



Federal Highway Administration
California Division Office
650 Capitol Mall, Suite 4-100
Sacramento, CA 95814-4708
(916) 498-5001



Federal Transit Administration
Region IX Office
90 Seventh Street, Suite 15-300
San Francisco, CA 94103-6701
(415) 734-9490

April 16, 2021

ELECTRONIC CORRESPONDENCE ONLY

Mr. Toks Omishakin, Director
Office of the Director, M.S. 49
California Department of Transportation
1120 N Street
Sacramento, CA 95814

SUBJECT: California 2021 FSTIP Approval

Dear Mr. Omishakin:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our reviews of the 2021 Federal Statewide Transportation Improvement Program (FSTIP), which was submitted by your letter dated April 1, 2021. As detailed in your letter enclosed, the 2021 FSTIP incorporates by reference the following metropolitan planning organizations' (MPO) Federal Transportation Improvement Programs (FTIP):

- Association of Monterey Bay Area Governments (AMBAG)
- Butte County Association of Governments (BCAG)
- Fresno Council of Governments (FresnoCOG)
- Kern Council of Governments (KCOG)
- Kings County Association of Governments (KCAG)
- Madera County Transportation Commission (Madera CTC)
- Merced County Association of Governments (MCAG)
- Metropolitan Transportation Commission (MTC)
- Sacramento Area Council of Governments (SACOG)
- San Diego Association of Governments (SANDAG)
- San Joaquin Council of Governments (SJCOG)
- San Luis Obispo Council of Governments (SLOCOG)
- Santa Barbara County Association of Governments (SBCAG)
- Shasta County Regional Transportation Planning Agency (SCRTPA)
- Southern California Association of Governments (SCAG)
- Stanislaus Council of Governments (StanCOG)

- Tahoe Metropolitan Planning Organization (TMPO)
- Tulare County Association of Governments (TCAG)

We find that the FSTIP and FTIPs, were developed through a continuing, cooperative, and comprehensive transportation planning process in accordance with the metropolitan planning provisions of 23 U.S.C. 134 and 49 U.S.C. Chapter 53 as amended by Public Law 114-94, the Fixing America's Surface Transportation (FAST) Act.

The United States Environmental Protection Agency (EPA) has designated the following planning areas as Nonattainment or Maintenance Areas for Criteria Pollutants:

- Butte County Association of Governments (BCAG)
- Fresno Council of Governments (FresnoCOG)
- Kern Council of Governments (KCOG)
- Kings County Association of Governments (KCAG)
- Madera County Transportation Commission (Madera CTC)
- Merced County Association of Governments (MCAG)
- Metropolitan Transportation Commission (MTC)
- Sacramento Area Council of Governments (SACOG)
- San Diego Association of Governments (SANDAG)
- San Joaquin Council of Governments (SJCOG)
- San Luis Obispo Council of Governments (SLOCOG)
- Southern California Association of Governments (SCAG)
- Stanislaus Council of Governments (StanCOG)
- Tulare County Association of Governments (TCAG)

As such, the above MPOs Policy Boards have made an initial conformity determination on the above FTIPs and associated Regional Transportation Plan (RTP) amendments, as applicable, before your letter dated April 1, 2021. The FHWA and FTA have reviewed the conformity determinations and find that the FTIPs, the associated RTP amendments, and associated conformity determinations conform to the applicable state implementation plan (SIP) in accordance with the provisions of 40 CFR Parts 51 and 93. This finding has been coordinated with Region IX of the EPA pursuant to the Transportation Conformity Rule.

Based on our review of the information provided and our ongoing oversight of the statewide and metropolitan transportation planning processes, the FHWA and FTA are approving the 2021 FSTIP. This approval is effective April 16, 2021. This approval is given with the understanding that an eligibility determination of individual projects for funding must be met, and the applicant must ensure the satisfaction of all administrative and statutory requirements.

Included with this approval is FHWA and FTA's Federal Planning Finding (FPF). FHWA and FTA are required under 23 CFR 450.220(b) to document and issue an FPF in conjunction with the approval of the FSTIP. At a minimum, the FPF verifies that the development of the FSTIP is consistent with the provisions of both the Statewide and Metropolitan transportation planning requirements. Furthermore, the FPF documents FHWA and FTA's recommendations for statewide and metropolitan transportation planning improvements.

If you have questions or need additional information concerning our approval and the FPF, please contact Mr. Antonio Johnson of the FHWA California Division at (916) 498-5889, or by email at antonio.johnson@dot.gov, or Mr. Ted Matley of the FTA Region 9 Office at (415) 734-9468, or by email at ted.matley@dot.gov.

Sincerely,

VINCENT PAUL MAMMANO
Digitally signed by VINCENT PAUL MAMMANO
Date: 2021.04.15 08:41:42 -07'00'

Vince Mammano
Division Administrator

Sincerely,

RAYMOND S TELLIS

Ray Tellis
Regional Administrator



U.S. Department
of Transportation

**Federal Highway
Administration**

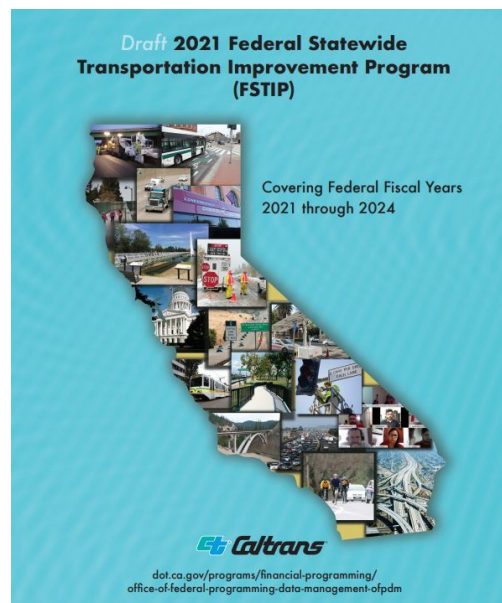
FHWA, California
Division
FTA, Region IX

Federal Planning Finding



2021 Federal State Transportation Improvement Program

April 15, 2021



FINAL REPORT



The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) are required under 23 CFR 450.220(b) to document and issue a Federal Planning Finding in conjunction with the approval of the Federal Statewide Transportation Improvement Program (FSTIP). The Federal Planning Finding verifies, at a minimum, that the development of the FSTIP is consistent with the provisions of both the Statewide and Metropolitan transportation planning requirements of 23 U.S.C. 134, 135; 49 U.S.C. 5303-5305; 23 CFR parts 450 and 500, and 49 CFR part 613. This report substantiates the issuance of the FHWA/FTA Federal Planning Finding (FPF) to support FHWA/FTA approval of the FSTIP based on the review of FSTIP and FTIP documents, statewide and metropolitan planning self-certification statements (23 CFR 450.220; 23 CFR 450.336), and related supporting documentation.

The FPF is one part of the risk-based stewardship and oversight the FHWA and FTA conduct for Caltrans, the Metropolitan Planning Organizations (MPOs), and planning partners. The FPF serves as a “tool” for FHWA and FTA to support improvements to the planning process and ensure that Caltrans, the MPOs, and planning partners comply with Federal laws and regulations. The FPF ties the statewide, metropolitan, and non-metropolitan planning processes together into one formal risk-based action.

To determine if Caltrans transportation planning and programming processes substantially meet the Federal requirements, FHWA and FTA reviewed the following:

- 2018 California FSTIP FPF;
- 2019 and 2020 Transportation Management Area Certification Reviews Reports;
- California Division Planning and Air Quality Program Analysis and Risk Assessments for Years 2019, 2020, and 2021;
- And additional guidance received from the FHWA Office of Planning.

Based on the above, FHWA and FTA find that California’s statewide and metropolitan planning process substantially meets the Federal requirements. FHWA and FTA also finds that some improvements are warranted to ensure continued compliance with the Federal requirements and therefore are issuing the following Corrective Actions and recommendations:

Corrective Action - CMAQ and STBG programs administration and oversight

During the calendar year 2020, FHWA and FTA conducted three TMA Certification Reviews (Reviews). Two of the three Reviews found that the MPOs were sub-allocating the urbanized areas apportionments of STBG based on population and/or mode. On April 4, 2016, FHWA published "Sub-allocation of Apportioned Funds Questions and Answers." Question five asks, **"In developing an FTIP, can an MPO sub-allocate its STBG to individual jurisdictions or a specific transportation mode?" Answer five states, "As a general matter, no.** Procedures or agreements that distribute sub-allocated STBG funds to individual jurisdictions or modes *within the Metropolitan Planning Area* by pre-determined percentages or formulas are inconsistent with



the legislative provisions that require the MPO, in cooperation with the State and the public transportation operator, to develop a prioritized and financially constrained TIP."

The reviews also found that two MPOs had delegated CMAQ project selection authority to county transportation agencies. Per the Interim Program Guidance Section IX(A) Project Selection

(https://www.fhwa.dot.gov/environment/air_quality/cmaq/policy_and_guidance/2013_guidance/), only the State DOT and the MPO have project selection authority. Due to the county transportation agencies' CMAQ project selection processes, the Reviews found that projects were being selected before the required assessments of proposed projects' expected emission reduction benefits. Furthermore, a review of the proposed FTIPs found that another MPO was similarly sub-allocating STBG funds.

Caltrans is the primary recipient of the STBG and CMAQ programs apportionments. As such, Caltrans is required to ensure that Caltrans's sub-recipients are administering CMAQ and STBG funds per the applicable federal-aid program requirements. Caltrans shall review the DOT's CMAQ and STBG administrative policies, update the policies and procedures if warranted, and ensure and/or develop a process for ensuring the sub-recipients are administering the programs in compliance with Federal program guidance and regulations.

Recommendation - Periodic evaluation of facilities repeatedly requiring repair and reconstruction due to emergency events

Per 23 CFR 667, Caltrans is required to conduct statewide evaluations to determine if there are reasonable alternatives to all roads, highways, and bridges that have required repair and reconstruction activities on two or more occasions due to emergency events. The evaluations shall be completed prior to any affected portion of a road, highway, or bridge project being included in the FSTIP.

Several Divisions within Caltrans are responsible for documenting damages to the NHS caused by emergency events and the associated repairs and sustainability activities including conducting an evaluation. However, the evaluation and supporting documentation was not included in the 2018 California FSTIP and associated FTIPs and was not included in the 2021 California FSTIP and associated FTIPs. Failure to include the evaluation in the 2023 California FSTIP is likely to result in the issuing of a Corrective Action and/or non-approval of the FSTIP. Caltrans and the MPOs are encouraged to include consideration of the evaluations during the development of transportation plans and programs, including the 2023 California FSTIP and FTIPs.

Recommendation - Performance-Based Planning and Programming (PBPP) and Transportation Performance Management (TPM) Implementation

Caltrans, in coordination with the MPOs, has implemented a performance-based planning and programming process as required by 23 CFR 450. Also, Caltrans, in coordination with the MPOs, have established performance targets, reported the established targets, and continues to



monitor and report on progress toward achieving the performance targets. Despite completing the requirements, challenges persist in the coordination of data. Caltrans and the MPOs have established agreements that reference PBPP and TPMs; however, the agreements do not define the type of data needed for the California asset management plan and the information needed to satisfy the TPM reporting requirements.

FHWA and FTA recommend that Caltrans and the MPOs jointly agree upon and develop specific written provisions for cooperatively developing and sharing information related to transportation performance data, the selection of performance targets, the reporting of performance targets, the reporting of performance to be used in tracking progress toward attainment of critical outcomes for the region of the MPO (see §450.306(d)), and the collection of data for the State asset management plan for the NHS. This agreement shall be documented either as part of the metropolitan planning agreements, or documented in some other means outside of the metropolitan planning agreements as determined cooperatively by Caltrans and the MPOs.

Recommendation – Regional Transportation Conformity

FHWA/FTA makes conformity determinations. MPO policy boards make initial conformity determinations for the Regional Transportation Plan - Sustainable Communities Strategies (RTP-SCSs) and FTIPs in areas that either does not meet or previously have not met national ambient air quality standards (NAAQS) for ozone (O₃), carbon monoxide (CO), particulate matter (PM₁₀ and PM_{2.5}), or nitrogen dioxide (NO₂). These areas are known as “nonattainment areas” and “maintenance areas,” respectively. The State DOT, through the Self-Certification, certifies that the statewide and metropolitan transportation planning process is being carried out in accordance with sections 174 and 176(c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506(c) and (d)) and 40 CFR part 93. The Caltrans Air Quality, Environment, and Health Branch reviews the MPOs' transportation conformity analyses and supporting documentation and provided comments for improvements when necessary. Caltrans Office of Federal Programming and Data Management is responsible for developing and managing the FSTIP, including providing the Self-Certification to FHWA and FTA.

Historically, the regional transportation conformity process for the FTIPs and FSTIP and the review and approval of the FTIPs and FSTIP have been conducted as two separate processes. Conducting two different reviews for each FTIP and FSTIP update and amendment has caused delays in approval, inefficient communication, and a lack of documentation to justify FSTIP/FTIP amendments' approval. FHWA and FTA recommend that Caltrans develop a process to integrate the Air Quality, Environment, and Health Branch into the FSTIP/FTIP review process before Caltrans requests FHWA/FTA FSTIP or associated amendments approvals. FHWA and FTA also recommend that the updated process includes Caltrans providing the conformity analysis and their concurrence as part of the request for approval. Failure to integrate the Air Quality, Environment, and Health Branch into the process may result in FHWA and FTA determination that Caltrans has not satisfied the Self-Certification requirements.



U.S. Department
of Transportation
**Federal Highway
Administration**

If you have questions or need additional information concerning the FPF, please contact Ted Matley of the FTA Region IX at (415) 734-9468, or Ted.Matley@dot.gov, or Antonio Johnson of the FHWA California Division office at (916) 498-5889 or Antonio.Johnson@dot.gov.



U.S. Department
of Transportation
**Federal Highway
Administration**



Report prepared by:

**FHWA California Division Office
650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
Phone: (916) 498-5001
FAX: (916) 498-5008**

**CONFORMITY ANALYSIS
FOR THE 2021 FEDERAL TRANSPORTATION IMPROVEMENT
AND THE 2018 REGIONAL TRANSPORTATION PLAN
AMENDMENT #1**

FEBRUARY 18, 2021



Kern Council of Governments
1401 19th Street, Suite 300
Bakersfield, California 93301
www.kerncog.org
661-635-2900
Facsimile 661-324-8215
TTY 661-832-7433

This report was funded in part through grant(s) from the Federal Highway Administration and Federal Transit Administration, U. S. Department of Transportation. The views and opinions of Kern Council of Governments expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
CONFORMITY REQUIREMENTS	2
CONFORMITY TESTS	5
RESULTS OF THE CONFORMITY ANALYSIS	5
REPORT ORGANIZATION.....	7
CHAPTER 1: FEDERAL AND STATE REGULATORY REQUIREMENTS	8
A. FEDERAL AND STATE CONFORMITY REGULATIONS.....	8
B. CONFORMITY REGULATION REQUIREMENTS	10
C. AIR QUALITY DESIGNATIONS APPLICABLE TO THE SAN JOAQUIN VALLEY	12
D. CONFORMITY TEST REQUIREMENTS	14
E. ANALYSIS YEARS	21
F. AIR QUALITY DESIGNATIONS APPLICABLE TO THE OTHER AREAS OF KERN COUNTY	24
G. CONFORMITY TEST REQUIREMENTS	25
H. ANALYSIS YEARS	27
CHAPTER 2: LATEST PLANNING ASSUMPTIONS AND TRANSPORTATION MODELING.....	29
A. SOCIOECONOMIC DATA.....	33
B. TRANSPORTATION MODELING	34
C. TRAFFIC ESTIMATES.....	38
D. VEHICLE REGISTRATIONS.....	40
E. STATE IMPLEMENTATION PLAN MEASURES	40
CHAPTER 3: AIR QUALITY MODELING.....	43
A. EMFAC2014	43
B. ADDITIONAL PM-10 ESTIMATES	45
C. PM2.5 APPROACH.....	46
D. AIR QUALITY MODELING APPLICABLE TO THE OTHER AREAS OF KERN COUNTY	49
E. SUMMARY OF PROCEDURES FOR REGIONAL EMISSIONS ESTIMATES	49
CHAPTER 4: TRANSPORTATION CONTROL MEASURES.....	51
A. TRANSPORTATION CONFORMITY REGULATION REQUIREMENTS FOR TCMS	51
B. APPLICABLE AIR QUALITY IMPLEMENTATION PLANS.....	53
C. IDENTIFICATION OF 2002 RACM THAT REQUIRE TIMELY IMPLEMENTATION DOCUMENTATION	54
D. TCM FINDINGS FOR THE TIP AND REGIONAL TRANSPORTATION PLAN	56
E. RTP CONTROL MEASURE ANALYSIS IN SUPPORT OF 2003 PM-10 PLAN	56
CHAPTER 5: INTERAGENCY CONSULTATION.....	59

A. INTERAGENCY CONSULTATION.....	59
B. PUBLIC CONSULTATION	60
CHAPTER 6: TIP AND RTP CONFORMITY	61
REFERENCES.....	68

APPENDICES

Appendix A: Conformity Checklist

Appendix B: Transportation Project Listing

Appendix C: Conformity Analysis Documentation

Appendix D: Timely Implementation Documentation for Transportation Control Measures

Appendix E: Public Hearing Process Documentation

Appendix F: Response to Public Comments

TABLES

Table 1-1: On-Road Motor Vehicle 2008 and 2015 Ozone Standard Emissions Budgets.....	16
Table 1-2: On-Road Motor Vehicle PM-10 Emissions Budgets	17
Table 1-3: On-Road Motor Vehicle 1997 (24-hour and annual) and 2012 (annual) PM2.5 Standard Emissions Budgets.....	18
Table 1-4: On-Road Motor Vehicle 1997 (24-hour and annual) PM2.5 Standard Emissions Budgets	19
Table 1-5: On-Road Motor Vehicle 2012 (annual) PM2.5 Standard Emissions Budgets.....	20
Table 1-6: On-Road Motor Vehicle 2006 24-Hour PM2.5 Standard Emissions Budgets.....	21
Table 1-7: San Joaquin Valley Conformity Analysis Years.....	22
Table 1-8: San Joaquin Valley Conformity Analysis Years for the Upcoming Budgets	23
Table 1-9: Mojave Desert (Eastern Kern County) Ozone Emissions Budgets.....	26
Table 1-10: Kern County Indian Wells Valley Area PM-10 Emissions Budgets	27
Table 1-11: Other Portions of Kern County Conformity Analysis Years	28
Table 2-1: Summary of Latest Planning Assumptions for the Kern Council of Governments Conformity Analysis.....	30
Table 2-2: Traffic Network Comparison for Horizon Years Evaluated in Conformity Analysis	39
Table 2-3: 2007 PM-10 Maintenance Plan Measures Assumed in the Conformity Analysis	41
Table 2-4: 2008 PM2.5 (1997 Standard) Plan Measures Assumed in the Conformity Analysis	42
Table 2-5: 2012 PM2.5 (2006 Standard) Plan Measures Assumed in the Conformity Analysis	42
Table 6-1: Conformity Results Summary.....	64

EXECUTIVE SUMMARY

This report presents the Conformity Analysis for the 2021 Federal Transportation Improvement Program (2021 FTIP) and 2018 Regional Transportation Plan Amendment #1 (2018 RTP Amendment #1). Kern Council of Governments is the designated Metropolitan Planning Organization (MPO) in Kern County, California, and is responsible for regional transportation planning.

On September 27, 2019, the United States Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA) published the “Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program” (effective November 26, 2019). The Part One Rule revoked California’s authority to set its own greenhouse gas emissions standards, which were incorporated in EMFAC2014 emissions model. On November 20, 2019, California Air Resources Board (CARB) released “EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicles Rule Part One” for use in regional conformity analyses. On March 12, 2020, EPA concurred on the use of CARB’s EMFAC off-model adjustment factors in conformity demonstrations. On April 30, EPA and NHTSA published SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Final SAFE Rule) rolling back federal fuel economy standards. On June 26, 2020 CARB issued a public notice stating that EMFAC adjustments released in November continue to be suitable for conformity purposes. The conformity analysis for the 2021 FTIP and the 2018 RTP Amendment #1 incorporates these emissions modeling adjustments.

The 2018 PM2.5 Plan addressing 1997, 2006 and 2012 PM2.5 standards was adopted by the San Joaquin Valley Air District on November 15, 2018 and California Air Resources Board on January 24, 2019 and subsequently submitted for EPA review. On March 27, EPA published a proposed rule approving portions of the 2018 PM2.5 Plan, including the 2006 PM2.5 conformity budgets and trading mechanism. Final rule on sections that pertain to 2006 24-hour PM2.5 standard Serious area nonattainment was released on July 22, 2020 therefore this conformity analysis incorporates new 2018 PM2.5 SIP budgets for the 2006 24-hour PM2.5 standards. The remaining components of the 2018 PM2.5 Plan addressing the 1997 and 2012 PM2.5 standards are currently undergoing EPA review. In addition, Eastern Kern’s 2017 Ozone SIP, inclusive of transportation conformity budgets, has been proposed to be approved on October 28, 2020. Final action on the 2017 Ozone SIP is expected in spring of 2021. Should EPA act on these additional SIP elements, this conformity analysis includes an “upcoming budget test” in case the new transportation conformity budgets become available prior to federal approval of the 2021 FTIP conformity analysis.

This analysis demonstrates that the criteria specified in the transportation conformity regulations for a conformity determination are satisfied by the 2021 FTIP and the 2018 RTP Amendment #1; a finding of conformity is therefore supported. The 2021 FTIP, 2018 RTP Amendment #1, and the corresponding Conformity Analysis were approved by Kern Council of Governments Policy Board on February 18, 2021. Federal approval is anticipated on or before April 30, 2021. FHWA/FTA last issued a finding of conformity for the 2021 FTIP and the 2018 RTP, as amended if applicable, on May 9, 2019.

The 2021 FTIP and the 2018 RTP Amendment #1 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.

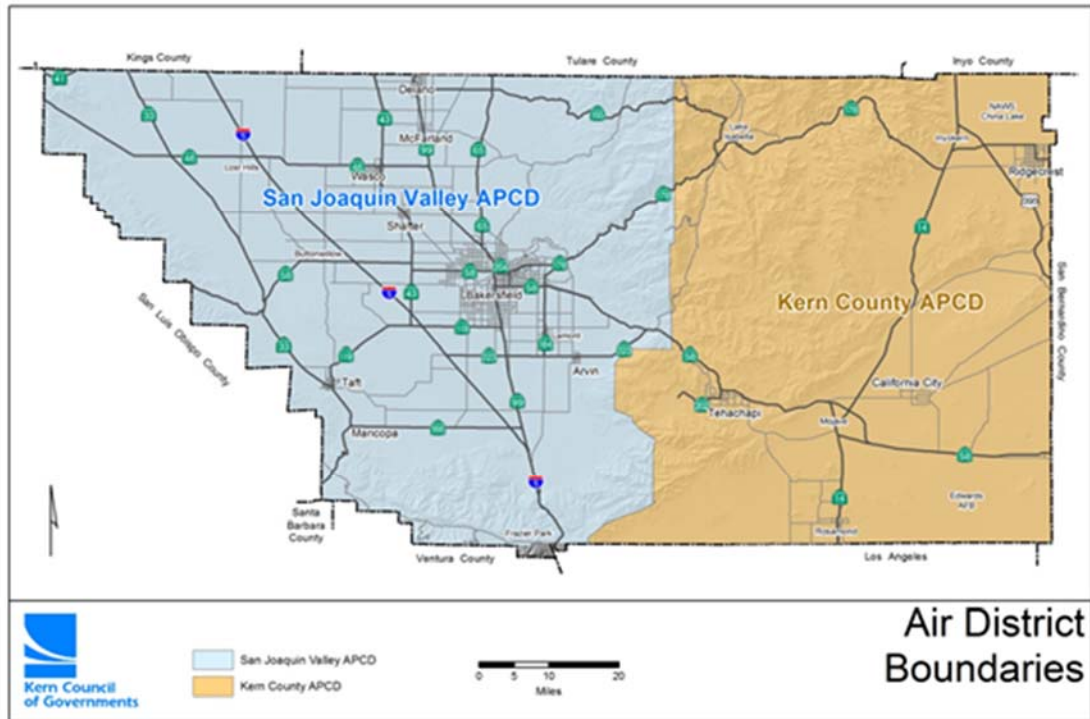
The applicable Federal criteria or requirements for conformity determinations, the conformity tests applied, the results of the conformity assessment, and an overview of the organization of this report are summarized below.

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 (PM_{2.5}); 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 Kern 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, future conformity analysis for the TIP and RTP no longer include a CO conformity demonstration.

Figure 1– Air Pollution Control Districts in the Kern Region



Kern COG is also located in the federally designated Mojave Desert, portions of the Indian Wells Valley Planning Area, and the portion of the San Joaquin Valley (SVJ) PM-10 nonattainment area that lies within the Kern County Air Pollution Control District (this area is not included in the SVJ 2007 PM-10 Maintenance Plan and has been labeled the East Kern PM-10 Area). The Mojave Desert (Eastern Kern) area is currently designated as nonattainment for the National Ambient Air Quality Standards (NAAQS) for 2008 and 2015 8-hour ozone; whereas the Indian Wells Valley Planning area is designated as a maintenance area for PM-10. The Kern COG transportation plans and programs also satisfy the requirements of the transportation conformity regulation for these nonattainment areas.

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.

Figure 2 – Ozone/Carbon Monoxide Planning Areas

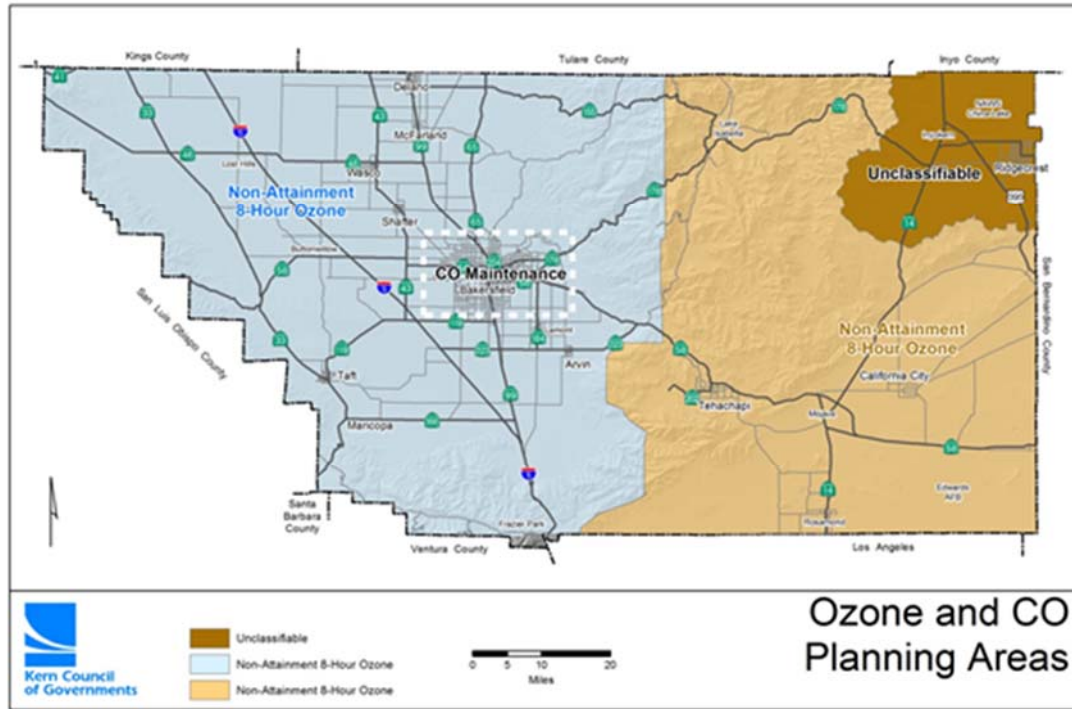
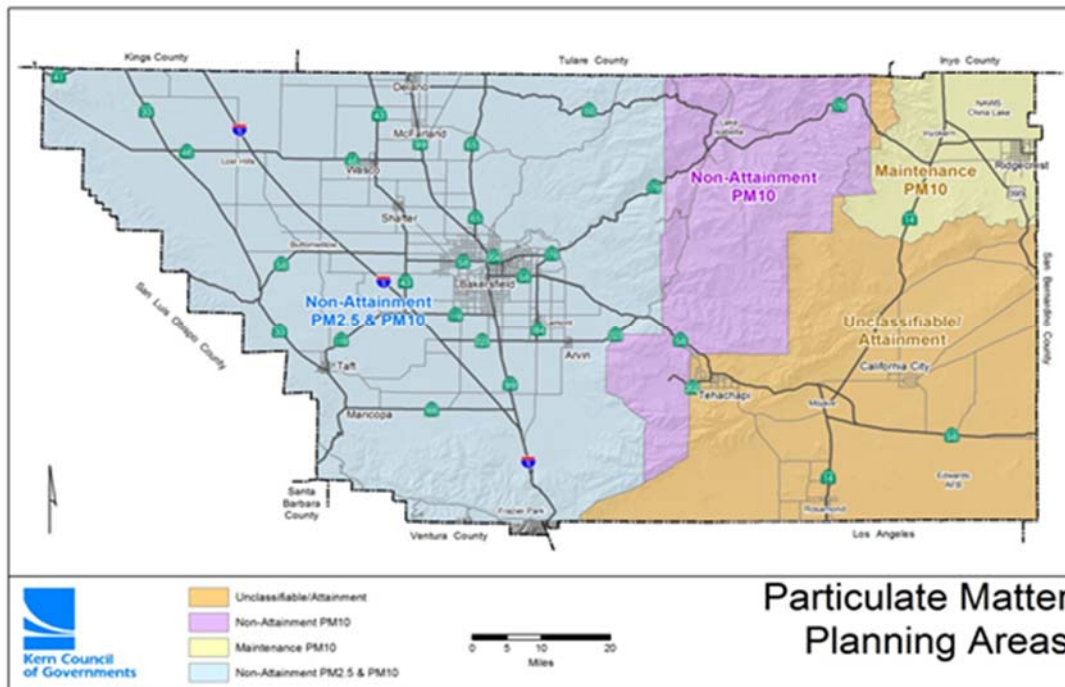


Figure 3 – Particulate Matter Planning Areas



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 2020, 2021, 2023, 2024, 2026, 2029, 2031, 2037 and 2042 for each applicable pollutant. Addition analysis years 2022 and 2025 were also included in this conformity analysis to address upcoming 2018 PM2.5 Plan budgets for the 2012 PM2.5 standard. All analyses were conducted using the latest planning assumptions and emissions models. The major conclusions of Kern Council of Governments' Conformity Analysis for the 2021 FTIP and 2018 RTP Amendment #1 are:

- For 2008 and 2015 8-hour ozone, the total regional on-road vehicle-related emissions (ROG and NOx) associated with implementation of the 2021 FTIP and the 2018 RTP Amendment #1 for all years tested are projected to be less than the approved emissions budgets specified in the *2018 Updates to the California State Implementation Plan for the San Joaquin Valley* (2018 SIP Update). 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 2021 FTIP and the 2018 RTP Amendment #1 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 NO_x 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 PM_{2.5} standards, the total regional on-road vehicle-related emissions associated with implementation of the 2021 FTIP and the 2018 RTP Amendment #1 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 PM_{2.5} and NO_x trading mechanism for transportation conformity purposes from the *2008 PM_{2.5} Plan (as revised in 2011)*. In addition, this conformity analysis includes an “upcoming budget test” demonstrating conformity to the 2018 PM_{2.5} Plan transportation conformity budgets for the 1997 and 2012 PM_{2.5} budgets, should EPA approve or find these adequate before federal approval of the 2021 FTIP conformity analysis. The conformity tests for PM_{2.5} for the 1997 and 2012 standards are therefore satisfied.
- For the 2006 24-hour PM_{2.5} standard, the total regional on-road vehicle-related emissions associated with implementation of the 2021 FTIP and the 2018 RTP Amendment #1 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 PM_{2.5} and NO_x trading mechanism for transportation conformity purposes from the *2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards (2018 PM_{2.5} Plan)*. The conformity tests for PM_{2.5} for the 2006 standard are therefore satisfied.
- The 2021 FTIP and the 2018 RTP Amendment #1 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 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.

Regional emissions analyses were also conducted for 2020, 2023, 2029, 2037, and 2042 for the Eastern Kern ozone area and the Indian Wells Valley PM-10 area. No emissions analysis was completed for the portion of the SJV PM-10 nonattainment area that is under Kern County Air Pollution Control District jurisdiction (East Kern PM-10 Area).

- For Mojave Desert (Eastern Kern) ozone (2008 and 2015 standards), the total regional on-road vehicle-related emissions (ROG and NO_x) associated with implementation of the 2021 FTIP and the 2018 RTP Amendment #1 for all years tested are projected to be less than the approved emissions budgets specified in the 8-Hour Ozone Early Progress Plan. In addition, this conformity analysis includes an “upcoming budget test” demonstrating conformity to the Eastern Kern 2017 Ozone Plan transportation conformity budgets, should EPA approve these budgets before federal approval of the 2021 FTIP conformity analysis. The conformity tests for ozone are therefore satisfied.
- For Indian Wells Valley PM-10, the total regional vehicle-related emissions associated with implementation of the 2021 FTIP and the 2018 RTP Amendment #1 for all years tested are projected to be less than the approved emissions budgets from the PM-10 Attainment

Demonstration, Maintenance Plan, and Re-designation Request. The conformity tests for PM-10 are therefore satisfied.

- For the portion of the SJV PM-10 nonattainment area that is under the jurisdiction of the Kern County APCD (East Kern PM-10 Area), the interim emissions test is satisfied for all years since the transportation projects and planning assumptions in both the “action” and “baseline” scenarios are exactly the same. In accordance with Section 93.119(g)(2), the emissions predicted in the “action” scenario are not greater than the emissions predicted in the “Baseline” scenario for such analysis years. The conformity tests for PM-10 are therefore satisfied.

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 2021 FTIP, 2018 RTP Amendment #1 and the corresponding Conformity Analysis on January 21, 2021. 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 Analysis for and the 2021 FTIP and 2018 RTP Amendment #1 was 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.

Kern Council of Governments is the designated Metropolitan Planning Organization (MPO) for Kern County in the San Joaquin Valley. As a result of this designation Kern Council of Governments prepares the TIP, RTP, and associated conformity analyses. The TIP serves as a detailed four year (FY 2020/21 – 2023/24) 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 NAAQS. 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. 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. However, according to *Transportation Conformity Guidance for the South Coast II Court Decision*, nonattainment areas with existing 2008 ozone conformity budgets are not required to address the 1997 ozone standards for conformity purposes.

On December 6, 2018, EPA published the *Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements* final rule, effective February 4, 2019 (EPA, 2018). The rule clarified that nonattainment areas must continue to demonstrate conformity to the 2008 ozone standards.

On August 24, 2016, EPA published 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. The Transportation Conformity Guidance for 2015 Ozone NAAQS Nonattainment Areas released in June 2018 incorporates the 2012 Multi-Jurisdictional Guidance by reference.

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 September 2020 (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. EPA has approved EMFAC2017 for conformity use on August 15, 2019 and the final rule started the two-year grace period to transition to the new emissions model for use in conformity demonstrations. Therefore, EMFAC2014 continued to be used in this conformity analysis as documented in Chapter 3. EPA issued a federal register notice on December 14, 2015 formally approving EMFAC2014 for use in conformity determinations. On November 20, 2019, California Air Resources Board (CARB) released “EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicles Rule Part One” for use in regional conformity analyses. On March 12, 2020, EPA concurred on the use of CARB’s EMFAC off-model adjustment factors in conformity demonstrations. On April 30, EPA and NHTSA published SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Final SAFE Rule) rolling back federal fuel economy standards. On June 26, 2020 CARB issued a public notice stating that EMFAC adjustments released in November continue to be suitable for conformity purposes. The conformity analysis for the 2021 FTIP Amendment and 2018 RTP Amendment #1 incorporates these adjustments.

- 3) *Timely Implementation of TCMs* — Section 93.113 provides a detailed description of the steps necessary to demonstrate that the 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. The conformity analysis is required to be publicly available and an opportunity for public review and comment is provided. Kern Council of Governments 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.

Kern Council of Governments 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 2021 FTIP and 2018 RTP Amendment #1 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 (revoked 1997, 2008 and 2015 standards), particulate matter under 2.5 microns in diameter (PM_{2.5}) (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, future conformity analyses no longer include a CO conformity demonstration.

State Implementation Plans have been prepared to address ozone, PM-10 and PM_{2.5}:

- 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). In response to recent court decisions regarding the baseline RFP year, ARB adopted the revised 2008 ozone conformity budgets as part of the *2018 Updates to the California State Implementation Plan* (2018 SIP Update) on October 25, 2018. EPA approved the 2016 Ozone Plan and the budgets on March 25, 2019.

- 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 2018 PM2.5 Plan was partially approved by EPA on July 22, 2020 (effective as of publication) inclusive of the revised conformity budgets and trading mechanism for the 2006 24-hr PM2.5 standard.

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. 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. However, according to the *Transportation Conformity Guidance for the South Coast II Court Decision*, nonattainment areas with existing 2008 ozone conformity budgets are not required to address the 1997 ozone standards for conformity purposes.

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 June 4, 2018 EPA published final designations classifying the San Joaquin Valley as "extreme" nonattainment for 2015 ozone with an attainment deadline of 2038, effective August 3, 2018. Transportation conformity applies one year after the effective date or August 3, 2019. It is important to note that the 2015 ozone standard nonattainment area boundary for the San Joaquin Valley is exactly the same as the nonattainment area boundary for the 2008 ozone standard.

In addition, on May 4, 2016, the Eastern portion of Kern County, the Mojave Desert was designated nonattainment for the 2008 ozone standard and classified "moderate" with an attainment date July 20, 2018. ARB adopted the Eastern Kern 2017 Ozone Plan on September 28, 2017 including a request to reclassify the area to "serious" nonattainment for the 2008 ozone standard. On July 5, 2018, EPA approved the reclassification request to "serious" including the new attainment deadline of 2021. On October 28, 2020, the Eastern Kern 2017 Ozone Plan was proposed to be approved by EPA, with final action still pending.

On June 4, 2018 EPA issued final designations classifying Eastern Kern as "moderate" nonattainment for the 2015 ozone standard with an attainment date of 2024. It is important to note that the 2015 ozone standard nonattainment area boundary for Eastern Kern is exactly the same as the nonattainment area boundary for the 2008 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 PM_{2.5} 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 PM_{2.5} nonattainment area boundary for the San Joaquin Valley is exactly the same as the nonattainment area boundary for the 1997 annual PM_{2.5} standard.

EPA's nonattainment area designations for the new 2012 PM_{2.5} 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 PM_{2.5} standards nonattainment area boundary for the San Joaquin Valley are exactly the same as the nonattainment area boundary for the 1997 annual PM_{2.5} 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 (2008 AND 2015 STANDARDS)

The San Joaquin Valley currently violates both the 2008 and 2015 ozone standards; thus the conformity determination includes all corresponding analyses (see discussion under Air Quality Designations Applicable to the San Joaquin Valley above). Under the existing conformity regulations, regional emissions analyses for ozone areas must address nitrogen oxides (NO_x) 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'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. Current federal guidance does not require 2008 ozone nonattainment areas to address the 1997 ozone standard for conformity purposes.

On March 25, 2019, EPA published a final rule approving the 2008 ozone conformity budgets and the *2018 Updates to the California State Implementation Plan*. The EPA final rule identified both reactive organic gases (ROG) and nitrogen oxides (NO_x) subarea budgets in tons per average summer day for each MPO in the nonattainment area.

In accordance with Section 93.109(c)(2) of the conformity rule and the 2015 Ozone Transportation Conformity Guidance, if a 2015 ozone nonattainment area has adequate or approved SIP budgets that address the 2008 ozone standard, it must use the budget test until new 2015 ozone standard budgets are found adequate or approved. It is important to note that the boundaries for the 2015 ozone standard and 2008 ozone standard are identical. In addition, the 2015 Ozone Implementation Rule did not revoke 2008 standard requirements. Consequently, for this conformity analysis, the SJV MPOs will conduct demonstrations for both 2008 and 2015 ozone standards using subarea emissions budgets as established in the *2018 Updates to the California State Implementation Plan*.

The conformity budgets from Table 1 of the March 25, 2019 Federal Register are provided in Table 1-1 below. These budgets will be used to compare to emissions resulting from the 2021 FTIP and the 2018 RTP Amendment #1.

Table 1-1:
On-Road Motor Vehicle 2008 and 2015 Ozone Standard Emissions Budgets
(summer tons/day)

County	2020		2023		2026		2029		2031	
	ROG	NOx	ROG	NOx	ROG	NOx	ROG	NOx	ROG	NOx
Fresno	6.7	23.9	5.5	14.1	4.9	13.2	4.5	12.4	4.2	12.1
Kern (SJV)	5.4	20.9	4.5	14.5	4.2	14.4	4.0	14.3	3.9	14.3
Kings	1.2	4.5	1.0	2.7	0.9	2.6	0.8	2.6	0.8	2.6
Madera	1.5	4.3	1.1	2.7	1.0	2.5	0.9	2.4	0.8	2.3
Merced	2.2	8.8	1.7	6.0	1.5	5.9	1.3	5.6	1.2	5.4
San Joaquin	4.7	11.2	3.9	7.4	3.5	7.0	3.1	6.6	2.8	6.3
Stanislaus	3.1	8.8	2.6	5.6	2.2	4.9	2.0	4.5	1.8	4.3
Tulare	3.0	7.6	2.4	4.6	2.1	4.0	1.8	3.7	1.7	3.5

^(a) Note that 2008 ozone budgets were established by rounding up each county's emissions totals to the nearest tenth of a ton.

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 1-2:
On-Road Motor Vehicle PM-10 Emissions Budgets
(tons per average annual day)

County	2020 ^(b)	
	PM-10	NO _x
Fresno	7.0	25.4
Kern ^(a)	7.4	23.3
Kings	1.8	4.8
Madera	2.5	4.7
Merced	3.8	8.9
San Joaquin	4.6	11.9
Stanislaus	3.7	9.6
Tulare	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 2018 PM2.5 Plan addressing 1997, 2006 and 2012 PM2.5 standards was adopted by the San Joaquin Valley Air District on November 15, 2018 and California Air Resources Board on January 24, 2019 and subsequently submitted for EPA review. On March 27, EPA published a proposed rule approving portions of the 2018 PM2.5 Plan, including the 2006 PM2.5 conformity budgets and trading mechanism. Final rule on sections that pertain to 2006 24-hour PM2.5 standard Serious area nonattainment was released on July 22, 2020 (effective as of publication), therefore this conformity analysis incorporates new 2018 PM2.5 SIP budgets for the 2006 24-hour PM2.5 standard.

Given that EPA may act on the remaining components of the 2018 PM2.5 Plan prior to federal approval of the 2021 FTIP conformity analysis, the new transportation conformity budgets addressing the 1997 and 2012 PM2.5 standards are also included in this conformity analysis (“upcoming budget test”).

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 NO_x established

based on average annual daily emissions, as well as a trading mechanism. The motor vehicle emissions budget for PM_{2.5} includes directly emitted PM_{2.5} motor vehicle emissions from tailpipe, brake wear and tire wear. VOC, SO_x, 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 1-3 below and will be used to compare emissions resulting from the 2021 FTIP and the 2018 RTP Amendment #1.

In accordance with Section 93.109(i)(3) of the conformity rule, if a 2012 PM_{2.5} nonattainment area has adequate or approved SIP budgets that address the annual 1997 PM_{2.5} standards, it must use the budget test until new 2012 PM_{2.5} 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 PM_{2.5} (1997 Standard) Plan.

In addition, the final PM_{2.5} Implementation Rule requires areas designated as nonattainment for the 1997 PM_{2.5} 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 1-3:
On-Road Motor Vehicle 1997 (24-hour and annual) and 2012 (annual) PM_{2.5} Standard Emissions Budgets
(tons per average annual day)

County	2012 ^(a)		2014	
	PM _{2.5}	NO _x	PM _{2.5}	NO _x
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

^(a) 2012 budgets are not in the timeframe of this conformity analysis.

The 2008 PM_{2.5} SIP includes a trading mechanism that allows trading from the motor vehicle emissions budget for the PM-2.5 precursor NO_x 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 NO_x, and use these adjusted motor vehicle emissions budgets for PM-2.5 and NO_x 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.

“Upcoming Budget Test” to the 1997 and 2012 PM2.5 Standards

The 2018 PM2.5 Plan 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 applicable conformity budgets are provided in Table 1-4 for the 1997 PM2.5 standard and Table 1-5 for the 2012 PM2.5 standard and will be used to compare emissions resulting from the 2021 FTIP Amendment and the 2018 RTP Amendment #1.

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

County	2017 ^(a)		2020	
	PM2.5	NOx	PM2.5	NOx
Fresno	0.9	28.5	0.8	15.1
Kern (SJV)	0.8	28.0	0.7	13.3
Kings	0.2	5.8	0.2	2.8
Madera	0.2	5.3	0.2	2.5
Merced	0.3	10.7	0.3	5.3
San Joaquin	0.7	14.9	0.6	7.6
Stanislaus	0.4	11.9	0.4	6.1
Tulare	0.4	10.8	0.4	5.2

^(a) 2017 budgets are not in the timeframe of this conformity analysis.

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

County	2019		2022		2025	
	PM2.5	NOx	PM2.5	NOx	PM2.5	NOx
Fresno	0.9	27.6	0.9	21.2	0.8	13.5
Kern (SJV)	0.8	25.1	0.8	19.4	0.8	11.9
Kings	0.2	5.1	0.2	4.1	0.2	2.5
Madera	0.2	4.6	0.2	3.5	0.2	2.0
Merced	0.3	9.4	0.3	7.6	0.3	4.5
San Joaquin	0.6	12.7	0.6	10.0	0.6	6.3
Stanislaus	0.4	10.5	0.4	8.1	0.4	5.2
Tulare	0.4	9.3	0.4	6.9	0.4	4.2

(a) Note that 2019 PM2.5 budgets are not in the timeframe of this conformity analysis.

The 2018 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 PM2.5 using a 6.5 to 1 ratio on an annual basis. The trading mechanism allows the agencies responsible for demonstrating transportation conformity in the San Joaquin Valley to supplement the applicable budget for PM2.5 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 2018 PM2.5 SIP.

The trading mechanism will be used only for conformity analyses for analysis years after 2020. To ensure that the trading mechanism does not impact the ability to meet the NOx budget, the NOx emission reductions available to supplement the PM2.5 budget shall only be those remaining after the NOx budget has been met.

2006 24-Hour PM2.5 Standard

The 2018 PM2.5 Plan addressing 1997, 2006 and 2012 PM2.5 standards was adopted by the San Joaquin Valley Air District on November 15, 2018 and California Air Resources Board on January 24, 2019. On March 27, EPA published a proposed rule approving portions of the 2018 PM2.5 Plan, including the 2006 PM2.5 conformity budgets and trading mechanism. Final rule on sections that pertain to 2006 24-hour PM2.5 standard Serious area nonattainment was published on July 22, 2020. Therefore, the conformity analysis for the 2021 FTIP and 2018 RTP Amendment #1 incorporates new transportation conformity budgets and the new attainment year of 2024 for 2006 24-hour PM2.5 standards.

The 2018 PM2.5 Plan for the 2006 PM2.5 standard 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, SO_x, 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 March 27, 2020 Federal Register, Table 14 are provided in Table 1-4 below and will be used to compare emissions resulting from the 2021 FTIP and the 2018 RTP Amendment #1.

Table 1-6
On-Road Motor Vehicle 2006 24-Hour PM_{2.5} Standard Emissions Budgets
(tons per average winter day)

	2017		2020		2023		2024	
County	PM _{2.5}	NO _x	PM _{2.5}	NO _x	PM _{2.5}	NO _x	PM _{2.5}	NO _x
Fresno	0.9	29.3	0.9	25.9	0.8	15.5	0.8	15.0
Kern (SJV)	0.8	28.7	0.8	23.8	0.7	13.6	0.7	13.4
Kings	0.2	5.9	0.2	4.9	0.2	2.9	0.2	2.8
Madera	0.2	5.5	0.2	4.4	0.2	2.6	0.2	2.5
Merced	0.3	11.0	0.3	9.1	0.3	5.5	0.3	5.3
San Joaquin	0.7	15.5	0.6	12.3	0.6	7.9	0.6	7.6
Stanislaus	0.4	12.3	0.4	9.8	0.4	6.2	0.4	6.0
Tulare	0.4	11.2	0.4	8.7	0.4	5.3	0.4	5.1

(a) Note that 2017 PM_{2.5} budgets are not in the timeframe of this conformity analysis.

The 2018 PM_{2.5} SIP includes a trading mechanism that allows trading from the motor vehicle emissions budget for the PM_{2.5} precursor NO_x to the motor vehicle emissions budget for primary PM-2.5 using an 2 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 NO_x, and use these adjusted motor vehicle emissions budgets for PM_{2.5} and NO_x to demonstrate transportation conformity with the PM_{2.5} SIP for analysis years after 2020. As noted above, EPA approved the 2018 PM_{2.5} Plan budgets and the trading mechanism for 2006 24-hr PM_{2.5} standards on July 22, 2020 (effective as of publication).

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 1-7 below provides a summary of conformity analysis years that apply to this conformity analysis. Table 1-8 summarizes conformity analysis years for the "upcoming budget test".

**Table 1-7:
San Joaquin Valley Conformity Analysis Years**

Pollutant	Budget Years¹	Attainment/ Maintenance Year	Intermediate Years	RTP Horizon Year
2008 and 2015 Ozone	2011/2017/2020/2023/2026 /2029	2031/2037 ²	NA	2042
PM-10	NA	2020	2029/2037	2042
1997 and 2012 PM2.5	NA	2014/2021 ³	2029/2037	2042
2006 24-hour PM2.5	2017/2020/2023/2024/2026	2024	2029/2037	2042

¹Budget years that are not in the time frame of the transportation plan/conformity analysis are not included as analysis years (e.g., 2011, 2014, 2017), although they may be used to demonstrate conformity.

²2031 is the attainment year for the 2008 ozone standard. 2037 is the attainment year for the 2015 ozone standard.

³2014 is the attainment year for the 1997 PM2.5 standards. 2021 is the attainment year for the 2012 PM2.5 standards.

⁴2026 is a post-attainment budget year for the 2006 PM2.5 standard and is not required to be included in a conformity analysis.

**Table 1-8:
San Joaquin Valley Conformity Analysis Years for the Upcoming Budgets**

Pollutant	Budget Years¹	Attainment/ Maintenance Year	Intermediate Years	RTP Horizon Year
1997 annual and 24-hour PM2.5	2017/2020/2023 ²	2020	2029/2037	2042
2012 annual PM2.5	2019/2022/2025/2028 ³	2025	2031/2037	2042

¹Budget years that are not in the time frame of the transportation plan/conformity analysis are not included as analysis years (e.g., 2017), although they may be used to demonstrate conformity.

^{2,3} 2023 and 2028 are the post-attainment budget years for the 1997 PM2.5 standard and 2012 PM2.5 standard, respectively, and are not required to be included in a conformity analysis.

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 (i.e. 2031).

For the 2015 ozone standard, the San Joaquin Valley has been classified as an extreme nonattainment area with an attainment date of August 3, 2038. In accordance with the December 2018 final rule, *Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements*, the attainment year of 2037 must be modeled. When using the budget test, the attainment year of the 2015 ozone standard must be analyzed (i.e. 2037).

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. As a result, the 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. The San Joaquin Valley 2018 PM2.5 Plan includes an attainment deadline extension request for the 1997 PM2.5 standards. Therefore, the attainment year 2020 must be modeled for the “upcoming budget test”, should EPA approve the bump up to Serious request and/or find the new 1997 PM2.5 budgets adequate.

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, effective September 30, 2016, inclusive of new conformity budgets and trading mechanism for the 2006 24-hour PM2.5 standard with a requirement to attain the standard

as expeditiously as practicable and no later than December 31, 2019. In 2019, CARB submitted an attainment deadline extension request as part of the 2018 PM2.5 Plan. On March 27, EPA published a proposed rule approving portions of the 2018 PM2.5 Plan, including the 2006 PM2.5 standard attainment deadline extension, as well as conformity budgets and trading mechanism. The attainment year of 2024 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. The attainment year of 2021 must be modeled. The San Joaquin Valley 2018 PM2.5 Plan includes a reclassification request to Serious for the 2012 PM2.5 standards with an attainment deadline of 2025. Therefore, the attainment year 2025 must be modeled for the “upcoming budget test”, should EPA approve the request for a later attainment year and/or find the new 2012 PM2.5 budgets adequate.

F. AIR QUALITY DESIGNATIONS APPLICABLE TO THE OTHER AREAS OF KERN COUNTY

In addition to the San Joaquin Valley planning area, Kern County also includes the federally designated Mojave Desert (Eastern Kern), portions of the Indian Wells Valley Planning Area, and the portion of the San Joaquin Valley PM-10 nonattainment area that lies within the Kern County Air Pollution Control District (this area is not included in the SJV 2007 PM-10 Maintenance Plan) and has been labeled the East Kern PM-10 Area. Conformity for the 2021 FTIP and 2018 RTP Amendment #1 also includes analysis of existing and future air quality impacts for each applicable pollutant.

The Eastern Kern area is currently designated as nonattainment for the National Ambient Air Quality Standards (NAAQS) for 2008 and 2015 8-hour ozone; whereas the Indian Wells Valley Planning area is designated as a maintenance area for PM-10; and there is an additional East Kern PM-10 Area. The Kern County Air Pollution Control District is responsible for air quality plan development for these areas. State Implementation Plans have been prepared to address 8-hour ozone in Eastern Kern county, and PM-10 in the Indian Wells:

- EPA published a Notice of Adequacy for the 8-hour ozone Early Progress Plans for Eastern Kern County on November 25, 2008 (effective December 10, 2008). In addition, this conformity analysis includes an “upcoming budget test” demonstrating conformity to the Eastern Kern 2017 Ozone Plan transportation conformity budgets, should EPA approve these budgets before federal approval of the 2021 FTIP conformity analysis.
- The PM-10 Attainment demonstration, Maintenance Plan, and Redesignation Request was approved by EPA on May 7, 2003 (effective June 6, 2003).

On May 4, 2016, EPA reclassified Eastern Kern to “moderate” nonattainment for the 2008 ozone standard with a new attainment date of July 20, 2018 (effective June 3, 2016). The Eastern Kern 2017 Ozone Attainment Plan was adopted by the Eastern Kern Air Pollution District on July 27, 2017. ARB adopted the 2017 Ozone Plan on September 28, 2017, including a request to reclassify the area to “serious” nonattainment, and subsequently submitted the Plan for EPA review. On July 5, 2018 EPA approved the reclassification request to serious including the new attainment date of 2021. EPA published proposed approval for the Eastern Kern 2017 Ozone Plan on October 28, 2020; final EPA action is pending at the time of this conformity analysis. According to the Ozone Implementation Rule, areas designated nonattainment for the 2008 ozone standard are required to use any existing adequate or approved SIP motor vehicle emissions budgets for a prior ozone standard until budgets for the 2008 ozone standard are either found adequate or approved; thus, the Early Progress Plan conformity budgets will continue to be used in this conformity analysis. In addition, this conformity analysis includes an “upcoming budget test” demonstrating conformity to the Eastern Kern 2017 Ozone Plan transportation conformity budgets, should EPA approve these budgets before federal approval of the 2021 FTIP conformity analysis. 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 2020 must be modeled. When using the budget test, the attainment year of the 2008 ozone standard must be analyzed (i.e. 2020).

On June 4, 2018, EPA published final designations for the 2015 ozone standard classifying Eastern Kern as “moderate” nonattainment with a new attainment date of 2024. In accordance with the December 2018 final rule, *Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements*, the attainment year of 2023 must be modeled. When using the budget test, the attainment year of the 2015 ozone standard must be analyzed (i.e. 2023). According to the 2015 ozone implementation rules, areas designated nonattainment for 2015 ozone standards are required to use any existing adequate or approved SIP motor vehicle emissions budgets for a prior ozone standard until budgets for the 2015 ozone standard are either found adequate or approved; thus, the Eastern Kern 2017 Ozone Plan conformity budgets will be used to demonstrate conformity with the 2015 8-hour ozone standards.

While there is a 2007 PM-10 Maintenance Plan for the San Joaquin Valley, it does not address the portion of the nonattainment area under the jurisdiction of Kern County APCD (East Kern PM-10 Area). It is important to note that EPA has not designated any area beyond the San Joaquin Valley portion of Kern County as nonattainment for the 1997 PM2.5 standards or the 2006 24-hour PM2.5 standard.

G. CONFORMITY TEST REQUIREMENTS

OZONE

Under the existing conformity regulation, regional emissions analyses for ozone areas must address nitrogen oxides (NOx) and volatile organic compounds (VOC) precursors. The motor vehicle emission budgets for ozone are specified in the in the Early Progress Plans for the California State Implementation Plan in tons per average summer day. EPA published the notice of adequacy

determination in the Federal Register on November 25, 2008 (effective December 10, 2008). The 2008 motor vehicle emission budgets for ROG and NO_x are provided in the table below.

Table 1-9:
Mojave Desert (Eastern Kern County)
Ozone Emissions Budgets
(summer tons / day)

County	ROG	NO _x
Kern – Eastern	5	18

“Upcoming Budget Test” to the 2008 and 2015 Ozone Standards

Under the existing conformity regulation, regional emissions analyses for ozone areas must address nitrogen oxides (NO_x) and volatile organic compounds (VOC) precursors. The motor vehicle emission budgets for ozone are specified in the Eastern Kern 2017 Ozone SIP in tons per average summer day. The 2020 motor vehicle emission budgets for ROG and NO_x from Table 4 of the October 28, 2020 Federal Register proposed rule are provided in the table below.

Table 1-10:
Upcoming Budget Test
Mojave Desert (Eastern Kern County)
Ozone Emissions Budgets
(summer tons / day)

	2020	
County	ROG	NO _x
Kern – Eastern	1.3	3.6

PM-10

The Indian Wells Valley planning area, which includes a portion of Kern County, has an approved Maintenance Plan for PM-10 that includes conformity budgets. The motor vehicle emissions budget for PM-10 are specified in the September 5, 2003 PM-10 Attainment Demonstration, Maintenance Plan, and Re-designation Request. EPA finalized approval of this Plan on May 7, 2003, effective June 6, 2003. The budgets for 2001 and 2013 from Table 7-2 of the Plan provided below will be used to compare with each analysis year emissions. Emission budget includes dust from paved and unpaved roads, as well as dust from construction activities. Vehicle exhaust was determined not to be significant and was not included in the budget.

**Table 1-10:
Kern County Indian Wells Valley Area
PM-10 Emissions Budgets**

County	2001 (tons/day)	2013 (tons/day)
Kern – Indian Wells Valley	1.6	1.7

In addition, the San Joaquin Valley PM-10 nonattainment area includes a portion of Kern County that is not addressed in the 2007 PM-10 Maintenance Plan. This area is now under the jurisdiction of the Kern County APCD and has been labeled the East Kern PM-10 Area. This area currently has no PM-10 air quality plan. Under this scenario, the conformity regulation requires that the PM-10 nonattainment area use the interim emissions tests, which include either the “Action” scenario less than the “Baseline” scenario (Build vs. No-Build) or the “Action” scenario less than baseline emissions (Build vs. 1990). The regional emissions analysis must only address PM-10, since neither VOC nor NO_x precursors have been found to be a significant contributor to the PM-10 nonattainment problem in this area. Analysis year requirements are addressed under Section 93.119(g)(1) of the conformity regulation, nonattainment areas using interim emission tests are required to perform a regional emissions analysis for the following years:

- A year no more than 5 years beyond the year in which the conformity determination is made (e.g., 2020);
- The last year of the transportation plan’s forecast period (e.g., 2042); and
- Any additional years within the time frame of the transportation plan so that analysis years are no more than 10 years apart (e.g., 2029, 2037).

Section 93.119(g)(2) of the conformity regulation indicates that a regional emissions analysis would not be required for analysis years in which the transportation projects and planning assumptions in the “Action” and “Baseline” scenarios are exactly the same. In such case, the interim test can be satisfied by documenting that the transportation projects and planning assumptions in both scenarios are exactly the same, and consequently, the emission predicted in the “action” scenario are not greater than the emissions predicted in the “Baseline” scenario for such analysis years.

H. ANALYSIS YEARS

A summary of the analysis years resulting from the above described rules and guidance for the Conformity Analysis is provided below.

**Table 1-11:
Other Portions of Kern County
Conformity Analysis Years**

Pollutant	Budget Years	Attainment/ Maintenance Year¹	Intermediate Years	RTP Horizon Year
E. Kern 2008 and 2015 Ozone	NA	2020/2023	2029/2037	2042
Indian Wells Valley PM- 10	NA	2010	2020/2029/2037	2042
East Kern PM-10	NA	NA	2020/2029/2037	2042

¹Budget years that are not in the time frame of the transportation plan/conformity analysis are not included as analysis years (e.g., 2010, 2017), although they may be used to demonstrate conformity.

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 September 2020.

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.

The Kern Council of Governments uses the Voyager/CUBE transportation model. The model was validated in 2018 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 Kern Council of Governments
Conformity Analysis**

Assumption	Year and Source of Data (MPO action)	Modeling	Next Scheduled Update
Population	Base Year:2015 Projections:2015 In November 2015, the Kern COG policy board adopted population projections for the 2018 RTP/SCS and public outreach process. The forecasts were prepared by the chief economist for PlaceWorks Inc., Orange County, CA. The forecast report is available online at: http://www.kerncog.org/wp-content/uploads/2009/10/Growth_Forecast_20180807.pdf	This data is disaggregated to the TAZ level using 2010 US Census and 2015 ACS Census population and household data for input into the CUBE for the base year validation. Projections use the Upland Land Use Model for distribution of socio-economic data to the TAZ level based on local adopted general plans.	New data from PlaceWorks or other consulting firm expected between 2018-20 for the 2022 RTP.

Assumption	Year and Source of Data (MPO action)	Modeling	Next Scheduled Update
Employment	<p>Base Year: 2015 The California Employment Development Department (EDD) employment data was geocoded by Fehr&Peers Consulting and used to allocate the EDD employment estimates for the 2015. Kern COG reviewed the results using the ESRI InfoUSA geocoded employment data as a validation check data set. Agricultural fieldworker employment was re-distributed proportional to the labor intensity of crop types. Minor adjustments to the distribution of employment growth are made by collecting local planning assumptions through the Kern Regional Transportation Modeling Committee, consistent with adopted Kern COG policy.</p> <p>Projections: 2015 The 2015 growth forecast was developed by the Chief Economist for PlaceWorks, Inc., and is based on the sum of growth assumption by 20 employment sectors and adjusted using a jobs housing ratio. The forecast report is available online at: http://www.kerncog.org/wp-content/uploads/2009/10/Growth_Forecast_20180807.pdf</p>	<p>This data is disaggregated to the TAZ level for input into the TP+/CUBE for the base year validation.</p> <p>Major adjustments to the employment forecast have coincided with model validation years 2006 and 2008. Projections use the Uplan Land Use Model for distribution of socio-economic data to the TAZ level based on local adopted general plans.</p>	New data from InfoUSA, EDD are anticipated to be included in the next transportation model update in 2022.
Traffic Counts	951 two-way traffic count locations from the Kern Regional Traffic Count Program were used in 2015 model validation. The counts are available online at: http://www.kerncog.org/traffic-counts/	CUBE was validated using traffic counts from the Kern Regional Traffic Count Program.	Traffic counts are gathered annually and used updated every four years, as funding is available.

Assumption	Year and Source of Data (MPO action)	Modeling	Next Scheduled Update
Vehicle Miles of Travel	<p>The transportation model was validated in 2017 to the 2015 base year. The validation came within 0.2% percent of Caltrans HPMS VMT estimate for that year.</p> <p>The Kern COG policy Board acceptance of the 2017 transportation model validation for the 2015 base year is July 19, 2018.</p>	CUBE is the transportation model used to estimate VMT in Kern 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. VMT is scheduled to be recalibrated to HPMS and observed counts in the 2021 travel model update.
Speeds	<p>The 2017 transportation model validation was based on 2014 HERE Technologies network cell-phone free-flow speed data, and adjusted using speed studies conducted by the cities, county and Caltrans on functionally classified routes for setting speed limits.</p> <p>Speed distributions were updated in EMFAC2014, using methodology approved by ARB and with information from the transportation model.</p>	<p>The transportation model CUBE includes a feedback loop that assures congested speeds are consistent with travel speeds.</p> <p>EMFAC2014</p>	<p>Speed studies are conducted by the cities and the County on Caltrans functionally classified routes on an on-going basis for setting/enforcing speed limits. This information is gathered and incorporated into each new model validation. Updated speed data will be incorporated in the next model validation scheduled for 2021.</p>

* Some technical network errors were fixed after 2018 RTP.

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:

The Kern Regional Transportation Modeling Committee (TMC) provides oversight for the land use and socioeconomic data inputs into the model. The TMC is made up of local government planning and public works staff. The TMC is a subcommittee of the Regional Planning Advisory Committee to the Kern COG policy board and the two groups often meet jointly. The TMC was established by a Memorandum of Understanding (MOU) between Kern COG (representing the outlying communities), the City of Bakersfield, the County of Kern and Caltrans District 6 to coordinate modeling in the region. The MOU affirms the Kern COG policy for its Board to revise and adopt the countywide population forecast every 3-5 years.

Land use and socioeconomic data at the zonal level are used for determining trip generation. The TMC updates the distribution of zonal data as new information and planning assumptions are available. The population and household base year estimate is based on the latest US Census and State of California Department of Finance (DOF) estimates available at the time of preparation of the population forecast. The model includes 11 housing types distributed using latest Census data and assessor's tax roll information. The population forecast growth countywide totals were adopted in 2015 by the Kern COG policy board and use the 2015 forecast report developed by the chief economist for PlaceWorks Inc.

The base year employment estimate and forecast was also developed by Fehr & Peers using California Employment Development Department (EDD) geocoded data. The forecast was further refined by Kern COG using 2015 ESRI InfoUSA data for 2015. The employment forecast was also developed by the chief economist for PlaceWorks Inc. and is based the sum of the forecast for 20 employment sectors and adjusted using a jobs housing balance ratio assumption. This method has proven to be very reliable because the population was within 1/10th of 1 percent of the 2010 Census.

Income stratification for zonal data is based on the 2010 Census, along with vehicle availability to determine mode choice trip generation rates. School enrollment forecasts and future school location are developed in consultation with Kern County Superintendent of Schools and a survey of colleges and trade schools performed by Kern COG.

The household and employment forecast distribution uses the open source Uplan Land Use Model developed by UC Davis using ArcGIS, incorporating economic factors such as proximity to urban services (sewer, existing urban), rail and interchanges in distribution of employment and

households. The model limits distribution based on local general plans and other factors. The model has allowed testing of over 150 scenarios to better balance land use and transportation expenditures in development of the 2014 RTP.

B. TRANSPORTATION MODELING

The San Joaquin Valley Metropolitan Planning Organizations (MPOs) utilize the 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 Kern Council of Governments transportation modeling methodology meets those requirements.

As discussed above, the San Joaquin Valley Model Improvement Program, Phase 2 (VMIP 2) travel demand model for Kern, from Fehr and Peers, applies an advanced four-step travel demand model system of trip generation, distribution, mode choice, and traffic assignment, with nearly all stages recognizing household demographics, auto availability, modes including explicit auto occupancy, transit by walk and drive access, walk and bike, pricing, and congestion by time of day. The travel model includes a congestion feedback loop that accurately accounts for induced travel demand. The travel model contains socio-economic data for approximately 1,900 Transportation Analysis Zones (TAZs). The VMIP 2 travel demand model in 2017 was subjected to a peer review by DKS Associates in cooperation with Fehr and Peers.¹ The review and update addressed a variety of other calibration considerations, including gateway volumes from the statewide and neighboring models, the 2012 California Household Travel Survey (including more than 400 over-sampled surveys for transit riders in Kern), transit route volumes observed in 2015, 951 peak/off-peak/daily traffic count locations, and observed speed limit information.

¹ DKS Associates, Summary of Peer Review Revisions to the Kern COG VMIP-2 Travel Demand Model, http://www.kerncog.org/wp-content/uploads/2018/01/MIP2_peer_review.pdf, 2017.

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 Kern COG regional travel demand model was validated in 2017 to 2015 base year observed counts at more than 951 two-way locations from the Kern Regional Traffic Count Program and Caltrans Traffic Census Program. The validation incorporated data for Kern County from the most recent available 2012 household travel surveys. 100% of screen-lines in the 2015 model for daily, peak and off-peak periods were within the maximum desirable deviation. All modeled count locations resulted in a correlation co-efficient of 97% well within the 88% best practice threshold. 66% of all 951 links are within the maximum desirable deviation, and 82% during the PM peak hour. Overall freeways, expressways and principal arterials ranged from 0% to 10% of observed counts. Total VMT is within 0.2% of Highway Performance Monitoring System observed VMT for Kern County, well within the allowable +-5% based on best practice.

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:

Kern COG's member agencies routinely perform speed surveys on functionally classified routes throughout the region and use the data to update posted speed limits. These observed speeds were used as a validation check on HERE Technologies data free-flow speeds input into the model as the free flow speeds. 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 including. The feedback loop includes a step for mode choice, ensuring that zone to zone impedances are used in the mode split distribution. In addition, the model validation included a series of speed sensitivity tests. The model responded appropriately for the increased and decreased speed tests.

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:

Several recent on-board transit surveys have been performed for the transit systems in Kern. The Kern COG regional travel demand model was validated in 2015 to observed transit ridership data including electronic farebox data. Transit boardings were within 1% of observed surveys in the 2015 base year, within the +20 percent best practice guidelines. In addition the model was subjected to a land use sensitivity test that measured the capability of the model to accurately report transit ridership in high quality transit areas. To implement these tests, land use developments by Traffic Analysis Zone (TAZ) were classified into place types and selected to be changed either geographically (move all the development to a different place but retain the development and demographics) or by place type (keep the development in the same location but modify the place type to reflect different “D” variables). The results showed that the Kern travel model provided results with a high level of correlation to the well calibrated small scale test model.

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:

The models were 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.

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.

HPMS results are discussed above under traffic counts. In addition, sensitivity testing for speed/time, cost, capacity/congestion, and land use/induced demand were performed. The model performed within expected parameters for each test.

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.

Supporting Documentation:

The build highway networks include qualifying projects based on the 2021 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 Kern Council of Governments 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	Employment	Average Weekday VMT (millions)	Total Lane Miles
2020	841,677	308,897	21.3	5,812
2021	860,309	313,629	21.7	N/A
2022	878,941	318,362	22.2	N/A
2023	897,573	323,095	22.6	N/A
2024	916,205	327,827	23.0	N/A
2025	934,837	332,560	23.5	N/A
2026	953,469	337,293	23.9	N/A
2029	1,009,365	351,490	25.2	5,990
2031	1,046,628	360,956	26.0	N/A
2037	1,161,038	390,300	28.5	7,012
2042	1,260,741	416,335	29.7	7,045

**Traffic Network Comparison for Horizon Years Evaluated in Conformity Analysis
for Mojave Desert (Eastern Kern)**

Horizon Year	Total Population (thousands)	Employment (thousands)	Average Weekday VMT (millions)	Total Lane Miles
2020	107,569	28,188	3.6	N/A
2023	115,833	30,181	3.7	N/A
2029	132,360	34,168	4.1	N/A
2037	152,827	40,490	4.7	N/A
2042	162,674	46,329	5.1	N/A

**Traffic Network Comparison for Horizon Years Evaluated in Conformity Analysis
for Indian Wells Valley (Kern County Portion)**

Horizon Year	Total Population (thousands)	Employment (thousands)	Average Weekday VMT (millions)	Total Lane Miles
2020	39,654	12,516	<u>0.50</u>	<u>371</u>

2029	<u>41,695</u>	<u>15,841</u>	<u>0.59</u>	<u>381</u>
2037	<u>43,921</u>	<u>18,852</u>	<u>0.71</u>	<u>406</u>
2042	46,085	20,836	<u>0.79</u>	<u>420</u>

**Traffic Network Comparison for Horizon Years Evaluated in Conformity Analysis
for San Joaquin Valley PM-10 (Kern APCD Portion)**

Horizon Year	Total Population (thousands)	Employment (thousands)	Average Weekday VMT (millions)	Total Lane Miles
2020	37,285	5,742	0.8	528
2029	41,656	6,340	0.9	528
2037	46,001	6,741	1.0	540
2042	49,578	6,747	1.1	540

D. VEHICLE REGISTRATIONS

Kern Council of Governments 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. While EPA issued final approval for EMFAC2017 use in conformity demonstrations on August 15, 2019, the Conformity Analysis for 2021 FTIP and 2018 RTP Amendment #1 relies on EMFAC2014 in line with the grace period established in the Final Rule. 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

No committed control measures are included in the 2008 ozone standard conformity demonstration as part of the 2016 Ozone Plan.

PM-10

Committed control measures in the EPA approved 2007 PM-10 Maintenance Plan 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 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 are shown in Table 2-4 and 2-5, respectively. However, reductions from these control measures were not applied to this conformity analysis because they were not needed to demonstrate conformity.

**Table 2-4:
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 2-5:
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 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). In response to recent court decisions regarding the baseline RFP year, ARB adopted the revised 2008 ozone conformity budgets as part of the 2018 Updates to the California State Implementation Plan Update on October 25, 2018. EPA approved the budgets and the plan on March 25, 2019.
- 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 2018 PM2.5 Plan was partially approved by EPA on July 22, 2020 (effective as of publication) inclusive of the revised conformity budgets and trading mechanism for the 2006 24-hr PM2.5 standard.

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 and Table 1-8 for the “upcoming budget test”.

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 was required for conformity analysis on or after December 14, 2017.

On March 1, 2018 ARB released the latest update to the EMFAC model – EMFAC2017v1.0.2. The model was submitted for EPA review in the fall of 2018 and EPA published final approval of EMFAC for conformity use on August 15, 2019. The announcement set a grace period of 2 years before EMFAC2017 is required for use in new regional emissions analyses, therefore this analysis still relies on EMFAC2014 for all conformity tests.

On September 27, 2019, the United States Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA) published the “Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program” (effective November 26, 2019). The Part One Rule revoked California’s authority to set its own greenhouse gas emissions standards, which were incorporated in EMFAC2014 emissions model. On November 20, 2019, California Air Resources Board (CARB) released “EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicles Rule Part One” for use in regional conformity analyses. On March 12, 2020, EPA concurred on the use of CARB’s EMFAC off-model adjustment factors in conformity demonstrations. On April 30, EPA and NHTSA published SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Final SAFE Rule) rolling back federal fuel economy standards. On June 26, 2020 CARB issued a public notice stating that EMFAC adjustments released in November continue to be suitable for conformity purposes. The conformity analysis for the 2021 FTIP and the 2018 RTP Amendment #1 incorporates these emissions modeling adjustments.²

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 as appropriate.

² https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf.

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 NO_x 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. PM_{2.5} APPROACH

EPA and FHWA have indicated that areas violating both the annual and 24-hour standards for PM_{2.5} must address all standards in the conformity determination. The San Joaquin Valley currently violates both the 1997 and 2012 annual PM_{2.5} standards, and the 1997 and 2006 24-hour PM_{2.5} standards; thus the conformity determination includes analyses to all PM_{2.5} standards.

The following PM_{2.5} 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 PM_{2.5} and NO_x 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 PM_{2.5} annual emission estimates. The availability of seasonal or monthly VMT data and the corresponding variability of that data need to be evaluated.

PM_{2.5} 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 PM_{2.5} 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 – If EPA does not approve or find adequate the 1997 PM2.5 budgets in the 2018 PM2.5 Plan, the 2008 PM2.5 Plan budgets will continue to be used. 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. However, if the 2018 PM2.5 Plan conformity budgets are approved or found adequate, the “upcoming budget test” addresses conformity to these budgets.

2006 Standard – On March 27, 2020, EPA proposed approval of portions of the 2018 PM2.5 Plan that pertain to the 2006 24-hour PM2.5 standard, including granting attainment deadline extension to 2024. This portion of the 2018 PM2.5 Plan was finalized on July 22, 2020, effective as of publication. The 2018 PM2.5 Plan contains motor vehicle emission budgets for PM2.5 and NOx established based on average winter daily emissions. The winter inventory methodology contained in the 2018 PM2.5 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 PM_{2.5} nonattainment area boundary for the San Joaquin Valley is exactly the same as the nonattainment area boundary for the 1997 PM_{2.5} standards.

2012 Standard – EPA’s nonattainment area designations for the 2012 PM_{2.5} 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 PM_{2.5} area has adequate or approved SIP budgets that address the annual 1997 standards, it must use the budget test until new 2012 PM_{2.5} standard budgets are found adequate or approved. It is important to note that the 2012 annual PM_{2.5} nonattainment area boundary for the San Joaquin Valley is exactly the same as the nonattainment area boundary for the 1997 and 2006 PM_{2.5} standards. If EPA does not take action on the new 2012 PM_{2.5} budgets in the 2018 PM_{2.5} Plan, the 2008 PM_{2.5} Plan (as revised in 2011) budgets will continue to be used in this conformity analysis. However, if the new conformity budgets are approved or found adequate, the “upcoming budget test” addresses conformity to these budgets.

1997 and 2012 PM_{2.5} TRADING MECHANISM

Consistent with the PM_{2.5} implementation rule, the 2008 PM_{2.5} Plan budgets and trading mechanism will continue to be used in this conformity analysis. The 2008 PM_{2.5} SIP (as revised in 2011) allows trading from the motor vehicle emissions budget for the PM_{2.5} precursor NO_x to the motor vehicle emissions budget for primary PM_{2.5} using a 9 to 1 ratio. This trading mechanism will be used for the 1997 annual and 24-hour hour and 2012 PM_{2.5} standard conformity analyses for analysis years after 2014.

For the “upcoming budget test”, the 2018 PM_{2.5} Plan budgets and trading mechanism will also be used in this conformity analysis. The 2018 PM_{2.5} Plan allows trading from the motor vehicle emissions budget for the PM_{2.5} precursor NO_x to the motor vehicle emissions budget for primary PM_{2.5} using a 6.5 to 1 ratio. This trading mechanism will be used for the 1997 annual and 24-hour hour and 2012 PM_{2.5} standard conformity analyses for analysis years after 2020.

2006 PM_{2.5} TRADING MECHANISM

On July 22, 2020, EPA partially approved the 2018 PM_{2.5} SIP including the 2006 PM_{2.5} standard trading mechanism that allows trading from the motor vehicle emissions budget for the PM_{2.5} precursor NO_x to the motor vehicle emissions budget for primary PM-2.5 using an 2 to 1 ratio. This trading mechanism will be used for the 2006 24-hour PM_{2.5} standard conformity analysis for analysis years after 2020.

D. AIR QUALITY MODELING APPLICABLE TO THE OTHER AREAS OF KERN COUNTY

For Mojave Desert (Eastern Kern), the model used to estimate emissions for ozone precursors is EMFAC2014 using the methodology described above.

For Indian Wells Valley (Kern County Portion), PM-10 on-road exhaust is not significant and not included in the emissions budgets or the conformity estimates. Paved road dust, unpaved road dust, and fugitive dust associated with road construction have been estimated using the methodology described above. However, there is no PM-10 trading mechanism.

For the Conformity Analysis, model inputs not dependent on the TIP or RTP are consistent with the applicable SIPs, which include:

- EPA published a Notice of Adequacy for the 8-hour ozone Early Progress Plans for Eastern Kern County on November 25, 2008 (effective December 10, 2008). In addition, this conformity analysis includes an “upcoming budget test” demonstrating conformity to the Eastern Kern 2017 Ozone Plan transportation conformity budgets, should EPA approve these budgets before federal approval of the 2021 FTIP conformity analysis.
- The PM-10 Attainment demonstration, Maintenance Plan, and Redesignation Request was approved by EPA on May 7, 2003 (effective June 6, 2003).

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 under “Other Portions of Kern County Conformity Analysis Years”.

No air quality modeling is being conducted for the portion of the San Joaquin Valley PM-10 nonattainment area that lies within the Kern County APCD (East Kern PM-10 Area). As discussed in Section 1, this area currently has no PM-10 air quality plan and must use the interim emissions test for PM-10. However, as illustrated in Section 2 and Appendix B, the transportation projects and planning assumptions in the “Action” and “Baseline” scenarios are exactly the same.

E. 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 and updated in September 2020. EPA, FHWA, and ARB concurred.

Documentation of the conformity analysis for the 2021 FTIP and 2018 RTP Amendment #1 is provided in Appendix C, including:

- 2021 FTIP Conformity EMFAC Spreadsheet
- 2021 FTIP Conformity Paved Road Spreadsheet

- 2021 FTIP Conformity Unpaved Road Dust Spreadsheet
- 2021 FTIP Conformity Construction Spreadsheet
- 2021 FTIP Conformity Totals Spreadsheet
- 2021 FTIP Conformity PM10 Trading Spreadsheet
- 2021 FTIP Conformity PM2.5 Trading 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 2016 Ozone Plan does 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

Portions of the 2018 PM2.5 Plan pertaining to 2006 24-hour PM2.5 standards were approved by EPA on July 22, 2020 (effective as of publication). 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.

Other Portions of Kern: No TCMs are included in the air quality plans for the Mojave Desert (Eastern Kern) or Indian Wells Valley (Kern County portion) and there is no air quality plan for the San Joaquin Valley PM-10 nonattainment area that lies within the jurisdiction of the Kern County APCD (East Kern PM-10 Area).

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. 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, Kern Council of Governments 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. Kern Council of Governments 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, Kern Council of Governments considered priority funding allocations in the 2018 RTP for PM-10 and NO_x 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

Kern COG and its member jurisdictions consider both short- and long-term PM-10 emission reductions to be a priority as part of adopted policy. Every two to three years, Kern COG conducts a Congestion Mitigation and Air Quality (CMAQ) “Call for Projects” that includes funding for PM-10 projects by five categories including one for PM mitigating projects listed in measures 1-3 above. Funding levels and goals are set by Kern COG as part of each funding cycle, including a commitment to cost effectiveness. Additional points are given based on the level of emissions reductions and BACM status. Currently, Caltrans has incorporated rubberized asphalt as general policy to meet recycled content requirements on high volume state highway facilities.

In 2003, Caltrans established a goal of using at least 15 percent rubberized asphalt concrete compared to all flexible pavement by weight; Caltrans has exceeded this goal each year. In 2005, AB 338 was passed and requires Caltrans to gradually phase in the use of crumb rubber, which is used to make rubberized-asphalt concrete, on state highway construction and repair projects, to the extent feasible. Kern COG will consider member agency project proposals for use of rubberized asphalt in accordance with adopted program policies including, cost-effectiveness policies.

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 October 14, 2020. Comments received have been addressed and incorporated into this version of the analysis.

The Conformity Analysis for the 2021 FTIP and 2018 RTP Amendment #1 was developed in consultation with Kern Council of Governments local partner agencies, including member jurisdictions, Caltrans, and local transit agencies.

The Conformity Analysis for the 2021 FTIP and 2018 RTP Amendment #1 was released on December 23, 2020 for a 30-day public comment period, followed by adoption on February 18, 2021. Federal approval is anticipated on or before April 30, 2021.

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. Kern Council of Governments 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/NO_x), PM-10 (PM-10/NO_x), and PM2.5 (PM2.5/NO_x) respectively, in tons per day for each of the horizon years tested.

Ozone:

For 2008 and 2015 8-hour ozone, the applicable conformity test is the emissions budget test, using the *2018 Updates to the California State Implementation Plan* budgets for the San Joaquin Valley established for ROG and NO_x for an average summer (ozone) season day. EPA approved the plan and the budgets on March 25, 2019. The modeling results for all analysis years indicate that the on-road vehicle ROG and NO_x 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 NO_x. 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:

If EPA does not take action on the 2018 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. However, if the 2018 PM2.5 Plan conformity budgets are approved or found adequate, the “upcoming budget test” demonstrates conformity to the new 1997 PM2.5 budgets. The TIP/RTP therefore satisfy the conformity emissions test for PM2.5 and nitrogen oxides.

2006 PM2.5 Standard:

On July 22, 2020, EPA approved portions of the 2018 PM2.5 Plan that pertain to the 2006 24-hour PM2.5 standard, including new transportation conformity budgets and trading mechanism. For the 2006 PM2.5 standard, the applicable conformity test is the emission budget test, using approved budgets established in the 2018 PM2.5 Plan. 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. If EPA does not take action on the 2018 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. However, if the 2018 PM2.5 Plan conformity budgets are approved or found adequate, the “upcoming budget test” demonstrates conformity to the new 2012 PM2.5 budgets. 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 2021 FTIP and the 2018 RTP Amendment #1 is supported.

In addition to the San Joaquin Valley planning area, Kern County also includes the federally designated Mojave Desert, portions of the Indian Wells Valley Planning Area, and the portion of the San Joaquin Valley PM-10 nonattainment area that lies within the Kern County Air Pollution Control District (East Kern PM-10 Area).

For the Mojave Desert ozone area, EPA did not yet take final action on the Eastern Kern 2017 Ozone SIP, thus the applicable conformity test for both the 2008 and 2015 ozone standards is the emissions budget test using the 8-hour ozone Early Progress Plans for the California State Implementation Plan and the established budgets for ROG and NO_x for an average summer (ozone) season day. EPA published the notice of adequacy determination in the Federal Register on November 25, 2008, effective December 10, 2008. The modeling results for all analysis years indicate that the on-road vehicle ROG and NO_x emissions predicted for each of the “Build” scenarios are less than the emissions budgets for 2008. However, if the Eastern Kern 2017 Ozone SIP conformity budgets are approved, the “upcoming budget test” demonstrates conformity to the new ozone budgets. The modeling results for all analysis years indicate that the on-road vehicle ROG and NO_x emissions predicted for each of the “Build” scenarios are less than the emissions budgets for 2020. The TIP/RTP therefore satisfy the conformity emissions test for volatile organic compounds and nitrogen oxides.

For Indian Wells Valley PM-10, the applicable conformity test is the emissions budget test, using the PM-10 Attainment demonstration, Maintenance Plan, and Redesignation Request budgets for PM-10 and NO_x. This Plan was approved by EPA on May 7, 2003 (effective June 6, 2003). The modeling results for all analysis years indicate that the PM-10 emissions predicted for the “Build” scenarios are less than the emissions budgets for 2001 and 2013. The TIP/RTP therefore satisfy the conformity emissions tests for PM-10.

For the portion of the SJV PM-10 nonattainment area that is under the jurisdiction of the Kern County APCD, the interim emissions test is satisfied for all years since the transportation projects and planning assumptions in both the “action” and “baseline” scenarios are exactly the same. In accordance with Section 93.119(g)(2), the emission predicted in the “action” scenario are not greater than the emissions predicted in the “Baseline” scenario for such analysis years. The TIP/RTP therefore satisfy the conformity emissions tests for PM-10.

**Table 6-1:
Conformity Results Summary**

2021 FTIP Conformity Analysis Results Summary -- Kern					
Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		ROG (tons/day)	NOx (tons/day)	ROG	NOx
2008 and 2015 Ozone	2020 Budget	5.4	20.9		
	2020	5.3	20.6	YES	YES
	2023 Budget	4.5	14.5		
	2023	4.5	11.9	YES	YES
	2026 Budget	4.2	14.4		
	2026	4.2	11.0	YES	YES
	2029 Budget	4.0	14.3		
	2029	4.0	10.3	YES	YES
	2031 Budget	3.9	14.3		
	2031	3.9	10.0	YES	YES
	2037	3.5	9.7	YES	YES
	2042	3.3	9.5	YES	YES
Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		PM-10 (tons/day)	NOx (tons/day)	PM-10	NOx
PM-10	2020 Budget	7.4	23.3		
	2020	6.9	21.6	YES	YES
	2020 Budget	7.4	23.3		
	2029	5.3	10.7	YES	YES
	Adjusted 2020 Budget	7.5	23.2		
	2037	7.5	10.0	YES	YES
	Adjusted 2020 Budget	7.9	22.6		
	2042	7.9	9.8	YES	YES

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		PM2.5 (tons/day)	NOx (tons/day)	PM2.5	NOx
1997 24-Hour and 1997 & 2012 Annual PM2.5 Standards					
	2014 Budget	1.2	43.8		
	2021	0.7	19.6	YES	YES
	2014 Budget	1.2	43.8		
	2029	0.7	10.7	YES	YES
	2014 Budget	1.2	43.8		
	2037	0.7	10.0	YES	YES
	2014 Budget	1.2	43.8		
	2042	0.8	9.8	YES	YES
2006 PM2.5 Winter 24-Hour Standard					
	2020 Budget	0.8	23.8		
	2020	0.7	22.1	YES	YES
	2023 Budget	0.7	13.6		
	2023	0.7	12.7	YES	YES
	2024 Budget	0.7	13.4		
	2024	0.7	12.3	YES	YES
	2024 Budget	0.7	13.4		
	2031	0.7	10.6	YES	YES
	Adjusted 2024 Budget	0.8	13.2		
	2037	0.8	10.2	YES	YES
	Adjusted 2024 Budget	0.8	13.2		
	2042	0.8	10.0	YES	YES

2021 FTIP Conformity Results Summary -- Kern (Mojave Desert)

Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		ROG (tons/day)	NOx (tons/day)	ROG	NOx
2008 and 2015 Ozone	2008 Budget	5.0	18.0		
	2020	1.0	3.1	YES	YES
	2023	0.8	1.9	YES	YES
	2029	0.7	1.6	YES	YES
	2037	0.6	1.5	YES	YES
	2042	0.6	1.6	YES	YES

UPCOMING BUDGET TEST

(Note: EPA Action is Pending as of This Analysis; The 2008 Ozone Budget Test Above Will be Used if EPA Doesn't Determine Approval of the New Budgets before Federal Approval of the 2021 FTIP Conformity Analysis)

Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		ROG (tons/day)	NOx (tons/day)	ROG	NOx
2008 and 2015 Ozone	2020 Budget	1.3	3.6		
	2020	1.0	3.1	YES	YES
	2023	0.8	1.9	YES	YES
	2029	0.7	1.6	YES	YES
	2037	0.6	1.5	YES	YES
	2042	0.6	1.6	YES	YES

2021 FTIP Conformity Results Summary -- Kern (Indian Wells Valley)

Standard	Analysis Year	Emissions Total	DID YOU PASS?
PM-10		PM-10 (tons/day)	PM-10
	2013 Budget	1.7	
	2020	0.7	YES
	2013 Budget	1.7	
	2029	0.6	YES
	2013 Budget	1.7	
	2037	0.7	YES
	2013 Budget	1.7	
	2042	0.7	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 PM_{2.5} 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.

EPA, 2018(a). *Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements*. Final Rule. U.S. Environmental Protection Agency. Vol. 83, No. 234, December 6, 2018.

EPA, 2018(b). *Transportation Conformity Guidance for the South Coast II Court Decision*. EPA-420-B-12-050. November 2018.

EPA, 2018(c). *Transportation Conformity Guidance for 2015 Ozone NAAQS Nonattainment Areas*. EPA-420-B-18-023. June 2018.

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 DOCUMENTATIONChecklist 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. 12-14	
§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. 16-17, 22	
§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. 17-19	
§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. 17	
§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. 1-2	
§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. 1 p. 21-24 App. B	

40 CFR	Criteria	Page	Comments
§93.108	Document that the TIP/RTP is fiscally constrained (23 CFR 450).	E.S. p. 1-2	
§93.109 (a, b)	Document that the TIP/RTP complies with any applicable conformity requirements of air quality implementation plans (SIPs) and court orders.	Ch. 1, 2, 3, 4, 5, 6 p. 14-21, 35- 37, 39-41, 42, 60-61	
§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 p. 12-27	
§93.109(e)	CO or PM10: Document if the area has a limited maintenance plan and from where that information comes	Ch. 1 p. 16	
§93.109(f)	Document if motor vehicle emissions are an insignificant contributor and in what SIP that determination is found	Ch. 1 p. 20 Ch. 3 p. 44	
§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. 28-37	
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,)	E.S. p. 2 Ch. 2 p. 27	
§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, p. 32-36	
§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 p. 39-46	

40 CFR	Criteria	Page	Comments
§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 p. 58-59	
§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, p. 50-55 App. D	
§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. 1 p. 14-24	
§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. 1 p. 10-25 Ch. 6 p. 56-58	
§93.118 (b)	Document for which years consistency with motor vehicle emissions budgets must be shown.	Ch. 1 p. 21-24	
§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. 1 p. 21-24 Ch. 6 Table 6-1	

40 CFR	Criteria	Page	Comments
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. 1 p. 24-25	
§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 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.	NA	
§93.119 (e)	Document the appropriate baseline year.	Ch. 1 p. 21-24	
§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. 1 p. 26-27 Ch. 3 p. 44-45	
§93.119 (g)	Document the use of the appropriate analysis years in the regional emissions analysis for areas without applicable SIP budgets.	NA	
§93.119 (h, i)	Document how the baseline and action scenarios are defined for each analysis year.	Ch. 1 p.21-25	
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 p.28-39, App. B	
§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	Ch. 4 p. 52-55	

40 CFR	Criteria	Page	Comments
	of these programs and the associated emissions credit for each analysis year (a)(3).		
§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). Document the method(s) used to estimate VMT on off-network roadways in the analysis (a)(7).	NA	
§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 p. 30-37	
§93.122 (b)(1)(ii) ⁱⁱ	Document the land use, population, employment, and other network-based travel model assumptions.	Ch. 2 p. 28-31	
§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 p. 28-37	
§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 p. 31	
§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 p. 31-33	
§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 p. 31-33	
§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 p. 30-32	
§93.122 (b)(3) ⁱⁱ	Document the use of HPMS, or a locally developed count-based program or procedures that have been	Ch. 2 p. 31, 35-37	

40 CFR	Criteria	Page	Comments
	chosen through the consultation process, to reconcile and calibrate the network-based travel model estimates of VMT.		
§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 p. 35	
§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 p. 40-44	
§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:	NA	
	(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	NA	
	(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;	NA	
	(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;	NA	
	(g)(1)(iv): the previous regional emissions analysis meets 93.118 or 93.119 as applicable	NA	
§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 p. 33 App B	

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

TRANSPORTATION PROJECT LISTING

--	--	--	--	--	--	--	--	--

								Year number of lanes modeled (each direction)															
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprvmnt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	20	21	22	23	24	25	26	29	31	37	42				
1	Bakersfield																						
2	Bakersfield	SJV	7th STANDARD RD	SANTA FE	ZERKER RD				2	2	2	2	2	2	2	2	2	2	2				
3	Bakersfield	SJV	7th STANDARD RD	JEWETTA	VERDUGO				2	2	2	2	2	2	2	2	2	2	2				
4	Bakersfield	SJV	7th STANDARD RD	VERDUGO	CALLOWAY				2	2	2	2	2	2	2	2	2	2	2				
5	Bakersfield	SJV	AIRPORT	STATE RD	SR99				3	3	3	3	3	3	3	3	3	3	3				
6	Bakersfield	SJV	ALFRED HARRELL	MT VERNON	CHINA GRADE LOOP				2	2	2	2	2	2	2	2	2	2	2				
7	Bakersfield	SJV	ALFRED HARRELL	CHINA GRADE LOOP	FAIRFAX				2	2	2	2	2	2	2	2	3	3	3				
8	Bakersfield	SJV	ALFRED HARRELL	FAIRFAX	WEST END HARTPARK	Add Lanes	Local		2	2	2	2	2	2	2	2	2	2	2				
9	Bakersfield	SJV	ALFRED HARRELL	WEST END HARTPARK	LAKE MING	Add Lanes	Local		1	1	1	1	1	1	1	1	2	2	2				
10	Bakersfield	SJV	ALFRED HARRELL	LAKE MING	PALADINO	Add Lanes	Local		1	1	1	1	1	1	1	1	2	2	2				
11	Bakersfield	SJV	ALFRED HARRELL	PALADINO	SR178	Add Lanes	Local		1	1	1	1	1	1	1	1	2	2	2				
12	Bakersfield	SJV	ALLEN	SR58	BRIMHALL	Add Lanes	Local		3	3	3	3	3	3	3	3	3	3	3				
13	Bakersfield	SJV	ALLEN	BRIMHALL	WESTSIDE PARKWAY				3	3	3	3	3	3	3	3	3	3	3				
14	Bakersfield	SJV	ALLEN	WESTSIDE PARKWAY	STOCKDALE				3	3	3	3	3	3	3	3	3	3	3				
15	Bakersfield	SJV	ALLEN	STOCKDALE	MING AVE				3	3	3	3	3	3	3	3	3	3	3				
16	Bakersfield	SJV	ALLEN	MING AVE	WHITE LN				1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3	3	3				
17	Bakersfield	SJV	ALLEN	WHITE LN	CAMPUS PARK				1	1	1	1	1	1	1	1	2	2	2				
18	Bakersfield	SJV	ALLEN	CAMPUS PARK	PANAMA LN				0	1	1	1	1	1	1	1	2	2	2				
19	Bakersfield	SJV	ALLEN	PANAMA LN	SR 119				0	1	1	1	1	1	1	1	1	1	1				
20	Bakersfield	SJV	ASHE RD	PANAMA LN	SR 119				2	2	2	2	2	2	2	2	2	2	2				
21	Bakersfield	SJV	BRIMHALL RD	Rudd Road	RENFRO RD				2	2	2	2	2	2	2	2	2	2	2				
22	Bakersfield	SJV	BRIMHALL RD	RENFRO RD	ALLEN				2	2	2	2	2	2	2	2	2	2	2				
23	Bakersfield	SJV	BUENA VISTA RD	WHITE LN	HARRIS RD				2	2	2	2	2	2	2	2	2	2	2				
24	Bakersfield	SJV	BUENA VISTA RD	HARRIS RD	PANAMA LN				2	2	2	2	2	2	2	2	2	2	2				
25	Bakersfield	SJV	BUENA VISTA RD	PANAMA LN	SR 119				2	2	2	2	2	2	2	2	2	2	2				
26	Bakersfield	SJV	BUENA VISTA RD	SR 119	CURNOW RD				1	1	1	1	1	1	1	1	2	2	2				
27	Bakersfield	SJV	CALLOWAY	ETCHART	SNOW	Add Lanes	Local		1	1	1	1	1	1	1	1	2	2	2				
28	Bakersfield	SJV	CALLOWAY	SNOW	NORRIS				2	2	2	2	2	3	3	3	3	3	3				
29	Bakersfield	SJV	CALLOWAY	NORRIS	OLIVE				3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2				
30	Bakersfield	SJV	CALLOWAY	OLIVE	NORIEGA				3	3	3	3	3	3	3	3	3	3	3				
31	Bakersfield	SJV	CALLOWAY	NORIEGA	HAGEMAN				3	3	3	3	3	3	3	3	3	3	3				
32	Bakersfield	SJV	CALLOWAY	HAGEMAN	MEACHAM				3	3	3	3	3	3	3	3	3	3	3				
33	Bakersfield	SJV	CALLOWAY	MEACHAM	SR58				3	3	3	3	3	3	3	3	3	3	3				
34	Bakersfield	SJV	CALLOWAY	BRIMHALL	WESTSIDE PARKWAY				3	3	3	3	3	3	3	3	3	3	3				
35	Bakersfield	SJV	CALLOWAY	WESTSIDE PARKWAY	STOCKDALE				3	3	3	3	3	3	3	3	3	3	3				
36	Bakersfield	SJV	CALIFORNIA	STOCKDALE	MOHAWK				3	3	3	3	3	3	3	3	3	3	3				
37	Bakersfield	SJV	CALIFORNIA	MOHAWK	REAL				3	3	3	3	3	3	3	3	3	3	3				
38	Bakersfield	SJV	CALIFORNIA	REAL	SR99				3	3	3	3	3	3	3	3	3	3	3				
39	Bakersfield	SJV	CALIFORNIA	SR99	OAK				3	3	3	3	3	3	3	3	3	3	3				
40	Bakersfield	SJV	CALIFORNIA	OAK	A ST				3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3	3				

[illegible]

[illegible]

[illegible]

Appendix B - Highway Project Listing on Regionally Significant Route Segments and Year Number of Lanes Modeled																				
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprmnt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	Year number of lanes modeled (each direction)											
									20	21	22	23	24	25	26	29	31	37	42	
201	Bakersfield	SJV	SO.CHESTER	PLANZ RD	WILSON				2	2	2	2	2	2	2	2	2	2	2	2
202	Bakersfield	SJV	SO.CHESTER	MING	BELLE TERRACE				2	2	2	2	2	2	2	2	2	2	2	2
203	Bakersfield	SJV	SO.CHESTER	BELLE TERRACE	SR58				2	2	2	2	2	2	2	2	2	2	2	2
204	Bakersfield	SJV	SO.CHESTER	SR58	BRUNDAGE				2	2	2	2	2	2	2	2	2	2	2	2
205	Bakersfield	SJV	SO.CHESTER	BRUNDAGE	4TH ST				2	2	2	2	2	2	2	2	2	2	2	2
206	Bakersfield	SJV	SO.CHESTER	4TH ST	CALIFORNIA				2	2	2	2	2	2	2	2	2	2	2	2
207	Bakersfield	SJV	SO.CHESTER	CALIFORNIA	TRUXTUN				2	2	2	2	2	2	2	2	2	2	2	2
208	Bakersfield	SJV	SO.CHESTER	TRUXTUN	18TH ST				2	2	2	2	2	2	2	2	2	2	2	2
209	Bakersfield	SJV	SO.CHESTER	18TH ST	21ST ST				2	2	2	2	2	2	2	2	2	2	2	2
210	Bakersfield	SJV	SO.CHESTER	21ST ST	SR178				2	2	2	2	2	2	2	2	2	2	2	2
211	Bakersfield	SJV	SO. H ST	ARVIN-EDSION CANAL	HOSKING				2	2	2	2	2	2	2	2	2	2	2	2
212	Bakersfield	SJV	SO. H ST	HOSKING	SR119				1	1	1	1	1	1	1	2	2	2	2	2
213	Bakersfield	SJV	STINE RD	WILSON	PLANZ RD				3	3	3	3	3	3	3	3	3	3	3	3
214	Bakersfield	SJV	STINE RD	PLANZ RD	WHITE LN				3	3	3	3	3	3	3	3	3	3	3	3
215	Bakersfield	SJV	STINE RD	WHITE LN	DISTRICT				3	3	3	3	3	3	3	3	3	3	3	3
216	Bakersfield	SJV	STINE RD	DISTRICT	PACHECO				3	3	3	3	3	3	3	3	3	3	3	3
217	Bakersfield	SJV	STINE RD	PACHECO	HARRIS				3	3	3	3	3	3	3	3	3	3	3	3
218	Bakersfield	SJV	STINE RD	HARRIS	PANAMA LN				3	3	3	3	3	3	3	3	3	3	3	3
219	Bakersfield	SJV	STINE RD	PANAMA LN	BERKSHIRE				2	2	2	2	2	2	2	2	2	2	2	2
220	Bakersfield	SJV	STINE RD	BERKSHIRE	HOSKING				2	2	2	2	2	2	2	2	2	2	2	2
221	Bakersfield	SJV	STINE RD	HOSKING	MC KEE				2	2	2	2	2	2	2	2	2	2	2	2
222	Bakersfield	SJV	STINE RD	MC KEE	SR119				2	2	2	2	2	2	2	2	2	2	2	2
223	Bakersfield	SJV	STOCKDALE	SR 43	NORD				1	1	1	1	1	1	1	1	2	2	2	2
224	Bakersfield	SJV	STOCKDALE	NORD	WEGIS	New Freeway	KER08RTP020	\$698,000,000	2	2	2	2	2	2	2	2	2	3	3	3
225	Bakersfield	SJV	STOCKDALE	WEGIS	HEATH	New Freeway	KER08RTP020	\$698,000,000	2	2	2	2	2	2	2	2	2	3	3	3
226	Bakersfield	SJV	STOCKDALE	HEATH	CLAUDIA AUTUMN DR	New Freeway	KER08RTP020	\$698,000,000	2	2	2	2	2	2	2	2	2	2	2	2
227	Bakersfield	SJV	STOCKDALE	CLAUDIA AUTUMN DR	RENFRO	New Freeway	KER08RTP020	\$698,000,000	2	2	2	2	2	2	2	2	2	2	2	2
228	Bakersfield	SJV	STOCKDALE	RENFRO	ALLEN				3	3	3	3	3	3	3	3	3	3	3	3
229	Bakersfield	SJV	STOCKDALE	ALLEN	JEWETTA				3	3	3	3	3	3	3	3	3	3	3	3
230	Bakersfield	SJV	STOCKDALE	JEWETTA	BUENA VISTA BLVD				3	3	3	3	3	3	3	3	3	3	3	3
231	Bakersfield	SJV	STOCKDALE	BUENA VISTA	CALLOWAY				3	3	3	3	3	3	3	3	3	3	3	3
232	Bakersfield	SJV	STOCKDALE	CALLOWAY	COFFEE				3	3	3	3	3	3	3	3	3	3	3	3
233	Bakersfield	SJV	STOCKDALE	COFFEE	ASHE				3	3	3	3	3	3	3	3	3	3	3	3
234	Bakersfield	SJV	STOCKDALE	ASHE	CALIFORNIA				3	3	3	3	3	3	3	3	3	3	3	3
235	Bakersfield	SJV	STOCKDALE	CALIFORNIA	MONTCLAIR				3	3	3	3	3	3	3	3	3	3	3	3
236	Bakersfield	SJV	STOCKDALE	MONTCLAIR	STINE RD				3	3	3	3	3	3	3	3	3	3	3	3
237	Bakersfield	SJV	STOCKDALE	STINE	REAL				3	3	3	3	3	3	3	3	3	3	3	3
238	Bakersfield	SJV	STOCKDALE	REAL	SR99				3	3	3	3	3	3	3	3	3	3	3	3
239	Bakersfield	SJV	STOCKDALE	SR99	OAK				3	3	3	3	3	3	3	3	3	3	3	3
240	Bakersfield	SJV	TRUXTUN AVE	OAK	BEECH	Add Lanes	Local		2	2	2	2	2	2	2	2	2	3	3	3

Appendix B - Highway Project Listing on Regionally Significant Route Segments and Year Number of Lanes Modeled																					
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprvmnt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	Year number of lanes modeled (each direction)												
									20	21	22	23	24	25	26	29	31	37	42		
241	Bakersfield	SJV	TRUXTUN AVE	BEECH	PINE ST	Add Lanes	Local		2	2	2	2	2	2	2	2	2	2	2	3	3
242	Bakersfield	SJV	TRUXTUN AVE	PINE	B ST	Add Lanes	Local		2	2	2	2	2	2	2	2	2	2	2	3	3
243	Bakersfield	SJV	TRUXTUN AVE	B ST	F ST	Add Lanes	Local		2	2	2	2	2	2	2	2	2	2	2	3	3
244	Bakersfield	SJV	TRUXTUN AVE	F ST	H ST	Add Lanes	Local		2	2	2	2	2	2	2	2	2	2	2	3	3
245	Bakersfield	SJV	TRUXTUN AVE	H ST	CHESTER				3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3	3
246	Bakersfield	SJV	TRUXTUN AVE	CHESTER	M ST				3	3	3	3	3	3	3	3	3	3	3	3	3
247	Bakersfield	SJV	TRUXTUN AVE	M ST	N ST				3	3	3	3	3	3	3	3	3	3	3	3	3
248	Bakersfield	SJV	TRUXTUN AVE	N ST	Q ST				3	3	3	3	3	3	3	3	3	3	3	3	3
249	Bakersfield	SJV	TRUXTUN AVE	Q ST	UNION				3	3	3	3	3	3	3	3	3	3	3	3	3
250	Bakersfield	SJV	UNION	MANOR	COLUMBUS				3	3	3	3	3	3	3	3	3	3	3	3	3
251	Bakersfield	SJV	UNION	COLUMBUS	34TH ST				3	3	3	3	3	3	3	3	3	3	3	3	3
252	Bakersfield	SJV	UNION	34TH ST	30TH ST				3	3	3	3	3	3	3	3	3	3	3	3	3
253	Bakersfield	SJV	UNION	30TH ST	NILES				3	3	3	3	3	3	3	3	3	3	3	3	3
254	Bakersfield	SJV	UNION	NILES	MONTEREY				3	3	3	3	3	3	3	3	3	3	3	3	3
255	Bakersfield	SJV	UNION	MONTEREY	KENTUCKY				3	3	3	3	3	3	3	3	3	3	3	3	3
256	Bakersfield	SJV	UNION	KENTUCKY	SR204				3	3	3	3	3	3	3	3	3	3	3	3	3
257	Bakersfield	SJV	UNION	SR204	21ST ST				3	3	3	3	3	3	3	3	3	3	3	3	3
258	Bakersfield	SJV	UNION	21ST ST	18TH ST				3	3	3	3	3	3	3	3	3	3	3	3	3
259	Bakersfield	SJV	UNION	18TH ST	TRUXTUN				3	3	3	3	3	3	3	3	3	3	3	3	3
260	Bakersfield	SJV	UNION	TRUXTUN	CALIFORNIA				3	3	3	3	3	3	3	3	3	3	3	3	3
261	Bakersfield	SJV	UNION	CALIFORNIA	4TH ST				3	3	3	3	3	3	3	3	3	3	3	3	3
262	Bakersfield	SJV	UNION	4TH ST	BRUNDAGE				3	3	3	3	3	3	3	3	3	3	3	3	3
263	Bakersfield	SJV	UNION	BRUNDAGE	SR58				3	3	3	3	3	3	3	3	3	3	3	3	3
264	Bakersfield	SJV	UNION	SR58	BELLE TERRACE	Add Lanes	Local		3	3	3	3	3	3	3	3	3	3	3	3	3
265	Bakersfield	SJV	UNION	MING	WILSON	Add Lanes	Local		2	2	2	2	2	3	3	3	3	3	3	3	3
266	Bakersfield	SJV	UNION	WILSON	PLANZ	Add Lanes	Local		2	2	2	2	2	3	3	3	3	3	3	3	3
267	Bakersfield	SJV	UNION	PLANZ	CHESTER	Add Lanes	Local		2	2	2	2	2	3	3	3	3	3	3	3	3
268	Bakersfield	SJV	UNION	CHESTER	WHITE LN	Add Lanes	Local		2	2	2	2	2	3	3	3	3	3	3	3	3
269	Bakersfield	SJV	UNION	PACHECO	FAIRVIEW RD	Add Lanes	Local		2	2	2	2	2	2	2	2	2	3	3	3	3
270	Bakersfield	SJV	UNION	FAIRVIEW RD	PANAMA LN	Add Lanes	Local		2	2	2	2	2	2	2	2	2	3	3	3	3
271	Bakersfield	SJV	UNION	PANAMA LN	BERKSHIRE	Add Lanes	Local		2	2	2	2	2	2	2	2	2	3	3	3	3
272	Bakersfield	SJV	UNION	BERKSHIRE	HOSKING	Add Lanes	Local		2	2	2	2	2	2	2	2	2	3	3	3	3
273	Bakersfield	SJV	VINELAND RD	PALADINO DR	SR 178				2	2	2	2	2	2	2	2	2	2	2	2	2
274	Bakersfield	SJV	VINELAND RD	SR 178	SR 184/Kern Canyon Road				2	2	2	2	2	2	2	2	2	2	2	2	2
275	Bakersfield	SJV	WHITE LN/Muller Road	COTTONWOOD RD	OSWELL				0	0	0	0	0	0	0	0	0	2	2	2	2
276	Bakersfield	SJV	WHITE LN	BUENA VISTA	MOUNTAIN VISTA				3	3	3	3	3	3	3	3	3	3	3	3	3
277	Bakersfield	SJV	WHITE LN	MOUNTAIN VISTA	OLD RIVER RD				3	3	3	3	3	3	3	3	3	3	3	3	3
278	Bakersfield	SJV	WHITE LN	OLD RIVER RD	PARK VIEW				3	3	3	3	3	3	3	3	3	3	3	3	3
279	Bakersfield	SJV	WHITE LN	PARK VIEW	PIN OAK PARK				3	3	3	3	3	3	3	3	3	3	3	3	3
280	Bakersfield	SJV	WHITE LN	PIN OAK PARK	GOSFORD				3	3	3	3	3	3	3	3	3	3	3	3	3

Appendix B - Highway Project Listing on Regionally Significant Route Segments and Year Number of Lanes Modeled																				
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprvmnt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	Year number of lanes modeled (each direction)											
									20	21	22	23	24	25	26	29	31	37	42	
314	Caltrans	SJV	I-5	SR223	SR119		06-45680		2	2	2	2	2	2	2	2	2	2	2	2
315	Caltrans	SJV	I-5	SR119	SR43		06-45680		2	2	2	2	2	2	2	2	2	2	2	2
316	Caltrans	SJV	I-5	SR43	STOCKDALE		06-45680		2	2	2	2	2	2	2	2	2	2	2	2
317	Caltrans	SJV	I-5	STOCKDALE	SR58		06-45680		2	2	2	2	2	2	2	2	2	2	2	2
318	Caltrans	SJV	I-5	SR58	7TH STANDARD		06-45680		2	2	2	2	2	2	2	2	2	2	2	2
319	Caltrans	SJV	I-5	7TH STANDARD	ROWLEE		06-45680		2	2	2	2	2	2	2	2	2	2	2	2
320	Caltrans	SJV	I-5	ROWLEE	LERDO HWY		06-45680		2	2	2	2	2	2	2	2	2	2	2	2
321	Caltrans	SJV	I-5	LERDO HWY	SR46		06-45680		2	2	2	2	2	2	2	2	2	2	2	2
322	Caltrans	SJV	I-5	SR46	TWISSELMAN				2	2	2	2	2	2	2	2	2	2	2	2
323	Caltrans	SJV	I-5	TWISSELMAN	COUNTY LINE				2	2	2	2	2	2	2	2	2	2	2	2
324	Caltrans	IWV	SR14	SR395	POOLE				2								2		2	2
325	Caltrans D9	IWV	SR14	POOLE	INYOKERN				2								2		2	2
326	Caltrans D9	IWV	SR14	INYOKERN	SR178	Add Lanes	KER08RTP006	\$42,000,000	2								2		2	2
327	Caltrans D9	IWV	SR14	SR178	6 mile s of 178	Add Lanes	KER08RTP017	\$42,000,000	1								2		2	2
328	Caltrans D9	IWV	SR14	6 mile s of 178	REDROCK RANDSBURG	Add Lanes	KER08RTP024	\$32,000,000	1								1		1	2
329	Caltrans D9	MD	SR14	REDROCK RANDSBURG	JAWBONE CANYON				2								2		2	2
330	Caltrans D9	MD	SR14	JAWBONE CANYON	CALIFORNIA CITY				2								2		2	2
331	Caltrans D9	MD	SR14	CALIFORNIA CITY	SR58BYPASS				2								2		2	2
332	Caltrans D9	MD	SR14	SR58BYPASS	DEAVER				2								2		2	2
333	Caltrans D9	MD	SR14	DEAVER	SR58				2								2		2	2
334	Caltrans D9	MD	SR14	ALTUS	SR58				2								2		2	2
335	Caltrans D9	MD	SR14	CAMELOT	ALTUS				2								2		2	2
336	Caltrans D9	MD	SR14	PURDY	CAMELOT				2								2		2	2
337	Caltrans D9	MD	SR14	SILVER QUEEN	PURDY				2								2		2	2
338	Caltrans D9	MD	SR14	BACKUS	SILVER QUEEN				2								2		2	2
339	Caltrans D9	MD	SR14	DAWN	BACKUS				2								2		2	2
340	Caltrans D9	MD	SR14	ROSAMOND	DAWN				2								2		2	2
341	Caltrans D9	MD	SR14	A AVE	ROSAMOND				2								2		2	2
342	Caltrans	SJV	SR119	SR33	GARDENER FIELD				1	1	1	1	1	1	1	1	1	1	1	1
343	Caltrans	SJV	SR119	GARDENER FIELD	2ND ST				1	1	1	1	1	1	1	1	1	1	1	1
344	Caltrans	SJV	SR119	2ND ST	ASH				1	1	1	1	1	1	1	1	1	1	1	1
345	Caltrans	SJV	SR119	ASH	HARRISON				1	1	1	1	1	1	1	1	1	1	1	1
346	Caltrans	SJV	SR119	HARRISON	MIDWAY				1	1	1	1	1	1	1	1	1	1	1	1
347	Caltrans	SJV	SR119	MIDWAY	ELK HILLS				1	1	1	1	1	1	1	1	1	1	1	1
348	Caltrans	SJV	SR119	ELK HILLS	CHERRY AVE	Add Lanes			1	1	1	1	1	1	1	1	1	1	2	2
349	Caltrans	SJV	SR119	CHERRY AVE	TUPMAN	Add Lanes	KER08RTP022	\$115,000,000	1	1	1	1	1	1	1	1	1	2	2	2
350	Caltrans	SJV	SR119	TUPMAN	SR43				1	1	1	1	1	1	1	1	1	1	1	1
351	Caltrans	SJV	SR119	SR43	I-5				1	1	1	1	1	1	1	1	1	1	1	1
352	Caltrans	SJV	SR119	I-5	NORD	Add Lanes	KER08RTP099	\$31,000,000	1	1	1	1	1	1	1	1	1	1	1	2
353	Caltrans	SJV	SR119	NORD	HEATH	Add Lanes	KER08RTP099	\$31,000,000	1	1	1	1	1	1	1	1	1	1	1	2

[illegible]

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

Appendix B - Highway Project Listing on Regionally Significant Route Segments and Year Number of Lanes Modeled																				
								Year number of lanes modeled (each direction)												
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprmnt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	20	21	22	23	24	25	26	29	31	37	42	
395	Caltrans	SJV	SR178	CHESTER	M ST	Add Lanes	KER08RTP014	\$55,000,000	4	4	4	4	4	4	4	4	4	4	4	
396	Caltrans	SJV	SR178		M ST		SR204		3	3	3	3	3	3	3	3	3	3	3	
397	Caltrans	SJV	SR178	SR204	ALTA VISTA	Add Lanes	KER08RTP026	\$140,500,000	3	3	3	3	3	3	3	3	4	4	4	
398	Caltrans	SJV	SR178		ALTA VISTA	Add Lanes	KER08RTP026	\$140,500,000	3	3	3	3	3	3	3	3	4	4	4	
399	Caltrans	SJV	SR178		BEALE	Add Lanes	KER08RTP026	\$140,500,000	3	3	3	3	3	3	3	3	4	4	4	
400	Caltrans	SJV	SR178		HALEY	Add Lanes	KER08RTP026	\$140,500,000	3	3	3	3	3	3	3	3	4	4	4	
401	Caltrans	SJV	SR178		MT VERNON	Add Lanes	KER08RTP026	\$140,500,000	3	3	3	3	3	3	3	3	4	4	4	
402	Caltrans	SJV	SR178		OSWELL		FAIRFAX		3	3	3	3	3	3	3	3	3	3	3	
403	Caltrans	SJV	SR178		FAIRFAX		MORNING DR	KER08RTP111	\$58,800,000	2	2	2	2	2	2	2	2	3	3	
404	Caltrans	SJV	SR178		MORNING DR	Add Lanes	KER08RTP111	\$58,800,000	2	2	2	2	2	2	2	2	2	3	3	
405	Caltrans	SJV	SR178		VINELAND	Add Lanes	KER08RTP025	\$119,000,000	2	2	2	2	2	2	2	2	2	3	3	
406	Caltrans	SJV	SR178		SR184	Add Lanes	KER08RTP025	\$119,000,000	3	3	3	3	3	3	3	3	3	3	3	
407	Caltrans	SJV	SR178		MASTERSON Street	Add Lanes	KER08RTP025	\$119,000,000	2	2	2	2	2	2	2	2	2	3	3	
408	Caltrans	SJV	SR178		COMANCHE	Add Lanes	KER08RTP025	\$119,000,000	2	2	2	2	2	2	2	2	2	3	3	
409	Caltrans	SJV	SR178		MIRAMONTE		RANCHERIA RD	KER08RTP084		1	1	1	1	1	1	1	1	2	2	
410	Caltrans	SJV/MD	SR178		RANCHERIA RD		SR155		1	1	1	1	1	1	1	1	1	1	1	
411	Caltrans	MD	SR178		SR155		LAKE ISABELLA BLVD		1							1		1	1	
412	Caltrans	MD	SR178		LAKE ISABELLA BLVD		SIERRA WY		1							1		1	1	
413	Caltrans	MD	SR178		SIERRA WY		KELSO VALLEY		1							1		1	1	
414	Caltrans D9	MD/IWV	SR178		KELSO VALLEY		SR14		1							1		1	1	
415	Caltrans D9	IWV	SR178		SR14		SR395		1							1		1	1	
416	Caltrans D9	IWV	SR178		SR395		JACKS RANCH		2							2		2	2	
417	Caltrans D9	IWV	SR178		JACKS RANCH		BRADY		2							2		2	2	
418	Caltrans D9	IWV	SR178		BRADY		MAHAN		2							2		2	2	
419	Caltrans D9	IWV	SR178		MAHAN		DOWNS		2							2		2	2	
420	Caltrans D9	IWV	SR178		DOWNS		NORMA		2							2		2	2	
421	Caltrans D9	IWV	SR178		NORMA		CHINA LAKE		2							2		2	2	
422	Caltrans D9	IWV	SR178		INYOKERN		WARD		2							2		2	2	
423	Caltrans D9	IWV	SR178		WARD		DRUMMOND		2							2		2	2	
424	Caltrans D9	IWV	SR178		DRUMMOND		LAS FLORES		2							2		2	2	
425	Caltrans D9	IWV	SR178		LAS FLORES		RIDGECREST BLVD		2							2		2	2	
426	Caltrans D9	IWV	SR178		CHINA LAKE		GATEWAY		2							2		2	2	
427	Caltrans D9	IWV	SR178		GATEWAY		RICHMOND		2							2		2	2	
428	Caltrans D9	IWV	SR178		RICHMOND		COUNTY LINE		1							1		1	1	
429	Caltrans	SJV	SR184		MESA MARIN DR	Add Lanes	SR178	KER08RTP101	1	1	1	1	1	1	1	2	2	2	2	
430	Caltrans	SJV	SR184		VINELAND	Add Lanes	MESA MARIN DR	KER08RTP101	1	1	1	1	1	1	1	2	2	2	2	
431	Caltrans	SJV	SR184		MONICA ST	Add Lanes	VINELAND	KER08RTP101	1	1	1	1	1	1	1	2	2	2	2	

[illegible]

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

Appendix B - Highway Project Listing on Regionally Significant Route Segments and Year Number of Lanes Modeled																				
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprvmnt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	Year number of lanes modeled (each direction)											
									20	21	22	23	24	25	26	29	31	37	42	
472	Caltrans	SJV	SR223	I-5	OLD RIVER RD				1	1	1	1	1	1	1	1	1	1	1	1
473	Caltrans	SJV	SR223	OLD RIVER RD	WIBLE RD				1	1	1	1	1	1	1	1	1	1	1	1
474	Caltrans	SJV	SR223	WIBLE RD	SR99				1	1	1	1	1	1	1	1	1	1	1	1
475	Caltrans	SJV	SR223	SR99	UNION		06-44390		1	1	1	1	1	1	1	1	1	1	1	1
476	Caltrans	SJV	SR223	UNION	FAIRFAX		06-44390		1	1	1	1	1	1	1	1	1	1	1	1
477	Caltrans	SJV	SR223	FAIRFAX	SR184		06-44390		1	1	1	1	1	1	1	1	1	1	1	1
478	Caltrans	SJV	SR223	SR184	VINELAND		06-44390		1	1	1	1	1	1	1	1	1	1	1	1
479	Caltrans	SJV	SR223	VINELAND	EDISON		06-44390		1	1	1	1	1	1	1	1	1	1	1	1
480	Caltrans	SJV	SR223	EDISON	MALAGA		06-44390		1	1	1	1	1	1	1	1	1	1	1	1
481	Caltrans	SJV	SR223	MALAGA	COMANCHE		06-44390		1	1	1	1	1	1	1	1	1	1	1	1
482	Caltrans	SJV	SR223	COMANCHE	CAMPUS				2	2	2	2	2	2	2	2	2	2	2	2
483	Caltrans	SJV	SR223	CAMPUS	TEJON				2	2	2	2	2	2	2	2	2	2	2	2
484	Caltrans	SJV	SR223	TEJON	TOWER LINE				1	1	1	1	1	1	1	1	1	1	1	1
485	Caltrans	SJV	SR223	TOWER LINE	GENERAL BEALE				1	1	1	1	1	1	1	1	1	1	1	1
486	Caltrans	SJV	SR223	GENERAL BEALE	SR58				1	1	1	1	1	1	1	1	1	1	1	1
487	Caltrans	SJV	SR33	BARKER	TWISSELMAN				1	1	1	1	1	1	1	1	1	1	1	1
488	Caltrans	SJV	SR33	TWISSELMAN	SR46				1	1	1	1	1	1	1	1	1	1	1	1
489	Caltrans	SJV	SR33	SR46	LERDO HWY				1	1	1	1	1	1	1	1	1	1	1	1
490	Caltrans	SJV	SR33	LERDO HWY	LOST HILLS				1	1	1	1	1	1	1	1	1	1	1	1
491	Caltrans	SJV	SR33	LOST HILLS	LOKERN				1	1	1	1	1	1	1	1	1	1	1	1
492	Caltrans	SJV	SR33	LOKERN	SR58				1	1	1	1	1	1	1	1	1	1	1	1
493	Caltrans	SJV	SR33	SR58	SR58				1	1	1	1	1	1	1	1	1	1	1	1
494	Caltrans	SJV	SR33	SR58	BILL KIRBY				1	1	1	1	1	1	1	1	1	1	1	1
495	Caltrans	SJV	SR33	BILL KIRBY	MIDWAY				1	1	1	1	1	1	1	1	1	1	1	1
496	Caltrans	SJV	SR33	MIDWAY	ASH				1	1	1	1	1	1	1	1	1	1	1	1
497	Caltrans	SJV	SR33	ASH	HILLARD				1	1	1	1	1	1	1	1	1	1	1	1
498	Caltrans	SJV	SR33	HILLARD	10TH ST				2	2	2	2	2	2	2	2	2	2	2	2
499	Caltrans	SJV	SR33	10TH ST	6TH ST				2	2	2	2	2	2	2	2	2	2	2	2
500	Caltrans	SJV	SR33	6TH ST	1ST ST				2	2	2	2	2	2	2	2	2	2	2	2
501	Caltrans	SJV	SR33	1ST ST	MAIN ST				1	1	1	1	1	1	1	1	1	1	1	1
502	Caltrans	SJV	SR33	MAIN ST	SR119				1	1	1	1	1	1	1	1	1	1	1	1
503	Caltrans	SJV	SR33	SR119	WOOD				1	1	1	1	1	1	1	1	1	1	1	1
504	Caltrans	SJV	SR33	WOOD	CADET				1	1	1	1	1	1	1	1	1	1	1	1
505	Caltrans	SJV	SR33	CADET	BUSH				1	1	1	1	1	1	1	1	1	1	1	1
506	Caltrans	SJV	SR33	BUSH	SR166				1	1	1	1	1	1	1	1	1	1	1	1
507	Caltrans	SJV	SR33	SR166	CERRO NOROESTE				1	1	1	1	1	1	1	1	1	1	1	1
508	Caltrans	SJV	SR33	CERRO NOROESTE	COUNTY LINE				1	1	1	1	1	1	1	1	1	1	1	1
509	Caltrans D9	IWV	SR395	COUNTY LINE	SR14				2								2		2	2
510	Caltrans D9	IWV	SR395	SR14	INYOKERN				1										2	2
511	Caltrans D9	IWV	SR395	INYOKERN	BOWMAN RD	Passing Lane	KER08RTP089	\$20,000,000	1								1		1	1

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

Appendix B - Highway Project Listing on Regionally Significant Route Segments and Year Number of Lanes Modeled																				
									Year number of lanes modeled (each direction)											
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprvmnt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	20	21	22	23	24	25	26	29	31	37	42	
512	Caltrans D9	IWV	SR395	BOWMAN RD	CHINA LAKE	Passing Lane	KER08RTP089	\$20,000,000	1							1		1	1	
513	Caltrans D9	IWV	SR395	CHINA LAKE	SEARLES				1							1		2	2	
514	Caltrans D9	MD	SR395	SEARLES	GARLOCK				1							1		2	2	
515	Caltrans D9	MD	SR395	GARLOCK	JOBERG				1							1		2	2	
516	Caltrans D9	MD	SR395	JOBERG	COUNTY LINE				1							1		2	2	
517	Caltrans	SJV	SR43	COUNTY LINE	CECIL AVE				1	1	1	1	1	1	1	1	1	1	1	
518	Caltrans	SJV	SR43	CECIL AVE	SR155				1	1	1	1	1	1	1	1	1	1	1	
519	Caltrans	SJV	SR43	SR155	POND				1	1	1	1	1	1	1	1	1	1	1	
520	Caltrans	SJV	SR43	POND	SHERWOOD				1	1	1	1	1	1	1	1	1	1	1	
521	Caltrans	SJV	SR43	SHERWOOD	SR46				1	1	1	1	1	1	1	1	1	1	1	
522	Caltrans	SJV	SR43	SR46	5TH ST				1	1	1	1	1	1	1	1	1	1	1	
523	Caltrans	SJV	SR43	5TH ST	6TH ST				1	1	1	1	1	1	1	1	1	1	1	
524	Caltrans	SJV	SR43	6TH ST	7TH ST				1	1	1	1	1	1	1	1	1	1	1	
525	Caltrans	SJV	SR43	7TH ST	POSO DR				1	1	1	1	1	1	1	1	1	1	1	
526	Caltrans	SJV	SR43	POSO DR	FILBURN				2	2	2	2	2	2	2	2	2	2	2	
527	Caltrans	SJV	SR43	FILBURN	JACKSON				2	2	2	2	2	2	2	2	2	2	2	
528	Caltrans	SJV	SR43	JACKSON	KIMBERLINA RD				2	2	2	2	2	2	2	2	2	2	2	
529	Caltrans	SJV	SR43	KIMBERLINA	POPLAR				2	2	2	2	2	2	2	2	2	2	2	
530	Caltrans	SJV	SR43	POPLAR	SHAFTER				2	2	2	2	2	2	2	2	2	2	2	
531	Caltrans	SJV	SR43	SHAFTER	CENTRAL				2	2	2	2	2	2	2	2	2	2	2	
532	Caltrans	SJV	SR43	CENTRAL	LERDO HWY				2	2	2	2	2	2	2	2	2	2	2	
533	Caltrans	SJV	SR43	LERDO HWY	LOS ANGELES	Local			1	1	1	1	1	1	1	1	1	1	1	
534	Caltrans	SJV	SR43	LOS ANGELES	7TH STANDARD	Local			1	1	1	1	1	1	1	1	1	1	1	
535	Caltrans	SJV	SR43	7TH STANDARD	BAKER				1	1	1	1	1	1	1	1	1	1	1	
536	Caltrans	SJV	SR43	BAKER	SNOW				1	1	1	1	1	1	1	1	1	1	1	
537	Caltrans	SJV	SR43	SNOW	KRATZMEYER				1	1	1	1	1	1	1	1	1	1	1	
538	Caltrans	SJV	SR43	KRATZMEYER	REINA				1	1	1	1	1	1	1	1	1	1	1	
539	Caltrans	SJV	SR43	REINA	HAGEMAN				1	1	1	1	1	1	1	1	1	1	1	
540	Caltrans	SJV	SR43	HAGEMAN	SR58				1	1	1	1	1	1	1	1	1	1	1	
541	Caltrans	SJV	SR43	SR58	PALM				1	1	1	1	1	1	1	1	1	1	1	
542	Caltrans	SJV	SR43	PALM	BRIMHALL				1	1	1	1	1	1	1	1	1	1	1	
543	Caltrans	SJV	SR43	BRIMHALL	STOCKDALE				1	1	1	1	1	1	1	1	1	1	1	
544	Caltrans	SJV	SR43	STOCKDALE	PANAMA LN				1	1	1	1	1	1	1	1	1	1	1	
545	Caltrans	SJV	SR43	PANAMA LN	I-5				1	1	1	1	1	1	1	1	1	1	1	
546	Caltrans	SJV	SR43	I-5	SR119				1	1	1	1	1	1	1	1	1	1	1	
547	Caltrans	SJV	SR46	COUNTY LINE	KECKS	Add Lanes	KER08RTP003	\$232,000,000	2	2	2	2	2	2	2	2	2	2	2	
548	Caltrans	SJV	SR46	KECKS	BITTERWATER VALLEY	Add Lanes	KER08RTP003	\$232,000,000	2	2	2	2	2	2	2	2	2	2	2	
549	Caltrans	SJV	SR46	BITTERWATER VALLEY	SR33	Add Lanes	KER08RTP003	\$232,000,000	2	2	2	2	2	2	2	2	2	2	2	
550	Caltrans	SJV	SR46	SR33	Beginning of Segment 4B	Add Lanes	KER08RTP003	\$232,000,000	1	1	1	1	1	1	1	1	1	1	1	
551	Caltrans	SJV	SR46	Beginning of Segment 4B	LOST HILLS RD	Add Lanes	KER08RTP018	\$40,000,000	1	2	2	2	2	2	2	2	2	2	2	

Appendix B - Highway Project Listing on Regionally Significant Route Segments and Year Number of Lanes Modeled																					
								Year number of lanes modeled (each direction)													
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprvmnt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	20	21	22	23	24	25	26	29	31	37	42		
552	Caltrans	SJV	SR46	LOST HILLS RD	I-5	Add Lanes	KER14RTP001	\$27,000,000	2	2	2	2	2	2	2	2	2	2	2		
553	Caltrans	SJV	SR46	I-5	CORCORAN				1	1	1	1	1	1	1	1	1	1	1		
554	Caltrans	SJV	SR46	CORCORAN	ROWLEE				1	1	1	1	1	1	1	1	1	1	1		
555	Caltrans	SJV	SR46	ROWLEE	WILDWOOD				1	1	1	1	1	1	1	1	1	1	1		
556	Caltrans	SJV	SR46	WILDWOOD	SCOFIELD				1	1	1	1	1	1	1	1	1	1	1		
557	Caltrans	SJV	SR46	SCOFIELD	LEONARD				1	1	1	1	1	1	1	1	1	1	1		
558	Caltrans	SJV	SR46	LEONARD	WESTERN				1	1	1	1	1	1	1	1	1	1	1		
559	Caltrans	SJV	SR46	WESTERN	MAGNOLIA				1	1	1	1	1	1	1	1	1	1	1		
560	Caltrans	SJV	SR46	MAGNOLIA	CENTRAL				1	1	1	1	1	1	1	1	1	1	1		
561	Caltrans	SJV	SR46	CENTRAL	PALM				1	1	1	1	1	1	1	1	1	1	1		
562	Caltrans	SJV	SR46	PALM	GRIFFITH				1	1	1	1	1	1	1	1	1	1	1		
563	Caltrans	SJV	SR46	GRIFFITH	F ST				1	1	1	1	1	1	1	1	1	1	1		
564	Caltrans	SJV	SR46	F ST	SR43				1	1	1	1	1	1	1	1	1	1	1		
565	Caltrans	SJV	SR46	SR43	ROOT				1	1	1	1	1	1	1	1	1	1	1		
566	Caltrans	SJV	SR46	ROOT	SR99				1	1	1	1	1	1	1	1	1	1	1		
567	Caltrans	SJV	SR58	COUNTY LINE	SR33				1	1	1	1	1	1	1	1	1	1	1		
568	Caltrans	SJV	SR58	SR33	LOKERN				1	1	1	1	1	1	1	1	1	1	1		
569	Caltrans	SJV	SR58	LOKERN	BUTTONWILLOW				1	1	1	1	1	1	1	1	1	1	1		
570	Caltrans	SJV	SR58	BUTTONWILLOW	MEADOW ST				2	2	2	2	2	2	2	2	2	2	2		
571	Caltrans	SJV	SR58	MEADOW ST	I-5				1	1	1	1	1	1	1	1	1	1	1		
572	Caltrans	SJV	SR58	I-5	BRANDT				1	1	1	1	1	1	1	1	1	1	1		
573	Caltrans	SJV	SR58	BRANDT	SR43				1	1	1	1	1	1	1	1	1	1	1		
574	Caltrans	SJV	SR58	SR43	CHERRY		KER08RTP092		1	1	1	1	1	1	1	2	2	2	2		
575	Caltrans	SJV	SR58	CHERRY	SUPERIOR		KER08RTP092		1	1	1	1	1	1	1	2	2	2	2		
576	Caltrans	SJV	SR58	SUPERIOR	GREELEY		KER08RTP092		1	1	1	1	1	1	1	2	2	2	2		
577	Caltrans	SJV	SR58	GREELEY	DRIVER		KER08RTP092		1	1	1	1	1	1	1	2	2	2	2		
578	Caltrans	SJV	SR58	DRIVER	NORD		KER08RTP092		1	1	1	1	1	1	1	2	2	2	2		
579	Caltrans	SJV	SR58	NORD	WEGIS		KER08RTP092		1	1	1	1	1	1	1	2	2	2	2		
580	Caltrans	SJV	SR58	WEGIS	HEATH		KER08RTP092		1	1	1	1	1	1	1	2	2	2	2		
581	Caltrans	SJV	SR58	HEATH	RENFRO		KER08RTP092		1	1	1	1	1	1	1	2	2	3	3		
582	Caltrans	SJV	SR58	RENFRO	JENKINS		KER08RTP092		1	1	1	1	1	1	1	2	2	3	3		
583	Caltrans	SJV	SR58	JENKINS	ALLEN		KER08RTP092		1	1	1	1	1	1	1	2	2	3	3		
584	Caltrans	SJV	SR58	ALLEN	OLD FARM	Add Lanes	KER08RTP090	\$8,800,000	3	3	3	3	3	3	3	3	3	3	3		
585	Caltrans	SJV	SR58	OLD FARM	JEWETTA	Add Lanes	KER08RTP090	\$8,800,000	3	3	3	3	3	3	3	3	3	3	3		
586	Caltrans	SJV	SR58	JEWETTA	VERDUGO	Add Lanes	KER08RTP090	\$8,800,000	3	3	3	3	3	3	3	3	3	3	3		
587	Caltrans	SJV	SR58	VERDUGO	CALLOWAY	Add Lanes	KER08RTP090	\$8,800,000	3	3	3	3	3	3	3	3	3	3	3		
588	Caltrans	SJV	SR58	CALLOWAY	MAIN PLAZA	Add Lanes	KER08RTP007	\$29,000,000	3	3	3	3	3	3	3	3	3	3	3		
589	Caltrans	SJV	SR58	MAIN PLAZA	COFFEE		KER08RTP007	\$29,000,000	3	3	3	3	3	3	3	3	3	3	3		
590	Caltrans	SJV	SR58	COFFEE	PATTON		KER08RTP007	\$29,000,000	3	3	3	3	3	3	3	3	3	3	3		
591	Caltrans	SJV	SR58	PATTON	WEAR	Add Lanes	KER08RTP007	\$29,000,000	3	3	3	3	3	3	3	3	3	3	3		

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

Appendix B - Highway Project Listing on Regionally Significant Route Segments and Year Number of Lanes Modeled																				
									Year number of lanes modeled (each direction)											
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprvmnt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	20	21	22	23	24	25	26	29	31	37	42	
592	Caltrans	SJV	SR58	WEAR	FRUITVALE	Add Lanes	KER08RTP007	\$29,000,000	3	3	3	3	3	3	3	3	3	3	3	
593	Caltrans	SJV	SR58	FRUITVALE	MOHAWK	Add Lanes	KER08RTP007	\$29,000,000	3	3	3	3	3	3	3	3	3	3	3	
594	Caltrans	SJV	SR58	MOHAWK	LANDCO	Add Lanes	KER08RTP118 KER08RTP007	\$27,000,000 \$29,000,000	3	3	3	3	3	3	3	3	3	3	3	
595	Caltrans	SJV	SR58	LANDCO	GIBSON	Add Lanes	KER08RTP007	\$29,000,000	3	3	3	3	3	3	3	3	3	3	3	
596	Caltrans	SJV	SR58	GIBSON	SR99	Add Lanes	KER08RTP007	\$29,000,000	3	3	3	3	3	3	3	3	3	3	3	
597	Caltrans	SJV	SR58	REAL	SR99				0	0	0	0	0	0	0	0	0	0	0	
598	Caltrans	SJV	SR58	SR99	H STREET		KER08RTP019	\$31,000,000	2-5	var.	var.	2-5	var.	2-5	var.	var.	var.	3-6	3-6	
598A	Caltrans	SJV	SR58 (GAP CLOSURE)-EB	SR 99 OFF-RAMP	SR 99 ON-RAMP		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	2	2	2	2	2	2	2	3	3	3	3	
598B	Caltrans	SJV	SR58 (GAP CLOSURE)-EB	SR 99 ON-RAMP	H STREET OFF-RAMP		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	5	5	5	5	5	5	5	6	6	6	6	
598C	Caltrans	SJV	SR58 (GAP CLOSURE)-WB	H ON-RAMP	SR 99 NB		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	4	4	4	4	4	4	4	5	5	5	5	
598D	Caltrans	SJV	SR58 (GAP CLOSURE)-WB	SR 99 NB	SR 99 SB		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	3	3	3	3	3	3	3	4	4	4	4	
598E	Caltrans	SJV	SR58 (GAP CLOSURE)-WB	SR 99 SB	SR 99 ON-RAMP NB		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	2	2	2	2	2	2	2	3	3	3	3	
599	Caltrans	SJV	SR58	H STREET	CHESTER		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	3	3	3	3	3	3	3	4	4	4	4	
599A	Caltrans	SJV	SR58 (GAP CLOSURE)-EB	H STREET OFF RAMP	CHESTER ON-RAMP		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	3	3	3	3	3	3	3	4	4	4	4	
599B	Caltrans	SJV	SR58 (GAP CLOSURE)-WB	CHESTER OFF-RAMP	H STREET ON-RAMP		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	3	3	3	3	3	3	3	4	4	4	4	
600	Caltrans	SJV	SR58	CHESTER	UNION		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	4	4	4	4	4	4	4	5	5	5	5	
600A	Caltrans	SJV	SR58 (GAP CLOSURE)-EB	CHESTER ON-RAMP	UNION OFF-RAMP		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	4	4	4	4	4	4	4	5	5	5	5	
600B	Caltrans	SJV	SR58 (GAP CLOSURE)-WB	UNION ON-RAMP	CHESTER OFF-RAMP		KER08RTP019 KER08RTP020	\$31,000,000 \$47,400,000	4	4	4	4	4	4	4	5	5	5	5	
601	Caltrans	SJV	SR58	UNION	COTTONWOOD	Add Lanes	KER08RTP019 KER08RTP093	\$50,000,000 \$47,400,000	3	3	3	3	3	3	3	4	4	4	4	
602	Caltrans	SJV	SR58	COTTONWOOD	MT VERNON		KER08RTP093	\$47,400,000	3	3	3	3	3	3	3	4	4	4	4	
603	Caltrans	SJV	SR58	MT VERNON	OSWELL		KER08RTP093	\$47,400,000	3	3	3	3	3	3	3	4	4	4	4	
604	Caltrans	SJV	SR58	OSWELL	FAIRFAX		KER08RTP093	\$47,400,000	3	3	3	3	3	3	3	4	4	4	4	
605	Caltrans	SJV	SR58	FAIRFAX	SR184				3	3	3	3	3	3	3	3	3	3	3	
606	Caltrans	SJV	SR58	SR184	EDISON				2	2	2	2	2	2	2	2	2	2	2	
607	Caltrans	SJV	SR58	EDISON	COMANCHE				2	2	2	2	2	2	2	2	2	2	2	
608	Caltrans	SJV	SR58	COMANCHE	TOWER LINE				2	2	2	2	2	2	2	2	2	2	2	
609	Caltrans	SJV	SR58	TOWER LINE	GENERAL BEALE				2	2	2	2	2	2	2	2	2	2	2	
610	Caltrans D9	SJV	SR58	GENERAL BEALE	BEND RD	Truck Lanes			2	2	2	2	2	2	2	2	2	2	2	
611	Caltrans D9	SJV	SR58	BEND RD	BEALVILLE	Truck Lanes			2	2	2	2	2	2	2	2	2	2	2	
612	Caltrans D9	SJV	SR58	BEALVILLE	BROOM RD				2	2	2	2	2	2	2	2	2	2	2	
613	Caltrans D9	MD	SR58	BROOM RD	SR 202				2							2		2	2	
614	Caltrans D9	MD	SR58	SR202	MILL				2							2		2	2	

[illegible]

[illegible]

Appendix B - Highway Project Listing on Regionally Significant Route Segments and Year Number of Lanes Modeled																					
								Year number of lanes modeled (each direction)													
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprvmnt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	20	21	22	23	24	25	26	29	31	37	42		
696	Kern County	SJV	ALLEN	HAGEMAN	MEACHAM	Add Lanes	Local		2	2	2	2	2	2	2	2	2	2	2		
697	Kern County	SJV	ALLEN	MEACHAM	SR58	Add Lanes	Local		2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2	2	2		
698	Kern County	SJV	ASHE RD	SR 119	REMERO RD				1	1	1	1	1	1	1	1	1	2	2		
699	Kern County	SJV	BRECKENRIDGE RD	SR 184/Morning Drive	VINELAND RD				1	1	1	1	1	1	1	1	1	2	2		
700	Kern County	SJV	BRECKENRIDGE RD	VINELAND RD	Edison /Masterson				1	1	1	1	1	1	1	1	1	1	1		
701	Kern County	SJV	BRECKENRIDGE RD	Edison /Masterson	BEAUJOLIAS				1	1	1	1	1	1	1	1	1	1	1		
702	Kern County	SJV	BRECKENRIDGE RD	BEAUJOLIAS	COMANCHE DR				1	1	1	1	1	1	1	1	1	1	1		
703	Kern County	SJV	CALLOWAY	7TH STANDARD	ETCHART	Add Lanes	Local		1	1	1	1	1	1	1	1	2/1	2	2		
704	Kern County	SJV	CALLOWAY	SR58	GREENACRES DR	Add Lanes	Local		2	2	2	2	2	2	2/3	2/3	2/3	2/3	2/3		
705	Kern County	SJV	CALLOWAY	GREENACRES DR	HOLLAND ST	Add lane	Local	\$920, 402	2	2	2	2	2	2	2/3	2/3	2/3	2/3	2/3		
706	Kern County	SJV	CALLOWAY	HOLLAND ST	SLIKKER				2	2	2	2	2	2	2	2	2	2	2		
707	Kern County	SJV	CALLOWAY	SLIKKER	BRIMHALL	Add Lanes	Local		2	2	2	2	2	2	2	2	2	2	2		
708	Kern County	SJV	CALIFORNIA	WASHINGTON	MT VERNON				2	2	2	2	2	2	2	2	2	2	2		
709	Kern County	SJV	CALIFORNIA	MT VERNON	EDISON				2	2	2	2	2	2	2	2	2	2	2		
710	Kern County	SJV	CHASE AVE	Masterson Street	COMANCHE DR				0	0	0	0	0	0	0	0	1	1	1		
711	Kern County	SJV	CHINA GRADE	CHESTER	MANOR				2	2	2	2	2	2	2	2	2	2	2		
712	Kern County	SJV	CHINA GRADE	MANOR	MONTE CRISTO	Add Lanes	Local		1	1	1	1	1	1	1	1	2	2	2		
713	Kern County	SJV	CHINA GRADE	MONTE CRISTO	CHINA GRADE LOOP/ROUND M	Add Lanes	Local		1	1	1	1	1	1	1	1	2	2	2		
714	Kern County	SJV	CHINA GRADE	CHINA GRADE LOOP/ROUND	ALFRED HARRELL	Add Lanes	Local		1	1	1	1	1	1	1	1	2	2	2		
715	Kern County	IWV	CHINA LAKE BL	SPRINGER	MAHAN				1									1	1		
716	Kern County	IWV	CHINA LAKE BL	MAHAN	SR395				1									1	1		
717	Kern County	SJV	COFFEE	SNOW	NORRIS	Add Lanes	Local		1	1	1	1	1	1	1	1	2	2	2		
718	Kern County	SJV	COMANCHE DR	Alfred Harrell Highway	SR 58				1	1	1	1	1	1	1	1	2	2	2		
719	Kern County	SJV	COMANCHE DR	SR 58	MULLER				1	1	1	1	1	1	1	1	2	2	2		
720	Kern County	SJV	EDISON RD	SR 178	BRECKENRIDGE RD				0	0	0	0	0	0	0	0	1	2	2		
721	Kern County	SJV	EDISON RD	BRECKENRIDGE RD	Edison Highway				0	0	0	0	0	0	0	0	1	1	1		
722	Kern County	SJV	FAIRFAX RD	SR 58	REDBANK RD				1	1	1	1	1	1	1	1	2	2	2		
723	Kern County	SJV	FRUITVALE AVE	SNOW	NORRIS				1	1	1	1	1	1	1	1	2	2	2		
724	Kern County	SJV	FRUITVALE AVE	HAGEMAN RD	SR 58/Rosedale Highway				1	1	1	1	1	1	1	1	2	2	2		
725	Kern County	SJV	GILMORE	FRUITVALE AVE	LANDCO				0	0	0	0	0	0	0	0	1	1	1		
726	Kern County	SJV	GOSFORD	SR119	CURNOW				1	1	1	1	1	1	1	1	1	1	1		
727	Kern County	SJV	HAGEMAN	NORD RD	WEGIS AVE				1	1	1	1	1	1	1	1	2	2	2		
728	Kern County	SJV	HAGEMAN	WEGIS AVE	HEATH RD				1	1	1	1	1	1	1	1	2	2	2		
729	Kern County	SJV	HAGEMAN	HEATH RD	RUDD				1	1	1	1	1	1	1	1	2	2	2		
730	Kern County	SJV	HAGEMAN	RUDD	RENFRO				1	1	1	1	1	1	1	1	1	1	1		
731	Kern County	SJV	HAGEMAN	RENFRO	JENKINS				1	1	1	1	1	1	1	1	2	2	2		
732	Kern County	SJV	HAGEMAN	JENKINS	SANTA FE				2	2	2	2	2	2	2	2	2	3/2	3/2		
733	Kern County	SJV	HAGEMAN	SANTA FE	ALLEN				3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2	3/2		
734	Kern County	SJV	HEATH RD	HAGEMAN RD	SR 58/Rosedale Highway				1	1	1	1	1	1	1	1	2	2	2		
735	Kern County	SJV	HEATH RD	SR 58/Rosedale Highway	Stockdale Highway				1	1	1	1	1	1	1	1	2	2	2		

Kern Council of Governments *Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

[illegible]

[illegible]

Appendix B - Highway Project Listing on Regionally Significant Route Segments and Year Number of Lanes Modeled																				
SORT KEY	AGENCY	AIR BASIN	STREET	BEGIN	END	Type of Imprvmt.	RTP PROJECT ID/Other ID	COST (RTP, Other)	Year number of lanes modeled (each direction)											
									20	21	22	23	24	25	26	29	31	37	42	
816	Kern County	MD	TEHACHAPI WILLOW SPR	HIGHLINE	DENNISON				1								1		1	1
817	Kern County	MD	TEHACHAPI WILLOW SPR	ABAJO	HIGHLINE				1								1		1	1
818	Kern County	SJV	UNION	BELLE TERRACE	MING	Add Lanes	Local		2	2	2	2	2	2	2	2	2	2	2	2
819	Kern County	SJV	UNION	WHITE LN	PACHECO	Add Lanes	Local		2	2	2	2	2	2	2	2	2	3	3	3
820	Kern County	SJV	UNION	HOSKING	MC KEE	Add Lanes	Local		2	2	2	2	2	2	2	2	2	3	3	3
821	Kern County	SJV	UNION	MC KEE	SR119	Add Lanes	Local		2	2	2	2	2	2	2	2	2	3	3	3
822	Kern County	SJV	VERDUGO LN	MEACHAM	ROSEDALE HIGHTWAY				1	1	1	1	1	1	1	1	1	1	1	1
823	Kern County	SJV	VINELAND RD	SR 58	EDISON HIGHWAY				1	1	1	1	1	1	1	1	1	1	2	2
824	Kern County	SJV	VINELAND RD	EDISON HIGHWAY	Eucalyptus Drive				1	1	1	1	1	1	1	1	1	1	2	2
825	Kern County	SJV	VINELAND RD	Eucalyptus Drive	PIONEER DR				1	1	1	1	1	1	1	1	1	1	2	2
826	Kern County	SJV	VINELAND RD	PIONEER DR	SR 184/Morning Drive				0	0	0	0	0	0	0	0	0	0	1	1
827	Kern County	SJV	WHITE LN(MULLER RD)	OSWELL	FAIRFAX				0	0	0	0	0	0	0	0	0	1	1	1
828	California City																			
829	California City	MD	CAL CITY BL	SR14	RAILROAD				1								1		1	1
830	California City	MD	CAL CITY BL	RAILROAD	BARON BLVD				1								1		1	1
831	California City	MD	CAL CITY BL	BARON BLVD	NEURALIA				2								2		2	2
832	California City	MD	CAL CITY BL	NEURALIA	HACIENDA				2								2		2	2
833	California City	MD	CAL CITY BL	RANDBURG MOJAVE	HACIENDA				2								2		2	2
834	California City	MD	CAL CITY BL	REDWOOD	RANDBURG MOJAVE				2								2		2	2
835	California City	MD	CAL CITY BL	CARSON	REDWOOD				1								1		1	1
836	Ridgecrest																			
837	Ridgecrest	IWV	CHINA LAKE BL	RIDGECREST BLVD	UPJOHN				2								2		2	2
838	Ridgecrest	IWV	CHINA LAKE BL	UPJOHN	BOWMAN RD				2								2		2	2
839	Ridgecrest	IWV	CHINA LAKE BL	BOWMAN RD	COLLEGE HEIGHTS				2								2		2	2
840	Ridgecrest	IWV	CHINA LAKE BL	COLLEGE HEIGHTS	DOLPHIN				1								1		1	1
841	Ridgecrest	IWV	CHINA LAKE BL	DOLPHIN	DOWNS				1								1		1	1
842	Ridgecrest	IWV	CHINA LAKE BL	DOWNS	SPRINGER				1								1		1	1
843	Shafter																			
844	Shafter	SJV	LERDO HWY	POPLAR	SHAFTER				1								1		1	1
845	Shafter	SJV	LERDO HWY	SHAFTER	SR43				1								1		1	1
846	Shafter	SJV	LERDO HWY	SR43	MANNEL				2								2		2	2
847	Shafter	SJV	LERDO HWY	MANNEL	BEECH				2								2		2	2
848	Shafter	SJV	LERDO HWY	BEECH	CHERRY				2								2		2	2
849	Shafter	SJV	LERDO HWY	CHERRY	ZACHARY				2								2		2	2
850	Shafter	SJV	LERDO HWY	ZACHARY	ZERKER				2								2		2	2
851	Shafter	SJV	LERDO HWY	ZERKER	SR99				2								2		2	2

Transportation Project Listing - Exempt Projects

Jurisdiction/ Agency	TIP Project ID	CTIPS ID (If available)	Description	Est. Cost	Exempt Code (per CTIPS)	Air Basins
Arvin	KER161010	20400000840	VARSIY ROAD PEDESTRIAN AND BICYCLE PROJECT	\$833,000	3.02	San Joaquin
Arvin	KER200809	20400000910	IN ARVIN: PURCHASE OF THREE REPLACEMENT BATTERY ELECTRIC BUSES AND INSTALL THREE CHARGING STATIONS	\$3,431,896	2.10	San Joaquin
Bakersfield	KER161011	20400000841	DOWNTOWN BICYCLE CONNECTIVITY PROJECT	\$1,367,000	3.02	San Joaquin
Bakersfield	KER180505	20400000860	IN BAKERSFIELD: STOCKDALE HWY AT SR 43/ENOS LN; CONSTRUCT ROUNDABOUT	\$3,300,000	5.01	San Joaquin
Bakersfield	KER180506	20400000861	BAKERSFIELD: MING AVE AT STINE RD; CONSTRUCT LEFT TURN LANES	\$300,000	5.01	San Joaquin
Bakersfield	KER191004	20400000900	BAKERSFIELD: BOUNDED BY 7TH STANDARD RD, KERN RIVER PARKWAY AND APPROX 6 MILES FRIANT-KERN CANAL; CONSTRUCT CLASS I MULTI-USE PATH	\$8,200,000	3.02	San Joaquin
Cal. City	KER200502	20400000917	IN CALIFORNIA CITY: MENDIBURU RD FROM HACIENDA BLVD TO NEURALIA RD; SURFACE UNPAVED STREET	\$1,978,278	1.10	Mojave Desert
Caltrans	KER210201	20400000928	GROUPED PROJECTS FOR BRIDGE REHABILITATION AND RECONSTRUCTION - SHOPP PROGRAM	\$7,845,000	1.19	Various
Caltrans	KER210202	20400000929	GROUPED PROJECTS FOR SAFETY IMPROVEMENTS - SHOPP COLLISION REDUCTION PROGRAM	\$35,715,000	1.09	Various
Caltrans	KER210203	20400000930	GROUPED PROJECTS FOR SAFETY IMPROVEMENTS - SHOPP MANDATES PROGRAM	\$15,348,000	1.02	Various
Caltrans	KER210204	20400000931	GROUPED PROJECTS FOR SAFETY IMPROVEMENTS - SHOPP MOBILITY PROGRAM	\$3,700,000	1.02	Various
Caltrans	KER210205	20400000932	GROUPED PROJECTS FOR PAVEMENT RESURFACING AND/OR REHABILITATION - SHOPP ROADWAY PRESERVATION PROGRAM	\$306,361,000	1.10	Various
Caltrans	KER210207	20400000934	GROUPED PROJECTS FOR SAFETY IMPROVEMENTS, SHOULDER IMPROVEMENTS, PAVEMENT RESURFACING AND/OR REHABILITATION - MINOR PROGRAM	\$13,501,972	1.10	Various
Delano	KER161004	20400000834	DELANO ATP3 SRTS: SIDEWALK GAP CLOSURE	\$609,000	3.02	San Joaquin

Transportation Project Listing - Exempt Projects

Jurisdiction/ Agency	TIP Project ID	CTIPS ID (If available)	Description	Est. Cost	Exempt Code (per CTIPS)	Air Basins
Delano	KER161005	20400000835	DELANO ATP3 SRTS: INTERSECTION ENHANCEMENT AND EDUCATION PROJECT	\$669,000	3.02	San Joaquin
Delano	KER200803	20400000904	IN DELANO: OPERATING ASSISTANCE	\$2,136,210	2.01	San Joaquin
Delano	KER200804	20400000905	IN DELANO: PURCHASE OF THREE REPLACEMENT DAR (GAS) MINIVANS	\$200,000	2.10	San Joaquin
GET	KER160504	20400000813	IN BAKERSFIELD: PURCHASE TWO REPLACEMENT 40' ELECTRIC BUSES	\$1,500,000	2.10	San Joaquin
GET	KER180503	20400000858	METRO BAKERSFIELD PROGRAM FOR FREE TRANSIT FARE TRIPS DURING UNHEALTHY AIR QUALITY DAYS	\$681,658	2.01	San Joaquin
GET	KER190804	20400000893	BAKERSFIELD: LONG RANGE IT PLAN, SECURITY EQUIPMENT AND CAMERAS FOR TRANSIT CENTERS FY 2018-19	\$246,580	2.04	San Joaquin
GET	KER190805	20400000894	BAKERSFIELD: DOWNTOWN TRANSIT CENTER FY 2018-19	\$190,388	5.06	San Joaquin
GET	KER190806	20400000895	BAKERSFIELD: SOUTHWEST TRANSIT CENTER FY 2018-19	\$190,388	5.06	San Joaquin
GET	KER200805	20400000906	IN BAKERSFIELD: LONG RANGE IT PLAN, SECURITY EQUIPMENT AND CAMERAS FOR TRANSIT CENTERS FY 2019-20	\$172,250	2.04	San Joaquin
GET	KER200806	20400000907	IN BAKERSFIELD: PURCHASE OF 21 REPLACEMENT CNG BUSES FY 2020-21	\$11,865,000	2.10	San Joaquin
GET	KER200807	20400000908	IN BAKERSFIELD: PURCHASE OF FOUR REPLACEMENT HYDROGEN BUSES FY 2020-21	\$5,200,000	2.10	San Joaquin
GET	KER200808	20400000909	IN BAKERSFIELD: PREVENTIVE MAINTENANCE FY 2020-21	\$7,500,000	2.01	San Joaquin
GET	KER200812	20400000935	IN BAKERSFIELD: PURCHASE OF 18 CNG GAL BUSES TO EXPAND RYDE PROGRAM FOR FY 2020-21	\$2,011,865	2.01	San Joaquin
KCOG	KER200401	20400000911	IN KERN COUNTY: REGIONAL TRAFFIC COUNT PROGRAM	\$180,000	4.01	Various

Transportation Project Listing - Exempt Projects

Jurisdiction/ Agency	TIP Project ID	CTIPS ID (If available)	Description	Est. Cost	Exempt Code (per CTIPS)	Air Basins
KCOG	KER200501	20400000916	IN KERN COUNTY: COMMUTEKERN RIDESHARE PROGRAM	\$489,948	3.01	Various
KCOG	KER210101	20400000927	PLANNING, PROGRAMMING AND MONITORING	\$1,500,000	4.01	Various
Kern Co.	KER161001	20400000802	IN KERN COUNTY: KERN RIVER PARKWAY; CONSTRUCT BIKE TRAIL WESTERN EXTENSION PHASE I	\$4,499,000	3.02	San Joaquin
Kern Co.	KER161006	20400000836	BORON/DESERT LAKE PEDESTRIAN PATH	\$2,319,000	3.02	Mojave Desert
Kern Co.	KER161007	20400000837	REXLAND ACRES COMMUNITY SIDEWALK PROJECT	\$6,376,000	3.02	San Joaquin
Kern Co.	KER161008	20400000838	ROSAMOND BOULEVARD PEDESTRIAN PATH PROJECT	\$997,000	3.02	Mojave Desert
Kern Co.	KER171001	20400000847	VIRGINIA STREET PEDESTRIAN PATH PROJECT	\$2,456,000	3.02	San Joaquin
Kern Co.	KER180502	20400000857	KERN REGION: BAKERSFIELD AND SANTA CLARITA VIA FRAZIER PARK; PROVIDE COMMUTER BUS SERVICE	\$320,000	2.01	San Joaquin
Kern Co.	KER180509	20400000864	ROSAMOND: HOLIDAY AVE BETWEEN 65TH ST W AND 60TH ST W; SURFACE UNPAVED ROAD	\$1,162,700	1.10	Mojave Desert
Kern Co.	KER180510	20400000865	DELANO: CHRISTINA ST BETWEEN MATHEWS AVE TO CECIL AVE; SURFACE UNPAVED ROAD	\$1,808,800	1.10	San Joaquin
Kern Co.	KER180511	20400000866	DELANO: MATHEWS AVE BETWEEN TIMMONS AVE TO METTLER AVE (.75 MILES); SURFACE UNPAVED ROAD	\$2,201,400	1.10	San Joaquin
Kern Co.	KER180513	20400000868	LAMONT: WILSON RD APPROX. 250 FT; SURFACE UNPAVED ROAD; HOPE AVE & TATUM ST APPROX. 1,000 FT; SURFACE UNPAVED SHOULDERS	\$1,126,200	1.10	San Joaquin
Kern Co.	KER180514	20400000869	DELANO: BRUTTON ST BETWEEN MATHEWS AVE TO CECIL AVE; SURFACE UNPAVED ROAD	\$1,561,800	1.10	San Joaquin
Kern Co.	KER191002	20400000898	IN BAKERSFIELD: SOUTH CHESTER AVE, MING AVE TO SANDRA DR; PEDESTRIAN SAFETY, ACCESSIBILITY, CROSSING IMPROVEMENTS	\$2,257,000	3.02	San Joaquin
Kern Co.	KER191003	20400000899	IN LAKE ISABELLA: WALK ISABELLA - LAKE ISABELLA BLVD AND ERSKINE CREEK RD: PEDESTRIAN AND CYCLIST SAFETY AND ACCESSIBILITY IMPROVEMENTS	\$6,086,000	3.02	Mojave Desert

Transportation Project Listing - Exempt Projects

Jurisdiction/ Agency	TIP Project ID	CTIPS ID (If available)	Description	Est. Cost	Exempt Code (per CTIPS)	Air Basins
Kern Co.	KER200402	20400000912	BAKERSFIELD: ROSEDALE HWY FROM HEATH RD TO ALLEN RD (2 MILES); WIDENING (PE PHASE ONLY, FOR NEPA ENVIRONMENTAL DOCUMENT APPROVAL)	\$56,479	4.05	San Joaquin
Kern Co.	KER200403	20400000913	NEAR WELDON: SIERRA WAY AT SOUTH FORK KERN RIVER (.05 MILES); BRIDGE (PE PHASE ONLY, FOR NEPA ENVIRONMENTAL DOCUMENT APPROVAL)	\$51,977	4.05	San Joaquin
Kern Co.	KER200504	20400000919	KERN COUNTY (DELANO): LYTLE AVENUE FROM WEST CECIL AVENUE TO COUNTY LINE ROAD; PAVE DIRT RD	\$1,622,081	1.10	San Joaquin
Kern Co.	KER200810	20400000925	IN KERN COUNTY: PURCHASE 4 REPLACEMENT DIESEL BUSES	\$522,025	2.10	Various
Kern Co.	KER200811	20400000926	IN MOJAVE: CONSTRUCT BUS MAINTENANCE FACILITY	\$2,000,000	2.11	Mojave Desert
McFarland	KER180504	20400000859	IN MCFARLAND: CONSTRUCT PUBLIC TRANSIT ELECTRIC VEHICLE CHARGING STATION	\$583,065	2.05	San Joaquin
McFarland	KER200404	20400000914	MCFARLAND: 2ND ST FROM WESTSIDE CORNER OF HARLOW AVE TO CALIFORNIA AVE; LANDSCAPE AND PEDESTRIAN IMPROVEMENTS	\$498,271	4.09	San Joaquin
Ridgecrest	KER180518	20400000873	RIDGECREST: W. DOLPHIN AVE BETWEEN S. CHINA LAKE BLVD AND COLLEGE HEIGHTS BLVD; SURFACE UNPAVED STREET	\$963,761	1.10	Indian Wells
Ridgecrest	KER180519	20400000883	RIDGECREST: NORTH HALF OF TAMARISK AVE FROM INYO ST AND 100 FT WEST OF CAPEHART CT; SURFACE UNPAVED STREET	\$232,142	1.10	Indian Wells
Ridgecrest	KER200508	20400000923	RIDGECREST: CITY CORPORATION YARD; INSTALL ELECTRIC VEHICLE CHARGING STATION AND SOLAR PHOTOVOLTAIC SYSTEM	\$634,200	2.05	Indian Wells
Shafter	KER190401	20400000901	SHAFTER: JAMES ST PHASE II: CENTRAL AVE TO SHAFTER AVE; RECONSTRUCTION	\$594,149	1.10	San Joaquin

Transportation Project Listing - Exempt Projects

Jurisdiction/ Agency	TIP Project ID	CTIPS ID (If available)	Description	Est. Cost	Exempt Code (per CTIPS)	Air Basins
Shafter	KER200405	20400000915	SHAFTER: ZERKER RD FROM NORTH OF THE FRIANT KERN CANAL TO APPROXIMATELY 3,500 LF NORTH; RECONSTRUCTION	\$775,000	1.10	San Joaquin
Tehachapi	KER151014	20400000799	IN TEHACHAPI: SECTIONS OF H ST AND TEHACHAPI BLVD FROM MILL ST TO DENNISON RD; CONSTRUCT PEDESTRIAN AND RAIL CROSSING IMPROVEMENTS	\$2,242,000	3.02	Mojave Desert
Tehachapi	KER191001	20400000897	IN TEHACHAPI: SRTS SNYDER AVENUE GAP CLOSURE PROJECT - VARIOUS LOCATIONS; INSTALL SIDEWALKS AND BIKE LANES, IMPROVE CROSSWALKS	\$1,495,000	3.02	Mojave Desert
Tehachapi	KER200505	20400000920	TEHACHAPI: PINON STREET FROM BRANDON LANE EAST TO DENNISON ROAD; PAVE AN UNPAVED STREET AND INSTALL CLASS II BIKE LANE	\$1,000,000	1.10	Mojave Desert
Various	KER060601	20400000418	GROUPED PROJECTS FOR BRIDGE REHABILITATION AND RECONSTRUCTION - HIGHWAY BRIDGE PROGRAM (HBP)	\$14,247,230	1.19	Various
Various	KER140601	20400000710	GROUPED PROJECTS FOR SAFETY IMPROVEMENTS -HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)	\$9,366,423	1.06	Various
Various	KER180403	20400000855	GROUPED PROJECTS FOR PAVEMENT RESURFACING AND/OR REHABILITATION	\$47,799,519	1.10	Various
Various	KER180507	20400000862	GROUPED PROJECTS FOR SAFETY IMPROVEMENTS - SAFER ROADS - INCLUSIVE OF FEDERAL AID AND NON-FEDERAL AID ROADS	\$42,779,466	1.06	Various
Various	KER180801	20400000885	GROUPED PROJECTS FOR OPERATING ASSISTANCE TO TRANSIT AGENCIES	\$11,446,150	2.01	Various
Various	KER200506	20400000921	GROUPED PROJECTS FOR INTERSECTION CHANNELIZATION	\$3,500,000	5.01	Various
Various	KER200507	20400000922	GROUPED PROJECTS FOR BICYCLE AND PEDESTRIAN FACILITIES	\$11,223,559	3.02	Various

APPENDIX C

CONFORMITY ANALYSIS DOCUMENTATION

EMFAC Emissions (tons/day)													
Kern SJV													
Pollutant	Source	Description											
2008 and 2015 Ozone			2020		2023		2026	2029	2031	2037	2042		
Ozone	EMFAC 2014 (Summer Run)	ROG Total Exhaust (All Vehicles Total)	5.26		4.49		4.19	3.98	3.82	3.46	3.27		
		Conformity Total	5.30		4.50		4.20	4.00	3.90	3.50	3.30		
Ozone	EMFAC 2014 (Summer Run)	NOx Total Exhaust (All Vehicles Total)	20.59		11.82		10.93	10.28	9.99	9.62	9.48		
		Conformity Total	20.60		11.90		11.00	10.30	10.00	9.70	9.50		
PM-10			2020					2029		2037	2042		
PM-10	EMFAC 2014 (Annual Run)	PM-10 Total (All Vehicles Total) * includes tire & brake wear	1.51					1.65		1.84	1.91		
		Conformity Total	1.51					1.65		1.84	1.91		
PM-10	EMFAC 2014 (Annual Run)	NOx Total Exhaust (All Vehicles Total)	21.56					10.69		9.98	9.83		
		Conformity Total	21.56					10.69		9.98	9.83		
PM2.5 Annual (1997 and 2012 standards)				2021				2029		2037	2042		
PM2.5 Annual (1997 and 2012 standards)	EMFAC 2014 (Annual Run)	PM2.5 Total Exhaust (All Vehicles Total) * includes tire & brake wear		0.66				0.68		0.75	0.77		
		Conformity Total		0.70				0.70		0.70	0.80		
PM2.5 Annual (1997 and 2012 standards)	EMFAC 2014 (Annual Run)	NOx Total Exhaust (All Vehicles Total)		19.63				10.69		9.98	9.83		
		Conformity Total		19.60				10.70		10.00	9.80		

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

			2020			2023	2024			2031	2037	2042
PM2.5 24-hour (2006 standard)	EMFAC 2014 (Winter Run)	PM2.5 Total Exhaust (All Vehicles Total) * includes tire & brake wear	0.68			0.63	0.64			0.70	0.75	0.77
		Conformity Total	0.70			0.70	0.70			0.70	0.80	0.80
PM2.5 24-hour (2006 standard)	EMFAC 2014 (Winter Run)	NOx Total Exhaust (All Vehicles Total)	22.07			12.65	12.29			10.58	10.15	9.99
		Conformity Total	22.10			12.70	12.30			10.60	10.20	10.00

EMFAC Emissions (tons/day)								
KERN - MD								
Pollutant	Source	Description						
				2020	2023	2029	2037	2042
2008 and 2015 Ozone	EMFAC 2014 (Summer Run)	ROG Total Exhaust (All Vehicles Total)		0.96	0.79	0.64	0.52	0.50
		Conformity Total		1.00	0.80	0.70	0.60	0.60
2008 and 2015 Ozone	EMFAC 2014 (Summer Run)	NOx Total Exhaust (All Vehicles Total)		3.07	1.88	1.54	1.46	1.51
		Conformity Total		3.10	1.90	1.60	1.50	1.60

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

Paved Road Dust Emissions (tons/day)									
KERN --SJV 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	10,586,375	3,864	295.247	287.747	0.788	0.147	0.672	
Enter Arterial VMT ==>	Arterial	8,984,731	3,279	416.973	406.380	1.113	0.337	0.738	
Enter Collector VMT ==>	Collector	407,541	149	18.914	18.433	0.051	0.666	0.017	
	Urban	624,864	228	217.257	211.738	0.580	0.679	0.186	
Enter Total of Urban and Rural Local VMT Here =>	Rural	650,369	237	978.160	953.311	2.612	0.090	2.377	
	Totals	21,253,880	7,758	1926.550	1877.609	5.144		3.990	
KERN -- SJV 2029									
		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	12,542,776		0.000	0.000	0.000	0.147	0.000	
Enter Arterial VMT ==>	Arterial	10,677,068		0.000	0.000	0.000	0.337	0.000	
Enter Collector VMT ==>	Collector	464,972		0.000	0.000	0.000	0.666	0.000	
	Urban	740,780	270	257.559	251.016	0.688	0.679	0.221	
Enter Total of Urban and Rural Local VMT Here =>	Rural	771,016	281	1159.615	1130.157	3.096	0.090	2.818	
	Totals	25,196,613	552	1417.174	1381.173	3.784		3.038	
KERN -- SJV 2037									
		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	14,504,677		0.000	0.000	0.000	0.147	0.000	
Enter Arterial VMT ==>	Arterial	11,727,309		0.000	0.000	0.000	0.337	0.000	
Enter Collector VMT ==>	Collector	541,291		0.000	0.000	0.000	0.666	0.000	
	Urban	837,377	306	291.144	283.748	0.777	0.679	0.250	
Enter Total of Urban and Rural Local VMT Here =>	Rural	871,556	318	1310.827	1277.527	3.500	0.090	3.185	
	Totals	28,482,210	624	1601.971	1561.275	4.277		3.435	

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

KERN -- SJV 2042													
		VMT Daily	VMT (million/year)	Base Emissions (PM 10 tpy)	Rain Adj. Emissions (PM 10 tpy)	Rain Adj. Emissions (PM 10 tons/day)	District Rule 8061/ISR Control Rates	Control- Adjusted Emissions					
Enter Freeway VMT ==>	Freeway	14,771,499	5,392	411.967	401.502	1.100	0.147	0.938					
Enter Arterial VMT ==>	Arterial	12,534,732	4,575	581.725	566.947	1.553	0.337	1.030					
Enter Collector VMT ==>	Collector	584,643	213	27.133	26.443	0.072	0.666	0.024					
Enter Total of Urban and Rural Local VMT Here ==>	Urban	872,332	318	303.298	295.593	0.810	0.679	0.260					
	Rural	907,937	331	1365.545	1330.855	3.646	0.090	3.318					
	1,780,269	Totals	29,671,143	10,830	2689.668	2621.341	7.182	5.570					
DO NOT CHANGE ANY ITEMS BELOW THIS LINE													
KERN						Road Type	Base EF (lb PM 10/ VMT)						
HPMS Local Urban/Rural Percent						Freeway	0.000152818						
From 1998 Assembly of Statistical Reports - Caltrans						Arterial	0.000254296						
49.0% Urban						Collector	0.000254296						
51.0% Rural						Local	0.00190513						
100.0% Total						Rural	0.008241141						
KERN													
	January	February	March	April	May	June	July	August	September	October	November	December	Total/Average
Rain Days	7.2	6.6	6.0	4.0	1.8	0.0	0	0	1.0	1.4	3.8	5.0	36.8
Total Days	31	28	31	30	31	30	31	31	30	31	30	31	365
Rain Reduction Factor	0.94	0.94	0.95	0.97	0.99	1.00	1.00	1.00	0.99	0.99	0.97	0.96	0.97

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

Paved Road Dust Emissions (tons/day)						
KERN IWV 2020						
		VMT Daily	VMT (million/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)
Enter Freeway VMT ==>	Freeway	0	0	0.000	0.000	0.000
Enter Arterial VMT ==>	Arterial	449,401	164	20.856	20.326	0.056
Enter Collector VMT ==>	Collector	23,999	9	1.114	1.085	0.003
	Urban	14,806	5	5.148	5.017	0.014
Enter Total of Urban and Rural Local VMT Here ==>	Rural	15,411	6	23.178	22.589	0.062
	Totals	503,617	184	50.296	49.018	0.134
KERN IWV 2029						
		VMT Daily	VMT (million/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)
Enter Freeway VMT ==>	Freeway	0	0	0.000	0.000	0.000
Enter Arterial VMT ==>	Arterial	531,754	194	24.678	24.051	0.066
Enter Collector VMT ==>	Collector	25,134	9	1.166	1.137	0.003
	Urban	17,418	6	6.056	5.902	0.016
Enter Total of Urban and Rural Local VMT Here ==>	Rural	18,128	7	27.265	26.573	0.073
	Totals	592,434	216	59.166	57.663	0.158
KERN IWV 2037						
		VMT Daily	VMT (million/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)
Enter Freeway VMT ==>	Freeway	0	0	0.000	0.000	0.000
Enter Arterial VMT ==>	Arterial	644,698	235	29.920	29.160	0.080
Enter Collector VMT ==>	Collector	26,445	10	1.227	1.196	0.003
	Urban	20,991	8	7.298	7.113	0.019
Enter Total of Urban and Rural Local VMT Here ==>	Rural	21,848	8	32.859	32.025	0.088
	Totals	713,982	261	71.305	69.493	0.190

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

KERN IWV 2042													
			VTM Daily	VTM (million/year)	Base Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tpy)	Rain Adj. Emissions (PM10 tons/day)						
Enter Freeway VMT ==>	Freeway		0	0	0.000	0.000	0.000						
Enter Arterial VMT ==>	Arterial		718,343	262	33.338	32.491	0.089						
Enter Collector VMT ==>	Collector		27,700	10	1.286	1.253	0.003						
	Urban		23,334	9	8.113	7.907	0.022						
Enter Total of Urban and Rural Local VMT Here ==>	Rural		24,286	9	36.526	35.599	0.098						
		47,620											
	Totals		793,663	290	79.262	77.249	0.212						
DO NOT CHANGE ANY ITEMS BELOW THIS LINE													
KERN						Road Type	Base EF (lb PM10/ VMT)						
HPMS Local Urban/Rural Percent						Freeway	0.000152818						
From 1998 Assembly of Statistical Reports - Caltrans						Arterial	0.000254296						
49.0% Urban						Collector	0.000254296						
51.0% Rural						Local	0.00190513						
100.0% Total						Rural	0.008241141						
KERN													
Rain Days	January	February	March	April	May	June	July	August	September	October	November	December	Total/Average
	7.2	6.6	6.0	4.0	1.8	0.0	0	0	1.0	1.4	3.8	5.0	36.8
Total Days	31	28	31	30	31	30	31	31	30	31	30	31	365
Rain Reduction Factor	0.94	0.94	0.95	0.97	0.99	1.00	1.00	1.00	0.99	0.99	0.97	0.96	0.97

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

Unpaved Road Dust Emissions (tons/day)													
KERN SJV 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	74.0	10	270.1	270.100	242.654	0.665	0.484	0.343				
KERN SJV 2029													
		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	74.0	10	270.1	270.100	242.654	0.665	0.484	0.343				
KERN SJV 2037													
		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	74.0	10	270.1	270.100	242.654	0.665	0.484	0.343				
KERN SJV 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	74.0	10	270.1	270.100	242.654	0.665	0.484	0.343				
DO NOT CHANGE ANY ITEMS BELOW THIS LINE													
	KERN												
	January	February	March	April	May	June	July	August	September	October	November	December	Total/Average
Rain Days	7.2	6.6	6.0	4.0	1.8	0.0	0	0	1.0	1.4	3.8	5.0	36.8
Total Days	31	28	31	30	31	30	31	31	30	31	30	31	365
Rain Reduction Factor	0.77	0.76	0.81	0.87	0.94	1.00	1.00	1.00	0.97	0.95	0.87	0.84	0.90

Unpaved Road Dust Emissions (tons/day)						
KERN IWV 2020						
		Miles	Vehicle Passes per Day	VMT (1000/year)	Base Emissions (PM10 tpy)	Emissions (PM10 tons/day)
	City/County	46.7	10	170.6	170.565	0.467
KERN IWV 2029						
		Miles	Vehicle Passes per Day	VMT (1000/year)	Base Emissions (PM10 tpy)	Emissions (PM10 tons/day)
	City/County	46.7	10	170.6	170.565	0.467
KERN IWV 2037						
		Miles	Vehicle Passes per Day	VMT (1000/year)	Base Emissions (PM10 tpy)	Emissions (PM10 tons/day)
	City/County	46.7	10	170.6	170.565	0.467
KERN IWV 2042						
		Miles	Vehicle Passes per Day	VMT (1000/year)	Base Emissions (PM10 tpy)	Emissions (PM10 tons/day)
	City/County	46.7	10	170.6	170.565	0.467

Road Construction Dust								
KERN SJV								
Description								
	2020		2029		2037		2042	
	Year	Lane Miles	Year	Lane Miles	Year	Lane Miles	Year	Lane Miles
Baseline	2005	4790	2020	5812	2029	5990	2037	7012
Horizon	2020	5812	2029	5990	2037	7012	2042	7045
Difference	15	1022	9	178	8	1022	5	33
Lane Miles per Year		68		20		128		7
Acres Disturbed		264		77		496		26
Acre-Months		4757		1381		8919		461
Emissions (tons/year)		523.264		151.893		981.120		50.688
Annual Average Day Emissions (tons)		1.434		0.416		2.688		0.139
District Rule 8021 Control Rates		0.290		0.290		0.290		0.290
Total Emissions (tons per day)		1.018		0.295		1.908		0.099

Road Construction Dust								
KERN - INDIAN WELLS VALLEY								
Description	2020		2029		2037		2042	
	Year	Lane Miles	Year	Lane Miles	Year	Lane Miles	Year	Lane Miles
Baseline	2005	266	2020	371	2029	381	2037	406
Horizon	2020	371	2029	381	2037	406	2042	420
Difference	15	105	9	10	8	25	5	14
Lane Miles per Year		7		1		3		3
Acres Disturbed		27		4		12		11
Acre-Months		489		78		218		195
Emissions (tons/year)		53.760		8.533		24.000		21.504
Total Emissions (tons per day)		0.147		0.023		0.066		0.059

2021 FTIP Conformity Analysis Results Summary -- Kern

2021 FTIP Conformity Analysis Results Summary -- Kern					
Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		ROG (tons/day)	NOx (tons/day)	ROG	NOx
2008 and 2015 Ozone	2020 Budget	5.4	20.9		
	2020	5.3	20.6	YES	YES
	2023 Budget	4.5	14.5		
	2023	4.5	11.9	YES	YES
	2026 Budget	4.2	14.4		
	2026	4.2	11.0	YES	YES
	2029 Budget	4.0	14.3		
	2029	4.0	10.3	YES	YES
	2031 Budget	3.9	14.3		
	2031	3.9	10.0	YES	YES
	2037	3.5	9.7	YES	YES
	2042	3.3	9.5	YES	YES
Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		PM-10 (tons/day)	NOx (tons/day)	PM-10	NOx
PM-10	2020 Budget	7.4	23.3		
	2020	6.9	21.6	YES	YES
	2020 Budget	7.4	23.3		
	2029	5.3	10.7	YES	YES
	Adjusted 2020 Budget	7.5	23.2		
	2037	7.5	10.0	YES	YES
	Adjusted 2020 Budget	7.9	22.6		
	2042	7.9	9.8	YES	YES

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		PM2.5 (tons/day)	NOx (tons/day)	PM2.5	NOx
1997 24-Hour and 1997 & 2012 Annual PM2.5 Standards					
	2014 Budget	1.2	43.8		
	2021	0.7	19.6	YES	YES
	2014 Budget	1.2	43.8		
	2029	0.7	10.7	YES	YES
	2014 Budget	1.2	43.8		
	2037	0.7	10.0	YES	YES
	2014 Budget	1.2	43.8		
	2042	0.8	9.8	YES	YES
2006 PM2.5 Winter 24-Hour Standard					
	2020 Budget	0.8	23.8		
	2020	0.7	22.1	YES	YES
	2023 Budget	0.7	13.6		
	2023	0.7	12.7	YES	YES
	2024 Budget	0.7	13.4		
	2024	0.7	12.3	YES	YES
	2024 Budget	0.7	13.4		
	2031	0.7	10.6	YES	YES
	Adjusted 2024 Budget	0.8	13.2		
	2037	0.8	10.2	YES	YES
	Adjusted 2024 Budget	0.8	13.2		
	2042	0.8	10.0	YES	YES

2021 FTIP Conformity Results Summary -- Kern (Mojave Desert)

Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		ROG (tons/day)	NOx (tons/day)	ROG	NOx
2008 and 2015 Ozone	2008 Budget	5.0	18.0		
	2020	1.0	3.1	YES	YES
	2023	0.8	1.9	YES	YES
	2029	0.7	1.6	YES	YES
	2037	0.6	1.5	YES	YES
	2042	0.6	1.6	YES	YES

UPCOMING BUDGET TEST

(Note: EPA Action is Pending as of This Analysis; The 2008 Ozone Budget Test Above Will be Used if EPA Doesn't Determine Approval of the New Budgets before Federal Approval of the 2021 FTIP Conformity Analysis)

Standard	Analysis Year	Emissions Total		DID YOU PASS?	
		ROG (tons/day)	NOx (tons/day)	ROG	NOx
2008 and 2015 Ozone	2020 Budget	1.3	3.6		
	2020	1.0	3.1	YES	YES
	2023	0.8	1.9	YES	YES
	2029	0.7	1.6	YES	YES
	2037	0.6	1.5	YES	YES
	2042	0.6	1.6	YES	YES

2021 FTIP Conformity Results Summary -- Kern (Indian Wells Valley)

Standard	Analysis Year	Emissions Total	DID YOU PASS?
PM-10		PM-10 (tons/day)	PM-10
	2013 Budget	1.7	
	2020	0.7	YES
	2013 Budget	1.7	
	2029	0.6	YES
	2013 Budget	1.7	
	2037	0.7	YES
	2013 Budget	1.7	
	2042	0.7	YES

PM-10	Paved Road Dust	Unpaved Road Dust	Road Construction Dust	Total
	PM-10	PM-10	PM-10	PM-10
2020	0.134	0.467	0.147	0.7
2029	0.158	0.467	0.023	0.6
2037	0.190	0.467	0.066	0.7
2042	0.212	0.467	0.059	0.7

PM10 Emission Trading Worksheet								
Kern (SJV) CONFORMITY ESTIMATES (tons/day)								
	2020		2029		2037		2042	
	PM10	NOx	PM10	NOx	PM10	NOx	PM10	NOx
Total On-Road Exhaust	1.512	21.563	1.652	10.691	1.843	9.978	1.913	9.832
Paved Road Dust	3.990		3.038		3.435		5.570	
Unpaved Road Dust	0.343		0.343		0.343		0.343	
Road Construction Dust	1.018		0.295		1.908		0.099	
Total	6.863	21.563	5.329	10.691	7.529	9.978	7.925	9.832
Difference (2020 Budget - 2020)								
	PM10	NOx						
2020 Budgets	7.4	23.3						
2020	6.9	21.6						
Difference	0.5	1.7	NOTE: ONLY IMPLEMENT TRADING IF					
* 1.5 (Adjustment to NOx Budget)	-0.8							
Difference (2020 Budget - 2029)								
	PM10	NOx						
2020 Budgets	7.4	23.3						
2029	5.3	10.7						
Difference	2.1	12.6	NOTE: ONLY IMPLEMENT TRADING IF					
* 1.5 (Adjustment to NOx Budget)	-3.2							
Difference (2020 Budget - 2037)								
	PM10	NOx						
2020 Budgets	7.4	23.3						
2037	7.5	10.0						
Difference	-0.1	13.3	NOTE: ONLY IMPLEMENT TRADING IF					
* 1.5 (Adjustment to NOx Budget)	0.1							
Difference (2020 Budget - 2042)								
	PM10	NOx						
2020 Budgets	7.4	23.3						
2042	7.9	9.8						
Difference	-0.5	13.5	NOTE: ONLY IMPLEMENT TRADING IF					
* 1.5 (Adjustment to NOx Budget)	0.8							
1:1.5 PM10 to NOx Trading								
Adjusted 2020 Budget	6.9	24.1	TRADING WAS NOT IMPLEMENTED					
2020 Conformity Total	6.9	21.6						
Difference	0.0	2.5	NOTE: FINAL DIFFERENCE MUST BE POSITIVE					
Adjusted 2020 Budget	5.3	26.5	TRADING WAS NOT IMPLEMENTED					
2029 Conformity Total	5.3	10.7						
Difference	0.0	15.8	NOTE: FINAL DIFFERENCE MUST BE POSITIVE					
Adjusted 2020 Budget	7.5	23.2						
2037 Conformity Total	7.5	10.0						
Difference	0.0	13.2	NOTE: FINAL DIFFERENCE MUST BE POSITIVE					
Adjusted 2020 Budget	7.9	22.6						
2042 Conformity Total	7.9	9.8						
Difference	0.0	12.8	NOTE: FINAL DIFFERENCE MUST BE POSITIVE					

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	1.512	21.563	3.990		0.343		1.018		6.9	21.6
2029	1.652	10.691	3.038		0.343		0.295		5.3	10.7
2037	1.843	9.978	3.435		0.343		1.908		7.5	10.0
2042	1.913	9.832	5.570		0.343		0.099		7.9	9.8

2006 24-hr Winter PM2.5 Emission Trading Worksheet

Kern (SJV) CONFORMITY ESTIMATES (tons/day)

	2020		2023		2024		2031	
	PM2.5	NOx	PM2.5	NOx	PM2.5	NOx	PM2.5	NOx
Total On-Road Exhaust	0.70	22.10	0.70	12.70	0.70	12.30	0.70	10.60
Difference (2020 Budget - 2020)			2037		2042			
	PM2.5	NOx	PM2.5	NOx	PM2.5	NOx		
2020 Budgets	0.8	23.8	0.80	10.20	0.80	10.00		
2020	0.7	22.1						
Difference	0.1	1.7						
* 2 (Adjustment to NOx Budget)	-0.2							
Difference (2023 Budget - 2023)								
	PM2.5	NOx						
2023 Budgets	0.7	13.6						
2023	0.7	12.7						
Difference	0.0	0.9						
* 2 (Adjustment to NOx Budget)	0.0							
Difference (2024 Budget - 2024)								
	PM2.5	NOx						
2024 Budgets	0.7	13.4						
2024	0.7	12.3						
Difference	0.0	1.1						
* 2 (Adjustment to NOx Budget)	0.0							
Difference (2024 Budget - 2031)								
	PM2.5	NOx						
2024 Budgets	0.7	13.4						
2031	0.7	10.6						
Difference	0.0	2.8						
* 2 (Adjustment to NOx Budget)	0.0							
Difference (2024 Budget - 2037)								
	PM2.5	NOx						
2024 Budgets	0.7	13.4						
2037	0.8	10.2						
Difference	-0.1	3.2						
* 2 (Adjustment to NOx Budget)	0.2							
Difference (2024 Budget - 2042)								
	PM2.5	NOx						
2024 Budgets	0.7	13.4						
2042	0.8	10.0						
Difference	-0.1	3.4						
* 2 (Adjustment to NOx Budget)	0.2							

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY
(I.E., CONFORMITY FAILURE IN TOTALS
WORKSHEET)

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY
(I.E., CONFORMITY FAILURE IN TOTALS
WORKSHEET)

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY
(I.E., CONFORMITY FAILURE IN TOTALS
WORKSHEET)

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY
(I.E., CONFORMITY FAILURE IN TOTALS
WORKSHEET)

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY
(I.E., CONFORMITY FAILURE IN TOTALS
WORKSHEET)

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY
(I.E., CONFORMITY FAILURE IN TOTALS
WORKSHEET)

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY
(I.E., CONFORMITY FAILURE IN TOTALS
WORKSHEET)

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY
(I.E., CONFORMITY FAILURE IN TOTALS
WORKSHEET)

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

[illegible]

UPCOMING BUDGET TEST (Note: EPA Action is Pending as of This Analysis; The 1997 and 2012 PM2.5 Budget Test Above Will be Used if EPA Doesn't Determine Adequacy or Approval of the New Budgets before Federal Approval of the 2021 FTIP Conformity Analysis)

1997 and 2012 Annual PM2.5 Emission Trading Worksheet**Kern (SJV) CONFORMITY ESTIMATES (tons/day)**

	2020		2029		2037		2042	
	PM2.5	NOx	PM2.5	NOx	PM2.5	NOx	PM2.5	NOx
Total On-Road Exhaust	0.7	21.6	0.7	10.7	0.8	10.0	0.8	9.9

	2022		2025		2031	
	PM2.5	NOx	PM2.5	NOx	PM2.5	NOx
Total On-Road Exhaust	0.7	18.1	0.7	11.7	0.7	10.4

Difference (2020 Budget - 2021)

	PM2.5	NOx
2020 Budgets	0.8	23.3
2020	0.7	21.6
Difference	0.1	1.7
* 6.5 (Adjustment to NOx Budget)	-0.7	

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY (I.E., CONFORMITY FAILURE IN TOTALS WORKSHEET)

Difference (2020 Budget - 2029)

	PM2.5	NOx
2020 Budgets	0.8	23.3
2029	0.7	10.7
Difference	0.1	12.6
* 6.5 (Adjustment to NOx Budget)	-0.7	

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY (I.E., CONFORMITY FAILURE IN TOTALS WORKSHEET)

Difference (2020 Budget - 2037)

	PM2.5	NOx
2020 Budgets	0.8	23.3
2037	0.8	10.0
Difference	0.0	13.3
* 6.5 (Adjustment to NOx Budget)	0.0	

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY (I.E., CONFORMITY FAILURE IN TOTALS WORKSHEET)

Difference (2020 Budget - 2042)

	PM2.5	NOx
2020 Budgets	0.8	23.3
2042	0.8	9.9
Difference	0.0	13.4
* 6.5 (Adjustment to NOx Budget)	0.0	

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY (I.E., CONFORMITY FAILURE IN TOTALS WORKSHEET)

Difference (2019 Budget - 2020)

	PM2.5	NOx
2019 Budgets	0.8	25.1
2020	0.7	21.6
Difference	0.1	3.5
* 6.5 (Adjustment to NOx Budget)	-0.7	

NOTE: ONLY IMPLEMENT TRADING IF NECESSARY (I.E., CONFORMITY FAILURE IN TOTALS WORKSHEET)

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

Difference (2022 Budget - 2022)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
---------------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

1:6.5 PM2.5 to NOx Trading									
Adjusted 2020 Budget	0.7	24.0	TRADING WAS NOT IMPLEMENTED						
2020 Conformity Total	0.7	21.6							
Difference	0.0	2.4	NOTE: FINAL DIFFERENCE MUST BE POSITIVE						
Adjusted 2020 Budget	0.7	24.0	TRADING WAS NOT IMPLEMENTED						
2029 Conformity Total	0.7	10.7							
Difference	0.0	13.3	NOTE: FINAL DIFFERENCE MUST BE POSITIVE						
Adjusted 2020 Budget	0.8	23.3	TRADING WAS NOT IMPLEMENTED						
2037 Conformity Total	0.8	10.0							
Difference	0.0	13.3	NOTE: FINAL DIFFERENCE MUST BE POSITIVE						
Adjusted 2020 Budget	0.8	23.3	TRADING WAS NOT IMPLEMENTED						
2042 Conformity Total	0.8	9.9							
Difference	0.0	13.4	NOTE: FINAL DIFFERENCE MUST BE POSITIVE						
Adjusted 2019 Budget	0.7	25.8	TRADING WAS NOT IMPLEMENTED						
2020 Conformity Total	0.7	21.6							
Difference	0.0	4.2	NOTE: FINAL DIFFERENCE MUST BE POSITIVE						
Adjusted 2022 Budget	0.7	20.1	TRADING WAS NOT IMPLEMENTED						
2022 Conformity Total	0.7	18.1							
Difference	0.0	2.0	NOTE: FINAL DIFFERENCE MUST BE POSITIVE						
Adjusted 2025 Budget	0.7	13.5	TRADING WAS NOT IMPLEMENTED						
2025 Conformity Total	#VALUE!	#VALUE!							
Difference	#VALUE!	#VALUE!	NOTE: FINAL DIFFERENCE MUST BE POSITIVE						
Adjusted 2025 Budget	0.7	13.5	TRADING WAS NOT IMPLEMENTED						
2031 Conformity Total	0.7	10.4							
Difference	0.0	3.1	NOTE: FINAL DIFFERENCE MUST BE POSITIVE						
Adjusted 2025 Budget	0.8	12.8	TRADING WAS NOT IMPLEMENTED						
2037 Conformity Total	0.8	10.0							
Difference	0.0	2.8	NOTE: FINAL DIFFERENCE MUST BE POSITIVE						
Adjusted 2025 Budget	0.8	12.8	TRADING WAS NOT IMPLEMENTED						
2042 Conformity Total	0.8	9.9							
Difference	0.0	2.9	NOTE: FINAL DIFFERENCE MUST BE POSITIVE						

APPENDIX D

**TIMELY IMPLEMENTATION DOCUMENTATION FOR
TRANSPORTATION CONTROL MEASURES**

Kern Council of Governments
2002 RACM Timely Implementation Documentation

<u>RACM Commitment</u>	<u>Agency</u>	<u>Commitment Description</u>	<u>Commitment Schedule</u>	<u>Commitment Funding</u>	<u>TIP</u>	<u>TIP Project ID</u>	<u>Project Description</u>	<u>2015 Ozone Conformity Update</u>	<u>2021 FTIP Conformity Update</u>
								(as of 1/19)	(as of 12/20)
KE 14.10	KCOG	Public Education Program	02/03 - 04/05	\$40,000 per year	2002	KER020122	IN KERN COUNTY: COUNTYWIDE WITH SPECIAL EMPHASIS ON SAN JOAQUIN PORTION OF KERN COUNTY, PUBLIC OUTREACH PROGRAM, AND SOME CAPITAL	Complete	Complete
KE 1.1	Arvin	New bus service to Ikea plant and business park	2002	Not specified				Complete	Complete
KE 1.5	Arvin	Construct transfer station	2005	\$650,000 CMAQ (includes local)	2002	KER000503	CONSTRUCT NEW TRANSIT TRANSFER STATION	Complete	Complete
KE 9.3	Arvin	Drive Approach Modification Project; Traffic Signal Project	2003; 2003	\$395,000 Total				Complete	Complete
KE 10.2	Arvin	Bike Racks on Buses	2002	Not specified				Complete	Complete
KE 5.2 and 5.16	Bakersfield	Traffic signal interconnect projects	2003	\$1 M CMAQ (includes local)					

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

Kern Council of Governments
2002 RACM Timely Implementation Documentation

<u>RACM Commitment</u>	<u>Agency</u>	<u>Commitment Description</u>	<u>Commitment Schedule</u>	<u>Commitment Funding</u>	<u>TIP</u>	<u>TIP Project ID</u>	<u>Project Description</u>	<u>2015 Ozone Conformity Update</u>	<u>2021 FTIP Conformity Update</u>
								(as of 1/19)	(as of 12/20)
					1998	KER960506	TRAFFIC OPERATIONS CENTER: MANAGEMENT CENTER TO LINK ALL TRAFFIC SIGNALS TO CITY HALL- PURCHASE HARDWARE AND SOFTWARE - CONSTRUCTION OF CENTER (PHASE 2)	Complete	Complete
					2002	KER000504	SIGNALIZATION, COMMUNICATION / SYNCHRONIZATION OF SOUTH H STREET FROM WHITE LANE TO PANAMA LANE	Complete	Complete
					2002	KER000505	SIGNALIZATION, COMMUNICATION / SYNCHRONIZATION OF STINE ROAD FROM WHITE LANE TO HARRIS ROAD	Complete	Complete
					2002	KER000506	SIGNALIZATION, COMMUNICATION / SYNCHRONIZATION OF ASHE ROAD FROM CLUB VIEW DRIVE TO NORTH HALF MOON BLVD.	Complete	Complete
					2002	KER000507	SIGNALIZATION, COMMUNICATION / SYNCHRONIZATION OF MISC. BRANCH COMMUNICATIONS AT VARIOUS LOCATIONS	Complete	Complete
					2002	KER010502	SIGNALIZATION: COMMUNICATION / SYNCHRONIZATION OF THREE IDENTIFIED SIGNAL LOCATIONS	Complete	Complete

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

Kern Council of Governments
2002 RACM Timely Implementation Documentation

<u>RACM Commitment</u>	<u>Agency</u>	<u>Commitment Description</u>	<u>Commitment Schedule</u>	<u>Commitment Funding</u>	<u>TIP</u>	<u>TIP Project ID</u>	<u>Project Description</u>	<u>2015 Ozone Conformity Update</u>	<u>2021 FTIP Conformity Update</u>
								(as of 1/19)	(as of 12/20)
					2002	KER990512	IN BAKERSFIELD -TRAFFIC SIGNAL WIRED INTERCONNECT ON NILES ST. FROM ALTA VISTA DR. TO HALEY ST.	Complete	Complete
					2002	KER990520	IN BAKERSFIELD -(TRUNK LINE) TRAFFIC SIGNAL WIRED INTERCONNECT ON CHESTER AVENUE FROM 23RD ST. TO W. COLUMBUS ST.	Complete	Complete
					2002	KER010503	SIGNALIZATION: COMMUNICATION / SYNCHRONIZATION OF MISC. BRANCH COMMUNICATIONS AT VARIOUS LOCATIONS	Complete	Complete
KE 5.3	Bakersfield	Intersection improvements at White and Wible Road; Westside Parkway	2003; 2007 +	Not specified					
								Complete	Complete
					2000	KER970508	SIGNALIZATION: TRUNK LINE COMMUNICATIONS/SYNCH RO. - WHITE LANE FROM WIBLE ROAD TO HUGHES LANE	Complete	Complete

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

Kern Council of Governments
2002 RACM Timely Implementation Documentation

<u>RACM Commitment</u>	<u>Agency</u>	<u>Commitment Description</u>	<u>Commitment Schedule</u>	<u>Commitment Funding</u>	<u>TIP</u>	<u>TIP Project ID</u>	<u>Project Description</u>	<u>2015 Ozone Conformity Update</u>	<u>2021 FTIP Conformity Update</u>
								(as of 1/19)	(as of 12/20)
					2002	KER010501	SIGNALIZATION: COMMUNICATION / SYNCHRONIZATION OF GOSFORD ROAD FROM WHITE LANE TO STOCKDALE HWY.	Complete	Complete
					2002	KER020102	IN BAKERSFIELD: FROM STOCKDALE HWY TO TRUXTUN AVE AT ROUTE 99; CONSTRUCT 4-LANE AND 6-LANE NEW FACILITY - Note: In 2009 FTIP, this project has six phases due to funding.	Complete	Complete
KE 9.5	California City	Expand bike lanes by about 75%	2003	Not specified				Complete	Complete
KE 1.5	Kern County	Service to Shafter, Wasco, McFarland, Delano, Lost Hills, Lamont, Weedpatch, Ridgecrest, California City and Mojave	2003	\$400,000 per year				Complete	Complete
KE 5.2	County	Six signal projects	2005	\$4,515,000 Total					

Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1

Kern Council of Governments
2002 RACM Timely Implementation Documentation

<u>RACM Commitment</u>	<u>Agency</u>	<u>Commitment Description</u>	<u>Commitment Schedule</u>	<u>Commitment Funding</u>	<u>TIP</u>	<u>TIP Project ID</u>	<u>Project Description</u>	<u>2015 Ozone Conformity Update</u>	<u>2021 FTIP Conformity Update</u>
								(as of 1/19)	(as of 12/20)
					2000	KER000521	SIGNALIZATION, SYNCHRONIZATION, CHANNELIZATION AND RELATED SAFETY MODIFICATIONS ON OLIVE DRIVE FROM FRUITVALE AVENUE TO COFFEE ROAD	Complete	Complete
					2000	KER990519	SIGNALIZATION, SIGNAL SYNCHRONIZATION, CHANNELIZATION AND RELATED SAFETY MODIFICATIONS - NILES ST. FROM VIRGINIA ST. TO MORNING DR.	Complete	Complete
					2000	KER990518	SIGNAL SYNCHRONIZATION, CHANNELIZATION AND RELATED SAFETY MODIFICATIONS - FAIRFAX RD. FROM BRUNDAGE LANE TO COLLEGE AVE.	Complete	Complete
					2000	KER990523	SIGNALIZATION, SIGNAL SYNCHRONIZATION, CHANNELIZATION AND RELATED SAFETY MODIFICATIONS - OSWELL ST. FROM BRUNDAGE LANE TO BERNARD ST.	Complete	Complete

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

Kern Council of Governments
2002 RACM Timely Implementation Documentation

<u>RACM Commitment</u>	<u>Agency</u>	<u>Commitment Description</u>	<u>Commitment Schedule</u>	<u>Commitment Funding</u>	<u>TIP</u>	<u>TIP Project ID</u>	<u>Project Description</u>	<u>2015 Ozone Conformity Update</u>	<u>2021 FTIP Conformity Update</u>
								(as of 1/19)	(as of 12/20)
					2000	KER000533	SYNCHRONIZATION CHANNELIZATION AND RELATED SAFETY MODIFICATIONS ON CALIFORNIA AVENUE FROM WASHINGTON STREET TO EDISON HIGHWAY	Complete	Complete
								Complete	Complete
KE 10.2	County	Retrofit buses with bike racks	2005	\$80,000 CMAQ (includes local)	2002	KER000528	INSTALL BIKE CYCLE RACKS ON BUS FLEET	Complete	Complete
KE 10.2	Delano	Bike racks on four full size transit buses	2003	Not specified				Complete	Complete
J 34	GET	Develop and implement an area vehicle locator		\$2.2 million	2002	KER990526 KER990527	Area Vehicle Locator (Phase 1) Area Vehicle Locator (Phase 2)	Complete	Complete
KE 9.3	Ridgecrest	Construct 1.5 miles of bicycle lane on existing streets and 2.67 miles of new bike lanes	2003	\$165,000 TEA	2002	KER990902	IN RIDGECREST - CHELSEA STREET BICYCLE PATH EXTENSION PROJECT	Complete	Complete

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

Kern Council of Governments
2002 RACM Timely Implementation Documentation

<u>RACM Commitment</u>	<u>Agency</u>	<u>Commitment Description</u>	<u>Commitment Schedule</u>	<u>Commitment Funding</u>	<u>TIP</u>	<u>TIP Project ID</u>	<u>Project Description</u>	<u>2015 Ozone Conformity Update</u>	<u>2021 FTIP Conformity Update</u>
								(as of 1/19)	(as of 12/20)
KE 1.5	Shafter	Analyze transit system for route expansion; construct a CNG facility; two CNG mini-vans for enhanced service	2000; 2003	Not specified				Complete	Complete
KE 1.5	Taft	Construct transit transfer station	2002	\$375,000 CMAQ	2002	KER990550	IN THE CITY OF TAFT - CONSTRUCT TRANSIT TRANSFER STATION	Complete	Complete
KE 9.5 and 9.2	Tehachapi	1.3 miles of Class I bike trails adjacent to several roadways in community	2003	Not specified				Complete	Complete
SJ 5.3	Wasco	Traffic signal at Highway 46 and Griffith Avenue	Not specified	\$221,000				Complete	Complete
KE 7.17	Wasco	Construct new transit transfer station	design in 2002	\$619,710 CMAQ	2002	KER000520	CONSTRUCT NEW TRANSIT TRANSFER STATION	Complete	Complete
KE 9.1	Wasco	Convert two mid-block alleys to pedestrian walkways	2002	TEA	2002	KER001001	DOWNTOWN STREETSCAPE IMPROVEMENT PROJECT	Complete	Complete

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

Kern Council of Governments
2002 RACM Timely Implementation Documentation

<u>RACM Commitment</u>	<u>Agency</u>	<u>Measure Title</u>	<u>Measure Description (not verbatim)</u>	<u>2019 Ozone Conformity Analysis (as of 1/19)</u>	<u>2021 FTIP Conformity Analysis (as of 12/20)</u>
14.9	KCOG	Business, Industry and Governmental Outreach Program	Implement multi-agency outreach program and promote incentives for 2002-03 through 2004-05	Commitment Complete.	Commitment Complete.
KE5.4	Bakersfield	Site-Specific Transportation Control Measures	Encourage implementation...include various channelization and signal modification projects identified by special traffic studies or development for the next 5 years (2007)	Commitment Complete.	Commitment Complete.
KE1.1	County of Kern	Regional Express Bus Program	Purchase buses to operate regional express bus service	The County of Kern continues to offer regional express bus service.	The County of Kern continues to offer regional express bus service.
KE1.7	County of Kern	Free transit during special events	Offer one day of free travel from Bakersfield to Kernville Whisky Flat Days and Frazier Park Lilac Festival	The County of Kern has offered free transit for these events and will continue to do so.	The County of Kern has offered free transit for these events and will continue to do so.
KE9.2	County of Kern	Encouragement of Pedestrian Travel	Implement Bikeway Master Plan	Implementation of the Bikeway Master Plan continues to occur along with updates to the Kern County General Plan. The Bikeway Master Plan was approved regionally by the Kern Council of Governments October 2012.	Implementation of the Bikeway Master Plan continues to occur along with updates to the Kern County General Plan. The Bikeway Master Plan was approved regionally by the Kern Council of Governments October 2012.
KE14.4	County of Kern	Voluntary No Drive Day Programs	Conduct voluntary employee no-drive day programs during the ozone season through media and employer based public awareness activities in 2002	Commitment Complete.	Commitment Complete.
KE5.1	Taft	Develop Intelligent Transportation Systems	Provide areas for pedestrian and bicyclist in vicinity of commercial development and promote use of such areas.	Commitment Complete.	Commitment Complete.
KE9.3	Taft	Bicycle/Pedestrian Program	Provide facilities for only pedestrian and bicycle use.	Commitment Complete.	Commitment Complete.
KE9.5	Taft	Encouragement of Bicycle Travel	Provide funding for bikeway system. Provide education materials	Commitment Complete.	Commitment Complete.

Kern Council of Governments
2002 RACM Timely Implementation Documentation

<u>RACM Commitment</u>	<u>Agency</u>	<u>Measure Title</u>	<u>Measure Description (not verbatim)</u>	<u>2019 Ozone Conformity Analysis</u>	<u>2021 FTIP Conformity Analysis</u>
KE1.7	Wasco	Free transit during special events	Provide free transit between Saturday's events during the Wasco Rose Festival beginning in 2002 through 2005	Commitment Complete.	Commitment Complete.
KE3.9	Wasco	Encourage merchants and employers to subsidize the cost of transit for employees	Offer free transportation to full time, permanent City of Wasco, School District and High School District employees beginning in 2002 through 2005	Commitment Complete.	Commitment Complete.
KE9.8	Wasco	Close streets for special events for use by bikes and pedestrians	Close streets to vehicles for the annual Wasco Festival of Roses	Yes, the parade route was closed for vehicle traffic and open to foot traffic. Closure will continue for annual event.	Yes, the parade route was closed for vehicle traffic and open to foot traffic. Closure will continue for annual event.

APPENDIX E

PUBLIC MEETING PROCESS DOCUMENTATION

**NOTICE OF PUBLIC HEARING ON THE
DRAFT 2021 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM,
DRAFT 2018 REGIONAL TRANSPORTATION PLAN AMENDMENT 1,
AND DRAFT CONFORMITY ANALYSIS**

NOTICE IS HEREBY GIVEN that Kern Council of Governments (Kern COG) will hold a public hearing at 6:30 P.M. January 21, 2021 at Kern COG's office, 1401 19th Street, Suite 300, Bakersfield, CA 93301 regarding the Draft 2021 Federal Transportation Improvement Program (2021 FTIP), the Draft 2018 Regional Transportation Plan Amendment 1 (2018 RTP Amendment 1), and the corresponding Draft Conformity Analysis. The hearing is being held to receive public comments.

- The 2021 FTIP is a near-term listing of capital improvement and operational expenditures utilizing federal and state monies for transportation projects in Kern County during the next four years.
- The 2018 RTP is a long-term strategy to meet Kern County's transportation needs out to the year 2042. Amendment 1 contains a project update for the Metropolitan Bakersfield area.
- The corresponding Conformity Analysis contains the documentation to support a finding that the 2021 FTIP and 2018 RTP Amendment 1 meet the air quality conformity requirements for ozone and particulate matter.

The public participation efforts for the 2021 FTIP satisfies the program of projects (POP) requirements of the Federal Transit Administration (FTA) for applicable funds. If no comments are received on the proposed POP, the proposed transit program will be the final program.

Individuals with disabilities may call Kern COG at (661) 635-2900 with 3-working-day advance notice to request auxiliary aids necessary to participate in the public hearing. Translation services are available (with 3-working-day advance notice) to participate speaking any language with available professional translation services.

A 30-day public review and comment period will begin December 23, 2020 and conclude January 22, 2021. The draft documents are available for review at Kern COG's office and on Kern COG's website at www.kerncog.org.

Public comments are welcomed at the hearing, or may be submitted in writing by 5 P.M. January 22, 2021 to Ahron Hakimi at the address below. In accordance with Executive Order N-29-20 issued by Governor Newsom on March 17, 2020, the public meeting will be available remotely. The meeting link and accessibility instructions will be posted to the Kern COG website no less than 72 hours prior to the public meeting.

After considering the comments, the documents will be considered for adoption, by resolution, by Kern COG at a regularly scheduled meeting to be held on February 18, 2021. The documents will then be submitted to state and federal agencies for approval.

Kern Council of Governments

*Conformity Analysis for 2021 FTIP
and 2018 RTP Amendment #1*

Ahron Hakimi, Executive Director
Kern Council of Governments
1401 19th Street, Suite 300
Bakersfield, CA 93301
(661) 635-2900

BEFORE THE KERN COUNCIL OF GOVERNMENTS
STATE OF CALIFORNIA, COUNTY OF KERN

RESOLUTION NO. 21-06

In the Matter of:

2021 Federal Transportation Improvement Program, 2018 Regional Transportation Plan Amendment 1, and
Corresponding Conformity Analysis

WHEREAS, the Kern Council of Governments (Kern COG) 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, a 2018 Regional Transportation Plan Amendment 1 (2018 RTP Amendment 1) has been prepared in full compliance with federal guidance; and

WHEREAS, a 2018 RTP Amendment 1 has been prepared in accordance with state guidelines adopted by the California Transportation Commission 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, the 2021 Federal Transportation Improvement Program (2021 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 Kern COG forum and general public involvement; and

WHEREAS, the 2021 FTIP program listing is consistent with: 1) the 2018 RTP Amendment 1; 2) the 2020 State Transportation Improvement Program; and 3) the corresponding Conformity Analysis; and

WHEREAS, the 2021 FTIP contains the MPO's certification of the transportation planning process assuring that all federal requirements have been fulfilled; and

WHEREAS, the 2021 FTIP and 2018 RTP Amendment 1 meet all applicable transportation planning requirements per 23 CFR Part 450; and

WHEREAS, Kern COG 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, projects submitted in the 2021 FTIP and 2018 RTP Amendment 1 must be financially constrained and the financial plan affirms that funding is available; and

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

WHEREAS, the corresponding Conformity Analysis supports a finding that the 2021 FTIP and 2018 RTP Amendment 1 meet the air quality conformity requirements for ozone and particulate matter; and

WHEREAS, the 2021 FTIP and 2018 RTP Amendment 1 do not interfere with the timely implementation of the Transportation Control Measures; and

WHEREAS, the 2021 FTIP and 2018 RTP Amendment 1 conform to the applicable SIPs; and

WHEREAS, the documents have been widely circulated and reviewed by Kern COG's 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 Kern County consistent with public participation process adopted by Kern COG; and

WHEREAS, a public hearing was conducted on January 21, 2021 to hear and consider comments on the 2021 FTIP, 2018 RTP Amendment 1, and corresponding Conformity Analysis;

NOW, THEREFORE, BE IT RESOLVED, that Kern COG adopts the 2021 FTIP, 2018 RTP Amendment 1, and corresponding Conformity Analysis.

BE IT FURTHER RESOLVED, that Kern COG finds that the 2021 FTIP and 2018 RTP Amendment 1 are in conformity with the requirements of the Federal Clean Air Act Amendments and applicable State Implementation Plans for air quality.

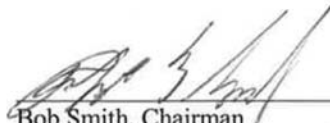
AUTHORIZED AND SIGNED THIS 18th DAY OF FEBRUARY 2021.

TRUJILLO, B.SMITH, LESSENEVITCH, CRUMP, BLADES, PROUT
AYES: KRIER, P.SMITH, GARCIA, COUCH, SCRIVNER, PARRA, KERSEY
NAVARRO

NOES: NONE

ABSTAIN: NONE

ABSENT: VASQUEZ, GONZALEZ



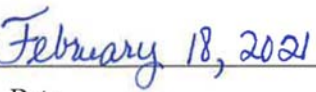
Bob Smith, Chairman
Kern Council of Governments

ATTEST:

I hereby certify that the foregoing is a true copy of a resolution of the Kern Council of Governments duly adopted at a regular meeting thereof held on the 18th day of February 2021.



Ahron Hakimi, Executive Director
Kern Council of Governments



Date

APPENDIX F

RESPONSE TO PUBLIC COMMENTS

Conformity Analysis

Summary of Comments and Responses

As part of the development of the Conformity Analysis, stakeholders, technical staff, and the general public were given the opportunity to comment. The public review period was held December 23, 2020 to January 22, 2021.

State Department of Transportation (Caltrans) District 9 – email dated 1/22/21

1. With the new federal administration are you having to rewrite or add to the content to reflect potential changes?

Response: This comment refers to the highlighted section on the first page of the Executive Summary (see “Comment 1” attached).

To date, there have been no changes to the conformity analysis and transportation planning requirements due to the new federal administration, and no changes to the application of SAFE Rule adjustment factors for EMFAC0214 modeling. However, certain EPA final actions on SIP-related items have been delayed and to account for this uncertainty, KCOG included “upcoming budget test” in our conformity demonstration.

2. Is this correct or are the table titles switched? The population for East Kern is larger than West Kern when comparing the tables on p 39 - 40.

Tables: Traffic Network Comparison for Horizon Years Evaluated in Conformity Analysis for Mojave Desert (Eastern Kern)

and

Traffic Network Comparison for Horizon Years Evaluated in Conformity Analysis for San Joaquin Valley PM-10 (Kern APCD Portion)

Response: The titles for both tables are correct. The Mojave Desert, Eastern Kern traffic network information refers to the 8-hour ozone nonattainment area, while the PM-10 Kern APCD information refers to the “PM10 sliver area”, a small nonattainment area for PM10, which is also located within Eastern Kern region. For more information, please see pages 3-4 of Attachment 3.

Comment 1

EXECUTIVE SUMMARY

This report presents the Conformity Analysis for the 2021 Federal Transportation Improvement Program (2021 FTIP) and 2018 Regional Transportation Plan Amendment #1 (2018 RTP Amendment #1). Kern Council of Governments is the designated Metropolitan Planning Organization (MPO) in Kern County, California, and is responsible for regional transportation planning.

On September 27, 2019, the United States Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA) published the “Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program” (effective November 26, 2019). The Part One Rule revoked California’s authority to set its own greenhouse gas emissions standards, which were incorporated in EMFAC2014 emissions model. On November 20, 2019, California Air Resources Board (CARB) released “EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicles Rule Part One” for use in regional conformity analyses. On March 12, 2020, EPA concurred on the use of CARB’s EMFAC off-model adjustment factors in conformity demonstrations. On April 30, EPA and NHTSA published SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Final SAFE Rule) rolling back federal fuel economy standards. On June 26, 2020 CARB issued a public notice stating that EMFAC adjustments released in November continue to be suitable for conformity purposes. The conformity analysis for the 2021 FTIP and the 2018 RTP Amendment #1 incorporates these emissions modeling adjustments.

The 2018 PM2.5 Plan addressing 1997, 2006 and 2012 PM2.5 standards was adopted by the San Joaquin Valley Air District on November 15, 2018 and California Air Resources Board on January 24, 2019 and subsequently submitted for EPA review. On March 27, EPA published a proposed rule approving portions of the 2018 PM2.5 Plan, including the 2006 PM2.5 conformity budgets and trading mechanism. Final rule on sections that pertain to 2006 24-hour PM2.5 standard Serious area nonattainment was released on July 22, 2020 therefore this conformity analysis incorporates new 2018 PM2.5 SIP budgets for the 2006 24-hour PM2.5 standards. The remaining components of the 2018 PM2.5 Plan addressing the 1997 and 2012 PM2.5 standards are currently undergoing EPA review. In addition, Eastern Kern’s 2017 Ozone SIP, inclusive of transportation conformity budgets, has been proposed to be approved on October 28, 2020. Final action on the 2017 Ozone SIP is expected in spring of 2021. Should EPA act on these additional SIP elements, this conformity analysis includes an “upcoming budget test” in case the new transportation conformity budgets become available prior to federal approval of the 2021 FTIP conformity analysis.

This analysis demonstrates that the criteria specified in the transportation conformity regulations for a conformity determination are satisfied by the 2021 FTIP and the 2018 RTP Amendment #1; a finding of conformity is therefore supported. The 2021 FTIP, 2018 RTP Amendment #1, and the corresponding Conformity Analysis were approved by Kern Council of Governments Policy Board on February 18, 2021. Federal approval is anticipated on or before April 30, 2021. FHWA/FTA last issued a finding of conformity for the 2021 FTIP and the 2018 RTP, as amended if applicable, on May 9, 2019.