in the analysis has occurred, as determined through interagency consultation" (EPA, 2010b). All analyses for the Conformity Analysis were conducted using

the latest planning assumptions and emissions models in force at the time the conformity analysis started in December 2017 (see Chapter 2).

Latest Emissions Models — Section 93.111 requires that the latest emission estimation models specified for use in SIPs must be used for the conformity analysis. EMFAC2014 was used in the Conformity Analysis and is documented in Chapter 3. EPA issued a federal register notice on December 14, 2015 formally approving EMFAC2014 for use in conformity determinations.

3) *Timely Implementation of TCMs* — Section 93.113 provides a detailed description of the steps necessary to demonstrate that the new TIP/RTP are providing for the timely implementation of TCMs, as well as demonstrate that the plan and/or program is not interfering with this implementation. TCM documentation is included in Chapter 4 of the Conformity Analysis.

4) *Consultation* — Section 93.105 requires that the conformity determination be made in accordance with the consultation procedures outlined in the Federal regulations. These include:

   - MPOs are required to provide reasonable opportunity for consultation with State air agencies, local air quality and transportation agencies, the USDOT and EPA (Section 93.105(a)(1)).
   - MPOs are required to establish a proactive public involvement process, which provides opportunity for public review and comment prior to taking formal action on a conformity determination (Section 93.105(e)).

The TIP, RTP, and corresponding conformity determinations are prepared by each MPO. Copies of the Draft documents are provided to member agencies and others, including FHWA, Federal Transit Administration (FTA), EPA, Caltrans, CARB, and the Air District for review. Both the TIP and RTP are required to be publicly available and an opportunity for public review and comment is provided. SJCOG adopted consultation process and policy for conformity analysis includes a 30-day comment period followed by a public meeting.

C. AIR QUALITY DESIGNATIONS APPLICABLE TO THE SAN JOAQUIN VALLEY

The conformity regulation (section 93.102) requires documentation of the applicable pollutants and precursors for which EPA has designated the area nonattainment or maintenance. In addition, the nonattainment or maintenance area and its boundaries should be described.

SJCOG is located in the federally designated San Joaquin Valley Air Basin. The borders of the basin are defined by mountain and foothill ranges to the east and west. The northern border is consistent with the county line between San Joaquin and Sacramento Counties. The southern border is less defined, but is roughly bounded by the Tehachapi Mountains and, to some extent, the Sierra Nevada range. The conformity analysis for the 2019 FTIP and 2018 RTP includes analyses of existing and future air quality impacts for each applicable pollutant.

The San Joaquin Valley is currently designated as nonattainment for the National Ambient Air Quality Standard (NAAQS) for 8-hour ozone (1997 and 2008 standards), and particulate matter under 2.5 microns in diameter (PM2.5) (1997, 2006 and 2012 standards); and has a maintenance plan for particulate matter under 10 microns in diameter (PM-10). Note that the urbanized/metropolitan areas of Kern, Fresno, Stanislaus and San Joaquin Counties have attained

the CO standard and maintained attainment for 20 years. In accordance with Section 93.102(b)(4), conformity requirements for the CO standard stop applying 20 years after EPA approves an attainment redesignation request or as of June 1, 2018. Therefore, the conformity analysis for the 2019 FTIP and 2018 RTP no longer includes a CO conformity demonstration.

State Implementation Plans have been prepared to address ozone, PM-10 and PM2.5:

- The 2007 Ozone Plan (1997 Standard), as revised in 2015, was approved by EPA on July 8, 2016 (effective September 30, 2016).
- The 2016 Ozone Plan (2008 standard) was adopted by the Air District on June 16, 2016 and subsequently adopted by ARB on July 21, 2016. EPA found the new ozone budgets adequate on June 29, 2017 (effective July 14, 2017).
- The 2007 PM-10 Maintenance Plan (as revised in 2015) was approved by EPA on July 8, 2016 (effective September 30, 2016).
- The 2008 PM2.5 Plan (1997 Standard), as revised in 2011, was approved by EPA on November 9, 2011 (effective January 9, 2012).
- The 2012 PM2.5 Plan (as revised in 2015) was approved by EPA on August 16, 2016 (effective September 30, 2016).

EPA's March 2015 final rule implementing the 2008 Ozone Standard also revoked the 1997 Ozone Standard for transportation conformity purposes. This revocation became effective April 6, 2015. However, on February 16, 2018, the U.S. Court of Appeals ruled against parts of the EPA's 2015 Ozone Implementation Rule related to the revocation of the 1997 ozone standard and the relevant "anti-backsliding" requirements. While EPA has petitioned for a rehearing on April 23, the ultimate outcome and impacts of this lawsuit are currently unknown. Due to this uncertainty, the conformity analysis for the 2018 RTP and 2019 FTIP addresses the 1997 ozone standard.

EPA designated the San Joaquin Valley nonattainment area for the 2008 Ozone Standard, effective July 20, 2012. Transportation conformity applies one year after the effective date (July 20, 2013). Federal approval for the eight SJV MPO's 2008 Ozone standard conformity demonstrations was received on July 8, 2013.

On December 22, 2017, EPA released a response to state recommendations outlining draft areas designations for the new 2015 ozone standard of 70 ppb. It is anticipated that final designations will be determined by April 30, 2018. Transportation conformity applies one year after the designations effective date and not until 2019. Accordingly, this conformity analysis does not address the 2015 ozone standard.

On November 13, 2009, EPA published Air Quality Designations for the 2006 24-hour PM2.5 standard, effective December 14, 2009. Nonattainment areas are required to meet the standard by 2014; transportation conformity began to apply on December 14, 2010. On January 20, 2016 EPA published *Designation of Areas for Air Quality Planning Purposes; California; San Joaquin Valley; Reclassification as Serious Nonattainment for the 2006 PM2.5 NAAQS* finalizing SJV reclassification to Serious nonattainment effective February 19, 2016. Nonattainment areas are

required to meet the standard as expeditiously as practicable, but no later than December 31, 2019. It is important to note that the 2006 24-hour PM2.5 nonattainment area boundary for the San Joaquin Valley is exactly the same as the nonattainment area boundary for the 1997 annual PM2.5 standard.

EPA's nonattainment area designations for the new 2012 PM2.5 standards became effective on April 15, 2015. Conformity for a given pollutant and standard applies one year after the effective date (April 15, 2016). It is important to note that the 2012 PM2.5 standards nonattainment area boundary for the San Joaquin Valley are exactly the same as the nonattainment area boundary for the 1997 annual PM2.5 standard.

On July 29, 2016, EPA released its *Final Rule for Implementing National Ambient Air Quality Standards for Fine Particles.* According to the implementation rule, areas designated as nonattainment for the 1997 PM 2.5 standards, must continue to demonstrate conformity to these standards until attainment. In the San Joaquin Valley, the 1997 standards (both 24-hour and annual) continue to apply.

D. CONFORMITY TEST REQUIREMENTS

The conformity (Section 93.109(c)–(k)) rule requires that either a table or text description be provided that details, for each pollutant and precursor, whether the interim emissions tests and/or the budget test apply for conformity. In addition, documentation regarding which emissions budgets have been found adequate by EPA, and which budgets are currently applicable for what analysis years is required.

Specific conformity test requirements established for the San Joaquin Valley nonattainment areas for ozone, and particulate matter are summarized below.

Section 93.124(d) of the 1997 Final Transportation Conformity regulation allows for conformity determinations for sub-regional emission budgets by MPOs if the applicable implementation plans (or implementation plan submission) explicitly indicates an intent to create such sub-regional budgets for the purpose of conformity. In addition, Section 93.124(e) of the 1997 rules states: "…if a nonattainment area includes more than one MPO, the implementation plan may establish motor vehicle emission budgets for each MPO, or else the MPOs must collectively make a conformity determination for the entire nonattainment area." Each applicable implementation plan and estimate of baseline emissions in the San Joaquin Valley provides motor vehicle emission budgets by county, to facilitate county-level conformity findings.

OZONE

1997 8-Hour Ozone Standard

EPA's final rule implementing the 2008 ozone standard also revoked the 1997 ozone standard for transportation conformity purposes. This revocation became effective April 6, 2015. However, on February 16, 2018, the U.S. Court of Appeals ruled against parts of the EPA's 2015 Ozone Implementation Rule related to the revocation of the 1997 ozone standard and the relevant "anti-

backsliding" requirements. While EPA has petitioned for a rehearing on April 23, the ultimate outcome and impacts of this lawsuit are currently unknown. Due to this uncertainty, the conformity analysis for the 2018 RTP and 2019 FTIP addresses the 1997 ozone standard[2].

Under the existing conformity regulation, regional emissions analyses for ozone areas must address nitrogen oxides (NOx) and volatile organic compounds (VOC) precursors. It is important to note that in California, reactive organic gases (ROG) are considered equivalent to and are used in place of volatile organic compounds (VOC).

EPA approved the 2007 Ozone (1997 standard) Plan (as revised in 2015) including conformity budgets on July 8, 2016 (effective September 30, 2016). The revised SIP identified both reactive organic gases (ROG) and nitrogen oxides (NOx) subarea budgets in tons per average summer day for each MPO in the nonattainment area. For 1997 ozone conformity, the SJV MPOs will continue to conduct demonstrations for subarea emissions budgets as established in the 2007 Ozone Plan (as revised in 2015).

The approved conformity budgets from Table 1 of the August 12, 2016 Federal Register are provided in a table below. These budgets will be used to compare to emissions resulting from the 2019 FTIP and the 2018 RTP.

Table 1-1:
On-Road Motor Vehicle 1997 Ozone Standard Budgets [(a)]
(summer tons/day)

	2017[(b)]		2020		2023	
County	**ROG**	**NOx**	**ROG**	**NOx**	**ROG**	**NOx**
Fresno	8.7	29.9	6.8	24.3	5.6	14.6
Kern (SJV)	6.9	26.8	5.7	22.4	4.8	12.9
Kings	1.4	5.5	1.1	4.7	0.9	2.7
Madera	2.0	5.5	1.6	4.5	1.3	2.7
Merced	2.7	10.3	2.1	8.5	1.7	5.1
San Joaquin	6.4	14.1	5.1	11.3	4.3	7.3
Stanislaus	4.1	11.3	3.2	9.2	2.7	5.8
Tulare	4.0	10.3	3.1	8.1	2.5	4.9

[(a)]Note that EPA did not take action on the 2011 and 2014 budgets of the 2007 Ozone Plan (as revised in 2015).
[(b)] 2017 budgets are not in the timeframe of this conformity analysis.

[2] Note that FHWA/FTA *Interim Guidance on Conformity Requirements for the 1997 Ozone NAAQS* issued on April 23 does not require that areas in non-attainment of the 2008 Ozone Standard address 1997 ozone in their regional conformity analyses at this time. However, the SJV MPOs have voluntarily included 1997 ozone conformity demonstration for the 2018 RTP/2019 TIP to minimize project delivery risk.

2008 8-Hour Ozone Standard

Under the existing conformity regulation, regional emissions analyses for ozone areas must address nitrogen oxides (NOx) and volatile organic compounds (VOC) precursors. It is important to note that in California, reactive organic gases (ROG) are considered equivalent to and are used in place of volatile organic compounds (VOC).

Although EPA has not yet issued a full approval of the 2016 Ozone Plan for the 2008 8-hour ozone standard, the agency found the Plan's transportation conformity budgets adequate on June 29, 2017 (effective July 14, 2017). The EPA adequacy notice identified both reactive organic gases (ROG) and nitrogen oxides (NOx) subarea budgets in tons per average summer day for each MPO in the nonattainment area. For 2008 ozone conformity, the SJV MPOs will continue to conduct demonstrations for subarea emissions budgets as established in the 2016 Ozone Plan.

The adequate conformity budgets from June 29, 2017 Federal Register are provided in a table below. These budgets will be used to compare to emissions resulting from the 2019 FTIP and the 2018 RTP.

Table 1-2:
On-Road Motor Vehicle 2008 Ozone Standard Emissions Budgets
(summer tons/day)

	2018		2021		2024		2027		2030		2031	
County	**ROG**	**NOx**	**ROG**	**NOx**	**ROG**	**NOx**	**ROG**	**NOx**	**ROG**	**NOx**	**ROG**	**NOx**
Fresno	8.0	27.7	6.4	22.2	5.4	14.1	4.9	13.2	4.5	12.6	4.3	12.5
Kern (SJV)	6.6	25.4	5.5	20.4	4.8	12.6	4.5	11.7	4.2	10.9	4.1	10.8
Kings	1.3	5.1	1.1	4.2	0.9	2.6	0.9	2.5	0.8	2.3	0.8	2.3
Madera	1.9	5.1	1.5	4.1	1.2	2.6	1.1	2.3	0.9	2.0	0.9	2.0
Merced	2.5	9.4	2.0	7.8	1.6	4.8	1.5	4.4	1.3	4.2	1.3	4.1
San Joaquin	5.9	13.0	4.9	10.3	4.2	6.9	3.8	5.2	3.5	5.7	3.3	5.5
Stanislaus	3.8	10.5	3.0	8.3	2.6	5.6	2.3	5.1	2.1	4.7	2.0	4.7
Tulare	3.7	9.5	2.9	7.2	2.4	4.7	2.2	4.1	1.9	3.8	1.9	3.7

[(a)] Note that 2016 ozone budgets were established by rounding up each county's emissions totals to the nearest tenth of a ton.

As noted above, since transportation conformity for the 2015 ozone standard will not apply until 2019, this conformity analysis does not address the 2015 ozone standard.

PM-10

The 2007 PM-10 Maintenance Plan (as revised in 2015) was approved by EPA on July 8, 2016 (effective September 30, 2016), which contains motor vehicle emission budgets for PM-10 and NOx, as well as a trading mechanism. Motor vehicle emission budgets are established based on average annual daily emissions. The motor vehicle emissions budget for PM-10 includes regional re-entrained dust from travel on paved roads, vehicular exhaust, travel on unpaved roads, and road

construction. The conformity budgets from Table 2 of the August 12, 2016 Federal Register are provided below and will be used to compare emissions for each analysis year.

The PM-10 SIP allows trading from the motor vehicle emissions budget for the PM-10 precursor NOx to the motor vehicle emissions budget for primary PM-10 using a 1.5 to 1 ratio. The trading mechanism allows the agencies responsible for demonstrating transportation conformity in the San Joaquin Valley to supplement the 2005 budget for PM-10 with a portion of the 2005 budget for NOx, and use these adjusted motor vehicle emissions budgets for PM-10 and NOx to demonstrate transportation conformity with the PM-10 SIP for analysis years after 2005. As noted above, EPA approved the 2007 PM-10 Maintenance Plan (with minor technical corrections to the conformity budgets) on July 8, 2016, which includes continued approval of the trading mechanism.

The trading mechanism will be used only for conformity analyses for analysis years after 2005. To ensure that the trading mechanism does not impact the ability to meet the NOx budget, the NOx emission reductions available to supplement the PM-10 budget shall only be those remaining after the NOx budget has been met.

Table 1-3:
On-Road Motor Vehicle PM-10 Emissions Budgets
(tons per average annual day)

	2005		2020	
County	**PM-10**	**NOx**	**PM-10**	**NOx**
Fresno	13.5	59.2	7.0	25.4
Kern[(a)]	12.1	88.3	7.4	23.3
Kings	3.1	16.7	1.8	4.8
Madera	3.6	13.9	2.5	4.7
Merced	6.2	39.4	3.8	8.9
San Joaquin	9.1	42.6	4.6	11.9
Stanislaus	5.6	29.7	3.7	9.6
Tulare	7.3	25.1	3.4	8.4

(a) Kern County subarea includes only the portion of Kern County within the San Joaquin Valley Air Basin
(b) Note that EPA did not take action on the 2005 budgets of the 2007 PM10 Maintenance Plan (as revised in 2015). These budgets are not in the timeframe of this conformity analysis.

PM2.5

EPA and FHWA have indicated that areas violating both the annual and 24-hour standards for PM2.5 must address all standards in the conformity determination. The San Joaquin Valley currently violates both the 1997 annual and 24-hour and 2012 annual PM2.5 standards and the 2006

24-hour PM2.5 standards; thus the conformity determination includes all corresponding analyses (see discussion under Air Quality Designations Applicable to the San Joaquin Valley above).

The 2017 PM2.5 Plan addressing 1997, 2006 and 2012 PM2.5 standards is anticipated to be submitted to EPA in the summer of 2018. Since no new PM2.5 budgets are available at this time, existing budgets in the approved PM2.5 plans will continue to be used as described below.

1997 (24-hour and annual) and 2012 (annual) PM2.5 Standards

The 2008 PM2.5 Plan for the 1997 PM2.5 standard (as revised in 2011) was approved by EPA on November 9, 2011, which contains motor vehicle emission budgets for PM2.5 and NOx established based on average annual daily emissions, as well as a trading mechanism. The motor vehicle emissions budget for PM2.5 includes directly emitted PM2.5 motor vehicle emissions from tailpipe, brake wear and tire wear. VOC, SOx, ammonia, and dust (from paved roads, unpaved roads, and road construction) were found to be insignificant and not included in the motor vehicle emission budgets for conformity purposes. The conformity budgets from Table 5 of the November 9, 2011 Federal Register are provided in Table 1-4 below and will be used to compare emissions resulting from the 2019 FTIP and the 2018 RTP.

In accordance with Section 93.109(i)(3) of the conformity rule, if a 2012 PM2.5 nonattainment area has adequate or approved SIP budgets that address the annual 1997 PM2.5 standards, it must use the budget test until new 2012 PM2.5 standard budgets are found adequate or approved. The attainment year of 2021 will be modeled. For this Conformity Analysis, the SJV will conduct determinations for subarea emission budgets as established in the 2008 PM2.5 (1997 Standard) Plan.

In addition, the final PM2.5 Implementation Rule requires areas designated as nonattainment for the 1997 PM2.5 standards to continue demonstrate conformity to these standards until attainment. In the San Joaquin Valley, the 1997 standards (both 24-hour and annual) continue to apply.

Table 1-4:
On-Road Motor Vehicle 1997 (24-hour and annual) and 2012 (annual) PM2.5 Standard Emissions Budgets
(tons per average annual day)

	2012		2014	
County	**PM2.5**	**NOx**	**PM2.5**	**NOx**
Fresno	1.5	35.7	1.1	31.4
Kern (SJV)	1.9	48.9	1.2	43.8
Kings	0.4	10.5	0.3	9.3
Madera	0.4	9.2	0.3	8.1
Merced	0.8	19.7	0.6	17.4
San Joaquin	1.1	24.5	0.9	21.6
Stanislaus	0.7	16.7	0.6	14.6
Tulare	0.7	15.7	0.5	13.8

The 2008 PM2.5 SIP includes a trading mechanism that allows trading from the motor vehicle emissions budget for the PM-2.5 precursor NOx to the motor vehicle emissions budget for primary PM-2.5 using a 9 to 1 ratio. The trading mechanism allows the agencies responsible for demonstrating transportation conformity in the San Joaquin Valley to supplement the applicable budget for PM-2.5 with a portion of the applicable corresponding budget for NOx, and use these adjusted motor vehicle emissions budgets for PM-2.5 and NOx to demonstrate transportation conformity with the PM-2.5 SIP for analysis years after 2014. As noted above, EPA approved the 2008 PM2.5 Plan (as revised in 2011) on November 9, 2011, which includes approval of the trading mechanism.

The trading mechanism will be used only for conformity analyses for analysis years after 2014. To ensure that the trading mechanism does not impact the ability to meet the NOx budget, the NOx emission reductions available to supplement the PM-2.5 budget shall only be those remaining after the NOx budget has been met.

As noted above, in accordance with the EPA Transportation Conformity Rule Restructuring Amendments Nonattainment areas allows 2012 PM2.5 areas with adequate or approved 1997 PM2.5 budgets to determine conformity for both NAAQS at the same time, using the budget test.

2006 24-Hour PM2.5 Standard

The 2012 (2006 Standard) PM2.5 Plan was first approved by ARB on January 24, 2013 and the Plan Supplement requesting reclassification to Serious and including revised budgets was approved by ARB on October 24, 2014. EPA proposed approval of the plan on January 13, 2015.

On January 20, 2016, EPA finalized reclassification of the San Joaquin Valley to Serious nonattainment for the 2006 24-hour PM2.5 Standard. On May 18, 2016 EPA published proposed approval of the revised 2012 Plan PM2.5 budgets. Then on August 16, 2016, the 2012 PM2.5 Plan was approved by EPA including the revised conformity budgets and a trading mechanism (effective September 30, 2016).

The 2012 PM2.5 Plan for the 2006 PM2.5 standard (as revised in 2015) contains motor vehicle emission budgets for PM2.5 and NOx established based on average winter daily emissions, as well as a trading mechanism. The motor vehicle emissions budget for PM2.5 includes directly emitted PM2.5 motor vehicle emissions from tailpipe, brake wear and tire wear. VOC, SOx, ammonia, and dust (from paved roads, unpaved roads, and road construction) were found to be insignificant and not included in the motor vehicle emission budgets for conformity purposes. The conformity budgets from the 2012 PM2.5 Plan (as revised in 2015) are provided in Table 1-5 below and will be used to compare emissions resulting from the 2019 FTIP and the 2018 RTP.

Table 1-5:
On-Road Motor Vehicle 2006 24-Hour PM2.5 Standard Emissions Budgets
(tons per average winter day)

	2014		2017	
County	**PM2.5**	**NOx**	**PM2.5**	**NOx**
Fresno	1.0	31.6	1.0	32.1
Kern (SJV)	1.2	43.2	0.8	28.8
Kings	0.2	8.8	0.2	5.9
Madera	0.3	8.7	0.2	6.0
Merced	0.5	17.2	0.3	11.0
San Joaquin	0.7	20.0	0.6	15.5
Stanislaus	0.5	15.1	0.4	12.3
Tulare	0.5	14.3	0.4	11.2

(a) Note that EPA did not take action on the 2014 budgets of the 2012 PM2.5 Plan (as revised in 2015). These budgets are not in the timeframe of this conformity analysis.

The 2012 PM2.5 SIP includes a trading mechanism that allows trading from the motor vehicle emissions budget for the PM2.5 precursor NOx to the motor vehicle emissions budget for primary PM-2.5 using an 8 to 1 ratio. The trading mechanism allows the agencies responsible for demonstrating transportation conformity in the San Joaquin Valley to supplement the applicable budget for PM-2.5 with a portion of the applicable corresponding budget for NOx, and use these adjusted motor vehicle emissions budgets for PM2.5 and NOx to demonstrate transportation conformity with the PM2.5 SIP for analysis years after 2014. As noted above, EPA approved the 2012 PM2.5 Plan budgets (as revised in 2015) on August 16, 2016 (effective September 30, 2016) and the trading mechanism.

E. ANALYSIS YEARS

The conformity regulation (Section 93.118[b] and [d]) requires documentation of the years for which consistency with motor vehicle emission budgets must be shown. In addition, any interpolation performed to meet tests for years in which specific analysis is not required need to be documented.

For the selection of the horizon years, the conformity regulation requires: (1) that if the attainment year is in the time span of the transportation plan, it must be modeled; (2) the last year forecast in the transportation plan must be a horizon year; and (3) horizon years may not be more than ten years apart. In addition, the conformity regulation requires that conformity must be demonstrated for each year for which the applicable implementation plan specifically establishes motor vehicle emission budgets.

Section 93.118(b)(2) clarifies that when a maintenance plan has been submitted, conformity must be demonstrated for the last year of the maintenance plan and any other years for which the maintenance plan establishes budgets in the time frame of the transportation plan. Section 93.118(d)(2) indicates that a regional emissions analysis may be performed for any years, the attainment year, and the last year of the plan's forecast. Other years may be determined by interpolating between the years for which the regional emissions analysis is performed.

Section 93.118(d)(2) indicates that the regional emissions analysis may be performed for any years in the time frame of the transportation plan provided they are not more than ten years apart and provided the analysis is performed for the attainment year (if it is in the time frame of the transportation plan) and the last year of the plan's forecast period. Emissions in years for which consistency with motor vehicle emissions budgets must be demonstrated, as required in paragraph (b) of this section (i.e., each budget year), may be determined by interpolating between the years for which the regional emissions analysis is performed. Table 1-6 below provides a summary of conformity analysis years that apply to the 2018 RTP/2019 FTIP conformity analysis.

Table 1-6:
San Joaquin Valley Conformity Analysis Years

Pollutant	Budget Years[3]	Attainment/ Maintenance Year	Intermediate Years	RTP Horizon Year
1997 Ozone	2011, 2014, 2017, 2020	2023	2031/2037	2042
2008 Ozone	2018/2021/2024/2027/2030	2031	2037	2042
PM-10	NA	2020	2027/2035	2042
1997 and 2012 PM2.5	NA	2014/2021[2]	2027/2035	2042
2006 24-hour PM2.5	2014/2017	2019[3]	2027/2035	2042

[1]Budget years that are not in the time frame of the transportation plan/conformity analysis are not included as analysis years (e.g., 2014, 2017), although they may be used to demonstrate conformity.
[2]. Note: 2014 is the attainment year for the 1997 PM2.5 standards. 2021 is the attainment year for the 2012 PM2.5 standards.
[3]Note: The 2006 standard must be met as expeditiously as practicable, but no later than December 31, 2019.

For the 1997 ozone standard[4], the San Joaquin Valley has been classified as an Extreme nonattainment area with an attainment date of June 15, 2024. In accordance with the March 2015 *Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements* final rule, the attainment year of 2023 must be modeled. When using the budget test, the attainment year of the 1997 Ozone standard must be analyzed (e.g. 2023).

For the 2008 ozone standard, the San Joaquin Valley has been classified as an Extreme nonattainment area with an attainment date of July 20, 2032. In accordance with the March 2015 *Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements* final rule, the attainment year of 2031 must be modeled. When using the budget test, the attainment year of the 2008 Ozone standard must be analyzed (e.g. 2031).

The Clean Air Act requires all states to attain the 1997 PM2.5 standards as expeditiously as practicable beginning in 2010, but by no later than April 5, 2010 unless EPA approves an attainment date extension. States must identify their attainment dates based on the rate of reductions from their control strategies and the severity of the PM2.5 problem. On February 9, 2016 EPA released its proposed *Approval and Disapproval of California Air Plan; San Joaquin Valley Serious Area Plan and Attainment Date Extension for the 1997 PM2.5 NAAQS.* No final EPA action has been taken on the plan. Thus, proposed SIP budgets are assumed to be unavailable for use and the 2008 PM2.5 Plan conformity budgets are the only budgets applicable at this time for the 1997 PM2.5 standard.

On January 20, 2016, EPA finalized reclassification of the San Joaquin Valley to Serious nonattainment for the 2006 24-hour PM2.5 Standard. On May 18, 2016 EPA published proposed approval of the revised 2012 Plan PM2.5 budgets. On August 16, 2016, the 2012 PM2.5 Plan was approved by EPA, effective September 30, 2016, inclusive of revised conformity budgets and trading mechanism for the 2006 24-hour PM2.5 standard. Attainment year of 2019 must be modeled.

On April 15, 2015, EPA classified the San Joaquin Valley as Moderate nonattainment for the 2012 PM2.5 Standards. In accordance with Section 93.109(i)(3) of the conformity rule, if a 2012 PM2.5 nonattainment area has adequate or approved SIP budgets that address the annual 1997 PM2.5 standards, it must use the budget test until new 2012 PM2.5 standard budgets are found adequate or approved. When using the budget test, the attainment year must be analyzed (e.g. 2021). In addition, in areas that have approved or adequate budgets for the 1997 annual PM2.5 standards, consistency with those budgets must also be determined. Attainment year of 2021 must be modeled.

[4] Note that FHWA/FTA *Interim Guidance on Conformity Requirements for the 1997 Ozone NAAQS* issued on April 23 does not require that areas in non-attainment of the 2008 Ozone Standard address 1997 ozone in their regional conformity analyses at this time. However, the SJV MPOs have voluntarily included 1997 ozone conformity demonstration for the 2018 RTP/2019 TIP to minimize project delivery risk

CHAPTER 2:
LATEST PLANNING ASSUMPTIONS AND TRANSPORTATION MODELING

The Clean Air Act states that "the determination of conformity shall be based on the most recent estimates of emissions, and such estimates shall be determined from the most recent population, employment, travel, and congestion estimates as determined by the MPO or other agency authorized to make such estimates." On January 18, 2001, the USDOT issued guidance developed jointly with EPA to provide additional clarification concerning the use of latest planning assumptions in conformity determinations (USDOT, 2001).

According to the conformity regulation, the time the conformity analysis begins is "the point at which the MPO or other designated agency begins to model the impact of the proposed transportation plan or TIP on travel and/or emissions." The conformity analysis and initial modeling began in May 2016.

Key elements of the latest planning assumption guidance include:

- Areas are strongly encouraged to review and strive towards regular five-year updates of planning assumptions, especially population, employment and vehicle registration assumptions.
- The latest planning assumptions must be derived from the population, employment, travel and congestion estimates that have been most recently developed by the MPO (or other agency authorized to make such estimates) and approved by the MPO.
- Conformity determinations that are based on information that is older than five years should include written justification for not using more recent information. For areas where updates are appropriate, the conformity determination should include an anticipated schedule for updating assumptions.
- The conformity determination must use the latest existing information regarding the effectiveness of the transportation control measures (TCMs) and other implementation plan measures that have already been implemented.

SJCOG uses the CUBE transportation model. The model was validated in 2017 for the 2015 base year. The latest planning assumptions used in the transportation model validation and Conformity Analysis is summarized in Table 2-1.

Table 2-1:
Summary of Latest Planning Assumptions for the SJCOG Conformity Analysis

Assumption	Year and Source of Data (MPO action)	Modeling	Next Scheduled Update
Population	Base Year: 2015 Projections: The SJCOG policy board accepted population projections from University of Pacific – Research Center for Business and Policy, 2016.	This data is disaggregated to the TAZ level for input into TP+/CUBE for the base year validation.	New data from the University of Pacific – Research Center for Business and Policy is expected to be adopted by SJCOG in 2022.
Employment	Base Year: 2015 Projections: SJCOG does not develop or adopt employment projections. However, employment data is based on projections from University of Pacific – Research Center for Business and Policy, 2016.	This data is disaggregated to the TAZ level for input into TP+/CUBE for the base year validation.	New data from the University of Pacific – Research Center for Business and Policy is expected to be adopted by SJCOG in 2022.
Traffic Counts	The transportation model was validated in 2017 to the 2015 base year using daily and peak hour traffic counts.	TP+/CUBE was validated using these traffic counts.	Traffic counts are updated every five years, if funds are available.
Vehicle Miles of Travel	The SJCOG policy Board accepted the 2017 transportation model validation for the 2015 base year in March 2018.	TP+/CUBE is the transportation model used to estimate VMT in San Joaquin County.	VMT is an output of the transportation model. VMT is affected by the TIP/RTP project updates and is included in each new conformity analysis.

Assumption	Year and Source of Data (MPO action)	Modeling	Next Scheduled Update
Speeds	The 2017 transportation model validation was based on survey data on peak and off-peak highway speeds collected in 2017 year. Speed distributions were updated in EMFAC2014, using methodology approved by ARB and with information from the transportation model.	TP+/CUBE. The transportation model includes a feedback loop that assures congested speeds are consistent with travel speeds. EMFAC2014	A speed study will be conducted every five years, if adequate funds are available.

A. SOCIOECONOMIC DATA

POPULATION, EMPLOYMENT AND LAND USE

The conformity regulation requires documentation of base case and projected population, employment, and land use used in the transportation modeling. USDOT/EPA guidance indicates that if the data is more than five years old, written justification for the use of older data must be provided. In addition, documentation is required for how land use development scenarios are consistent with future transportation system alternatives, and the reasonable distribution of employment and residences for each alternative.

Supporting Documentation:

In March 2018, the SJCOG policy board adopted employment projections to the year 2040 for San Joaquin County. SJCOG hired the University of the Pacific Research and Forecasting Center which developed employment projections based on IHS-Global Insight regional forecasting models and prepared using IHS-Global Insight's Aremos forecasting software. San Joaquin County's forecast is based on its own unique econometric model, but has drivers linked to state and national forecasts to account for macro trends. UOP used judgment to adjust the econometric forecasts to account for local knowledge and foreseeable short and medium-term developments, such as the opening and closing of large facilities, local real estate market trends or major infrastructure projects.

In March 2018, the SJCOG policy board adopted population forecasts to the year 2050 for San Joaquin County. The forecasts are from the *San Joaquin Valley Demographic Forecasts: 2010 to 2050* prepared by The Planning Center, 2016. The forecast was part of a San Joaquin Valley demographic study commissioned by the eight metropolitan planning organizations of the valley, in an effort to obtain recently-prepared projections.

This study includes three primary forecasts of population, households and housing units. Other projections developed by The Planning Center, e.g., age distribution, average household size, household income, household type, race/ethnicity, are derived from the three primary forecasts.

The Planning Center forecasts are based on several different projections including household trend, total housing unit trend, housing construction trend, employment trend, cohort-component model, population trend, average household size trend, and household income trend. The least-squares linear curve forms the basis for all projections because the forecasts are long-term and curve-fitting techniques (e.g., parabolic curve, logistic curve) do not provide reasonable long-term results. Three measures evaluate the adequacy of each projection: mean absolute percentage error (MAPE), F-test, and t-test.

Land use and socioeconomic data at the Traffic Analysis Zone level are used for determining trip generation in the traffic model. Population and employment projections at the countywide, jurisdictional, and TAZ level were developed based on historical growth rates, and a consensus process utilizing input from the SJCOG Technical Advisory Committee.

$$HH_{2008}(HHsize_N - HHsize_{2008})$$

B. TRANSPORTATION MODELING

The San Joaquin Valley Metropolitan Planning Organizations (MPOs) utilize the TP+/CUBE traffic modeling software. The Valley MPO regional traffic models consist of traditional four-step traffic forecasting models. They use land use, socioeconomic, and road network data to estimate facility-specific roadway traffic volumes. Each MPO model covers the appropriate county area, which is then divided into hundreds or thousands of individual traffic analysis zones (TAZs). In addition the model roadway networks include thousands of nodes and links. Link types include freeway, freeway ramp, other State route, expressway, arterial, collector, and local collector. Current and future-year road networks were developed considering local agency circulation elements of their general plans, traffic impact studies, capital improvement programs, and the State Transportation Improvement Program. The models use equilibrium, a capacity sensitive assignment methodology, and the data from the model for the emission estimates differentiates between peak and off-peak volumes and speeds. In addition, the model is reasonably sensitive to changes in time and other factors affecting travel choices. The results from model validation/calibration were analyzed for reasonableness and compared to historical trends.

Specific transportation modeling requirements in the conformity regulation are summarized below, followed by a description of how the SJCOG transportation modeling methodology meets those requirements.

SJCOG completed the update of its traffic model to Citilabs Cube modeling software and validation to a new base year of 2015. The SJCOG regional traffic model is a four-step mode choice traffic model. It uses land use, socioeconomic, and road network data to estimate facility-specific roadway traffic volumes. The study area for the SJCOG model covers all of San Joaquin, Stanislaus, and Merced Counties. The model region is divided up into approximately 6540 traffic analysis zones. Link types include freeway, freeway ramp, other state route, expressway, arterial, collector, and local collector. Current and future-year road networks were developed considering local agency circulation elements of their general plans, traffic impact studies, capital improvement programs, and the State Transportation Improvement Program.

The travel demand model estimates travel demand and traffic volumes for the A.M. three-hour peak period, P.M. three-hour peak period, and mid-day, and evening. Daily forecasts are calculated by summing the A.M. and P.M. three-hour peak periods with the mid-day and evening period. The model also generates traffic forecasts for the A.M. peak hour and the P.M. peak hour.

Land use and socioeconomic data at the Traffic Analysis Zone level are used for determining trip generation in the traffic model. Population and employment projections at the countywide, jurisdictional, and TAZ level were developed based on historical growth rates, and a consensus process utilizing input from each of the SJCOG local jurisdictions.

TRAFFIC COUNTS

The conformity regulation requires documentation that a network-based travel model is in use that is validated against observed counts for a base year no more than 10 years before the date of the conformity determination. Document that the model results have been analyzed for reasonableness and compared to historical trends and explain any significant differences between past trends and forecasts (for per capita vehicle-trips, VMT, trip lengths mode shares, time of day, etc.).

Supporting Documentation:
The San Joaquin County portion of Three County Model was validated to 2015 using available 2014-2017 counts and counts from the SJCOG Congestion Management Program. Over 1100 counts were used.

Data from the 2001 California Household Travel Study (CHTS) were also used to validate the Three County Model.

The Estimated Vehicle Miles Traveled in the 2015 validated base year calibrated to within 3 percent of the estimate in the Highway Performance Monitoring System report for San Joaquin County.

SPEEDS

The conformity regulation requires documentation of the use of capacity sensitive assignment methodology and emissions estimates based on a methodology that differentiates between peak and off-peak volumes and speeds, and bases speeds on final assigned volumes. In addition, documentation of the use of zone-to-zone travel impedances to distribute trips in reasonable agreement with the travel times estimated from final assigned traffic volumes. Where transit is a significant factor, document that zone-to-zone travel impedances used to distribute trips are used to model mode split. Finally, document that reasonable methods were used to estimate traffic speeds and delays in a manner sensitive to the estimated volume of travel on each roadway segment represented in the travel model.

Supporting Documentation:

The valley traffic models include a feedback loop that uses congested travel times as an input to the trip distribution step. The feedback loop ensures that the congested travel speeds used as input to the air pollution emission models are consistent with the travel speeds used throughout the traffic model process.

The SJCOG traffic model includes a feedback loop that uses congested travel times as an input to the trip distribution step. The feedback loop ensures that the congested travel speeds used as input to the air pollution emission models are consistent with the peak hour and off peak travel speeds used throughout the traffic model process.

TRANSIT

The conformity regulation requires documentation of any changes in transit operating policies and assumed ridership levels since the previous conformity determination. Document the use of the latest transit fares and road and bridge tolls.

Supporting Documentation:

The SJCOG Model is based on the latest available assumptions on transit fares for all transit operators in the model region and auto ownership costs.

Please see chapter 4, appendix F, and appendix L of the 2014 RTP for each local transit operator's accomplishments and proposed actions.

The mode choice model uses a multinomial logit formulation, which assigns the probability of using a particular travel mode based on attractiveness measure for that mode in relation to the sum of the attractiveness of the other mode. The model predicts the following seven modes:

1. Drive Alone
2. 2-Person vehicle
3. 3+-Person vehicle
4. Walk to Transit
5. Drive to Transit
6. Walk
7. Bike

Daily transit trips are assigned to the transit network. Transit trips are assigned to the single best path based on in-vehicle time plus weighted out-of- vehicle times. The transit trips are assigned in four groups:

1. Peak period (A.M. plus P.M.), walk access
2. Peak period (A.M. plus P.M.), drive access
3. Off-peak, walk access
4. Off-peak, drive access

The peak period transit trips represent trips occurring during the A.M. three- hour peak period plus the P.M. three-hour peak period. Peak period transit trips are assigned to the peak transit service (peak period headways) with travel times based on the congested speeds from the A.M. peak period traffic assignment. Off-peak transit trips represent trips during the remaining 18 hours and are assigned to the off-peak transit service (off-peak headways) with travel times based on the congested road speeds from the off-peak traffic assignment.

VALIDATION/CALIBRATION

The conformity regulation requires documentation that the model results have been analyzed for reasonableness and compared to historical trends and explain any significant differences between past trends and forecasts (for per capita vehicle-trips, VMT, trip lengths mode shares, time of day, etc.). In addition, documentation of how travel models are reasonably sensitive to changes in time, cost, and other factors affecting travel choices is required. The use of HPMS, or a locally developed count-based program or procedures that have been chosen to reconcile and calibrate the network-based travel model estimates of VMT must be documented.

Supporting Documentation:

For Serious and above nonattainment areas, transportation conformity guidance, Section 93.122(b)(3) of the conformity regulation states:

Highway Performance Monitoring System (HPMS) estimates of vehicle miles traveled (VMT) shall be considered the primary measure of VMT within the portion of the nonattainment or maintenance area and for the functional classes of roadways included in HPMS, for urban areas which are sampled on a separate urban area basis. For areas with network-based travel models, a factor (or factors) may be developed to reconcile and calibrate the network-based travel model estimates of VMT in the base year of its validation to the HPMS estimates for the same period. These factors may then be applied to model estimates of future VMT. In this factoring process, consideration will be given to differences between HPMS and network-based travel models, such as differences in the facility coverage of the HPMS and the modeling network description. Locally developed count-based programs and other departures from these procedures are permitted subject to the interagency consultation procedures.

The SJCOG Model was validated by comparing its estimates of base year traffic conditions with base year traffic counts. The base year validations meet standard criteria for replicating total traffic volumes on various road types and for percent error on links. The base year validation also meets standard criteria for percent error relative to traffic counts on groups of roads (screen-lines) throughout each county. The validated 2015 SJCOG Model estimate of total Vehicle Miles Traveled (VMT) was within 3 percent of the estimate of the VMT from the 2015 Highway Performance Monitoring System.

FUTURE NETWORKS

The conformity regulation requires that a listing of regionally significant projects and federally-funded non-regionally significant projects assumed in the regional emissions analysis be provided in the conformity documentation. In addition, all projects that are exempt must also be documented.

§93.106(a)(2)ii and §93.122(a)(1) requires that regionally significant additions or modifications to the existing transportation network that are expected to be open to traffic in each analysis year be documented for both Federally funded and non-federally funded projects (see Appendix B).

§93.122(a)(1) requires that VMT for non-regionally significant Federal projects is accounted for in the regional emissions analysis. It is assumed that all SJV MPOs include these projects in the transportation network (see Appendix B).

§93.126, §93.127, §93.128 require that all projects in the TIP/RTP that are exempt from conformity requirements or exempt from the regional emissions analysis be documented. In addition, the reason for the exemption (Table 2, Table 3, traffic signal synchronization) must also be documented (see Appendix B). It is important to note that the CTIPs exemption code is provided in response to FHWA direction.

The build highway networks include qualifying projects based on the 2019 FTIP and the 2018 RTP. Not all of the street and freeway projects included in the TIP/RTP qualify for inclusion in the highway network. Projects that call for study, design, or non-capacity improvements are not included in the networks. When these projects result in actual facility construction projects, the associated capacity changes are coded into the network as appropriate. Since the networks define capacity in terms of number of through traffic lanes, only construction projects that increase the lane-miles of through traffic are included.

Generally, Valley MPO highway networks include all roadways included in the county or cities classified system. These links typically include all freeways plus expressways, arterials, collectors and local collectors. Highway networks also include regionally significant planned local improvements from Transportation Impact Fee Programs and developer funded improvements required to mitigate the impact of a new development.

Small-scale local street improvements contained in the TIP/RTP are not coded on the highway network. Although not explicitly coded, traffic on collector and local streets is simulated in the models by use of abstract links called “centroid connectors”. These represent local streets and driveways which connect a neighborhood to a regionally-significant roadway. Model estimates of centroid connector travel are reconciled against HPMS estimates of collector and local street travel.

C. TRAFFIC ESTIMATES

A summary of the population, employment, and travel characteristics for the SJCOG transportation modeling area for each scenario in the Conformity Analysis is presented in Table 2-2.

Table 2-2:
Traffic Network Comparison for Horizon Years Evaluated in Conformity Analysis

Horizon Year	Total Population (thousands)	Employment (thousands)	Average Weekday VMT (millions)	Total Lane Miles
2018	755.9	247.6	18.5	N/A
2019	765.9	251.8	18.9	N/A
2020	775.8	256.0	19.0	4,947
2021	786.5	258.9	19.3	N/A
2023	808.0	264.6	19.6	N/A
2024	818.7	267.4	20.0	N/A
2027	851.0	276.1	20.6	5,084
2030	883.5	285.1	21.1	N/A
2031	896.4	288.0	21.1	N/A
2035	947.8	299.9	21.8	5,353
2037	977.0	305.8	22.2	NA
2042	1,050.2	319.9	23.1	5,408

D. VEHICLE REGISTRATIONS

SJCOG does not estimate vehicle registrations, age distributions or fleet mix. Rather, current forecasted estimates for these data are developed by CARB and included in the EMFAC2014 model (http://www.arb.ca.gov/msei/onroad/latest_version.htm). EMFAC2014 is the most recent model for use in California conformity analyses. Vehicle registrations, age distribution and fleet mix are developed and included in the model by CARB and cannot be updated by the user. EPA issued a federal register notice on December 14, 2015 formally approving EMFAC2014 for conformity.

E. STATE IMPLEMENTATION PLAN MEASURES

The air quality modeling procedures and associated spreadsheets contained in Chapter 3 Air Quality Modeling assume emission reductions consistent with the applicable air quality plans. The emission reductions assumed for these committed measures reflect the latest implementation status of these measures. Committed control measures in the applicable air quality plans that reduce mobile source emissions and are used in conformity, are summarized below.

OZONE

Committed control measures in the 2007 8-hour Ozone Plan (as revised in 2015) for the 1997 Ozone standard that reduce mobile source emissions are shown in Table 2-3. However, reductions

from these control measures were not applied to this conformity analysis because they were not needed to demonstrate conformity.

Table 2-3:
2007 Ozone Plan Measures Assumed in the Conformity Analysis

Measure Description	Pollutants
Existing Local Reductions: District Rule 9310 (School Bus Fleets)	Summer NOx
Existing State Reductions: Carl Moyer Program & AB 1493 GHG Standards	Summer ROG Summer NOx
New/Proposed Local Reductions: District Rule 9410 (Employer Based Trip Reduction)	Summer ROG Summer NOx
New/Proposed State Reductions: Smog Check & Reformulated Gas (RFG)	Summer ROG Summer NOx

NOTE: This table is consistent with the 2007 Ozone Plan (as revised in 2015) which was approved by EPA on July 8, 2016 (effective September 30, 2016). State reductions from the Carl Moyer, AB1493, Smog Check and RFG have been included in EMFAC2014.

No committed control measures are included in the 2008 ozone standard conformity demonstration.

PM-10

Committed control measures in the EPA approved 2007 PM-10 Maintenance Plan that reduce mobile source emissions and are included in the conformity demonstration are shown in Table 2-4. However, reductions from these control measures were not applied to this conformity analysis because they were not needed to demonstrate conformity.

Table 2-4:
2007 PM-10 Maintenance Plan Measures Assumed in the Conformity Analysis

Measure Description	Pollutants
ARB existing Reflash, Idling, and Moyer	PM-10 annual exhaust NOx annual exhaust
District Rule 8061: Paved and Unpaved Roads	PM-10 paved road dust PM-10 unpaved road dust
District Rule 8021 Controls: Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities	PM-10 road construction dust

NOTE: State reductions from the Carl Moyer, Reflash and Idling have been included in EMFAC2014.

PM2.5

Committed control measures in the 2008 PM2.5 Plan (as revised) and 2012 PM2.5 Plan (as revised in 2015) that reduce mobile source emissions and are included in the conformity demonstration are shown in Table 2-5 and 2-6, respectively. However, reductions from these control measures were not applied to this conformity analysis because they were not needed to demonstrate conformity.

Table 2-5:
2008 PM2.5 (1997 Standard) Plan Measures Assumed in the Conformity Analysis

Measure Description	Pollutants
Existing Local Reductions: District Rule 9310 (School Bus Fleets)	Annual PM2.5 Annual NOx
Existing State Reductions: Carl Moyer Program & AB 1493 GHG Standards	Annual PM2.5 Annual NOx
New/Proposed Local Reductions: District Rule 9410 (Employer Based Trip Reduction)	Annual PM2.5 Annual NOx
New/Proposed State Reductions: Smog Check	Annual PM2.5 Annual NOx

NOTE: This table is consistent with the 2008 PM2.5 Plan (as revised in 2011) as approved by EPA on November 9, 2011 (effective January 9, 2012). State reductions from the Carl Moyer, AB1493, and Smog Check have been included in EMFAC2014.

Table 2-6:
2012 PM2.5 (2006 Standard) Plan Measures Assumed in the Conformity Analysis

Measure Description	Pollutants
Existing Local Reductions: District Rule 9310 (School Bus Fleets)	Annual PM2.5 Annual NOx
Existing State Reductions: Carl Moyer Program & AB 1493 GHG Standards	Annual PM2.5 Annual NOx
New/Proposed Local Reductions: District Rule 9410 (Employer Based Trip Reduction)	Annual PM2.5 Annual NOx
New/Proposed State Reductions: Smog Check	Annual PM2.5 Annual NOx

NOTE: This table is consistent with the 2012 PM2.5 Plan (as revised in 2015) approved by EPA on August 16, 2016 (effective September 30, 2016). State reductions from the Carl Moyer, AB1493 and Smog Check have been included in EMFAC2014.

CHAPTER 3:
AIR QUALITY MODELING

The model used to estimate vehicle exhaust emissions for ozone precursors and particulate matter is EMFAC2014. CARB emission factors for PM10 have been used to calculate re-entrained paved and unpaved road dust, and fugitive dust associated with road construction. For this conformity analysis, model inputs not dependent on the TIP or RTP are consistent with the applicable SIPs, which include:

- The 2007 Ozone Plan (1997 Standard), as revised in 2015, was approved by EPA on July 8, 2016 (effective September 30, 2016).
- The 2016 Ozone Plan (2008 standard) was adopted by the Air District on June 16, 2016 and subsequently adopted by the ARB on July 21, 2016. EPA found the new ozone budgets adequate on June 29, 2017 (effective July 14, 2017).
- The 2007 PM-10 Maintenance Plan (as revised in 2015) was approved by EPA on July 8, 2016 (effective September 30, 2016).
- The 2008 PM2.5 Plan (1997 Standards), as revised in 2011, was approved by EPA on November 9, 2011 (effective January 9, 2012).
- The 2012 PM2.5 Plan was approved by EPA on August 16, 2016 (effective September 30, 2016) inclusive of the revised conformity budgets and PM2.5 trading mechanism.

The conformity regulation requirements for the selection of the horizon years are summarized in Chapter 1; regional emissions have been estimated for the horizon years summarized in Table 1-7.

A. EMFAC2014

The EMFAC model (short for EMission FACtor) is a computer emissions modeling software that estimates emission rates for motor vehicles for calendar years from 2000 to 2050 operating in California. Pollutant emissions for hydrocarbons, carbon monoxide, nitrogen oxides, particulate matter, lead, sulfur oxides, and carbon dioxide are output from the model. Emissions are calculated for passenger cars, light, heavy, and medium-duty trucks, motorcycles, buses and motor homes.

EMFAC is used to calculate current and future inventories of motor vehicle emissions at the state, county, air district, air basin, or MPO level. EMFAC contains default vehicle activity data that can be used to estimate a motor vehicle emissions inventory in tons/day for a specific year and season,

and as a function of ambient temperature, relative humidity, vehicle population, mileage accrual, miles of travel, and vehicle speeds.

Section 93.111 of the conformity regulation requires the use of the latest emission estimation model in the development of conformity determinations. On December 30, 2014, ARB released EMFAC2014, which is the latest update to the EMFAC model for use by California State and local governments to meet Clean Air Act (CAA, 1990) requirements. Nearly a year later, on December 14, 2015, EPA announced the availability of this latest version of the California EMFAC model for use in SIP development in California. EMFAC2014 will be required for conformity analysis on or after December 14, 2017, or when conformity budgets modeled with EMFAC2014 are found adequate or approved by EPA.

A transportation data template has been prepared to summarize the transportation model output for use in EMFAC 2014. The template includes allocating VMT by speed bin by hour of the day. EMFAC2014 was used to estimate exhaust emissions for CO, ozone, PM-10, and PM2.5 conformity demonstrations consistent with the applicable air quality plan. Note that the statewide SIP measures documented in Chapter 2 are already incorporated in the EMFAC2014 model.

B. ADDITIONAL PM-10 ESTIMATES

PM-10 emissions for re-entrained dust from travel on paved and unpaved roads will be calculated separately from roadway construction emissions. It is important to note that with the final approval of the 2007 PM-10 Maintenance Plan, EPA approved a methodology to calculate PM-10 emissions from paved and unpaved roads in future San Joaquin Valley conformity determinations. The Conformity Analysis uses these methodologies and estimates construction-related PM-10 emissions consistent with the 2007 PM-10 Maintenance Plan. The National Ambient Air Quality Standards for PM-10 consists of a 24-hour standard, which is represented by the motor vehicle emissions budgets established in the 2007 PM-10 Maintenance Plan. It is important to note that EPA revoked the annual PM-10 Standard on October 17, 2006. The PM-10 emissions calculated for the conformity analysis represent emissions on an annual average day and are used to satisfy the budget test.

CALCULATION OF REENTRAINED DUST FROM PAVED ROAD TRAVEL

On January 13, 2011 EPA released a new method for estimating re-entrained road dust emissions from cars, trucks, buses, and motorcycles on paved roads. On February 4, 2011, EPA published the *Official Release of the January 2011 AP-42 Method for Estimating Re-Entrained Road Dust from Paved Roads* approving the January 2011 method for use in regional emissions analysis and beginning a two year conformity grace period, after which use of the January 2011 AP-42 method is required (e.g. February 4, 2013) in regional conformity analyses.

The road dust calculations have been updated to reflect this new methodology. More specifically, the emission factor equation and k value (particle size multiplier) have been updated accordingly. CARB default assumptions for roadway silt loading by roadway class, average vehicle weight, and

rainfall correction factor remain unchanged. Emissions are estimated for five roadway classes including freeways, arterials, collectors, local roads, and rural roads. Countywide VMT information is used for each road class to prepare the emission estimates.

CALCULATION OF REENTRAINED DUST FROM UNPAVED ROAD TRAVEL

The base methodology for estimating unpaved road dust emissions is based on a CARB methodology in which the miles of unpaved road are multiplied by the assumed VMT and an emission factor. In the 2007 PM-10 Maintenance Plan, it is assumed that all non-agricultural unpaved roads within the San Joaquin Valley receive 10 vehicle passes per day. An emission factor of 2.0 lbs PM-10/VMT is used for the unpaved road dust emission estimates. Emissions are estimated for city/county maintained roads.

CALCULATION OF PM-10 FROM ROADWAY CONSTRUCTION

Section 93.122(e) of the Transportation Conformity regulation requires that PM-10 from construction-related fugitive dust be included in the regional PM-10 emissions analysis, if it is identified as a contributor to the nonattainment problem in the PM-10 implementation plan. The emission estimates are based on a CARB methodology in which the miles of new road built are converted to acres disturbed, which is then multiplied by a generic project duration (i.e., 18 months) and an emission rate. Emission factors are unchanged from the previous estimates at 0.11 tons PM-10/acre-month of activity. The emission factor includes the effects of typical control measures, such as watering, which is assumed to reduce emissions by about 50%. Updated activity data (i.e., new lane miles of roadway built) is estimated based on the highway and transit construction projects in the TIP/RTP.

PM-10 TRADING MECHANISM

The PM-10 SIP allows trading from the motor vehicle emissions budget for the PM-10 precursor NOx to the motor vehicle emissions budget for primary PM-10 using a 1.5 to 1 ratio. The trading mechanism will be used only for conformity analyses for analysis years after 2005.

C. PM2.5 APPROACH

EPA and FHWA have indicated that areas violating both the annual and 24-hour standards for PM2.5 must address all standards in the conformity determination. The San Joaquin Valley currently violates both the 1997 and 2012 annual PM2.5 standards, and the 1997 and 2006 24-hour PM2.5 standards; thus the conformity determination includes analyses to all PM2.5 standards.

The following PM2.5 approach addresses the 1997 (annual and 24-hour), the 2012 (annual), and the 2006 24-hour standards:

EMFAC2014 incorporates data for temperature and relative humidity that vary by geographic area, calendar year and season. The annual average represents an average of all the monthly inventories. A winter average represents an average of the California winter season (October through February).

EMFAC will be run to estimate direct PM2.5 and NOx emissions from motor vehicles for an annual or winter average day as described below.

EPA guidance indicates that State and local agencies need to consider whether VMT varies during the year enough to affect PM2.5 annual emission estimates. The availability of seasonal or monthly VMT data and the corresponding variability of that data need to be evaluated.

PM2.5 areas that are currently using network based travel models must continue to use them when calculating annual emission inventories. The guidance indicates that the interagency consultation process should be used to determine the appropriate approach to produce accurate annual inventories for a given nonattainment area. Whichever approach is chosen, that approach should be used consistently throughout the analysis for a given pollutant or precursor. The interagency consultation process should also be used to determine whether significant seasonal variations in the output of network based travel models are expected and whether these variations would have a significant impact on PM2.5 emission estimates.

The SJV MPOs all use network based travel models. However, the models only estimate average weekday VMT. The SJV MPOs do not have the data or ability to estimate seasonal variation at this time. Data collection and analysis for some studies are in the preliminary phases and cannot be relied upon for other analyses. Some statewide data for the seasonal variation of VMT on freeways does exist. However, traffic patterns on freeways do not necessarily represent the typical traffic pattern for local streets and arterials.

In many cases, traffic counts are sponsored by the MPOs and conducted by local jurisdictions. While some local jurisdictions may collect weekend or seasonal data, typical urban traffic counts occur on weekdays (Tuesday through Thursday). Data collection must be more consistent in order to begin estimation of daily or seasonal variation.

The SJV MPOs believe that the average annual day calculated from the current traffic models and EMFAC2014 represent the most accurate VMT data available. The MPOs will continue to discuss and research options that look at how VMT varies by month and season according to the local traffic models.

It is important to note that the guidance indicates that EPA expects the most thorough analysis for developing annual inventories will occur during the development of the SIP, taking into account the needs and capabilities of air quality modeling tools and the limitations of available data. Prior to the development of the SIP, State and local air quality and transportation agencies may decide to use simplified methods for regional conformity analyses.

The regional emissions analyses in PM2.5 nonattainment areas must consider directly emitted PM2.5 motor vehicle emissions from tailpipe, brake wear, and tire wear. In California, areas will use EMFAC2014. As indicated under the Conformity Test Requirements, re-entrained road dust and construction-related fugitive dust from highway or transit projects is not included at this time. In addition, NOx emissions are included; however, VOC, SOx, and ammonia emissions are not.

1997 Standard – Since EPA did not take action on the 2017 PM2.5 Plan, the 2008 PM2.5 Plan budgets will continue to be used in this conformity analysis. The 2008 PM2.5 Plan (as revised in 2011) was approved by EPA on November 9, 2011 (effective January 9, 2012) and contains motor vehicle emission budgets for PM2.5 and NOx established based on average annual daily emissions.

The annual inventory methodology contained in the 2008 PM2.5 Plan (as revised in 2011) and used to establish emissions budgets is consistent with the methodology used herein. The motor vehicle emissions budget for PM2.5 includes directly emitted PM2.5 motor vehicle emissions from tailpipe, brake wear and tire wear. VOC, SOx, ammonia, and dust (from paved roads, unpaved roads, and road construction) were found to be insignificant and not included in the motor vehicle emission budgets for conformity purposes.

2006 Standard – Since EPA did not take action on the 2017 PM2.5 Plan, the 2012 PM2.5 Plan (as revised in 2015) budgets will continue to be used in this conformity analysis. On January 20, 2016, EPA finalized reclassification of the San Joaquin Valley to Serious nonattainment for the 2006 24-hour PM2.5 Standard. On August 16, 2016, the 2012 PM2.5 Plan was approved by EPA including the revised conformity budgets and a trading mechanism (effective September 30, 2016). The 2012 PM2.5 Plan (as revised in 2015) contains motor vehicle emission budgets for PM2.5 and NOx established based on average winter daily emissions. The winter inventory methodology contained in the 2012 Plan and used to establish emissions budgets is consistent with the methodology used herein. The motor vehicle emissions budget for PM2.5 include directly emitted PM2.5 motor vehicle emissions from tailpipe, brake wear and tire wear. VOC, SOx, ammonia, and dust (from paved roads, unpaved roads, and road construction) were found to be insignificant and not included in the motor vehicle emission budgets for conformity purposes. It is important to note that the 2006 24-hour PM2.5 nonattainment area boundary for the San Joaquin Valley is exactly the same as the nonattainment area boundary for the 1997 PM2.5 standards.

2012 Standard – EPA's nonattainment area designations for the 2012 PM2.5 standard became effective on April 15, 2015. Conformity applies one year after the effective date (April 15, 2016). In accordance with Section 93.109(i)(3) of the federal transportation conformity rule, if a 2012 PM2.5 area has adequate or approved SIP budgets that address the annual 1997 standards, it must use the budget test until new 2012 PM2.5 standard budgets are found adequate or approved. It is important to note that the 2012 annual PM2.5 nonattainment area boundary for the San Joaquin Valley is exactly the same as the nonattainment area boundary for the 1997 and 2006 PM2.5 standards. Since EPA has not did not take action on the 2017 PM2.5 Plan, the 2008 PM2.5 Plan (as revised in 2011) budgets will continue to be used in this conformity analysis.

1997 and 2012 PM2.5 TRADING MECHANISM

Since EPA did not take action on the 2017 PM2.5 Plan, consistent with the PM2.5 implementation rule, the 2008 PM2.5 Plan budgets and trading mechanism will continue to be used in this conformity analysis.

The 2008 PM2.5 SIP (as revised in 2011) allows trading from the motor vehicle emissions budget for the PM2.5 precursor NOx to the motor vehicle emissions budget for primary PM2.5 using a 1 to 9 ratio. This trading mechanism will be used for the 1997 annual and 24-hour hour and 2012 PM2.5 standard conformity analyses for analysis years after 2014.

2006 PM2.5 TRADING MECHANISM

Since EPA did not take action on the 2017 PM2.5 Plan, consistent with the PM2.5 implementation rule, the 2012 PM2.5 Plan budgets and trading mechanism will continue to be used in this conformity analysis.

On August 16, 2016 EPA approved the 2012 PM2.5 SIP including the PM2.5 trading mechanism that allows trading from the motor vehicle emissions budget for the PM2.5 precursor NOx to the motor vehicle emissions budget for primary PM-2.5 using an 8 to 1 ratio. This trading mechanism will be used for the 2006 24-hour PM2.5 standard conformity analysis for analysis years after 2014.

D. SUMMARY OF PROCEDURES FOR REGIONAL EMISSIONS ESTIMATES

New step-by-step air quality modeling instructions were developed for SJV MPO use with EMFAC2014. These instructions were originally provided for interagency consultation in May 2016. EPA, FHWA, and ARB concurred. The EMFAC instructions were subsequently updated to include appropriate conformity analysis years for the 2019 FTIP and 2018 RTP; IAC concurrence was received in January 2018.

Documentation of the conformity analysis for the 2019 FTIP and 2018 RTP is provided in Appendix C, including:

- 2018 RTP Conformity EMFAC Spreadsheet
- 2018 RTP Conformity Paved Road Spreadsheet
- 2018 RTP Conformity Unpaved Road Dust Spreadsheet
- 2018 RTP Conformity Construction Spreadsheet
- 2018 RTP Conformity Totals Spreadsheet

CHAPTER 4:
TRANSPORTATION CONTROL MEASURES

This chapter provides an update of the current status of transportation control measures identified in applicable implementation plans. Requirements of the Transportation Conformity regulation relating to transportation control measures (TCMs) are presented first, followed by a review of the applicable air quality implementation plans and TCM findings for the TIP/RTP.

A. TRANSPORTATION CONFORMITY REGULATION REQUIREMENTS FOR TCMS

The Transportation Conformity regulation requires that the TIP/RTP "must provide for the timely implementation of TCMs in the applicable implementation plan." The Federal definition for the term "transportation control measure" is provided in 40 CFR 93.101:

> "any measure that is specifically identified and committed to in the applicable implementation plan that is either one of the types listed in Section 108 of the CAA [Clean Air Act], or any other measure for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Notwithstanding the first sentence of this definition, vehicle technology based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs for the purposes of this subpart."

In the Transportation Conformity regulation, the definition provided for the term "applicable implementation plan" is:

> "Applicable implementation plan is defined in section 302(q) of the CAA and means the portion (or portions) of the implementation plan, or most recent revision thereof, which has been approved under section 110, or promulgated under section 110(c), or promulgated or approved pursuant to regulations promulgated under section 301(d) and which implements the relevant requirements of the CAA."

Section 108(f)(1) of the Clean Air Act as amended in 1990 lists the following transportation control measures and technology-based measures:

(i) programs for improved public transit;

(ii) restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;

(iii) employer-based transportation management plans, including incentives;

(iv) trip-reduction ordinances;

(v) traffic flow improvement programs that achieve emission reductions;

(vi) fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit service;

(vii) programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use;

(viii) programs for the provision of all forms of high-occupancy, shared-ride services;

(ix) programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;

(x) programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;

(xi) programs to control extended idling of vehicles;

(xii) programs to reduce motor vehicle emissions, consistent with title II, which are caused by extreme cold start conditions;

(xiii) employer-sponsored programs to permit flexible work schedules;

(xiv) programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;

(xv) programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest. For purposes of this clause, the Administrator shall also consult with the Secretary of the Interior; and

(xvi) program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks.

TCM REQUIREMENTS FOR A TRANSPORTATION PLAN

The EPA regulations in 40 CFR 93.113(b) indicate that transportation control measure requirements for transportation plans are satisfied if two criteria are met:

> "(1) The transportation plan, in describing the envisioned future transportation system, provides for the timely completion or implementation of all TCMs in the applicable implementation plan which are eligible for funding under Title 23 U.S.C. or the Federal Transit Laws, consistent with schedules included in the applicable implementation plan.
>
> (2) Nothing in the transportation plan interferes with the implementation of any TCM in the applicable implementation plan."

TCM REQUIREMENTS FOR A TRANSPORTATION IMPROVEMENT PROGRAM

Similarly, in 40 CFR Section 93.113(c), EPA specifies three TCM criteria applicable to a transportation improvement program:

"(1) An examination of the specific steps and funding source(s) needed to fully implement each TCM indicates that TCMs which are eligible for funding under title 23 U.S.C. or the Federal Transit Laws are on or ahead of the schedule established in the applicable implementation plan, or, if such TCMs are behind the schedule established in the applicable implementation plan, the MPO and DOT have determined that past obstacles to implementation of the TCMs have been identified and have been or are being overcome, and that all State and local agencies with influence over approvals or funding for TCMs are giving maximum priority to approval or funding of TCMs over other projects within their control, including projects in locations outside the nonattainment or maintenance area;

(2) If TCMs in the applicable implementation plan have previously been programmed for Federal funding but the funds have not been obligated and the TCMs are behind the schedule in the implementation plan, then the TIP cannot be found to conform:

- if the funds intended for those TCMs are reallocated to projects in the TIP other than TCMs, or
- if there are no other TCMs in the TIP, if the funds are reallocated to projects in the TIP other than projects which are eligible for Federal funding intended for air quality improvement projects, e.g., the Congestion Mitigation and Air Quality Improvement Program;

(3) Nothing in the TIP may interfere with the implementation of any TCM in the applicable implementation plan."

B. APPLICABLE AIR QUALITY IMPLEMENTATION PLANS

Only transportation control measures from applicable implementation plans for the San Joaquin Valley region are required to be updated for this analysis. For this conformity analysis, the applicable implementation plans, according to the definition provided at the start of this chapter, are summarized below.

APPLICABLE IMPLEMENTATION PLAN FOR OZONE

The 2007 Ozone Plan (as revised in 2015) was approved by EPA on July 8, 2016 (effective September 30, 2016). The 2016 Ozone Plan is currently under EPA review. However, both Plans do not include new TCMs for the San Joaquin Valley.

APPLICABLE IMPLEMENTATION PLAN FOR PM-10

The 2007 PM-10 Maintenance Plan (as revised in 2015) was approved by EPA on July 8, 2016 (effective September 30, 2016). No new local agency control measures were included in the Plan.

The Amended 2003 PM-10 Plan was approved by EPA on May 26, 2004 (effective June 25, 2004). A local government control measure assessment was completed for this plan. The analysis focused on transportation-related fugitive dust emissions, which are not TCMs by definition. The local government commitments are included in the *Regional Transportation Planning Agency Commitments for Implementation Document, April 2003*.

However, the *Amended 2002 and 2005 Ozone Rate of Progress Plan* contains commitments that reduce ozone related emissions; these measures are documented in the *Regional Transportation Planning Agency Commitments for Implementation Document, April 2002.* These commitments are included by reference in the Amended 2003 PM-10 Plan to provide emission reductions for precursor gases and help to address the secondary particulate problem. Since these commitments are included in the Plan by reference, the commitments were approved by EPA as TCMs.

APPLICABLE IMPLEMENTATION PLAN FOR PM2.5

The 2012 PM2.5 Plan was approved by EPA on August 16, 2016 (effective September 30, 2016). The 2008 PM2.5 Plan (as revised in 2011) was approved by EPA on November 9, 2011 (effective January 9, 2012). However, the Plans do not include any additional TCMs for the San Joaquin Valley.

C. IDENTIFICATION OF 2002 RACM THAT REQUIRE TIMELY IMPLEMENTATION DOCUMENTATION

As part of the 2004 Conformity Determination, FHWA requested that each SIP (Reasonably Available Control Measure - RACM) commitment containing federal transportation funding and a transportation project and schedule be addressed more specifically. FHWA verbally requested documentation that the funds were obligated and the project was implemented as committed to in the SIP.

The RTPA Commitment Documents, Volumes One and Two, dated April 2002 (Ozone RACM) were reviewed, using a "Summary of Commitments" table. Commitments that contain specific Federal funding/transportation projects/schedules were identified for further documentation. In some cases, local jurisdictions used the same Federal funding/transportation projects/schedules for various measures; these were identified as combined with ("comb w/") reference as appropriate. A not applicable ("NA") was noted where federally-funded project is vehicle technology based, fuel based, and maintenance based measures (e.g., LEV program, retrofit programs, clean fuels - CNG buses, etc.).

In addition, the RTPA Commitment Document, Volume Three, dated April 2003 (PM-10 BACM) was reviewed, using the Summary of Commitments table. Commitments that contain specific Congestion Mitigation and Air Quality (CMAQ) funding for the purchase and/or operation of street sweeping equipment have been identified. Only one commitment (Fresno - City of Reedley) was identified.

The Project TID Table was developed to provide implementation documentation necessary for the measures identified. Detailed information is summarized in the first five columns, including the commitment number, agency, description, funding and schedule (if applicable).

For each project listed, the TIP in which the project was programmed, as well as the project ID and description have been provided. In addition, the current implementation status of the project has been included (e.g., complete, under construction, etc). MPO staff determined this information in consultation with the appropriate local jurisdiction. Any projects not implemented according to schedule or project changes are explained in the project status column. These explanations are consistent with the guidance and regulations provided in the Transportation Conformity regulation.

Supplemental documentation was provided to FHWA in August and September 2004 in response to requests for information on timely implementation of TCMs in the San Joaquin Valley. The supplemental documentation included the approach, summary of interagency consultation correspondence, and three tables completed by each of the eight MPOs. The Supplemental Documentation was subsequently approved by FHWA as part of the 2004 Conformity Determination.

The Project TID table that was prepared at the request of FHWA for the 2004 Conformity Analysis, has been updated in each subsequent conformity analysis. This documentation has been updated as part of this Conformity Analysis. A summary of this information is provided in Appendix D.

In March 2005, the SJV MPOs began interagency consultation with FHWA and EPA to address outstanding RACM/TCM issues. In general, criteria were developed to identify commitments that require timely implementation documentation. The criteria were applied to the 2002 RACM Commitments approved by reference as part of the Amended 2003 PM-10 Plan. In April 2006, EPA transmitted final tables that identified the approved RACM commitments that require timely implementation documentation for the Conformity Analysis. Subsequently, an approach to provide timely implementation documentation was developed in consultation with FHWA.

A new 2002 RACM TID Table was prepared in 2006 to address the more general RACM commitments that require additional timely implementation documentation per EPA. A brief summary of the commitment, including finite end dates if applicable, is included for each measure. The MPOs provided a status update regarding implementation in consultation with their member jurisdictions. If a specific project has been implemented, it is included in the Project TID Table under “Additional Projects Identified”. This documentation was included in the Conformity Analysis for the 2007 TIP and 2004 RTP (as amended) that was approved by FHWA in October 2006, as well as the 2015 TIP and 2014 RTP as amended. The 2002 RACM TID Table has been updated as part of this Conformity Analysis. A summary of this information is provided in Appendix D.

D. TCM FINDINGS FOR THE TIP AND REGIONAL TRANSPORTATION PLAN

Based on a review of the transportation control measures contained in the applicable air quality plans, as documented in the two tables contained in Appendix D, the required TCM conformity findings are made below:

The TIP/RTP provide for the timely completion or implementation of the TCMs in the applicable air quality plans. In addition, nothing in the TIP or RTP interferes with the implementation of any TCM in the applicable implementation plan, and priority is given to TCMs.

E. RTP CONTROL MEASURE ANALYSIS IN SUPPORT OF 2003 PM-10 PLAN

In May 2003, the San Joaquin Valley MPO Executive Directors committed to conduct feasibility analyses as part of each new RTP in support of the 2003 PM-10 Plan. This commitment was retained in the 2007 PM-10 Maintenance Plan. In accordance with this commitment, SJCOG undertook a process to identify and evaluate potential control measures that could be included in the 2018 RTP. The analysis of additional measures included verification of the feasibility of the measures in the PM-10 Plan BACM analysis, as well as an analysis of new PM-10 commitments from other PM-10 nonattainment areas.

A summary of the process to identify potential long-range control measures analysis and results to be evaluated as part of the RTP development was transmitted to the Interagency Consultation (IAC) partners for review. FHWA and EPA concurred with the summary of the long-range control measure approach in September 2009.

The Local Government Control Measures considered in the PM-10 Plan BACM analysis that were considered for inclusion in the 2018 RTP included:

- Paving or Stabilizing Unpaved Roads and Alleys
- Curbing, Paving, or Stabilizing Shoulders on Paved Roads
- Frequent Routine Sweeping or Cleaning of Paved Roads (i.e., funding allocation for the purchase of PM-10 efficient street sweepers for member jurisdictions)
- Repave or Overlay Paved Roads with Rubberized Asphalt

It is important to note that the first three measures considered in the PM-10 Plan BACM analysis (i.e., access points, street cleaning requirements, and erosion clean up) are not applicable for inclusion in the RTP.

With the adoption of each new RTP, the MPOs will consider the feasibility of these measures, as well as identify any other new PM-10 measures that would be relevant to the San Joaquin Valley. SJCOG also considered PM-10 commitments from other PM-10 nonattainment areas that had been developed since the previous RTP was approved. Federal websites were reviewed for any PM-10 plans that have been approved since 2012. New PM-10 plans that have been reviewed include:

A. West Pinal County, AZ Moderate PM-10 Nonattainment Area SIP, submitted December 21, 2015 (EPA approval effective May 31, 2017). Contingency measures include paving or chemically stabilizing unpaved roads.

B. Owens Valley, CA Serious PM-10 Nonattainment Area SIP, submitted June 9, 2016 (EPA approval effective April 12, 2017). Road dust was determined to be below de minimis thresholds and no mobile source control measures were adopted.

C. Mammoth Lake, CA PM-10 Redesignation Request and Maintenance Plan, submitted October 21, 2014 (EPA approval effective November 4, 2015). The Mammoth Lake general plan places a cap on the growth of VMT. Contingency measures include improved street sweeping procedures and reduced use of volcanic cinders on roadways.

D. Las Vegas, NV Serious PM-10 Redesignation Request and Maintenance Plan, submitted September 7, 2012 (EPA approval effective November 5, 2014). Most stringent measures were introduced in 2001. Stabilization of unpaved roads including paving roads with volumes over 150 vehicles per day. Paved road sweeping and mitigation measures.

E. Payson, AZ PM-10 Limited Maintenance Plan submitted January 23, 2012 (EPA approval effective May 19, 2014). Contingency measures include paving or chemically stabilizing unpaved roads.

F. South Coast, CA PM-10 Redesignation Request and Maintenance Plan submitted April 28, 2010 (EPA approval effective July 26, 2013). No PM-10 specific dust control measures cited for mobile sources.

G. Juneau's Mendenhall Valley, AK PM-10 Limited Maintenance Plan submitted February 20, 2009 (EPA approval effective July 8, 2013). The attainment plan control measures included optimizing sanding and de-icing materials to minimize entrainment, spring street sweeping, and paving of dirt roads. No additional measures were identified for the LMP to continue attainment of the NAAQS. Contingency measures include paving of dirt roads and stabilization of unpaved shoulders.

H. Eugene-Springfield, OR PM-10 Redesignation Request and Limited Maintenance Plan submitted January 13, 2012 (EPA approval effective June 10, 2013). Motor vehicles were not identified as a significant source and no control measures were included for onroad mobile sources.

I. Sandpoint, ID PM-10 Limited Maintenance Plan submitted December 12, 2011 (EPA approval effective May 23, 2013). Ordinances require the application of certain types of sand in the winter along with increased street sweeping.

Based on review of commitments from other PM-10 nonattainment areas that have been developed since the previous RTP, no additional on-road fugitive dust controls measures are available for consideration.

Based on consultation with CARB and the Air District, SJCOG considered priority funding allocations in the 2018 RTP for PM-10 and NOx emission reduction projects in the post-attainment year timeframe that go beyond the emission reduction commitments made for the attainment year 2010 for the following four measures:

(1) Paving or Stabilizing Unpaved Roads and Alleys

(2) Curbing, Paving, or Stabilizing Shoulders on Paved Roads

(3) Frequent Routine Sweeping or Cleaning of Paved Roads (i.e., funding allocation for the purchase of PM-10 efficient street sweepers for member jurisdictions); and

(4) Repave or Overlay Paved Roads with Rubberized Asphalt

San Joaquin COG continues to actively include the reduction of PM10 emissions (typical projects above list #1 through #3) in the Congestion Mitigation and Air Quality (CMAQ) Improvement Program. PM10 is included in the "Project Category Goals". PM10 is evaluated and prioritized in the CMAQ Scoring Criteria under the "Air Pollutant Emission Reduction" Category (30 points possible out of 100) as well as receiving consideration in the "Subjective Evaluation" (30 points possible out of 100). PM10 projects also are given priority if they meet the criteria of being cost-effective (30 points out of 100) Information regarding San Joaquin COG's CMAQ Program can be found at: http://www.sjcog.org.

San Joaquin COG has explored the feasibility of incorporating the use of rubberized asphalt in repave or overlay projects. Currently, California Department of Transportation (Caltrans) incorporates rubberized asphalt as general policy to meet recycled content requirements on high volume state highway facilities. Caltrans is required by AB 338 (Levine) to incrementally phase in increased use of rubberized-asphalt concrete (RAC) not less than 25% by ton after January 1, 2010 and not less than 35% by ton after January 1, 2013. Caltrans (District 6) found that rubberized asphalt is problematic when used where traffic stops and starts (i.e., signalized local streets). The material has been found to break down prematurely and tends to "shove and tear" in stop-and-go traffic applications. Rubberized asphalt has been found to have useful application for noise reduction purposes. There is work currently in process to develop commercial viability of low-greenhouse gas Portland Cement Concrete which may be preferable to rubberized asphalt for greenhouse gas reduction.

The application of rubberized asphalt technology can reduce tire wear dust (PM10). The cost effectiveness for roads with annual daily traffic of 2,500 vehicles per lane mile per day is estimated at $4,290,000 per ton. (*Analysis of Particulate Control Measures Effectiveness Interim Report #2, Sierra Research, February 15, 2007; Maricopa, Arizona, Association of Governments).* The limitations imposed by the high cost and limited applicability to free-flowing high volume highway use prove to make this of limited application on local streets in the San Joaquin region.

Rubberized asphalt is incorporated in transportation projects where it is feasible. San Joaquin COG will continue to explore the feasibility of new technology in the reduction of transportation sources of air pollutant emissions.

CHAPTER 5:
INTERAGENCY CONSULTATION

The requirements for consultation procedures are listed in the Transportation Conformity Regulations under section 93.105. Consultation is necessary to ensure communication and coordination among air and transportation agencies at the local, State and Federal levels on issues that would affect the conformity analysis such as the underlying assumptions and methodologies used to prepare the analysis. Section 93.105 of the conformity regulation notes that there is a requirement to develop a conformity SIP that includes procedures for interagency consultation, resolution of conflicts, and public consultation as described in paragraphs (a) through (e). Section 93.105(a)(2) states that prior to EPA approval of the conformity SIP, "MPOs and State departments of transportation must provide reasonable opportunity for consultation with State air agencies, local air quality and transportation agencies, DOT and EPA, including consultation on the issues described in paragraph (c)(1) of this section, before making conformity determinations." The Air District adopted Rule 9120 Transportation Conformity on January 19, 1995 in response to requirements in Section 176(c)(4)(c) of the Clean Air Act as amended in 1990. Since EPA has not approved Rule 9120 (the conformity SIP), the conformity regulation requires compliance with 40 CFR 93.105 (a)(2) and (e) and 23 CFR 450.

Section 93.112 of the conformity regulation requires documentation of the interagency and public consultation requirements according to Section 93.105. A summary of the interagency consultation and public consultation conducted to comply with these requirements is provided below. Appendix E includes the public meeting process documentation. The responses to comments received as part of the public comment process are included in Appendix F.

A. INTERAGENCY CONSULTATION

Consultation is generally conducted through the San Joaquin Valley Interagency Consultation Group (combination of previous Model Coordinating Committee and Programming Coordinating Group). The San Joaquin Valley Interagency Consultation (IAC) Group has been established by the Valley Transportation Planning Agency's Director's Association to provide a coordinated approach to valley transportation planning and programming (Transportation Improvement Program, Regional Transportation Plan, and Amendments), transportation conformity, climate change, and air quality (State Implementation Plan and Rules). The purpose of the group is to ensure Valley wide coordination, communication and compliance with Federal and California Transportation Planning and Clean Air Act requirements. Each of the eight Valley MPOs and the Air District are represented. In addition, the Federal Highway Administration, Federal Transit Administration, the Environmental Protection Agency, the California Air Resources Board and Caltrans (Headquarters, District 6, and District 10) are all represented. The IAC Group meets approximately quarterly.

The draft boilerplate conformity document was distributed for interagency consultation on January 9, 2018. Comments received have been addressed and incorporated into this version of the analysis.

In addition, the CMAQ Policy Threshold Evaluation was transmitted for interagency consultation on January 25, 2018. No changes to the CMAQ Policy were recommended. The San Joaquin Valley MPO CMAQ policy contains language that says the cost-effectiveness threshold will be evaluated with every FTIP; whereas, the policy itself is to be reviewed with every RTP. As part of the 2019 FTIP development, the threshold was reviewed. The review indicated that a threshold should be retained at the current $45/lb level. No adverse comments were received

The draft 2018 RTP was released on March 2, 2018 for a 55-day public comment period, and the draft 2019 FTIP and corresponding Conformity Analysis was released on May 24, 2018 for a 30-day public comment period, followed by Board adoption on June 28, 2018. Federal approval is anticipated on or before December 31, 2018.

The conformity analysis for the 2019 FTIP and 2018 RTP was developed in consultation with SJCOG local partner agencies, including member jurisdictions, Caltrans, and local transit agencies.

SJCOG communicated an effort of interagency consultation with the local jurisdictions, municipal agencies, local and regional transit providers along with various committees including the technical advisory committee to solicit input as the pertinence of individual FTIP/RTP projects and their corresponding conformity analysis.

B. PUBLIC CONSULTATION

In general, agencies making conformity determinations shall establish a proactive public involvement process that provides opportunity for public review and comment on a conformity determination for FTIPs/RTPs. In addition, all public comments must be addressed in writing.

All MPOs in the San Joaquin Valley have standard public involvement procedures. SJCOG has an adopted consultation process and policy for conformity analysis which includes a 30-day public notice and comment period followed by a public hearing. A public meeting is also conducted prior to adoption and all public comments are responded to in writing. The Appendices contain corresponding documentation supporting the public involvement procedures.

CHAPTER 6:
TIP AND RTP CONFORMITY

The principal requirements of the transportation conformity regulation for TIP/RTP assessments are: (1) the TIP and RTP must pass an emissions budget test with a budget that has been found to be adequate by EPA for transportation conformity purposes, or an interim emission test; (2) the latest planning assumptions and emission models must be employed; (3) the TIP and RTP must provide for the timely implementation of transportation control measures (TCMs) specified in the applicable air quality implementation plans; and (4) consultation. The final determination of conformity for the TIP/RTP is the responsibility of the Federal Highway Administration and the Federal Transit Administration.

The previous chapters and the appendices present the documentation for all of the requirements listed above for conformity determinations except for the conformity test results. Prior chapters have also addressed the updated documentation required under the transportation conformity regulation for the latest planning assumptions and the implementation of transportation control measures specified in the applicable air quality implementation plans.

This chapter presents the results of the conformity tests, satisfying the remaining requirement of the transportation conformity regulation. Separate tests were conducted for ozone, PM-10 and PM2.5 (1997 and 2012 PM2.5 standards, and 2006 24-hour PM2.5 standards). The applicable conformity tests were reviewed in Chapter 1. For each test, the required emissions estimates were developed using the transportation and emission modeling approaches required under the transportation conformity regulation and summarized in Chapters 2 and 3. The results are summarized below, followed by a more detailed discussion of the findings for each pollutant. Table 6-1 presents results for ozone (ROG/NOx), PM-10 (PM-10/NOx), and PM2.5 (PM2.5/NOx) respectively, in tons per day for each of the horizon years tested.

1997 Ozone:

For 1997 8-hour ozone[5], the applicable conformity test is the emissions budget test, using the 2007 Ozone Plan (as revised in 2015) budgets established for ROG and NOx for an average summer (ozone) season day. EPA approved the Plan and conformity budgets (as revised in 2015) on July 8, 2016 (effective September 30, 2016). The modeling results for all analysis years indicate that the on-road vehicle ROG and NOx emissions predicted for each of the "Build" scenarios are less than the emissions budgets. The TIP/RTP therefore satisfy the conformity emissions test for volatile organic compounds and nitrogen oxides.

[5] Note that FHWA/FTA *Interim Guidance on Conformity Requirements for the 1997 Ozone NAAQS* issued on April 23 does not require that areas in non-attainment of the 2008 Ozone Standard address 1997 ozone in their regional conformity analyses at this time. However, the SJV MPOs have voluntarily included 1997 ozone conformity demonstration for the 2018 RTP/2019 TIP to minimize project delivery risk.

2008 Ozone:

For 2008 8-hour ozone, the applicable conformity test is the emissions budget test, using the 2016 Ozone Plan budgets established for ROG and NOx for an average summer (ozone) season day. EPA found 2016 Ozone Plan conformity budgets adequate on June 29, 2017 (effective July 14, 2017). The modeling results for all analysis years indicate that the on-road vehicle ROG and NOx emissions predicted for each of the "Build" scenarios are less than the emissions budgets. The TIP/RTP therefore satisfy the conformity emissions test for volatile organic compounds and nitrogen oxides.

PM-10:

For PM-10, the applicable conformity test is the emissions budget test, using the 2007 PM-10 Maintenance Plan budgets for PM-10 and NOx. This Plan revisions including conformity budgets was approved by EPA on July 8, 2016 (effective September 30, 2016). The modeling results for all analysis years indicate that the PM-10 emissions predicted for the "Build" scenarios are less than the emissions budget for 2020. The TIP/RTP therefore satisfy the conformity emissions tests for PM-10.

1997 PM2.5 Standards:

Since EPA did not take action on the 2017 PM2.5 Plan, the 2008 PM2.5 Plan budgets will continue to be used in this conformity analysis. For 1997 PM2.5 Standards, the applicable conformity test is the emission budget test, using budgets established in the 2008 PM2.5 Plan. EPA approved the 2008 PM2.5 Plan (as revised in 2011) November 9, 2011 (effective January 9, 2012). The modeling results for all analysis years indicate that the on-road vehicle PM2.5 and NOx emissions predicted for the "Build" scenarios are less than the emissions budget. The TIP/RTP therefore satisfy the conformity emissions test for PM2.5 and nitrogen oxides.

2006 PM2.5 Standard:

Since EPA did not take action on the 2017 PM2.5 Plan, the 2012 PM2.5 Plan (as revised in 2015) budgets will continue to be used in this conformity analysis. For the 2006 PM2.5 standard, the applicable conformity test is the emission budget test, using adequate budgets established in the 2012 PM2.5 Plan (as revised in 2015). The modeling results for all analysis years indicate that the on-road vehicle PM2.5 and NOx emissions predicted for the "Build" scenarios are less than the emissions budget. The TIP/RTP therefore satisfy the conformity emissions test for PM2.5 and nitrogen oxides.

2012 PM2.5 Standard:

In accordance with Section 93.109(c)(2), areas designated nonattainment for the 2012 PM2.5 standards are required to use existing adequate or approved SIP motor vehicle emissions budgets for a prior annual PM2.5 standard until budgets for the 2012 PM2.5 standards are either found adequate or approved. Since EPA has not did not take action on the 2017 PM2.5 Plan, the 2008 PM2.5 Plan (as revised in 2011) budgets will continue to be used in this conformity analysis. For the 2012 PM2.5 standards, the applicable conformity test is the emissions budget test, using the

2008 PM2.5 Plan (1997 standard) budgets. EPA approved the 2008 PM2.5 Plan (as revised in 2011) November 9, 2011, effective January 9, 2012. The modeling results for all analysis years indicate that the on-road vehicle PM2.5 and NOx emissions predicted for the "Build" scenarios are less than the emissions budget. The TIP/RTP therefore satisfy the conformity emissions test for PM2.5 and nitrogen oxides.

As all requirements of the Transportation Conformity Regulation have been satisfied, a finding of conformity for the Conformity Analysis for the 2019 FTIP and the 2018 RTP is supported.

Table 6-1:
Conformity Results Summary

Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		ROG (tons/day)	NOx (tons/day)	ROG	NOx
1997 Ozone*	2020 Budget	5.1	11.3		
	2020	4.7	10.2	YES	YES
	2023 Budget	4.3	7.3		
	2023	3.8	6.4	YES	YES
	2031	2.8	4.6	YES	YES
	2037	2.2	4.1	YES	YES
	2042	2.0	3.9	YES	YES

*1997 Ozone conformity is included due to uncertainty associated with an ongoing litigaton related to EPA's revokation of the 1997 ozone standard

		ROG (tons/day)	NOx (tons/day)	ROG	NOx
2008 Ozone	2018 Budget	5.9	13.0		
	2018	5.5	12.0	YES	YES
	2021 Budget	4.9	10.3		
	2021	4.4	9.3	YES	YES
	2024 Budget	4.2	6.9		
	2024	3.7	6.2	YES	YES
	2027 Budget	3.8	6.2		
	2027	3.3	5.4	YES	YES
	2030 Budget	3.5	5.7		
	2030	3.0	4.8	YES	YES
	2031 Budget	3.3	5.5		
	2031	2.8	4.6	YES	YES
	2037	2.3	4.1	YES	YES
	2042	2.1	4.0	YES	YES

		PM-10 (tons/day)	NOx (tons/day)	PM-10	NOx
PM-10	2020 Budget	4.6	11.9		
	2020	3.4	10.8	YES	YES
	2020 Budget	4.6	11.9		
	2027	4.2	5.6	YES	YES
	2020 Budget	4.6	11.9		
	2035	4.6	4.4	YES	YES
	2020 Budget	4.6	11.9		
	2042	4.4	4.1	YES	YES

PM-10	Total On-Road Exhaust		Paved Road Dust		Unpaved Road Dust		Road Construction Dust		**Total**	
	PM-10	Nox	PM-10	Nox	PM-10	Nox	PM-10	Nox	**PM-10**	**Nox**
2020	1.188	10.806	2.323		0.113		-0.223		**3.4**	**10.8**
2027	1.221	5.628	2.546		0.113		0.292		**4.2**	**5.6**
2035	1.260	4.391	2.739		0.113		0.502		**4.6**	**4.4**
2042	1.317	4.112	2.891		0.113		0.117		**4.4**	**4.1**

		PM2.5 (tons/day)	**NOx (tons/day)**		**PM2.5**	**NOx**
1997 24-Hour and 1997 & 2012 Annual PM2.5 Standards						
	2014 Budget	0.9	21.6			
	2021	0.5	9.8		**YES**	**YES**
	2014 Budget	0.9	21.6			
	2027	0.5	5.6		**YES**	**YES**
	2014 Budget	0.9	21.6			
	2035	0.5	4.4		**YES**	**YES**
	2014 Budget	0.9	21.6			
	2042	0.5	4.1		**YES**	**YES**

		PM2.5 (tons/day)	**NOx (tons/day)**		**PM2.5**	**NOx**
2006 PM2.5 Winter 24-Hour Standard						
	2017 Budget	0.6	15.5			
	2019	0.5	12.3		**YES**	**YES**
	2017 Budget	0.6	15.5			
	2027	0.5	5.8		**YES**	**YES**
	2017 Budget	0.6	15.5			
	2035	0.5	4.5		**YES**	**YES**
	2017 Budget	0.6	15.5			
	2042	0.5	4.2		**YES**	**YES**

REFERENCES

CAA, 1990. *Clean Air Act*, as amended November 15, 1990. (42 U. S. C. Section 7401et seq.) November 15, 1990.

EPA, 1993. 40 CFR Parts 51 and 93. *Criteria and Procedures for Determining Conformity to State or Federal Implementation Plans of Transportation Plans, Programs and Projects Funded or Approved Under Title 23 U.S.C. or the Federal Transit Act.* U.S. Environmental Protection Agency. Federal Register, November 24, 1993, Vol. 58, No. 225, p. 62188.

EPA, 2004a. *Companion Guidance for the July 1, 2004, Final Transportation Conformity Rule: Conformity Implementation in Multi-jurisdictional Nonattainment and Maintenance Areas for Existing and New Air Quality Standards*. U.S. Environmental Protection Agency. July 21, 2004.

EPA, 2010a. 40 CFR Part 93. *Transportation Conformity Rule PM2.5 and PM10 Amendments; Final Rule.* Federal Register, March 24, 2010, Vol. 75, No. 56, p. 14260.

EPA, 2010b. *Transportation Conformity Regulations EPA-420-B-10-006.* March.

EPA, 2012a. 40 CFR Part 93. *Transportation Conformity Rule Restructuring Amendments; Final Rule*. Federal Register, March 14, 2012, Vol. 77, No. 50, p. 14979.

EPA, 2012b. *Transportation Conformity Guidance for 2008 Ozone Nonattainment Areas*. U.S. Environmental Protection Agency. EPA-420-B-12-045. July 2012.

EPA, 2012c. Guidance for Transportation Conformity Implementation in Multi-Jurisdictional Nonattainment and Maintenance Areas. U.S. Environmental Protection Agency. EPA-420-B-12-046. July 2012.

EPA, 2015. Implementation of the 2009 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements. Final Rule. U.S. Environmental Protection Agency. Vol. 80. No. 44. March 6, 2015.

EPA, 2016. Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements. Final Rule. U.S. Environmental Protection Agency. PA-HQ-OAR-2013-0691. July 29, 2016.

USDOT. 2001. *Use of Latest Planning Assumptions in Conformity Determinations*. Memorandum from U.S. Department of Transportation. January 18, 2001.

USDOT. 2001. Federal Highway Administration. Planning Assistance and Standards. 23 CFR 450. October 16.

APPENDIX A

CONFORMITY CHECKLIST

CONFORMITY ANALYSIS DOCUMENTATION

Checklist for MPO TIPs/RTPs
January 2018

40 CFR	Criteria	Page	Comments
§93.102	Document the applicable pollutants and precursors for which EPA designates the area as nonattainment or maintenance. Describe the nonattainment or maintenance area and its boundaries.	Ch. 1 p. 6	
§93.102 (b)(2)(iii)	PM10 areas: document whether EPA or state has found VOC and/or NOx to be a significant contributor or if the SIP establishes a budget	Ch. 1 p. 11	
§93.102 (b)(2)(iv)	PM2.5 areas: document if both EPA and the state have found that NOx is **not** a significant contributor or that the SIP does **not** establish a budget (otherwise, conformity applies for NOx)	Ch. 1 p. 12	
§93.102 (b)(2)(v)	PM2.5 areas: document whether EPA or state has found VOC, SO2, and/or NH3 to be a significant contributor or if the SIP establishes a budget	Ch. 1 p. 12	
§93.104 (b, c)	Document the date that the MPO officially adopted, accepted or approved the TIP/RTP and made a conformity determination. Include a copy of the MPO resolution. Include the date of the last prior conformity finding made by DOT.	E.S. p. 1	
§93.104 (e)	If the conformity determination is being made to meet the timelines included in this section, document when the new motor vehicle emissions budget was approved or found adequate.	N/A	
§93.106	Document that horizon years are no more than 10 years apart ((a)(1)(i)). Document that the first horizon year is no more than 10 years from the based year used to validate the transportation demand planning model ((a)(1)(ii)). Document that the attainment year is a horizon year, if in the timeframe of the plan ((a)(1)(iii)). Describe the regionally significant additions or modifications to the existing transportation network that are expected to be open to traffic in each analysis year ((a)(2)(ii)). Document that the design concept and scope of projects allows adequate model representation to determine intersections with regionally significant facilities, route options, travel times, transit ridership and land use.	Ch. 2, p. 28; Appendix B	
§93.108	Document that the TIP/RTP is fiscally constrained (23 CFR 450).	E.S. p. 1	

40 CFR	Criteria	Page	Comments
§93.109 (a, b)	Document that the TIP/RTP complies with any applicable conformity requirements of air quality implementation plans (SIPs) and court orders.	E.S. p.4 Ch. 1, 2, 3, 4, 5, 6, 6-12, 20-27, 30-33, 34, 36	
§93.109 (c,)	Provide either a table or text description that details, for each pollutant, precursor and applicable standard, whether the interim emissions test(s) and/or the budget test apply for conformity. Indicate which emissions budgets have been found adequate by EPA, and which budgets are currently applicable for what analysis years.	Ch. 1 16-36	
§93.109(e)	CO or PM10: Document if the area has a limited maintenance plan and from where that information comes	Ch. 1 p. 11	
§93.109(f)	Document if motor vehicle emissions are an insignificant contributor and in what SIP that determination is found	Ch. 1 p. 12, 14	
§93.110 (a, b)	Document the use of latest planning assumptions (source and year) at the "time the conformity analysis begins," including current and future population, employment, travel and congestion. Document the use of the most recent available vehicle registration data. Document the date upon which the conformity analysis was begun.	Ch. 2, p. 20-32	
EPA-DOT guidance	Document the use of planning assumptions less than five years old. If unable, include written justification for the use of older data. (December 2008 guidance,)	Ch. 2 21-32	
§93.110 (c,d,e,f)	Document any changes in transit operating policies and assumed ridership levels since the previous conformity determination (c). Document the assumptions about transit service, use of the latest transit fares, and road and bridge tolls (d). Document the use of the latest information on the effectiveness of TCMs and other SIP measures that have been implemented (e). Document the key assumptions and show that they were agreed to through Interagency and public consultation (f).	Ch. 2 23	
§93.111	Document the use of the latest emissions model approved by EPA. If the previous model was used and the grace period has ended, document that the analysis began before the end of the grace period.	Ch. 3 31	
§93.112	Document fulfillment of the interagency and public consultation requirements outlined in a specific implementation plan according to §51.390 or, if a SIP revision has not been completed, according to §93.105 and 23 CFR 450. Include documentation of consultation on conformity tests and methodologies as well as responses to written comments.	Ch. 5 45-46	

40 CFR	Criteria	Page	Comments
§93.113	Document timely implementation of all TCMs in approved SIPs. Document that implementation is consistent with schedules in the applicable SIP and document whether anything interferes with timely implementation. Document any delayed TCMs in the applicable SIP and describe the measures being taken to overcome obstacles to implementation.	Ch. 4, App. E 41-42	
§93.114	Document that the conformity analyses performed for the TIP is consistent with the analysis performed for the Plan, in accordance with 23 CFR 450.324(f)(2).	Analysis addresses both documents	
For Areas with SIP Budgets:			
§93.118, §93.124	Document what the applicable budgets are, and for what years. Document if there are subarea budgets established, and for which areas (93.124(c)). Document if there is a safety margin established, and what are the budgets with the safety margin included. (93.124(a)). Document if there has been any trading among budgets, and if so, which SIP establishes the trading mechanism, and how it is used in the conformity analysis (93.124(b)). If there is more than one MPO in the area, document whether separate budgets are established for each MPO (93.124(d)).	Ch. 2, p. 20-30	
§93.118 (a, c, e)	Document that emissions from the transportation network for each applicable pollutant and precursor, including projects in any associated donut area that are in the TIP and regionally significant non-Federal projects, are consistent with any adequate or approved motor vehicle emissions budget for all pollutants and precursors in applicable SIPs.	Ch. 6 47-48	
§93.118 (b)	Document for which years consistency with motor vehicle emissions budgets must be shown.	Ch. 1 18	
§93.118 (d)	Document the use of the appropriate analysis years in the regional emissions analysis for areas with SIP budgets, and the analysis results for these years. Document any interpolation performed to meet tests for years in which specific analysis is not required.	Ch. 6 47-48	
For Areas without Applicable SIP Budgets:			
§93.119	Document whether the area must meet just one or both interim emissions tests. If both, document that it is the "less than" form of these tests (i.e., §93.119(b)(1) and (c)(1) vs. (b)(2), (c)(2), and (d)).	Ch. 6	
§93.119[i] (a, b, c, d)	Document that emissions from the transportation network for each applicable pollutant and precursor, including projects in any associated donut area that	Ch. 6	

40 CFR	Criteria	Page	Comments
	are in the TIP and regionally significant non-Federal projects, are consistent with the requirements of the "Action/Baseline" or "Action/Baseline Year" emissions tests as applicable.		
§93.119 (e)	Document the appropriate baseline year.	Ch. 6	
§93.119 (f)	Document the use of appropriate pollutants and if EPA or the state has made a finding that a particular precursor or component of PM10 is significant or insignificant.	Ch. 6	
§93.119 (g)	Document the use of the appropriate analysis years in the regional emissions analysis for areas without applicable SIP budgets.	Ch. 1 7	
§93.119 (h, i)	Document how the baseline and action scenarios are defined for each analysis year.	Ch. 3	
For All Areas Where a Regional Emissions Analysis Is Needed			
§93.122 (a)(1)	Document that all regionally significant federal and non-Federal projects in the nonattainment/maintenance area are explicitly modeled in the regional emissions analysis. For each project, identify by which analysis year it will be open to traffic. Document that VMT for non-regionally significant Federal projects is accounted for in the regional emissions analysis	Ch. 2, App B 25-26	
§93.122 (a)(2, 3)	Document that only emission reduction credits from TCMs on schedule have been included, or that partial credit has been taken for partially implemented TCMs (a)(2). Document that the regional emissions analysis only includes emissions credit for projects, programs, or activities that require regulatory action if: the regulatory action has been adopted; the project, program, activity or a written commitment is included in the SIP; EPA has approved an opt-in to the program, EPA has promulgated the program, or the Clean Air Act requires the program (indicate applicable date). Discuss the implementation status of these programs and the associated emissions credit for each analysis year (a)(3).	Ch. 2 28	
§93.122 (a)(4,5,6,7)	For nonregulatory measures that are not included in the transportation plan and TIP, include written commitments from appropriate agencies (a)(4). Document that assumptions for measures outside the transportation system (e.g. fuels measures) are the same for baseline and action scenarios (a)(5). Document that factors such as ambient temperature are consistent with those used in the SIP unless modified through interagency consultation (a)(6).	N/A	

40 CFR	Criteria	Page	Comments
	Document the method(s) used to estimate VMT on off-network roadways in the analysis (a)(7).		
§93.122 (b)(1)(i)[ii]	Document that a network-based travel model is in use that is validated against observed counts for a base year no more than 10 years before the date of the conformity determination. Document that the model results have been analyzed for reasonableness and compared to historical trends and explain any significant differences between past trends and forecasts (for per capita vehicle-trips, VMT, trip lengths mode shares, time of day, etc.).	Ch. 2 24	
§93.122 (b)(1)(ii) [ii]	Document the land use, population, employment, and other network-based travel model assumptions.	Ch. 2 24	
§93.122 (b)(1)(iii) [ii]	Document how land use development scenarios are consistent with future transportation system alternatives, and the reasonable distribution of employment and residences for each alternative.	Ch. 2 24	
§93.122 (b)(1)(iv) [ii]	Document use of capacity sensitive assignment methodology and emissions estimates based on a methodology that differentiates between peak and off-peak volumes and speeds, and bases speeds on final assigned volumes.	Ch. 2 25	
§93.122 (b)(1)(v) [ii]	Document the use of zone-to-zone travel impedances to distribute trips in reasonable agreement with the travel times estimated from final assigned traffic volumes. Where transit is a significant factor, document that zone-to-zone travel impedances used to distribute trips are used to model mode split.	Ch. 2 25	
§93.122 (b)(1)(vi) [ii]	Document how travel models are reasonably sensitive to changes in time, cost, and other factors affecting travel choices.	Ch. 2 24	
§93.122 (b)(2) [ii]	Document that reasonable methods were used to estimate traffic speeds and delays in a manner sensitive to the estimated volume of travel on each roadway segment represented in the travel model.	Ch. 2 24	
§93.122 (b)(3) [ii]	Document the use of HPMS, or a locally developed count-based program or procedures that have been chosen through the consultation process, to reconcile and calibrate the network-based travel model estimates of VMT.	Ch. 2 24	
§93.122 (d)	In areas not subject to §93.122(b), document the continued use of modeling techniques or the use of appropriate alternative techniques to estimate vehicle miles traveled	Ch. 2 24	
§93.122 (e, f)	Document, in areas where a SIP identifies construction-related PM10 or PM2.5 as significant pollutants, the inclusion of PM10 and/or PM2.5 construction emissions in the conformity analysis.	Ch. 3 32	

40 CFR	Criteria	Page	Comments
§93.122 (g)	If appropriate, document that the conformity determination relies on a previous regional emissions analysis and is consistent with that analysis, i.e. that:		
	(g)(1)(i): the new plan and TIP contain all the projects that must be started to achieve the highway and transit system envisioned by the plan	Appendix B	
	(g)(1)(ii): all plan and TIP projects are included in the transportation plan with design concept and scope adequate to determine their contribution to emissions in the previous determination;	Appendix B	
	(g)(1)(iii): the design concept and scope of each regionally significant project in the new plan/TIP are not significantly different from that described in the previous;	Appendix B	
	(g)(1)(iv): the previous regional emissions analysis meets 93.118 or 93.119 as applicable	Appendix B	
§93.126, §93.127, §93.128	Document all projects in the TIP/RTP that are exempt from conformity requirements or exempt from the regional emissions analysis. Indicate the reason for the exemption (Table 2, Table 3, traffic signal synchronization) and that the interagency consultation process found these projects to have no potentially adverse emissions impacts.	Ch. 2, App B 26-27	

[i] Note that some areas are required to complete both Interim emissions tests.
[ii] 40 CFR 93.122(b) refers only to serious, severe and extreme ozone areas and serious CO areas above 200,000 population. Also note these procedures apply in any areas where the use of these procedures has been the previous practice of the MPO (40 CFR 93.122(d)).

Disclaimers
This checklist is intended solely as an informational guideline to be used in reviewing Transportation Plans and Transportation Improvement Programs for adequacy of their conformity documentation. It is in no way intended to replace or supersede the Transportation Conformity regulations of 40 CFR Parts 51 and 93, the Statewide and Metropolitan Planning Regulations of 23 CFR Part 450 or any other EPA, FHWA or FTA guidance pertaining to transportation conformity or statewide and metropolitan planning. This checklist is not intended for use in documenting transportation conformity for individual transportation projects in nonattainment or maintenance areas. 40 CFR Parts 51 and 93 contain additional criteria for project-level conformity determinations.

APPENDIX B

TRANPORTATION PROJECT LISTING

Jurisdiction/Agency	TIP/RTP	CTIPs Project ID	Description			Estimated Cost											
	Project ID	(if available)	Facility Name/Route	Type of Improvement	Project Limits		2018	2019	2020	2021	2023	2024	2027	2031	2035	2037	2042
Caltrans	SJ07-1015		SR-4 Extension	New alignment from Fresno Ave. to Navy Drive	Fresno Avenue to Navy Drive	$90,000,000	x	x	x	x	x	x	x	x	x	x	x
Caltrans	SJ14-1004	212-0000-0665	SR 99/120 Operational Improvements	Construct a second lane on the SR 99 NB Off-ramp/SR-120 WB On-Ramp and on the SR-120 EB off-ramp/SR-99 SB On-Ramp. Reconstruct Austin Road Overcrossing. Widen SR-120 from 4 lanes to 6 between Main Street and SR-99. Construct auxiliary lanes on SR-99 between SR-120 and Olive Avenue.	On SR-120 from Main Street (P.M. 5.13) to SR-99 and on SR-99 from SR-120 to Olive Avenue (P.M. 6.22)	$76,711,000					x	x	x	x	x	x	x
Caltrans	SJ07-1003		I-205 HOV	Widen from 6 to 8 lanes (inside/outside)	Alameda County Line to Eleventh Street	$95,874,000							x	x	x	x	x
Caltrans	SJ14-1001		I-205 HOV	Widen from 6 to 8 lanes (inside/outside)	Eleventh Street to MacArthur Drive	$102,000,000							x	x	x	x	x
Caltrans	SJ14-1002		I-205 HOV	Widen from 6 to 8 lanes (inside/outside)	MacArthur Drive to I-5	$100,000,000							x	x	x	x	x
Caltrans	SJ07-1008		I-5 HOV Mossdale	Widen to add HOV lanes with HOV Connector Ramps to I-205 and SR-120	I-205 to Louise Avenue (P.M. 12.5/R 16.5)	$207,970,000								x	x	x	x
Caltrans	SJ07-1014		SR-120	Widen 4 to 6 lanes (inside)	I-5 to Main Street (P.M. 5.13)	$95,191,000								x	x	x	x
Caltrans	SJ18-1001		SR-99 HOV	Widen 6 to 8 lanes (inside/outside), including reconstruction of SR-99/Main Street and SR-99/Wilma Avenue interchanges and pedestrian overcrossing	SR-120 to Stanislaus County Line	$200,000,000									x	x	x
Caltrans	SJ11-1001		I-5 HOV	Widen from 6 to 8 lanes (inside median) including auxiliary lanes	Hammer Lane to North of Eight Mile Road	$124,620,000										x	x
Caltrans	SJ07-1005		I-5 HOV	Widen 6 to 8 lanes (inside)	French Camp Road to Charter Way	$97,880,000											x
Caltrans	SJ07-1006		I-5 HOV	Widen 6 to 8 lanes (inside)	Louise Avenue to French Camp Road	$193,880,000											x
Lathrop	SJ07-2005		I-5 at Louise Avenue	Reconstruct interchange (PM 16.4-16.8)	I-5 at Louise Avenue	$28,754,000								x	x	x	x
Lathrop	SJ07-2004		I-5 at Lathrop Road	Reconstruct interchange (P.M. 17.3/17.8)	I-5 at Lathrop Road	$39,146,000									x	x	x
Lathrop	SJ11-3066		I-5 at Roth Road	Relocation of intersection at Roth/Harlan Road inclusive of signalization; relocation of intersection at Roth/Manthey Road inclusive of signalization. Widen from 2 to 5 lanes from Roth/Harlan road intersection to Roth/Manthey Road Intersection	I-5 at Roth Road	$16,800,000			x	x	x	x	x	x	x	x	x
Lodi	SJ11-2015		SR-99 at SR-12 West (Kettleman Lane)	Reconstruct interchange and widen to free flowing interchange	SR-99 at SR-12 West (Kettleman Lane)	$50,000,000										x	x

Jurisdiction/Agency	TIP/RTP	CTIPs Project ID	Description			Estimated Cost											
	Project ID	(if available)	Facility Name/Route	Type of Improvement	Project Limits		2018	2019	2020	2021	2023	2024	2027	2031	2035	2037	2042
Lodi	SJ07-2006		SR-99 at Harney Lane	Reconstruct interchange to provide 6 through lanes on SR 99, 4 lanes on Harney between Reynolds Ranch Pkwy and SR 99 and modify on-ramps and off-ramps	SR-99 at Harney Lane	$35,362,000									x	x	x
Lodi	SJ07-1020	112-0000-0347	SR-99 at Turner Road	Reconstruct interchange to provide operational and safety improvements on SR 99 at Turner Road (PM 31.3/31.6)	SR-99 at Turner Road	$6,142,986											x
Manteca	SJ07-2012		SR-120 at Union Road	Reconstruct interchange (P.M. 4.1/4.1)	SR-120 at Union Road	$22,000,000				x	x	x	x	x	x	x	x
Manteca	SJ07-2009	212-0000-0231	SR-120 at McKinley Ave	Construct new interchange	SR-120 at McKinley Avenue	$37,850,000					x	x	x	x	x	x	x
Manteca	SJ18-2001		SR-120 at Airport Way	Reconstruct interchange	SR-120 at Airport Way	$36,828,000								x	x	x	x
Manteca	SJ18-2002		SR-120 at Main Street	Reconstruct interchange	SR-120 at Main Street	$36,828,000									x	x	x
Stockton	SJ11-2004	212-0000-0309	I-5 at Hammer Lane	Interchange Modification and auxiliary lanes (PM 32.6)	I-5 at Hammer Lane	$47,164,647										x	x
Stockton	SJ11-2006	212-0000-0309	I-5 at Otto Drive	Construction of a new interchange and auxiliary lanes (PM 33.3/34.2)	I-5 at Otto Drive	$103,371,218										x	x
Stockton	SJ07-2020	212-0000-0309	I-5 at Eight Mile Road	Modification of interchange (P.M. 34.7/35.9)	I-5 at Eight Mile Road	$57,255,179										x	x
Stockton	SJ11-2002	212-0000-0562	SR-99 at Eight Mile Road	Reconstruct Interchange (PM 35.1-35.5)	SR-99 at Eight Mile Road	$93,070,215										x	x
Stockton	SJ11-2001	212-0000-0561	SR-99 at Morada	Reconstruct interchange (PM 23.5-24.5)	SR-99 at Morada	$96,474,024										x	x
Tracy	SJ11-2010	212-0000-0227	I-205/Lammers Rd/Eleventh St	Construct Interchange I-205 at Eleventh street realign and widen Eleventh Street to 6-lanes north of Grant Line to Byron Road. Construct Aux lane Hansen to Eleventh; in WB I-205 Eleventh Street to Grant Line Road	Construct Interchange I-205 at Eleventh street realign and widen Eleventh Street to 6-lanes north of Grant Line to Byron Road. Construct Aux lane Hansen to Eleventh; in WB I-205 Eleventh Street to Grant Line Road	$51,500,000						x	x	x	x	x	x
Tracy	SJ14-2002		I-580 at International Pkwy/Patterson Pass Road	Reconstruct interchange	I-580 at Mountain House Parkway	$9,000,000				x	x	x	x	x	x	x	x
Tracy	SJ14-2003		I-205 at Mountain House/International Pkwy	Reconstruct interchange	I-205 at Mountain House Parkway	$4,000,000				x	x	x	x	x	x	x	x
Tracy	SJ11-2011		I-205 at Grant Line Road	Modification of existing interchange	I-205 at Grant Line Road	$32,574,820						x	x	x	x	x	x
Tracy	SJ11-2012	212-0000-0228	I-205 at Chrisman Rd	Phase 1: Construct new interchange east-west ramps	I-205 at Chrisman Rd	$36,056,267							x	x	x	x	x
Escalon	SJ07-3010		McHenry Avenue	Widen and reconstruct to include center turn lane, bike lane, and graded shoulders.	Narcissus to Jones Road	$400,000			x	x	x	x	x	x	x	x	x

Jurisdiction/Agency	TIP/RTP	CTIPs Project ID	Description			Estimated Cost											
	Project ID	(if available)	Facility Name/Route	Type of Improvement	Project Limits		2018	2019	2020	2021	2023	2024	2027	2031	2035	2037	2042
Escalon	SJ07-3013		Ullrey Avenue/McHenry Avenue Intersection	Reconstruct intersection, including addition of turn pockets, improvement of traffic signal and installation of train pre-emption system for UPRR railroad crossing.	Intersection of Ullrey Avenue and McHenry Avenue including UPRR railroad crossing.	$1,000,000						x	x	x	x	x	x
Escalon	SJ07-3011	212-0000-0228	SR 120/Brennan Ave Intersection	Intersection improvements	SR-120 at Brennan Avenue	$446,066							x	x	x	x	x
Lathrop	SJ07-3014		Golden Valley Parkway	Construct new roadway parallel to I-5, 2 lanes from Brookhurst Blvd to Stewart Road	Along Northwest side of I-5 from Brookhurst Blvd to Stewart Road	$7,500,000					x	x	x	x	x	x	x
Lathrop	SJ14-3001		Golden Valley Parkway	Construct new roadway parallel to I-5, 4 lanes from Stewart Road to Paradise Road	Along Northwest side of I-5 from Stewart Road to Paradise Road	$45,000,000							x	x	x	x	x
Lathrop	SJ07-3014		Golden Valley Parkway	Widen from 2 to 4 lanes, from Brookhurst Blvd to Stewart Road	Along Northwest side of I-5 from Brookhurst Blvd to Stewart Road	$7,500,000							x	x	x	x	x
Lodi	SJ07-3018		Harney Lane	Widen from 2/3 lane collector to 4 lane divided arterial	Hutchins Street to Lower Sacramento Road	$18,390,688							x	x	x	x	x
Lodi	SJ07-3022		Victor Road (SR-12)	Widen from 2 to 4 lanes. Add center dual left turn lane, turn pockets at intersections and median seperation with landscape	Between SR 99 to Central California Traction railroad tracks.	$9,013,203									x	x	x
Lodi	SJ07-3017		Ham Lane	Widen 2/3 lanes to 4 lanes	From Lodi Avenue to Elm Street	$2,784,072										x	x
Manteca	SJ11-3010		Atherton Drive	Construct new 4 lane roadway (gap closure)	East of Airport Way to Union Road	$2,481,200			x	x	x	x	x	x	x	x	x
Manteca	SJ07-3023		Airport Way	Widen from 2 to 4 lanes	SR-120 to Yosemite Ave.	$9,039,644					x	x	x	x	x	x	x
Manteca	SJ11-3008		Airport Way	Widen from 2 to 4 lanes	Lathrop Road to Roth Road	$6,563,978					x	x	x	x	x	x	
Manteca	SJ07-3027		Louise Avenue	Widen from 2 to 4 lanes	Main Street to SR-99	$1,522,000					x	x	x	x	x	x	x
Manteca	SJ11-3011		Atherton Drive	Construct new 4 lane roadway	McKinley Ave to West of Airport Way	$1,095,144					x	x	x	x	x	x	x
Manteca	SJ07-3024		Lathrop Road	Widen from 2 to 4 lanes	From East of UPRR to SR-99	$3,079,636						x	x	x	x	x	x
Manteca	SJ11-3014		Raymus Expressway	Construct new 4-lane expressway	Main Street to SR-99	$9,343,608							x	x	x	x	x
Manteca	SJ14-3003		Airport Way	Widen from 2 to 4 lanes	Yosemite Ave. to Lathrop Road	$6,327,751							x	x	x	x	x
Manteca	SJ11-3013		Raymus Expressway	Construct new 2 lane expressway	SR-120 to Woodward Ave	$2,801,188								x	x	x	x
Manteca	SJ11-3012		Atherton Drive	Construct new 4 lane roadway	Woodward Ave to McKinley Ave	$4,321,170								x	x	x	x
Manteca	SJ11-3015		Raymus Expressway	Construct new 2 lane expressway	Woodward Ave to Main Street	$11,115,162								x	x	x	x
Manteca	SJ14-3004		Airport Way	Widen from 4 to 6 lanes	SR 120 to Lathrop Road	$12,351,768										x	x
Port of Stockton	SJ18-3003		Washington Street	Widen from 2 to 4 lanes	Navy Drive to Port Rd 21	$6,000,000				x	x	x	x	x	x	x	x
Ripon	SJ11-3020		River Road, Phase 2	Widen from 2 to 6 lanes	Fulton Avenue to Jack Tone Road	$2,500,000		x	x	x	x	x	x	x	x	x	x
Ripon	SJ11-3017		Jack Tone Road, Phase 1	Widen from 2 to 6 lanes	Santos Road to South Clinton Avenue	$9,500,000			x	x	x	x	x	x	x	x	x
Ripon	SJ11-3019		Garrison Road Gap Closure	Construct 2-lane extension of Garrison Road.	Maple Avenue to 500 ft east of Acacia Avenue	$3,000,000				x	x	x	x	x	x	x	x
Ripon	SJ11-3016	212-0000-0586	Stockton Avenue	Rehabilitate and widen roadway from 2 to 4 lanes	Second Street to Doak Boulevard	$3,300,000				x	x	x	x	x	x	x	x
Ripon	SJ07-3137		W. Ripon Road	Widen from 2 to 6 lanes	Jack Tone Road to Olive Expressway	$10,000,000						x	x	x	x	x	x

Jurisdiction/Agency	TIP/RTP	CTIPs Project ID	Description			Estimated Cost											
	Project ID	(if available)	Facility Name/Route	Type of Improvement	Project Limits		2018	2019	2020	2021	2023	2024	2027	2031	2035	2037	2042
Ripon	SJ14-3006		Canal Boulevard Extension	Construct 4-lane extension of Canal Boulevard	Jack Tone Road to Olive Expressway	$4,600,000							x	x	x	x	x
San Joaquin County	SJ11-3023		Pershing Avenue	Widen from 2 to 3 lanes, add drainage, curb, gutter, sidewalk	Meadow Avenue to Thorton Road	$3,754,775		x	x	x	x	x	x	x	x	x	x
San Joaquin County	SJ11-3028		Cherokee Road	Widen from 2 to 3 lanes, add paved shoulders	SR-99 to Ashley Road	$3,816,000			x	x	x	x	x	x	x	x	x
San Joaquin County	SJ11-3029		Howard Road	Passing lanes and channelization	Tracy Blvd to Matthews Road	$15,000,000					x	x	x	x	x	x	x
San Joaquin County	SJ14-3005		Grant Line Road Corridor Improvements	Realign roadway and widen from 2 to 4 lanes with operational and safety improvements	Tracy City Limits to 11th Street	$27,459,000					x	x	x	x	x	x	x
San Joaquin County	SJ11-3031		Tracy Boulevard	Passing lanes and channelization	I-205 to Howard Road	$5,000,000							x	x	x	x	x
San Joaquin County	SJ11-3027		Eleventh Street	Operational and safety improvements along corridor and at intersections	Tracy City Limits to I-5	$15,439,000								x	x	x	x
San Joaquin County	SJ07-3154		Roth Road	Widen from 2 to 4 lanes with shoulders)	UPRR to Airport Way	$4,678,947								x	x	x	x
San Joaquin County	SJ11-3008		Airport Way	Widen from 2 to 4 lanes	Roth Road to French Camp Road	$11,446,302										x	x
San Joaquin County	SJ11-3007		Escalon Bellota Road	Widen 2 to 4 lanes with shoulders	Escalon City limits to Mariposa Road	$18,106,406										x	x
San Joaquin County	SJ11-3030		Mariposa Road	Widen roadway from 2 to 3 lanes and widen BNSF railroad grade separation from 2 to 4 lanes	Austin Road to Jack Tone Road	$27,177,409										x	x
Stockton	SJ11-3032		Holman Rd	Construction of new 6 lane road	Gary Galli Dr to Eight Mile Rd	$13,600,000			x	x	x	x	x	x	x	x	x
Stockton	SJ07-3076		Trinity Parkway Extension	Construction of new 4 lane road	Bear Creek to Otto Dr	$1,500,000			x	x	x	x	x	x	x	x	x
Stockton	SJ11-3057		Arch-Airport Rd	Widen from 3 to 6 lanes	SR-99 to Pock Lane	$4,000,000			x	x	x	x	x	x	x	x	x
Stockton	SJ11-3060		Arch-Airport Rd	Widen from 3 to 6 lanes	Alitalia Ave to Airport Way	$1,800,000			x	x	x	x	x	x	x	x	x
Stockton	SJ11-3034		Davis Rd	Widen from 3 to 4 lanes	Eight Mile to Bear Creek	$2,400,000			x	x	x	x	x	x	x	x	x
Stockton	SJ11-3054		French Camp Road	Widen from 4 to 8 lanes	Manthey Rd to I-5	$1,700,000			x	x	x	x	x	x	x	x	x
Stockton	SJ11-3037		Hammer Ln Extension	New Street	Mariners Dr to Trinity Parkway	$3,600,000				x	x	x	x	x	x	x	x
Stockton	SJ11-3033		Lower Sacramento Rd	Widen from 2 to 6 lanes	Grider Way to Armor Dr	$7,000,000				x	x	x	x	x	x	x	x
Stockton	SJ07-3087		Trinity Parkway Extension	Construct 4 lane extension	Otto Drive to Hammer Lane	$8,000,000				x	x	x	x	x	x	x	x
Stockton	SJ07-3084		Morada Lane	Widen from 3 to 6 lanes	West Ln to UPRR	$8,503,073							x	x	x	x	x
Stockton	SJ07-3093		Alpine Avenue	Widen from 2 to 4 lanes with a middle turn lane. Construct curb, gutter, sidewalks and driveways.	UPRR (SPRR) to Wilson Way	$17,987,271							x	x	x	x	x
Stockton	SJ11-3044		Arch Road	Widen from 2 to 6 lanes	Fite Court to Frontier Way	$1,526,193							x	x	x	x	x
Stockton	SJ11-3045		Arch Road	Widen from 2 to 6 lanes	Frontier Way to SR-99	$4,796,606							x	x	x	x	x
Stockton	SJ07-3078		Maranatha Dr	Construction of new 4 lane road	March Ln to Hammer Ln	$6,431,812							x	x	x	x	x
Stockton	SJ11-3062		Maranatha Dr	Construction of new 4 lane road	Wilson Way to March Ln	$11,337,431							x	x	x	x	x
Stockton	SJ11-3056		Lower Sacramento Rd	Widen from 4 to 6 lanes	Armor Dr to Morada Ln	$4,469,564							x	x	x	x	x
Stockton	SJ11-3039		Lower Sacramento Rd	Widen from 2 to 6 lanes	Marlette Rd to Pixley Slough	$25,291,193							x	x	x	x	x
Stockton	SJ11-3055		Lower Sacramento Rd	Widen from 4 to 6 lanes	Morada Ln to Hammer Ln	$17,364,769								x	x	x	x
Stockton	SJ07-3088		Airport Way	Intersection and operational improvement	Harding Way to Industrial Rd	$7,693,929								x	x	x	x
Stockton	SJ11-3047		Eight Mile Rd	Widen from 2 to 4 lanes	New Road D to New Road F	$2,616,330							x	x	x	x	x

Jurisdiction/Agency	TIP/RTP	CTIPs Project ID	Description			Estimated Cost											
	Project ID	(if available)	Facility Name/Route	Type of Improvement	Project Limits		2018	2019	2020	2021	2023	2024	2027	2031	2035	2037	2042
Stockton	SJ11-3048		Eight Mile Rd	Widen from 2 to 4 lanes	New Road F to New Road E	$5,014,633							x	x	x	x	x
Stockton	SJ11-3050		Eight Mile Rd	Widen from 5 to 6 lanes	I-5 to Thornton Rd	$10,722,581										x	x
Stockton	SJ07-3094		Eight Mile Rd	Widen from 2 to 4 lanes	Thornton Road to Lower Sacramento Rd	$30,299,304										x	x
Stockton	SJ11-3061		Eigth Mile Rd	Widen from 2 to 6 lanes	Lower Sacramento Rd to West Lane	$9,001,673										x	x
Stockton	SJ07-3095		Eight Mile Rd	Widen from 2 to 6 lanes	West Ln to Holman Rd	$14,429,152										x	x
Stockton	SJ11-3051		Eight Mile Rd	Widen from 2 to 6 lanes	Holman Rd to SR 99	$19,459,498										x	x
Stockton	SJ07-3089		Arch Road	Widen from 2 to 6 lanes	Newcastle Rd to Fite Court	$8,927,474										x	x
Stockton	SJ11-3053		French Camp Road	Widen from 2 to 6 lanes	Wolfe Rd to Manthey Rd	$11,226,974										x	x
Stockton	SJ11-3063		March Ln Extension	Construction of new 8 lane road	Holman Rd to SR 99	$30,299,304										x	x
Stockton	SJ18-3001		Mariposa Road	Widen from 2 to 4 lanes	Stagecoach Road to Austin Road	$46,260,545										x	x
Tracy	SJ07-3108	212-0000-0427	MacArthur Drive	Widen 2 to 4 lanes (Valpico Road to Schulte Road)	MacArthur Drive from Valpico Road to Schulte Road;	$10,973,987			x	x	x	x	x	x	x	x	x
Tracy	SJ18-3002		International Parkway	Widen from 2 to 4 lanes, including reconstruction of Delta-Mendota Canal and California Aqueduct bridges	I-205 to I-580	$35,000,000					x	x	x	x	x	x	x
Tracy	SJ07-3110		Corral Hollow Road	Widen from 2 to 4 lanes	Parkside Drive to Linne Road	$22,906,820					x	x	x	x	x	x	x
Tracy	SJ07-3109		Schulte Road	Extend 4 lane roadway	Faith Lane (San Marco Subdivision limits) to Lammers Road	$16,937,000						x	x	x	x	x	x
Tracy	SJ07-3107		Grant Line Road	Widen from 5 to 6 lanes	Naglee Road to Lammers Road	$6,392,443							x	x	x	x	x
Tracy	SJ07-3181		Corral Hollow Road Widening	Widen 2 to 4 lanes including ROW and construction of two bridges	Linne Road to I-580	$38,312,346							x	x	x	x	x
Tracy	SJ11-3067		MacArthur Drive	Extend 4 lane roadway on new alignment and construct railroad grade separation	Mt. Diablo Road to Eleventh Street	$22,602,553									x	x	x
Tracy	SJ07-3183		Tracy Blvd.	Widen from 4 lane minor arterial to 4 lane major arterial	I-205 to Eleventh Street	$17,401,433								x	x	x	x
Escalon	SJ07-4003		Escalon BNSF Grade Se	Construct a grade separation in Escalon at the BNSF Railroad	On Yosemite Avenue (SR-120) and on McHenry Avenue at BNSF	$32,500,000											x
Lathrop	SJ11-4002		Roth Road Grade Separa	Construct 4 lane grade separation between Roth Road and Railroad	On Roth Road East of the Army Depot and West of the UPRR Intermodal Terminal	$29,100,000			x	x	x	x	x	x	x	x	x
Manteca	SJ07-4008		Airport Way/UPRR	Construct five lane grade separation over the UPRR	Airport Way/UPRR between Louise Avenue and Northgate Drive	$22,250,000									x	x	x
San Joaquin County	SJ11-4001		Lower Sacramento Road/UPRR (near Woodson Road)	Replace grade separation of roadway and railway	Lower Sacramento Road/UPRR (near Woodson Road)	$40,000,000									x	x	x
Stockton	SJ07-4014		Alpine Road/UPRR (West)	Construct at-grade quiet zone improvements	On Alpine Avenue at UPRR west of Coronado Avenue	$3,000,000								x	x	x	x
Stockton	SJ07-4017		Alpine Ave/UPRR (East)	Construct a 4 lane grade separation	On Alpine Ave at UPRR between West Lane and Montego Avenue	$47,831,000											x
Stockton	SJ07-4027		West Lane at UPRR	Construct a 6 lane grade separation	On West Lane between Alpine Avenue & El Pinal Drive/Klinger Road	$42,230,000											x
Port of Stockton	SJ18-4001		Fyffe Avenue at CCTC	Construct a 2 lane grade separation	Fyffe Avenue at CCTC	$10,000,000				x	x	x	x	x	x	x	x

Federally-Funded Non-Regionally Significant Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Type of Improvement	Description Facility Name/Route	Project Limits	Estimated Cost	Conformity Analysis Year (project open to traffic) 2018	2019	2020	2021	2024	2027	2031	2035	2037	2042
None																

Exempt Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Facility Name/Route	Project Description	Project Limits	Estimated Cost	Exemption Code
Escalon	SJ11-5002		eTrans Transit Operations	Costs associated with eTrans demand responsive & fixed route transit system	Cities of Escalon and Modesto	$6,500,000	4.12
Escalon	SJ14-5001		eTrans Capital Improvements	Bus Replacements, passenger amenities, and miscellanious equipment	City of Escalon	$1,000,000	2.1
Lodi	SJ07-5002	212-0000-0155	Grapeline Capital	Bus stop shelters/improvements	City of Lodi	$8,400,000	2.07
Lodi	SJ07-5004	212-0000-0299	Grapeline Capital	Transit facility upgrades	City of Lodi	$3,600,000	2.08
Lodi	SJ07-5001		Grapeline Capital	Purchase replacement buses	City of Lodi	$30,000,000	2.1
Lodi	SJ07-5005		Grapeline Capital	Transit Station Expansion	City of Lodi	$2,500,000	2.08
Lodi	SJ07-5011		Grapeline Operations	Costs associated with Grapeline fixed route and Paratransit/Dial-A-Ride services	City of Lodi	$125,000,000	2.01
Lodi	SJ14-5005		Grapeline Capital	Construct transit transfer station in southwest Lodi	City of Lodi	$750,000	2.08
Lodi	SJ14-5006		Grapeline Capital	Intelligent Transportation System (ITS) upgrades	City of Lodi	$1,800,000	4.01
Lodi	SJ14-5007		Grapeline Capital	CNG Fuel upgrades	City of Lodi	$600,000	2.11
Lodi	SJ14-5009		Grapeline Capital	Bicycle Support Program	City of Lodi	$200,000	1.06
Lodi	SJ14-5010		Grapeline Capital	Radio/Communication Upgrade	City of Lodi	$300,000	4.01
Lodi	SJ14-5011		Grapeline Capital	Safety and security for Lodi Grapeline service	City of Lodi	$900,000	1.06
Lodi	SJ14-5012		Grapeline Capital	Bus Wash upgrades	City of Lodi	$400,000	2.11
Manteca	SJ07-5017	212-0000-0235	Manteca Transit System Capital	Purchase of replacement and new buses	City of Manteca	$14,000,000	2.1
Manteca	SJ07-5018	212-0000-0282/ 212-0000-0213	Manteca Transit System Operations	Costs associated with the Operations and administration of Dial-A-Ride and fixed route service in Manteca	City of Manteca	$85,000,000	2.01
Manteca	SJ07-5016	212-0000-0300	Manteca Transit System	Costs associated with Safety/Security/ITS	City of Manteca	$3,000,000	1.06
Manteca	SJ07-5015	212-0000-0358	Manteca Transit Capital	Bus shelters/pedestrian facilities, bike facilities, lighting and multifunctional landscaped area.	City of Manteca	$10,000,000	2.07
Manteca	SJ14-5031		Manteca Transit Capital	Construct a bus maintenance and storage facility	City of Manteca	$4,800,000	2.07
Manteca	SJ18-5006		Manteca Transit Capital	Costs to support transit planning efforts to update the City of Manteca Short-Range Transit Plan every four years	City of Manteca	$760,000	2.07
Manteca	SJ18-5007		Manteca Transit Capital	Enhancements for Manteca Transit buses	City of Manteca	$3,875,000	2.07
Manteca	SJ18-5008		Manteca Transit Capital	Training to assist customers in using transit services	City of Manteca	$1,193,177	2.07
Manteca	SJ18-5009		Manteca Transit Capital	Construct improvements at Manteca Transit Center	City of Manteca	$5,011,345	2.07
Ripon	SJ07-5019	212-0000-0359	City of Ripon Fixed Route Transit System Operations	Costs associated with the delivery of a fixed route transit system in the City of Ripon ($50,000 annually)	City of Ripon	$2,000,000	4.12
Ripon	SJ18-5010		Ripon Dial-A-Ride Operations	Costs associated with the delivery of a Dial-A-Ride service in Ripon	City of Ripon	$2,000,000	4.12
Ripon	SJ18-5011		Ripon Bus Purchases	Purchase of replacement and expansion buses	City of Ripon	$4,200,000	2.1
Ripon	SJ18-5012		Transit Capital Improvements	Construct benches, shelters, and transit maintenance facility	City of Ripon	$3,810,000	2.08
Ripon	SJ18-5013		Ripon Multimodal Station	Construct Multimodal Station	City of Ripon	$5,800,000	2.08

Exempt Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Facility Name/Route	Project Description	Project Limits	Estimated Cost	Exemption Code
RTD	SJ07-5026		Bus Rapid Transit and SMA Operations	Costs associated with BRT and SMA Operations	Stockton Metropolitan Area	$938,917,500	4.12
RTD	SJ07-5032		Countywide DAR-Operations	Countywide Dial-A-Ride Operations	San Joaquin County	$83,291,817	4.12
RTD	SJ07-5037		Intercity/County Hopper Operations	Intercity/County Hopper Operations	San Joaquin County	$166,583,633	4.12
RTD	SJ07-5039		Non-Revenue Fleet-Replacement Vehicles	Costs associated with the purchase of hybrid or electric replacement vehicles	San Joaquin County	$3,327,606	2.1
RTD	SJ07-5039		Preventative Maintenance	Costs of preventative maintenance of vehicle fleet	San Joaquin County	$75,948,485	2.07
RTD	SJ14-5016		BRT Project: March Lane Corridor	Costs associated with the implementation of the BRT service along the corridor including traffic signal upgrades, bus stop amenities and access enhancments	Stockton Metropolitan Area	$14,500,000	1.07
RTD	SJ14-5018		BRT Project: Arch Road/Sperry Corridor	Costs associated with the implementation of the BRT service along the corridor including traffic signal upgrades, bus stop amenities and access enhancments	Stockton Metropolitan Area	$15,000,000	1.07
RTD	SJ14-5019		BRT Project: Eight Mile Road Corridor	Costs associated with the implementation of the BRT service along the corridor including traffic signal upgrades, bus stop amenities and access enhancments	Stockton Metropolitan Area	$15,000,000	1.07
RTD	SJ14-5020		New Transfer Station Facilities	Expansion of BRT and/or intercity connection facilities	San Joaquin County	$25,000,000	5.06
RTD	SJ14-5021		Hammer Triangle Transfer Station	Hammer Triangle Transfer Station	Stockton Metropolitan Area	$25,000,000	5.06
RTD	SJ14-5028		Safety and Security	Purchase and install safety and security devices related to buses and facilities	San Joaquin County	$7,179,790	1.06
RTD	SJ14-5029		Project and Grant Administration	Costs related to grant acitivites and administration	San Joaquin County	$13,320,976	4.01
RTD	SJ14-5030		Capital Tire Lease	Multi-year tear funding lease contract	San Joaquin County	$9,075,561	2.07
RTD	SJ14-5033		RTD Solar Power Project (Phase I)	Construct solar power charging facilities for electric buses	Stockton Metropolitan Area	$10,000,000	2.08
RTD	SJ18-5014		Capitalized Spare Parts	Bus component rebuild and parts	San Joaquin County	$5,375,000	2.07
RTD	SJ18-5015		Bus Replacements	Purchase of replacement buses for all RTD services	San Joaquin County	$252,601,279	2.1
RTD	SJ18-5016		Bus Operations Technology	Purchase of Automatic Vehicle Location and Communications Equipment for Buses	San Joaquin County	$4,991,884	4.01
RTD	SJ18-5017		Information Technology	Agency-wide servcers, back-ups, and work station replacements	San Joaquin County	$41,658,813	4.01
RTD	SJ18-5018		Facility and Maintenance Equipment	Purchase of cleaning equiipment, tools, particulate cleaner, testing equipment, component overhaul equipment	San Joaquin County	$6,478,840	2.08
RTD	SJ18-5019		Passenger Amenities	Purchase and install new and replacement benches, shelters, and other amenities	San Joaquin County	$4,050,000	2.08
RTD	SJ18-5020		Metro Hopper Operations	Costs associated with the delivery of deviated fixed route operations	Stockton Metropolitan Area	$83,291,817	4.12
RTD	SJ18-5021		Interregional Commuter Operations	Costs associated with the delivery of interregional commuter operations	San Joaquin County to Bay Area and Sacramento	$83,291,817	4.12

Exempt Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Facility Name/Route	Project Description	Project Limits	Estimated Cost	Exemption Code
Tracy	SJ07-5049		TRACER Capital	Purchase replacement buses	Purchase 3 buses every 5 year period	$6,000,000	2.1
Tracy	SJ07-5055		TRACER Operations	Costs associated with the delivery of fixed route and paratransit services including salaries, contracting of service, equipments, etc.	City of Tracy	$100,000,000	4.12
Tracy	SJ07-5056		Tracy Transit Planning	Costs to support transit planning efforts to update the City of Tracy Short-Range Transit Analysis and Action Plan every five years	City of Tracy	$750,000	4.01
Tracy	SJ18-5022		TRACER Grant Management and Administration	Costs to support transit service administration and Grant Management	City of Tracy	$31,775,000	4.01
Tracy	SJ18-5023		TRACER Capital	Construction of bus stop improvements every five years	Various locations in City of Tracy	$7,500,000	2.07
							(per CTIPs - next sheet)
Caltrans	SJ07-6001	112-0000-0139	Caltrans Intercity Rail	Construct double main track, panelized turnouts, relocate/renew siding turnout, and realign existing trackage.	San Joaquin County between Escalon and Stockton	$34,012,294	5.06
Caltrans	SJ11-6001	112-0000-0277	Caltrans Intercity Rail Passenger Facility	In Stockton, Construct track connections and a new intercity passenger rail facility	Intersection of the BNSF and UP railroads.	$19,622,477	2.09
SJRRC	SJ07-6003	212-0000-0281	ACE Capital	Purchase rail cars for ACE service expansion	ACE Capital	$9,593,211	2.1
SJRRC	SJ07-6004	212-0000-0190	ACE Capital	SJRRC shared costs for the overall maintenance of vehicles	ACE Capital	$8,245,801	2.03
SJRRC	SJ07-6009		ACE Capital	Realignment of tracking	Near Altamont Pass	$9,811,239	2.09
SJRRC	SJ07-6013	112-0000-0140	ACE Capital	Restoration of abandoned Western Pacific Depot building	Downtown Stockton, between Weber Ave and Miner Ave	$7,630,963	2.08
SJRRC	SJ07-6015	212-0000-0306	Stockton Track Extension Phases II & III (ACE Gap Closure Project)	Allow SJRCC to operate on separate tracks from Union Pacific Railroad between maintenance yard and the station siding.	Between the Stockton ACE Station and the ACE Equipment Maintenance Facility	$20,712,615	4.01
SJRRC	SJ07-6016		ACE Service Extensions	Enhance/extend rail to benefit residents; integrate ACE with the State intercity rail service; extend ACE service	San Joaquin County and San Joaquin Valley; Sacramento, Modesto, and San Francisco	$9,334,848	2.09
SJRRC	SJ07-6017		ACE Forward	Acquisition of ACE Corridor between Stockton and Niles Junction	Between Stockton and Niles Junction	$49,056,193	4.07
SJRRC	SJ07-6018		Phase II Implementation Plan for the Central Valley Rail Service	Commuter rail service	Central Valley to Sacramento	$1,090,138	2.01
SJRRC	SJ07-6019		Operations	Shuttle Services in San Joaquin County stations	San Joaquin County	$1,224,225	3.01
SJRRC	SJ07-6020		Capital	Maintenance Facility Expansion from 9 train sets to 17 train sets Phase 2	City of Stockton	$17,000,000	2.08
SJRRC	SJ07-6021		ACE Operations	ACE operations and Capital Access Fee (5 trains from 2012 to 2016, 6 trains from 2017 to 2021, 7 trains from 2022 to 2029 and 8 trains from 2030 to 2041)	SJRRC/Santa Clara/Alameda contributions shown	$556,612,929	2.1

Exempt Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Facility Name/Route	Project Description	Project Limits	Estimated Cost	Exemption Code
SJRRC	SJ07-6023		Rail Information Systems	Rail Information Systems (Ticket vending machines, on-train internet, changeable message signs at stations, trip planner via internet, real time system for train status for ACE and other connecting services)	ACE Operational Corridor and Station Planning Areas	$14,607,844	2.06
SJRRC	SJ07-6025		Central Valley Rail Service	Central Valley Rail Service Operations and Maintenance, Capital Access Fees, ROW purchase)	Central Valley to Sacramento	$92,661,697	2.01
SJRRC	SJ07-6028		ACE Capital	Rolling Stock/Track Improvements/ Station Improvements	ACE Operational Corridor and Station Planning Areas	$34,884,404	2.08
SJRRC	SJ07-6029		ACE Capital	Central Valley to Sacramento Commuter Rail Project - Extension of services	Central Valley to Sacramento	$58,867,431	2.01
SJRRC	SJ07-6035		ACE Capital	Altamont Corridor Speed and Safety upgrades (including signal upgrade to automatic train stop increase train speed from 79 to 90 MPH and several track realighment projects)	ACE Operational Corridor and Station Planning Areas	$32,704,128	2.06
SJRRC	SJ14-6001		ACEforward: Capital Phase 1	Extension of Wyche Siding	Lathrop/Manteca: MP 82.7 to MP 80.4, 8,500' clear of McKinley Ave	$9,000,000	2.09
SJRRC	SJ14-6002		ACEforward: Capital Phase 1	Connection from UPRR Fresno Sub to UPRR Oakland Sub	Lathrop, Ca: Oakland Sub MP 84.25 to Fresno Sub MP 94.1	$7,848,492	2.09
SJRRC	SJ14-6003		ACEforward: Capital Phase 2	Grade crossing improvements/grade seperations	High priority locations between Stockton and San Jose. Chrisman Rd MP 72.8, McKinley Ave MP 82.1	$15,000,000	1.03
SJRRC	SJ14-6005		Minor Capital	Facilities and information technology maintenance and enhancements, fleet vehicle replacements and expansion	ACE Operational Corridor and Station Planning Areas	$9,669,521	2.06
SJRRC	SJ14-CM02	212-0000-0629	SJRRC Locomotive Engine Rehabilitation	Retrofit of one passenger rail locomotive with clean fuel technology	Altamont Corridor Express service	$1,500,000	2.03
SJRRC	SJ14-6006		Robert J. Cabral Station Expansion	Construct park and ride lot and related on-street parking, sidewalks, lighting, security, and other passenger amenity improvements	In Stockton, between the UPRR, Weber Avenue, Union Street, and Main Street	$1,311,000	2.08
SJRRC			Lathrop/Manteca Station Platform Extension project	Lengthen platform at current Lathrop/Manteca Station to allow for eight car train capacity	Lathrop/Manteca	$1,791,000	5.06
SJRRC			Tracy Station Platform Extension project	Lengthen platform at current Tracy Station to allow for eight car train capacity	City of Tracy	$1,791,000	5.06
SJRRC	SJ07-6022		Lathrop Transfer Station	Lathrop Transfer Station- Between ACE and Central Valley Service	City of Lathrop	$26,753,555	5.06
SJRRC			Manteca Station Project - Platform		City of Manteca	$6,734,647	5.06
SJRRC			Manteca Station Project - Parking		City of Manteca	$2,577,533	5.06
SJRRC			Ripon Station Project - Platform		City of Ripon	$6,778,813	5.06
SJRRC			Ripon Station Project - Parking		City of Ripon	$5,921,877	5.06
SJRRC	SJ14-6004		2nd Main Ripon to Modesto		Ripon to Modesto	$5,753,593	2.08
SJRRC			Rolling stock associated with SB 132		Ripon to Lathrop	$71,442,000	2.1

Exempt Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Facility Name/Route	Project Description	Project Limits	Estimated Cost	Exemption Code
Lodi	SJ14-8008		Citywide Bicycle Facilities Detection Improvement Project	Install video detection of bicyclists and green painted bicycle lanes at signalized intersections	13 various signalized intersections throughout Lodi	$565,000	3.02
Ripon	S07-3200	212-0000-0446	Fulton Avenue	Install crosswalks, LED in-pavement crosswalk lights, speed feedback signs, signs and striping; construct bulb-outs	Fulton Ave. between W. Shasta Ave. and Cindy Dr.; Cindy Dr./ Calhoun Ave.; W. Shasta Ave. between N. Ripon Rd. and Fulton Ave.	$493,000	4.11
SJRTD	SJ14-8019		RTD's Bike and Bus Transportation Project	Install 3-position bike racks on 40' and smaller buses, luggage bay bike racks for 45' commuter buses, interior bike locks on articulated buses, and bike storage racks with lids at Downtown Transit Center.	In Stockton at the Downtown Transit Center and on SJRTD's bus fleet	$272,000	4.09
San Joaquin County	SJ14-8021		Elmwood School Access Improvements	Construct sidewalk, curb, and gutter	On Ardelle Avenue between the East Side Community Park and Bird Avenue	$1,772,000	1.1
Stockton	SJ14-8012	212-0000-0664	Miner Avenue Complete Street	Reconstruct roadway reducing travel lanes from four to two, install wide sidewalk, Class 2 Bicycle Lanes, raised median	Miner Avenue between Center Street and Aurora Street	$15,746,000	3.02
Stockton	SJ07-3116	212-0000-0403	Weston Ranch Pedestrian Crossings	Install pedestrian crossings (with enhanced safety features) including high visibility crosswalks and flashing beacons	9 intersections in the Weston Ranch subdivision in southwest Stockton	$1,034,700	3.02
Stockton	SJ07-3116	212-0000-0403	North El Dorado Street Road Diet	Reduce travel lanes from four to three to accommodate center two-way left turn lane and install Class II bicycle lanes	N. El Dorado Street between Morada Lane and W. Hammer Lane	$530,550	3.02
Stockton	SJ07-3116	212-0000-0403	El Dorado Street Enhancements	Install a raised median with pedestrian median fencing to prevent jaywalksing and install new sidewalks and ADA compliant curb ramps	N. El Dorado Street between Essex Street and the Calaveras River Trail	$664,830	3.02
Stockton	SJ14-9008	212-0000-0710	Tam O'Shanter Drive and Knickerbocker Drive Roundabout and Bicycle Lane	Install Class II Bicycle Lanes	On Tam O'Shanter Drive between Hammer Lane and Knickbocker Drive	$39,890	3.02
Stockton	SJ14-9009	212-0000-0711	Montauban Ave and Hammertown Drive Roundabout and Bicycle Lane	Install Class II Bicycle Lanes	On Montauban Avenue between Hammertown Drive and Swain Rd	$72,260	3.02
Stockton	SJ14-9010	212-0000-0712	Lincoln Street and Eighth Street Roundabout and Bicycle Lane	Install Class II Bicycle Lanes	On Eighth Street between Lincoln Street and S. El Dorado Street	$93,320	3.02
Stockton	SJ14-8017	212-0000-0715	Bear Creek and Pixley Slough Bicycle and Pedestrian Path	Install new bicycle facilities and upgrade various existing bicycle facilities.	On Bear Creek Bike Path between Thornton Road and Lower Sacramento Road, Pixley Slough Bike Path between Bear Creek Bike Path and Eight Mile Road, on Thornton Road between Bear Creek and Eight Mile Road, on Eight Mile Road between Thornton Road and Lower Sacramento Road, and on Lower Sacramento Road between Eight Mile Road and Bear Creek	$1,727,110	3.02

Exempt Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Facility Name/Route	Project Description	Project Limits	Estimated Cost	Exemption Code
Stockton	SJ14-8015	212-0000-0713	March Lane/EBMUD Bicycle and Pedestrian Path Connectivity Improvements	Reconstruct, widen, and improve existing pathway to Class I Bicycle and Pedestrian Path standards. Install intersection and midblock improvements, high visibility crosswalks, striping, gap closures, upgrade of ADA ramps, flashing beacons, and wayfinding signage	Parallel to March Lane in the EBMUD corridor between Brookside Road and Hillsboro Way, on March Lane between Hillsboro Way and West Lane, and on West Lane between March Lane and the EBMUD corridor	$3,868,738	3.02
Stockton	SJ14-8016	212-0000-0714	Closing Gaps to Schools	Construct curb, gutter, and sidewalk to close sidewalk gaps along routes to schools. Install or upgrade curb ramps for ADA compliance. Upgrade draingage, crosswalks, and school approach signage as needed	Various locations near schools throughout Stockton	$2,620,929	3.02
Tracy	SJ14-8020		Lowell Avenue Sidewalk Construction Project	Construct 1,200 feet of sidewalk and one ADA curb ramp	On the south side of Lowell Avenue between Chester Dr and Tracy Blvd	$328,000	3.02
Tracy	SJ14-8013	212-0000-661	Mt. Diablo/Mt. Oso/C St. Improvements	Construct sidewalks, curb, gutter, drainage, lighting, and ADA improvements	Mt. Diablo Avenue, Mt. Oso Avenue, and C Street near South/West Park Elementary School	$1,472,000	3.02
Various	SJ07-8021		Miscellaneous regional bicycle, pedestrian, and safe routes to school facilities and programs	Specific projects are listed in the 2012 Regional Bicycle, Pedestrian, Safe Routes to School Master Plan and local agency bike plans subject to updates and competitive project selection.	Various locations throughout San Joaquin County	$178,057,879	4.01
Various	SJ14-8001		Miscellaneous regional community enhancement projects	Specific streetscape and community enhancement projects are subject to competitive project selection.	Various locations throughout San Joaquin County	$96,051,723	4.09
Caltrans	SJ07-1019	212-0000-0313	Various locations	SHOPP - Collision Reduction Grouped Projects	Various	$282,542,602	1.06
Caltrans	SJ07-1020	212-0000-0314	Various locations	SHOPP - Mobility Grouped Projects	Various	$92,928,777	4.01
Caltrans	SJ07-1021	212-0000-0315	Various locations	SHOPP Roadway Preservation Grouped Projects	Various	$194,525,465	1.1
Caltrans	SJ07-1022	212-0000-0392	Various locations	SHOPP-Other (Emergency Response, Mandates, Bridge Preservation, Roadside Preservation Etc.)	Various	$136,747,973	1.12
Caltrans	SJ07-3002	212-0000-0272	Various locations	Caltrans Highway Bridge Program Lump Sum projects (Safety)	Various	$116,490,513	1.19
Caltrans	SJ07-3003	various	Various locations	Caltrans Highway Bridge Program Line Item projects (Safety)	Various	$197,179,445	1.19
Caltrans	SJ07-3004	212-0000-0307	Various locations	Lump sum for Emergency Repair Program (Safety)	Various	$3,750,000	1.12
Caltrans	SJ07-3005	212-0000-0567	Various locations	Caltrans Minor Program (Safety)	Various	$12,115,575	1.06
Caltrans			SR-120 TMS Upgrade/Repairs	Upgrade existing communication infrastructure between field elements and District 10 TMC	On Route 5, 120, and 99 at various locations in San Joaquin County	$6,970,000	5.02
Caltrans			SR 120	Contingency Project: Install Ramp Meters	In San Joaquin County on State Route 120	$22,740,000	5.02

Exempt Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Facility Name/Route	Project Description	Project Limits	Estimated Cost	Exemption Code
Caltrans			Various routes Phase 1	Repair, update, and install ITS elements, including installation of MVPs, and filling in the gaps	In San Joaquin County on Various Routes	$5,500,000	5.02
Caltrans			Various routes Phase 2	Repair, update, and install ITS elements, including installation of MVPs, and filling in the gaps	In San Joaquin County on Various Routes	$4,250,000	5.02
Caltrans			SR 4 various locations	Installing ramp meters	SR-4 Ramp metering system Installation	$56,503,000	5.02
Caltrans			I- 5 various locations I 205 to Mathews Rd	Install ramp meters and ITS elements	In San Joaquin County on I-5 from I-205 to Mathew Road	$32,175,000	5.02
Caltrans			I-5 various locations from Mathews to Dr. Martin Luther King Jr. Blvd	Install ramp meters and ITS elements	In San Joaquin County on I-5 from Mathew Road to Dr. Martin Luther King Jr. Blvd	$29,250,000	5.02
Caltrans			I-5 various locations from Dr. Martin Luther King Jr. Blvd to Calaveras River	Install ramp meters and ITS elements	In San Joaquin County on I-5 from Dr. Martin Luther King Jr. Blvd. to Calaveras River	$23,400,000	5.02
Caltrans			I-5 various locations from Calaveras River to Eight Mile Rd.	Install ramp meters and ITS elements	In San Joaquin County on I-5 from Calaveras River to Eight Mile Road	$37,050,000	5.02
Caltrans			SR 99 various locations from Hammer Lane to Armstong Rd	Install ramp meters and ITS elements	In San Joaquin County on SR-99 from Hammer Lane Road to Armstrong Road	$21,450,000	5.02
Caltrans			SR 99 various locations from Armstong to	Install ramp meters and ITS elements	In San Joaquin County on SR-99 from Armstrong Road to River North of Turner Road	$33,150,000	5.02
Caltrans			SR 99 various locations	Install ramp meters and ITS elements	In San Joaquin County on SR-99 from River North of Turner Road to North of Acampo Road	$23,400,000	5.02
Escalon	SJ11-3046	212-0000-0001	Various Street Rehabilitation	Rehabilitation of various streets and roads	City streets, various locations	$20,736,003	1.1
Lathrop	SJ11-3047	212-0000-0001	Various Street Rehabilitation	Rehabilitation of various streets and roads	City streets, various locations	$48,882,059	1.1
Lathrop	SJ14-CM17	212-0000-0644	Louise Avenue and McKinley Avenue Intersection Improvements	Costs associated with the improvement of the Louise Avenue and McKinley Avenue intersection including installation of left turn lanes and modified traffic signal equipment.	City of Lathrop	$450,000	5.07
Lathrop	SJ14-9001	212-0000-0699	Golden Valley Parkway & Lathrop Road Intersection Improvements	Replace all-way stop intersection at Golden Valley Parkway with new traffic signal with detection system, slurry seal, install signage and striping, and interconnect four signals on Lathrop Road between Golden Valley Parkway and Harlan Road. Install approximately 750 feet of sidewalk on south side of Spartan Way west of Golden Valley Parkway intersection	City of Lathrop	$450,000	5.07
Lodi	SJ11-3048	212-0000-0001	Various Street Rehabilitation	Rehabilitation of various streets and roads	City streets, various locations	$179,583,369	1.1

Exempt Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Facility Name/Route	Project Description	Project Limits	Estimated Cost	Exemption Code
Lodi	SJ11-3190	212-0000-0552	Lockeford Street Improvements	From the UPRR to Cherokee Lane. Construct two left lane, parking on both sides, Class II bikes lanes, install storm drain system, curb gutter and sidewalks, landscaping and street lights. Upgrade existing lighted crosswalk. Install new signal at Lockeford St. and Stockton St. including installation of EVP, ADA ramps, signage and striping. Modify traffic signal and striping at Cherokee Lane and Lockeford St. to accommodate travel lanes.)	City of Lodi	$5,420,000	5.07
Manteca	SJ11-3049	212-0000-0001	Various Street Rehabilitation	Rehabilitation of various streets and roads	City streets, various locations	$147,861,870	1.1
Port of Stockton			Rough & Ready Island Rail Bridge	Construct new rail bridge (double-track) to replace existing deficient structure	City of Stockton	$18,000,000	1.06
Ripon	SJ11-3050	212-0000-0001	Various Street Rehabilitation	Rehabilitation of various streets and roads	City streets, various locations	$42,047,006	1.1
Ripon	SJ14-9001	212-0000-0700	Colony/Hoff Traffic Signal	Install traffic singal	At intersection of Colony Rd/Hoff Drive/SR 99 Ramps	$660,000	5.02
Ripon	SJ14-8004	212-0000-0658	River Road Sidewalk and Intersection Improvements	In Ripon, install traffic signal and crosswalks at River Road/Fulton Avenue intersection and install sidewalk.	City of Ripon	$550,000	1.1
San Joaquin County	SJ11-3051	212-0000-0001	Various Roadway Rehabilitation	Rehabilitation to include: driveways, wheelchair ramps, median islands, pedestrian improvements, and class II bicycle lanes.	Rehabilitate roadway and surrounding streets	$1,303,907,722	1.1
San Joaquin County	SJ14-9003	212-0000-0701	SR 26 and Jack Tone Road Roundabout	Install roundabout	At intersection of Jack Tone Road and SR 26	$1,525,000	5.06
San Joaquin County	SJ14-9004	212-0000-0702	SR 4 and Jack Tone Road Roundabout	Install roundabout	At intersection of Jack Tone Road and SR 4	$1,659,000	5.06
San Joaquin County	SJ07-3116	212-0000-0403	Byron Road and Grant Line Road Roundabout	Install roundabout	At intersection of Byron Road and Grant Line Road near Tracy	$1,367,300	5.06
San Joaquin County	SJ07-3116	212-0000-0403	Duncan Road and Comstock Road Roundabout	Install roundabout	At intersection of Duncan Road and Comstock Road near Linden	$1,213,900	5.06
San Joaquin County	SJ07-3116	212-0000-0403	Liberty Road and Dustin Road Roundabout	Install roundabout	At intersection of Liberty Road and Dustin Road in northern San Joaquin County	$1,279,500	5.06
SJCOG	SJ11-3042	212-0000-0001	Regional Surface Transportation Program (STP) Lump Sum Projects	Various state highway and transit capital projects	San Joaquin County	$3,038,998	1.1
Stockton	SJ07-3116	212-0000-0403	Dr. Martin Luther King Jr. Blvd Signal Modifications	Convert signals from pedestal-mounted to mast arms and provide protected left-turns	Dr. Martin Luther King Jr. Blvd between N. Eldorado Street and S. Aurora Street at intersections of S. San Joaquin Street, California Street, and S. Grant Street	$1,163,500	3.02
Stockton	SJ07-3116	212-0000-0403	Dr. Martin Luther King Jr. Blvd Median	Install raised median	Dr. Martin Luther King Jr. Blvd between Bieghle Alley and Mariposa Road	$370,710	3.02

Exempt Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Facility Name/Route	Project Description	Project Limits	Estimated Cost	Exemption Code
Stockton	SJ07-3116	212-0000-0403	Guardrail Upgrades	Upgrade existing guardrails with new guardrails, transition rails, and end treatments	16 locations throughout Stockton	$1,180,900	3.02
Stockton	SJ07-3116	212-0000-0403	Pacific Avenue Median	Install raised median curb between the existing median limits at various locations	Pacific Avenue between the Calaveras River Trail and W. Hammer Lane	$969,750	3.02
Stockton	SJ14-9005	212-0000-0707	Real-time Traffic Flow Monitoring	Implement real-time traffic flow monotiring using Bluetooth/Wifi vehicle probe technology	Various intersections along arterials throughout Stockton	$595,000	5.02
Stockton	SJ14-9006	212-0000-0708	Pacific Avenue and March Lane Intersection Modification	Install southbound right turn lane and retime traffic signal	At intersection of Pacific Avenue and March Lane	$649,000	5.02
Stockton	SJ14-9007	212-0000-0709	Left-Turn Lanes Additions at Various Intersections	Install left turn lanes	At intersections of March Lane and Feather River Drive, West Lane and Bianchi Road, and Airport Way and Arch-Airport Road.	$2,125,000	5.02
Stockton	SJ14-9008	212-0000-0710	Tam O'Shanter Drive and Knickerbocker Drive Roundabout and Bicycle Lane	Install roundabout and Class II Bicycle Lanes	At intersection of Tam O'Shanter Drive and Knickerbocker Drive, and on Tam O'Shanter Drive between Knickerbocker Drive and Hammer Lane	$966,112	5.06
Stockton	SJ14-9009	212-0000-0711	Montauban Ave and Hammertown Drive Roundabout and Bicycle Lane	Install roundabout and Class II Bicycle Lanes	At intersection of Montauban Avenue and Hammertown Drive and on Montauban Avenue between Hammertown Drive and Swain Road	$1,078,227	5.06
Stockton	SJ14-9010	212-0000-0712	Lincoln Street and Eighth Street Roundabout and Bicycle Lane	Install roundabout and Class II Bicycle Lanes	At intersection of Lincoln Street and Eighth Street, and on Eighth Stret between Lincoln Street and El Dorado Streeet	$1,183,302	5.06
Stockton	SJ11-3043	212-0000-0001	Regional Surface Transportation Program (STP) Lump Sum Projects	Rehabilitation to include: driveways, wheelchair ramps, median islands, pedestrian improvements, and class II bicycle lanes.	City streets, various locations	$5,931,260	1.1
Stockton	SJ11-3044	212-0000-0001	Regional Surface Transportation Program (STP) Lump Sum Projects	Operations and Maintence	City streets, various locations	$1,930,715	1.1
Stockton	SJ11-3052	212-0000-0001	Various Street Rehabilitation	Rehabilitation of various streets and roads	City streets, various locations	$822,879,679	1.1
Stockton	SJ11-CM16	212-0000-0589	March Lane Adaptive Traffic Control	Install adaptive traffic control system along March Lane between Feather River drive and Montauban Ave to improve safety and traffic operations	City of Stockton	$1,322,000	5.02
Stockton	SJ11-CM21	212-0000-0601	Miner Ave and Filbert St. Signal	Install new traffic signal at the Miner Ave and Filbert St. intersection including EVP, ADA ramps, signs and striping	City of Stockton	$686,000	5.07
Stockton	SJ11-CM24	212-0000-0604	Swain Rd. and Montauban Roundabout Installation	Construct roundabout at Swain Road and Montauban Ave. including PTZ cameras, ADA ramp, signs, striping, and street lights	City of Stockton	$837,000	5.06

Exempt Project Listing

Jurisdiction/Agency	TIP/RTP Project ID	CTIPs Project ID (if available)	Facility Name/Route	Project Description	Project Limits	Estimated Cost	Exemption Code
Stockton	SJ14-CM05	212-0000-0632	Thorton Rd at Hammer Ln. and Lower Sac Left Turn Lanes	Add SBL on Thorton(at Hammer), add WBL on Lower Sac(Thorton/Pacific). Retime both signals, as well as adjacent signal (Hammer/Lower Sac). EVP at Pacific/Lower Sac to be upgrade.	City of Stockton	$918,000	5.02
Stockton	SJ14-CM08	212-0000-0635	Tam O'Shanter Drive and Castle Oaks Drive Roundabout	Install roundabout at intersection of Tam OShanter Drive and Castle Oaks Drive	City of Stockton	$603,000	5.06
Stockton	SJ14-CM10	212-0000-0641	BRT Phase V	Costs associated with installation of signal prioritization equipment for BRT Phase 5 operations on Weber Ave, Miner Ave, Wison Way, Fremont St., Filbert St and Main St.	Stockton Metropolitan Area	$2,099,000	5.02
Stockton	SJ14-CM15	212-0000-0642	West Lane Traffic Responsiveness Signal Control System	Install new traffic responsiveness signal control system on West Lane between Harding Way and Enterprise Street.	City of Stockton	$754,000	5.02
Stockton	SJ14-CM16	212-0000-0643	BRT Phase 1-B	Costs associated with installation of signal prioritization equipment for BRT operations on Pacific Avenue and Madison Street. Replace signalized intersection at Miner Avenue and San Joaquin Street with a roundabout	Stockton Metropolitan Area	$1,599,000	5.02
Tracy	SJ11-CM26	212-0000-0606	Corral Hollow Road and Valpico Road Traffic Signal	Intersection Signalization	Corral Hollow Road and Valpico Road	$751,000	5.07
Tracy	SJ11-3053	212-0000-0001	Various Street Rehabilitation	Rehabilitation of various streets and roads	City streets, various locations	$228,998,217	1.1
Tracy	SJ11-CM18	212-0000-0616	Corral Hollow Road Adaptive Trafic Signal	Traffic Signal Coordination	West Valley Mall to Schulte Road	$1,121,625	5.02
Tracy	SJ11-CM17	212-0000-0597	11th Street Adaptive Traffic Signal	Install adaptive traffic signal system on 11th St. between Corral Hollow Road to Mac Arthur Dr.	City of Tracy	$909,000	5.02
Tracy	SJ11-CM12	212-0000-0542	Eleventh St and MacArthur Dr Geometric Improvements	Construct westbound left turn lane and eastbound right turn lane and related signal modifications and UPRR railroad grade crossing modifications at the intersection of Eleventh Street and MacArthur Drive	City of Tracy	$1,875,000	5.02
Various	SJ07-9001	112-0000-0025	Ridesharing and Vanpool Programs	Trip Reduction Coordination, Guaranteed Ride Home, Vanpool Enhancement, Match lists, TDM marketing, etc.	San Joaquin County	$18,000,000	3.01
Various	SJ07-9002		Park and Ride Lots	Various Locations	San Joaquin County	$2,000,000	3.01
Various	SJ07-9003		Traffic Flow Improvements and Systems Managements	Signal System Improvements, Operational and Intersection Improvements to Smooth Traffic Flow, Closed Circuit TV, Freeway Service Patrols	San Joaquin County	$5,000,000	5.02

1.01 Railroad/highway crossing.
1.03 Safer non-Federal-aid system roads.
1.04 Shoulder Improvements.
1.05 Increasing Sight Distance.
1.06 Safety Improvement Program.
1.07 Traffic control devices and operating assistance other than signalization projects.
1.08 Railroad/highway crossing warning devices.
1.09 Guardrails, median barriers, crash cushions.
1.10 Pavement resurfacing and/or rehabilitation.
1.11 Pavement marking demonstration.
1.12 Emergency Relief (23 U.S.C. 125).
1.13 Fencing.
1.14 Skid treatments.
1.15 Safety roadside rest areas.
1.16 Adding medians.
1.17 Truck climbing lanes outside the urbanized area.
1.18 Lighting improvements.
1.19 Widening narrow pavements or reconstructing bridges (no additional travel lanes).
1.20 Emergency truck pullovers.
2.01 Operating assistance to transit agencies.
2.02 Purchase of support vehicles.
2.03 Rehabilitation of transit vehicles.
2.04 Purchase of office, shop, and operating equipment for existing facilities.
2.05 Purchase of operating equipment for vehicles (e.g. radios, fareboxes, lifts, etc.).
2.06 Construction or renovation of power, signal, and communications systems.
2.07 Construction of small passenger shelters and information kiosks.
2.08 Reconstruction or renovation of transit buildings and structures.
2.09 Rehabilitation or reconstruction of track structures, track, and trackbed in existing right of way.
2.10 Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet.
2.11 Construction of new bus or rail storage/maintenance facilities categorically excluded in 23 CFR 771.
3.01 Continuation of ride-sharing and van-pooling promotion activities at current levels
3.02 Bicycle and pedestrian facilities.
4.01 Non Construction related activities.
4.05 Engineering studies
4.06 Noise attenuation.
4.07 Advance land acquisitions
4.08 Acquisition of scenic easements.
4.09 Plantings, landscaping, etc.
4.10 Sign removal.
4.11 Directional and infomational signs.
4.12 Transportation enhancement activities
4.13 Repair of damage caused by natural disasters, civil unrest, or terrorist actgs, except projects involving substantial fu
5.01 Intersection channelization projects.
5.02 Intersection signalization projects at individual intersections.
5.03 Changes in vertical and horizontal alignment.
5.04 Interchange reconfiguration projects.
5.05 Truck size and weight inspection stations.
5.06 Bus terminals and transfer points.
5.07 Traffic signal synchronization projects.

APPENDIX C

CONFORMITY ANALYSIS DOCUMENTATION

EMFAC Emissions (tons/day)

SAN JOAQUIN

Pollutant	Source	Description	2018	2019	2020	2021	2023	2024	2027	2030	2031	2035	2037	2042
1997 Ozone	EMFAC 2014 (Summer Run)	ROG Total Exhaust (All Vehicles Total)			4.67		3.84				2.77		2.24	2.02
		Conformity Total			4.70		3.80				2.80		2.20	2.00
1997 Ozone	EMFAC 2014 (Summer Run)	NOx Total Exhaust (All Vehicles Total)			10.22		6.39				4.59		4.07	3.94
		Conformity Total			10.20		6.40				4.60		4.10	3.90
2008 Ozone	EMFAC 2014 (Summer Run)	ROG Total Exhaust (All Vehicles Total)	5.42			4.39		3.68	3.28	2.92	2.77		2.24	2.02
		Conformity Total	5.50			4.40		3.70	3.30	3.00	2.80		2.30	2.10
2008 Ozone	EMFAC 2014 (Summer Run)	NOx Total Exhaust (All Vehicles Total)	11.92			9.28		6.12	5.34	4.78	4.59		4.07	3.94
		Conformity Total	12.00			9.30		6.20	5.40	4.80	4.60		4.10	4.00
PM-10	EMFAC 2014 (Annual Run)	PM-10 Total (All Vehicles Total) * includes tire & brake wear			1.19				1.22			1.26		1.32
		Conformity Total			1.19				1.22			1.26		1.32
PM-10	EMFAC 2014 (Annual Run)	NOx Total Exhaust (All Vehicles Total)			10.81				5.63			4.39		4.11
		Conformity Total			10.81				5.63			4.39		4.11
PM2.5 Annual (1997 and 2012 standards)	EMFAC 2014 (Annual Run)	PM2.5 Total Exhaust (All Vehicles Total) * includes tire & brake wear				0.52			0.51			0.52		0.54
		Conformity Total				0.50			0.50			0.50		0.50
PM2.5 Annual (1997 and 2012 standards)	EMFAC 2014 (Annual Run)	NOx Total Exhaust (All Vehicles Total)				9.81			5.63			4.39		4.11
		Conformity Total				9.80			5.60			4.40		4.10
PM2.5 24-hour (2006 standard)	EMFAC 2014 (Winter Run)	PM2.5 Total Exhaust (All Vehicles Total) * includes tire & brake wear		0.54					0.51			0.52		0.54
		Conformity Total		0.50					0.50			0.50		0.50
PM2.5 24-hour (2006 standard)	EMFAC 2014 (Winter Run)	NOx Total Exhaust (All Vehicles Total)		12.33					5.82			4.51		4.21
		Conformity Total		12.30					5.80			4.50		4.20

Note: State control measures (RFG, Moyer, AB1493 and Smog Check) have been incorporated in EMFAC2014. Rule 9310 and 9410 are not included in this conformity analysis.

Paved Road Dust Emissions (tons/day)

San Joaquin 2020

			VMT Daily	VMT (million/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)	District Rule 8061/ISR Control Rates	Control-Adjusted Emissions
Enter Freeway VMT ==>		Freeway	10,473,800	3,823	292.107	281.071	0.770	0.075	0.712
Enter Arterial VMT ==>		Arterial	6,457,726	2,357	299.697	288.374	0.790	0.282	0.567
Enter Collector VMT ==>		Collector	1,534,032	560	71.193	68.503	0.188	0.407	0.111
		Urban	311,106	114	108.167	104.081	0.285	0.324	0.193
Enter Total of Urban and Rural		Rural	204,824	75	308.057	296.419	0.812	0.090	0.739
Local VMT Here =>	515,930								
		Totals	18,981,488	6,928	1079.222	1038.448	2.845		2.323

San Joaquin 2027

			VMT Daily	VMT (million/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)	District Rule 8061/ISR Control Rates	Control-Adjusted Emissions
Enter Freeway VMT ==>		Freeway	11,046,414	4,032	308.077	296.438	0.812	0.075	0.751
Enter Arterial VMT ==>		Arterial	7,251,232	2,647	336.523	323.809	0.887	0.282	0.637
Enter Collector VMT ==>		Collector	1,728,864	631	80.235	77.204	0.212	0.407	0.125
		Urban	344,821	126	119.889	115.360	0.316	0.324	0.214
Enter Total of Urban and Rural		Rural	227,021	83	341.442	328.542	0.900	0.090	0.819
Local VMT Here =>	571,842								
		Totals	20,598,352	7,518	1186.166	1141.352	3.127		2.546

San Joaquin 2035

			VMT Daily	VMT (million/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)	District Rule 8061/ISR Control Rates	Control-Adjusted Emissions
Enter Freeway VMT ==>		Freeway	11,604,974	4,236	323.655	311.427	0.853	0.075	0.789
Enter Arterial VMT ==>		Arterial	7,685,725	2,805	356.687	343.211	0.940	0.282	0.675
Enter Collector VMT ==>		Collector	1,910,015	697	88.642	85.293	0.234	0.407	0.139
		Urban	379,259	138	131.863	126.881	0.348	0.324	0.235
Enter Total of Urban and Rural		Rural	249,694	91	375.542	361.354	0.990	0.090	0.901
Local VMT Here =>	628,953								
		Totals	21,829,667	7,968	1276.390	1228.167	3.365		2.739

San Joaquin 2042

			VMT Daily	VMT (million/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)	District Rule 8061/ISR Control Rates	Control-Adjusted Emissions
Enter Freeway VMT ==>		Freeway	12,164,804	4,440	339.268	326.451	0.894	0.075	0.827
Enter Arterial VMT ==>		Arterial	8,234,042	3,005	382.134	367.697	1.007	0.282	0.723
Enter Collector VMT ==>		Collector	2,023,398	739	93.904	90.356	0.248	0.407	0.147
		Urban	398,354	145	138.502	133.270	0.365	0.324	0.247
Enter Total of Urban and Rural		Rural	262,267	96	394.451	379.548	1.040	0.090	0.946
Local VMT Here =>	660,621								
		Totals	23,082,865	8,425	1348.260	1297.322	3.554		2.891

DO NOT CHANGE ANY ITEMS BELOW THIS LINE

SAN JOAQUIN

HPMS Local Urban/Rural Percent
From 1998 Assembly of Statistical Reports - Caltrans
60.3% Urban
39.7% Rural
100.0% Total

Road Type	Base EF (lb PM10/ VMT
Freeway	0.000152818
Arterial	0.000254296
Collector	0.000254296
Local	0.00190513
Rural	0.008241141

SAN JOAQUIN

	January	February	March	April	May	June	July	August	September	October	November	December	Total/Average
Rain Days	10.5	9.5	8.0	5.3	2.8	1.0	0	0	1.0	2.8	6.3	7.8	**54.8**
Total Days	31	28	31	30	31	30	31	31	30	31	30	31	**365**
Rain Reduction Factor	0.92	0.92	0.94	0.96	0.98	0.99	1.00	1.00	0.99	0.98	0.95	0.94	**0.96**

Unpaved Road Dust Emissions (tons/day)

SAN JOAQUIN 2020

	Miles	Vehicle Passes per Day	VMT (1000/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)	District Rule 8061/ISR Control Rates	Control-Adjusted Emissions
City/County	20.0	10	73.0	73.000	61.968	0.170	0.333	0.113

SAN JOAQUIN 2027

	Miles	Vehicle Passes per Day	VMT (1000/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)	District Rule 8061/ISR Control Rates	Control-Adjusted Emissions
City/County	20.0	10	73.0	73.000	61.968	0.170	0.333	0.113

SAN JOAQUIN 2035

	Miles	Vehicle Passes per Day	VMT (1000/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)	District Rule 8061/ISR Control Rates	Control-Adjusted Emissions
City/County	20.0	10	73.0	73.000	61.968	0.170	0.333	0.113

SAN JOAQUIN 2042

	Miles	Vehicle Passes per Day	VMT (1000/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)	District Rule 8061/ISR Control Rates	Control-Adjusted Emissions
City/County	20.0	10	73.0	73.000	61.968	0.170	0.333	0.113

DO NOT CHANGE ANY ITEMS BELOW THIS LINE

SAN JOAQUIN

	January	February	March	April	May	June	July	August	September	October	November	December	Total/Average
Rain Days	10.5	9.5	8.0	5.3	2.8	1.0	0	0	1.0	2.8	6.3	7.8	**54.8**
Total Days	31	28	31	30	31	30	31	31	30	31	30	31	**365**
Rain Reduction Factor	0.66	0.66	0.74	0.83	0.91	0.97	1.00	1.00	0.97	0.91	0.79	0.75	**0.85**

2018 RTP Conformity Results Summary -- SJCOG

Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		ROG (tons/day)	NOx (tons/day)	ROG	NOx
1997 Ozone*	2020 Budget	5.1	11.3		
	2020	4.7	10.2	YES	YES
	2023 Budget	4.3	7.3		
	2023	3.8	6.4	YES	YES
	2031	2.8	4.6	YES	YES
	2037	2.2	4.1	YES	YES
	2042	2.0	3.9	YES	YES

*1997 Ozone conformity is included due to uncertainty associated with an ongoing litigaton related to EPA's revokation of the 1997 ozone standard.

		ROG (tons/day)	NOx (tons/day)	ROG	NOx
2008 Ozone	2018 Budget	5.9	13.0		
	2018	5.5	12.0	YES	YES
	2021 Budget	4.9	10.3		
	2021	4.4	9.3	YES	YES
	2024 Budget	4.2	6.9		
	2024	3.7	6.2	YES	YES
	2027 Budget	3.8	6.2		
	2027	3.3	5.4	YES	YES
	2030 Budget	3.5	5.7		
	2030	3.0	4.8	YES	YES
	2031 Budget	3.3	5.5		
	2031	2.8	4.6	YES	YES
	2037	2.3	4.1	YES	YES
	2042	2.1	4.0	YES	YES

		PM-10 (tons/day)	NOx (tons/day)	PM-10	NOx
PM-10	2020 Budget	4.6	11.9		
	2020	3.8	10.8	YES	YES
	2020 Budget	4.6	11.9		
	2027	4.2	5.6	YES	YES
	2020 Budget	4.6	11.9		
	2035	4.6	4.4	YES	YES
	2020 Budget	4.6	11.9		
	2042	4.4	4.1	YES	YES

PM-10	Total On-Road Exhaust		Paved Road Dust		Unpaved Road Dust		Road Construction Dust		Total	
	PM-10	Nox	PM-10	Nox	PM-10	Nox	PM-10	Nox	PM-10	Nox
2020	1.188	10.806	2.323		0.113		0.153		**3.8**	**10.8**
2027	1.221	5.628	2.546		0.113		0.291		**4.2**	**5.6**
2035	1.260	4.391	2.739		0.113		0.504		**4.6**	**4.4**
2042	1.317	4.112	2.891		0.113		0.116		**4.4**	**4.1**

		PM2.5 (tons/day)	NOx (tons/day)	PM2.5	NOx
1997 24-Hour and 1997 & 2012 Annual PM2.5 Standards					
	2014 Budget	0.9	21.6		
	2021	0.5	9.8	**YES**	**YES**
	2014 Budget	0.9	21.6		
	2027	0.5	5.6	**YES**	**YES**
	2014 Budget	0.9	21.6		
	2035	0.5	4.4	**YES**	**YES**
	2014 Budget	0.9	21.6		
	2042	0.5	4.1	**YES**	**YES**

		PM2.5 (tons/day)	NOx (tons/day)	PM2.5	NOx
2006 PM2.5 Winter 24-Hour Standard					
	2017 Budget	0.6	15.5		
	2019	0.5	12.3	**YES**	**YES**
	2017 Budget	0.6	15.5		
	2027	0.5	5.8	**YES**	**YES**
	2017 Budget	0.6	15.5		
	2035	0.5	4.5	**YES**	**YES**
	2017 Budget	0.6	15.5		
	2042	0.5	4.2	**YES**	**YES**

APPENDIX D

TIMELY IMPLEMENTATION DOCUMENTATION FOR TRANSPORTATION CONTROL MEASURES

	A	B	C	D	E	F	G	H	J	K
1	RACM Commitment	Agency	Commitment Description	Commitment Schedule	Commitment Funding	TIP	TIP Project ID	Project Description	2017 FTIP Amendment 9, 2014 RTP Amendment #4, Conformity Analysis	2019 FTIP Conformity Analysis
2									(as of 3/17)	(as of 3/18)
3										
4	SJC TCM 3	SJCOG	Rideshare Program	On going	STIP	2002, 2004, 2006	1120000025	Stockton, Regional Rideshare Program	On going	On going
5										
6	SJC5.17	SJCOG	Freeway bottleneck improvements (add lanes, construct shoulders, etc.)		Measure K	2002	11200000039	SR 99 Widening	Complete	Complete
7						2002 2004	11200000054 11200000102	Hammer Ln and SR120 interchange improvement projects	Complete	Complete
8						2004	11200000040	I-205 Widening project	Complete	Complete
9										
10	SJC6.1	SJCOG	Park and Ride Lots		Measure K	N/A	N/A	Master Park and Ride Lot Plan	Complete	Complete
11										
12	SJC6.2	SJCOG	Park and Ride Lots		Measure K	N/A	N/A	Master Park and Ride Lot Plan	Complete	Complete
13										
14	TCM4	SJCOG	Bicycle Programs		Measure K; STIP TE	2006	21200000339	Jack Tone Class I bikeway in Ripon	Complete	Complete
15										
16	SJC 9.3	Escalon	Bicycle and Pedestrian Program	Complete	TCSP, Local			State Route 120, McHenry Ave, and Main St pedestrian features; High School Linkage Program; sidewalk on First St	Complete	Complete
17										
18	TCM4	Escalon	Construct bicycle lane along McHenry Avenue	FY02/03	STIP TE $221,000	2002, 2004,2006	21200000146	Construct Escalon Gateway	Complete	Complete
19				2002-2003	TEA and CMAQ	2004	11200000154	Class I bike lane along McHenry Ave	Complete	Complete
20										
21	SJC5.2	Escalon	Coordinate Traffic Signal Systems		Local	2000	21200000126	synchronized traffic signal system at McHenry/SR120 Intersection	Complete	Complete
22										
23	SJC5.3	Escalon	Reduce Traffic Congestion at Major Intersections		Local	2000	21200000126	synchronized traffic signal system at McHenry/SR120 Intersection	Complete	Complete
24										
25	SJC 5.2	Lathrop	Coordinate Traffic Signal Systems	starting in 2004	Not specified			Coordinate traffic signals along Louise Avenue/Gold Rush Blvd.	Complete	Complete
26										

	A	B	C	D	E	F	G	H	J	K
1	RACM Commitment	Agency	Commitment Description	Commitment Schedule	Commitment Funding	TIP	TIP Project ID	Project Description	2017 FTIP Amendment 9, 2014 RTP Amendment #4, Conformity Analysis	2019 FTIP Conformity Analysis
2									(as of 3/17)	(as of 3/18)
27	SJC 5.3	Lathrop	Reduce Traffic Congestion at Major Intersections	next 5 to 10 years	STIP and Local	2006	11200000155	Two grades separations on major arterial at railroad; reconstruct one intersection; require developers to signalize major arterial intersections	Complete	Complete
28										
29	SJC 10.4	Lathrop	Development of Bicycle Travel Facilities	ongoing	Not specified			Construct Class 1 and Class 2 bike lanes on all new arterial and collector streets	Complete	Complete
30										
31	SJC 15.2	Lathrop	Pedestrian and Bicycle Overpasses where Safety Dictates	2003	Not specified	2006	11200000155	Lathrop Road/UPRR grade separation to include a sidewalk and Class 2 bike lane	Complete	Complete
32										
33	TCM 4	Lathrop	Bicycle Programs		CMAQ and TEA			bike lanes on Fifth Street	Complete	Complete
34										
35	SJC 5.2	Lodi	Design Lodi Avenue Signal Interconnect Project	complete in 2006	CMAQ	2002	21200000143	Lodi Ave. signal installation and interconnect from Cherokee Ln to Lower Sacramento	Complete	Complete
36										
37	SJC5.3	Lodi	Reduce Traffic Congestion at Intersections		STIP, Measure K	2002	11200000159	Improve congestion at Kettleman Lane Gap Closure, Hwy 12/Mills Avenue, and Hwy 12/Tienda Drive	Complete	Complete
38										
39	SJC5.16	Lodi	Adaptive traffic signals and signal timing		CMAQ	2002	21200000143	Lodi Avenue Signal Interconnect Project	Complete	Complete
40										
41	TCM1	Lodi	Traffic Flow Improvements		Local	2002	21200000143	Lodi Avenue Signal Interconnect Project	Complete	Complete
42										
43	SJC5.3	Manteca	Reduce Traffic Congestion at Intersections		Local, Measure K	2004	11200000102	SR99/120 Improvements	Complete	Complete
44						2004	21200000271	South Union Widening		
45						2004	21200000214	Industrial Park Drive Improvements	Complete	Complete
46										

	A	B	C	D	E	F	G	H	J	K
1	RACM Commitment	Agency	Commitment Description	Commitment Schedule	Commitment Funding	TIP	TIP Project ID	Project Description	2017 FTIP Amendment 9, 2014 RTP Amendment #4, Conformity Analysis	2019 FTIP Conformity Analysis
2									(as of 3/17)	(as of 3/18)
47	SJC15.2	Manteca	Pedestrian and Bicycle Overpasses Where Safety Dictates		Local, Measure K	2004	11200000102	SR99/120 improvements	Complete	Complete
48										
49	TCM1	Manteca	Traffic Flow Improvements		Local, Measure K	2004	21200000271	South Union Road Widening	Complete	Complete
50						2004	21200000214	Industrial Park Drive	Complete	Complete
51										
52	TCM4	Manteca	Bicycle Programs		Local, Measure K	N/A	N/A	Tidewater Bikeways project	Complete	Complete
53										
54	TCM 1	Ripon	Traffic Flow Improvements	within 1-2 years	CMAQ			South Frontage Road	Complete	Complete
55										
56	SJC5.2	Ripon	Coordinate Traffic Signal Systems		Not specified	N/A	N/A	Install synchronized traffic signal systems on 4 locations	Complete	Complete
57										
58	SJC5.3	Ripon	Reduce Traffic Congestion at Intersections		Local	N/A	N/A	South Frontage Road project between Wilma & Fulton. Left turn pockets at Frontage and Pine Street.	Complete	Complete
59										
60	SJC5.4	Ripon	Site Specific Transportation Control Measures		STIP/Measure K	2006	11200000162	Main and Stockton Street project. Signal synchronization along Main Street.	Project complete.	Project complete.
61										
62	SJC5.9	Ripon	Bus Pullouts in Curbs for Passenger Loading		Not specified	N/A	N/A	The City will provide bus pullouts in curbs as part of Jack Tone Road Improvements Projects between Main and 4th Streets.	Complete	Complete
63										
64	SJC9.3	Ripon	Bicycle/Pedestrian Program		STIP	2004	21200000298	1.5 mile Class 1 bikeway between Doak Blvd and Canal Blvd.	Complete	Complete
65										
66	SJC15.2	Ripon	Pedestrian and Bicycle Overpasses Where Safety Dictates		Local	N/A	N/A	Construct ADA accessible sidewalk over the Main Street Overpass	Complete	Complete
67										
68	SJC5.3	Stockton	Reduce Traffic Congestion at Intersections		Local	N/A	N/A	Hammer Lane Phase II and West Lane widening project. Added duel left turn lane pockets.	Complete	Complete
69					HES/Local			Pershing Ave widening project. Adding a left turn pocket at Harding.	Complete	Complete
70										

	A	B	C	D	E	F	G	H	J	K
1	RACM Commitment	Agency	Commitment Description	Commitment Schedule	Commitment Funding	TIP	TIP Project ID	Project Description	2017 FTIP Amendment 9, 2014 RTP Amendment #4, Conformity Analysis	2019 FTIP Conformity Analysis
2									(as of 3/17)	(as of 3/18)
71	SJC5.4	Stockton	Site Specific Transportation Control Measures		Local	N/A	N/A	New traffic signal installed at Rosemarie/Precissi	Complete	Complete
72								New traffic signal installed and Montauban/Lorraine Streets	Complete	Complete
73										
74	SJC9.2	Stockton	Encouragement of Pedestrian Travel		Local	N/A	N/A	Traffic claming treatments along Pacific Avenue in Miracle Mile commercial area	Complete	Complete
75										
76	SJC9.3	Stockton	Bicycle/Pedestrian Program		Local	N/A	N/A	Hammer Lane/March Lane Class 2 Bike Lane project	Complete	Complete
77										
78	SJC10.4	Stockton	Development of Bicycle Travel Facilities		Local	N/A	N/A	Bear Creek Bike Path	Complete	Complete
79								Weston Ranch Bike Path	Complete	Complete
80										
81	SJC TCM 4	Stockton	Bicycle Program		Local	N/A	N/A	Class 1 Bike paths at Pixley Slough Bike Path	Complete	Complete
82										
83	SJC15.2	Stockton	Pedestrian and Bicycle Overpasses Where Safety Dictates		Local, Measure K	N/A	N/A	Bicycle/pedestrian facilities included on grade separation project on march Lane and UPRR	Complete	Complete
84										
85	TCM1	Stockton	Traffic Flow Improvements		Local, Measure K	N/A	N/A	traffic flow improvements on Hammer Lane and El Dorado Street	Complete	Complete
86										
87	SJC 1.5	Tracy	Expansion of current fixed route to Wal-Mart	2002	Federal and State Transit	2002	21200000149	Operations assistance	Complete	Complete
88										
89	SJC 1.6	Tracy	Multi-Modal station	2004	STIP	2000/2002/2006	11200000104	Construct multi-modal station	Complete	Complete
90										

	A	B	C	D	E	F	G	H	J	K
1	RACM Commitment	Agency	Commitment Description	Commitment Schedule	Commitment Funding	TIP	TIP Project ID	Project Description	2017 FTIP Amendment 9, 2014 RTP Amendment #4, Conformity Analysis	2019 FTIP Conformity Analysis
2									(as of 3/17)	(as of 3/18)
91	SJC 5.2	Tracy	Interconnect existing traffic signals on major corridors	on-going	partially CMAQ	2002	21200000114, 21200000145	11th St and MacArthur Dr traffic signal installation and interconnect project, Tracy Blvd traffic signal coordination project	Complete	Complete
92										
93	SJC5.3	Tracy	Reduce Traffic Congestion at Major Intersections		Not specified	N/A	N/A	11th St/MacArthur improvements	Complete	Complete
94								Tracy Blvd between Central Ave and Clover Street	Complete	Complete
95										
96	SJC5.4	Tracy	Site-Specific Transportation Control Measures		Not specified	N/A	N/A	Implement traffic control improvements on Byron/Corral Hollow Roads	Complete	Complete
97								Implement traffic control improvements on Grant Line/Corral Hollow Roads	Complete	Complete
98										
99	SJC5.9	Tracy	Bus Pullouts in Curbs for Passenger Loading		TDA, FTA	N/A	N/A	Bus Pullouts in curbs for passenger loading on East St N/E of 10th Street	Complete	Complete
100								Bus Pullouts in curbs for passenger loading on Tracy blvd N/O Beverly Street	Complete	Complete
101										
102	SJC 7.3	Tracy	Involve school districts to encourage walking/biking to school		Not specified			print and distribute bike maps to schools	Complete	Complete
103										
104	SJC9.3	Tracy	Bicycle/Pedestrian Program		Local, Measure K	N/A	N/A	bike lane project on 11th Street west of Corral Hollow Road.	Complete	Complete
105										
106	SJC 10.2	Tracy	Bike Racks on Buses	2002	Not specified			Install bike racks on all city-owned buses	Complete	Complete
107										
108	SJC 10.4	Tracy	Development of Bicycle Travel Facilities	ongoing	Not specified			bike lockers at various locations and multi-modal station	Complete	Complete
109										
110	TCM 2	Tracy	Public Transit	ongoing	CMAQ, FTA, TDA			Transit improvements; purchase CNG buses; expanding transit service to Wal-Mart; printing material in Spanish	Complete	Complete
111										
112	TCM 4	Tracy	Bicycle Programs	ongoing	CMAQ and TEA			bike route signage; updated bicycle map for Tracy; bike racks on all TRACER buses	Complete	Complete

	A	B	C	D	E	F	G	H	J	K
1	RACM Commitment	Agency	Commitment Description	Commitment Schedule	Commitment Funding	TIP	TIP Project ID	Project Description	2017 FTIP Amendment 9, 2014 RTP Amendment #4, Conformity Analysis	2019 FTIP Conformity Analysis
2									(as of 3/17)	(as of 3/18)
113										
114	SJC5.2	San Joaquin County	Coordinate Traffic Signal Systems		Local, Measure K	N/A	N/A	Benjamin Holt Dr/Harrisburg Place	Complete	Complete
115								Pershing Ave/Thornton Road	Complete	Complete
116								Wilson Way/Alpine Avenue	Complete	Complete
117										
118	SJC5.3	San Joaquin County	Reduce Traffic Congestion at Major Intersections		Local, Measure K	N/A	N/A	SR88 and Elliott Road	Complete	Complete
119								SR12 and Victor Road	Complete	Complete
120										
121	SJC5.4	San Joaquin County	Site-Specific Transportation Control Measures		Local	N/A	N/A	Benjamin Holt Dr/Harrisburg Place	Complete	Complete
122								Pershing Ave/Thornton Road	Complete	Complete
123								Wilson Way/Alpine Avenue	Complete	Complete
124										
125	SJC9.2	San Joaquin County	Encouragement of Pedestrian Travel		Local	N/A	N/A	Woodbridge Main Street Sidewalk Improvements	Complete	Complete
126										
127	SJC9.3	San Joaquin County	Bicycle/Pedestrian Program		Local	N/A	N/A	Class III Bike Route on Armstrong Road	Complete	Complete
128										
129	TCM1	San Joaquin County	Traffic Flow Improvements		Local, Measure K	N/A	N/A	Lower Sacramento Road	Complete	Complete
130								Hammer Lane	Complete	Complete
131								SR88 Improvements PSR	Complete	Complete
132								Traffic Signal at Ham Lane and West Lane	Complete	Complete
133										
134	SJC 1.1	SJRTD	Regional Express Bus Program		Federal and Measure K			purchase vehicles and operate interregional commuter service	Complete	Complete
135										
136	SJC 1.9	SJRTD	Downtown Stockton Transit Center	2 years after ground-breaking	Federal funds	2004	21200000236	Construct Downtown Transit Center	Complete	Complete
137										
138										

	A	B	C	D	E	F	G	H	J	K
1	RACM Commitment	Agency	Commitment Description	Commitment Schedule	Commitment Funding	TIP	TIP Project ID	Project Description	2017 FTIP Amendment 9, 2014 RTP Amendment #4, Conformity Analysis	2019 FTIP Conformity Analysis
2									(as of 3/17)	(as of 3/18)
139	TCM4	SJCOG	Bicycle Programs		Measure K	N/A	N/A	Duck Creek Class I bicycle path gap closure	Project complete.	Project complete.
140										
141	TCM4	SJCOG	Bicycle Programs		Measure K	N/A	N/A	Corral Hollow Rd/Lowell Ave Class I bikeway in Tracy	Complete	Complete
142										
143	TCM4	San Joaquin County	Bicycle Programs		Measure K	N/A	N/A	Lower Sacramento Rd Class III Bikeway in SJ County	On going	On going
144										
145	TCM4	Escalon	Bicycle Programs		Measure K	N/A	N/A	Install bike racks on buses in Escalon	Complete	Complete
146		Escalon						Improvements to McHenry Ave. corridor which included Class 2 Bicycle lanes NB and SB		
147										
148	SJC 5.3	Escalon	Reduce Traffic Congestion at Major Intersections		Local	N/A	N/A	City implemented new turn lane and median divider at St. John and BNSF rail road crossing.	Complete	Complete
149										
150	SJC5.2	Lodi	Coordinate Traffic Signal Systems		Local	N/A	N/A		No further updates are required.	No further updates are required.
151										
152	SJC5.3	Ripon	Reduce Traffic Congestion at Intersections		Local	N/A	N/A	South Frontage Road project between Maple Ave & Garrison Way.	Complete	Complete
153										
154	SJC 9.3	Ripon	Bicycle/Pedestrian Program		Local	N/A	N/A	Jack Tone Class I Bike Path	Complete	Complete
155										
156	SJC5.2	Stockton	Coordinate Traffic Signal Systems		CMAQ/Local	2007	212-0000-03101	Traffic Signal Controller Upgrade/Retiming March Lane, Wilson Way, and Harding Way	Complete	Complete
157										
158	SJC5.3	Stockton	Reduce Traffic Congestion at Intersections		Local	N/A	N/A	Hammer Lane Phase III.	Project complete.	Project complete.
159					CMAQ/Local	2007	212-0000-0376	Installation of traffic signal at Tam O'Shanter Drive	Complete	Complete
160										

	A	B	C	D	E	F	G	H	J	K
1	RACM Commitment	Agency	Commitment Description	Commitment Schedule	Commitment Funding	TIP	TIP Project ID	Project Description	2017 FTIP Amendment 9, 2014 RTP Amendment #4, Conformity Analysis	2019 FTIP Conformity Analysis
2									(as of 3/17)	(as of 3/18)
161	SJC5.4	Stockton	Site Specific Transportation Control Measures		Local	N/A	N/A	New traffic signals to be installed (2): Turnpike @ Lincoln, Filbert @ Myrtle	Complete	Complete
162					Local	N/A	N/A	Upgrade left turn lanes to include protected left turn signals at three locations: Wilson @ Fremont, Pacific @ Alpine, and Pacific @ Bianchi	Complete	Complete
163										
164	SJC9.2	Stockton	Encouragement of Pedestrian Travel		CMAQ/Local	2007	212-0000-0373	Installation of sidewalks on streets in unincorporated south Stockton	Complete	Complete
165										
166	SJC9.3	Stockton	Bicycle Pedestrian Program		CMAQ/Local	2007	212-0000-3099	Class II Bike Lane on Tam O'Shanter Drive	Complete	Complete
167										
168	SJC5.2	Tracy	Coordinate Traffic Signal Systems		Local	N/A	N/A	Coordinate/synchronize traffic signals along Coral Hollow Rd and 11th Street	Complete	Complete
169										
170	SJC5.2	Tracy	Coordinate Traffic Signal Systems		CMAQ/Local	2007	212-0000-0365	Coordinate/synchronize traffic signals along Grant Line Road	Complete	Complete
171										
172	SJC5.3	Tracy	Reduce Traffic Congestion at Major Intersections		CMAQ/Local	2007	212-0000-0377	Installation of traffic signal at Byron Road and Lammers Road	Complete	Complete
173										
174	SJC 5.8	Tracy	On Street Parking Restrictions		Local	N/A	N/A	Parking restrictions on North side of Eaton Avenue East of Tracy Boulevard.	Complete	Complete
175								Parking restrictions on South side of Grant Line Road West of Tracy Boulevard.	Complete	Complete
176										
177	SJC9.3	Tracy	Bicycle/Pedestrian Program		Measure K	N/A	N/A	Gap closure projects to upgrade to Class I at two locations: Lowell Ave between Coral Hollow & Valley View; Corral Hollow between 11th St & Byron Rd	Complete	Complete
178										
179	SJC 9.5	Tracy	Encouragement of Bicycle Travel		Local	N/A	N/A	The City of Tracy Activity Guide advertised local bicycle routes in 2007.	Complete	Complete

	A	B	C	D	E	F	G	H	J	K
1	RACM Commitment	Agency	Commitment Description	Commitment Schedule	Commitment Funding	TIP	TIP Project ID	Project Description	2017 FTIP Amendment 9, 2014 RTP Amendment #4, Conformity Analysis	2019 FTIP Conformity Analysis
2									(as of 3/17)	(as of 3/18)
180										
181	SJC 15.1	Tracy	Encouragement of Pedestrian Travel		Local	N/A	N/A	The City of Tracy Activity Guide advertised local walking routes in 2007	Complete	Complete
182		Tracy	Encouragement of Pedestrian Travel		Local	N/A	N/A	The City of Tracy Activity Guide advertised local walking routes in 2008	Complete	Complete
183		Tracy	Encouragement of Pedestrian Travel		Local	N/A	N/A	The City of Tracy Activity Guide advertised local walking routes in 2010	Complete	Complete
184										
185	SJC5.3	San Joaquin County	Reduce Traffic Congestion at Major Intersections		Local	N/A	N/A	SR-12 and Davis Road.	Complete	Complete
186					CMAQ/Local	2007	212-0000-0368	New traffic signals at LinneRoad at Chrisman Drive	Complete	Complete
187					CMAQ/Local	2007	212-0000-0369	New traffic signal at Howard Road at Tracy Boulevard	Complete	Complete
188					CMAQ/Local	2007	212-0000-0370	New traffic signal at Byron Road at Grant Line Road.	Complete	Complete
189										
190	SJC9.3	San Joaquin County	Bicycle/Pedestrian Program		Local	N/A	N/A	Class III Bikeway on Austin Road from Louise Ave to French Camp Rd.	Complete	Complete
191					CMAQ/Local	2007	212-0000-0371	Class III Bikelane on Armstrong Road	Complete	Complete
192					CMAQ			South Stockton Sidewalks Phase I	Complete	Complete
193										
194	SJC1.5	SJRTD	Expansion of Public Transportation System		CMAQ/Local	2007	212-0000-0360	Purchase vehicles and operate intercity bus service	Complete	Complete
195					CMAQ/Local	2007	212-0000-0362 212-0000-0364	Purchase vehicles and expansion of BRT service.	Complete	Complete
196										

	A	B	C	D	E	F	G	H	J	K
1	RACM Commitment	Agency	Commitment Description	Commitment Schedule	Commitment Funding	TIP	TIP Project ID	Project Description	2017 FTIP Amendment 9, 2014 RTP Amendment #4, Conformity Analysis	2019 FTIP Conformity Analysis
2									(as of 3/17)	(as of 3/18)
197	ADDITIONAL PROJECTS IDENTIFIED									
198										
199	SJC 9.2	Manteca	Encouragement of Pedestrian Travel		Local	N/A	N/A	Pedestiran crossing/crosswalk on Woodward Avenue	Complete	Complete
200	SJC5.3	Stockton	Reduce Traffic Congestion at Intersections		CMAQ	2015	212-0000-0632	Install left turn lane on Thornton Rd at Hammer Lane	On going	On going
201	SJC5.3	Stockton	Reduce Traffic Congestion at Intersections		CMAQ	2015	212-0000-0635	Tam O'Shanter Drive and Castle Oaks Drive Roundabout	On going	On going
202	SJC5.16	Stockton	Adaptive traffic signals and signal timing		CMAQ	2015	212-0000-0641	BRT Phase 5: Adpative Signal on Weber Avenue, Miner Avenue, Wilson Way, Fremont St, Filbert Street, and Main St Corridors	On going	On going
203	SJC5.16	Stockton	Adaptive traffic signals and signal timing		CMAQ	2015	212-0000-0642	West Lane Traffic Responsiveness Signal Control System	On going	On going
204	SJC5.16	Stockton	Adaptive traffic signals and signal timing		CMAQ	2015	212-0000-0643	BRT Phase 1B on Pacific Avenue and Madison Street Corners.	On going	On going

APPENDIX E

PUBLIC MEETING PROCESS DOCUMENTATION

NOTICE OF PUBLIC HEARING ON THE REVISIONS TO THE DRAFT CONFORMITY ANALYSIS FOR THE DRAFT 2019 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM AND DRAFT 2018 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITY STRATEGY

NOTICE IS HEREBY GIVEN that the San Joaquin Council of Governments (SJCOG) will hold a public hearing on June 15, 2018 at 12:00 P.M. at the SJCOG office building at 555 E. Weber Avenue, Stockton, CA 95202 regarding the revisions to the Draft Air Quality Conformity Analysis for the 2019 Federal Transportation Improvement Program (FTIP) and 2018 Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). The purpose of the public hearing is to receive public comments on the revisions to the Air Quality Conformity Analysis as follows:

- The Draft Conformity Analysis for the 2019 FTIP and 2018 RTP/SCS is being revised to incorporate 1997 ozone conformity due to uncertainty associated with ongoing litigation related to the EPA's 2015 Ozone Implementation Rule dealing with the revocation of the 1997 ozone standard and the relevant "anti-backsliding" requirements.

- The Draft Conformity Analysis contains the documentation to support a finding that the 2019 FTIP and 2018 RTP/SCS meet the air quality conformity requirements for ozone and particulate matter.

The Draft Conformity Analysis, hereby noticed, supersedes the version released for public review and comment on March 28, 2018.

Individuals with disabilities may call Rebecca Calija (209-5235-0600) at SJCOG (with 3-working-day advance notice) to request auxiliary aids necessary to participate in the public hearing. Translation services are also available (with 3-working-day advanced notice) to participants speaking any language with available professional translation services.

A 30-day public review and comment period on the Draft Conformity Analysis will commence on May 24, 2018 and conclude on June 22, 2018. The draft document is available for review at the SJCOG offices, located at 555 E. Weber Avenue, Stockton, CA 95202, and on the SJCOG website at the following link: www.sjcog.org/airquality.

Public comments are welcomed at the hearing, or may be submitted in writing by 5:00 P.M. on June 22, 2018 to Ryan Niblock at the address below.

After considering the comments, the documents will be considered for adoption, by resolution, by the SJCOG Board at a regularly scheduled meeting to be held on June 28, 2018. The documents will then be submitted to state and federal agencies for consideration and potential approval.

Contact Person: Ryan Niblock, Senior Regional Planner
555 E. Weber Avenue
Stockton, CA 95202
209-235-0600 or at niblock@sjcog.org

NOTICE OF PUBLIC HEARING ON THE REVISIONS TO THE DRAFT CONFORMITY ANALYSIS FOR THE DRAFT 2019 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM AND DRAFT 2018 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITY STRATEGY

NOTICE IS HEREBY GIVEN that the San Joaquin Council of Governments (SJCOG) will hold a public hearing on June 15, 2018 at 12:00 P.M. at the SJCOG office building at 555 E. Weber Avenue, Stockton, CA 95202 regarding the revisions to the Draft Air Quality Conformity Analysis for the 2019 Federal Transportation Improvement Program (FTIP) and 2018 Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). The purpose of the public hearing is to receive public comments on the revisions to the Air Quality Conformity Analysis as follows:

- o The Draft Conformity Analysis for the 2019 FTIP and 2018 RTP/SCS is being revised to incorporate 1997 ozone conformity due to uncertainty associated with ongoing litigation related to the EPA's 2015 Ozone Implementation Rule dealing with the revocation of the 1997 ozone standard and the relevant "anti-backsliding" requirements.

- o The Draft Conformity Analysis contains the documentation to support a finding that the 2019 FTIP and 2018 RTP/SCS meet the air quality conformity requirements for ozone and particulate matter.

The Draft Conformity Analysis, hereby noticed, supersedes the version released for public review and comment on March 28, 2018.

Individuals with disabilities may call Rebecca Calija (209-5235-0600) at SJCOG (with 3-working-day advance notice) to request auxiliary aids necessary to participate in the public hearing. Translation services are also available (with 3-working-day advanced notice) to participants speaking any language with available professional translation services.

A 30-day public review and comment period on the Draft Conformity Analysis will commence on May 24, 2018, and conclude on June 22, 2018. The draft document is available for review at the SJCOG offices, located at 555 E. Weber Avenue, Stockton, CA 95202, and on the SJCOG website at the following link: www.sjcog.org/airquality.

Public comments are welcomed at the hearing, or may be submitted in writing by 5:00 P.M. on June 22, 2018, to Ryan Niblock at the address below.

After considering the comments, the documents will be considered for adoption, by resolution, by the SJCOG Board at a regularly scheduled meeting to be held on June 28, 2018. The documents will then be submitted to state and federal agencies for consideration and potential approval.

Contact Person: Ryan Niblock,Senior Regional Planner
555 E. Weber Avenue,
Stockton, CA 95202
209-235-0600
niblock@sjcog.org

May 24th, 2018 - 179789

RESOLUTION
SAN JOAQUIN COUNCIL OF GOVERNMENTS

R-18-52

RESOLUTION ADOPTING THE SAN JOAQUIN COUNCIL OF GOVERNMENTS 2019 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM, THE 2018 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITY STRATEGY, AND THE CORRESPONDING CONFORMITY ANALYSIS

WHEREAS, the San Joaquin Council of Governments is a Regional Transportation Planning Agency and a Metropolitan Planning Organization, pursuant to State and Federal designation; and

WHEREAS, federal planning regulations require Metropolitan Planning Organizations to prepare and adopt a long range Regional Transportation Plan (RTP) for their region; and

WHEREAS, Senate Bill (SB) 375 (Steinberg, 2008) requires that Metropolitan Planning Organizations prepare a Sustainable Communities Strategy (SCS) as part of the 2018 RTP that demonstrates how the region will reduce the greenhouse gas emissions (GHG) from automobiles and light trucks to achieve, if there is a feasible way to do so, the applicable greenhouse gas emission reduction targets approved by the California Air Resources Board (ARB), and

WHEREAS, pursuant to SB 375, the applicable ARB per capita GHG emission reduction targets for the San Joaquin Valley region are 5% below 2005 per capita emissions levels by 2020 and 10% below 2005 per capita emissions levels by 2035; and

WHEREAS, the state law requires that the RTP/SCS land-use development pattern is consistent with the Regional Housing Needs Assessment (RHNA); and

WHEREAS, the 2018 RTP/SCS has been prepared in accordance with state guidelines adopted by the California Transportation Commission and;

WHEREAS, a 2018 RTP/SCS has been prepared in full compliance with federal guidance; and

WHEREAS, federal planning regulations require that Metropolitan Planning Organizations prepare and adopt a short range Federal Transportation Improvement Program (FTIP) for their region; and

WHEREAS, projects submitted in the 2019 FTIP must be financially constrained and the financial plan affirms that funding is available; and

WHEREAS, the 2019 FTIP has been prepared to comply with Federal and State requirements for local projects and through a cooperative process between the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the State Department of Transportation (Caltrans), principal elected officials of general purpose local governments and their staffs, and public owner operators of mass transportation services acting through the San Joaquin Council of Governments forum and general public involvement; and

WHEREAS, the 2019 FTIP program listing is consistent with: 1) the 2018 RTP/SCS; 2) the 2018 State Transportation Improvement Program; and 3) the Corresponding Conformity Analysis; and

WHEREAS, the 2019 FTIP contains the MPO's certification of the transportation planning process assuring that all federal requirements have been fulfilled; and

WHEREAS, the 2019 FTIP meets all applicable transportation planning requirements per 23 Code of Federal Regulations (CFR) Part 450; and

WHEREAS, San Joaquin Council of Governments has established performance targets that address the performance standards per 23 CFR Part 490 , 49 United States Code (U.S.C.) 5326(c), and 49 U.S.C. 5329(d) to use in tracking progress toward attainment of critical outcomes for the region of the MPO; and

WHEREAS, The San Joaquin Council of Governments has integrated into its metropolitan transportation planning process, directly or by reference, the goals, objectives, performance measures, and targets described in other State transportation plans and transportation processes, as well as any plans developed under 49 U.S.C. Chapter 53 by providers of public transportation, required as part of a performance-based program; and

WHEREAS, the MPO must demonstrate conformity per 40 CFR Part 93 for the 2018 RTP/SCS and 2019 FTIP; and

WHEREAS, the 2018 RTP/SCS and 2019 FTIP includes a new Conformity Analysis; and

WHEREAS, the 2018 RTP/SCS and 2019 FTIP conforms to the applicable SIPs; and

WHEREAS, the 2018 RTP/SCS and 2019 FTIP do not interfere with the timely implementation of the Transportation Control Measures; and

WHEREAS, the documents have been widely circulated and reviewed by the San Joaquin Council of Governments advisory committees representing the technical and management staffs of the member agencies; representatives of other governmental agencies, including State and Federal;

representatives of special interest groups; representatives of the private business sector; and residents of San Joaquin County consistent with the public participation process adopted by the San Joaquin Council of Governments; and

WHEREAS, a public hearing was conducted on April 26, 2018 to hear and consider comments on the 2018 RTP/SCS, 2019 FTIP, and Corresponding Conformity Analysis; an additional public hearing on the 2018 RTP/SCS was conducted on April 4, 2018.

NOW, THEREFORE, BE IT RESOLVED, that the San Joaquin Council of Governments adopts the 2018 RTP/SCS, 2019 FTIP, and Corresponding Conformity Analysis.

BE IT FURTHER RESOLVED, that the San Joaquin Council of Governments finds that the 2018 RTP/SCS and 2019 FTIP are in conformity with the requirements of the Federal Clean Air Act Amendments and applicable State Implementation Plans for air quality.

BE IT FURTHER RESOLVED, that the San Joaquin Council of Governments also finds that the 2018 RTP/SCS meets the SB 375 GHG reduction targets of 5% below 2005 per capita emissions levels by 2020 and 10% below 2005 per capita emissions levels by 2035.

THE FOREGOING RESOLUTION was passed and adopted by the San Joaquin Council of Governments this 28th day of June 2018.

AYES: Councilman Andrade, Stockton; Councilman Dresser, Lathrop; VM Holman, Stockton; Councilman Kuehne, Lodi; Councilmember Lofthus, Stockton; Supervisor Miller, SJC; Councilman Murken, Escalon; Councilmember Young, Tracy; VM Zuber, Ripon.

NOES: Supervisor Winn, SJC.

ABSENT: Mayor DeBrum, Manteca; Supervisor Elliott, SJC.

KATHERINE MILLER
CHAIR

I hereby certify that the foregoing is a true copy of a resolution of the San Joaquin Council of Governments duly adopted at a regular meeting thereof held on the 28th day of June 2018.

Signed: _____
Andrew T. Chesley
Executive Director

APPENDIX F

RESPONSE TO PUBLIC COMMENTS

Conformity Analysis for 2019 FTIP and 2018 RTP
Response to Public Comments

No comments received.