Fresno COG

2011 REGIONAL TRANSPORTATION PLAN

Final Subsequent Environmental Impact Report

Final Subsequent Environmental Impact Report for the Fresno COG Regional Transportation Plan

July 15, 2010

Prepared For:

Council of Fresno County Governments
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1.0 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that a Final Subsequent Environmental Impact Report (FSEIR) must be prepared, certified, and considered by decision-makers prior to taking action on a project. The Final SEIR provides Fresno COG with an opportunity to respond to comments received on the Draft SEIR and to incorporate any changes or additions necessary to clarify and/or supplement the information contained in that document. This Final SEIR, therefore, represents the culmination of all environmentally related issues raised during the comment period on the Draft SEIR for the Fresno County 2011 Regional Transportation Plan (RTP). In addition, this Final SEIR contains the Statement of Overriding Considerations (Exhibit A), which identifies the significant, adverse, and unavoidable impacts in the Draft SEIR. Finally, a Mitigation Monitoring and Reporting Program (Exhibit B) is included that identifies the necessary processes that are required to ensure that the mitigation measures recommended in the Draft SEIR are implemented. The Fresno COG Board of Directors is required to balance the benefits of the proposed Project (2011 RTP) against its unavoidable environmental risks in determining whether to approve the Project.

1.1 FORMAT AND SCOPE

This document has been prepared by VRPA Technologies, Inc. (VRPA) to address the required components described above. The forty-five day Draft SEIR review and comment period began on April 30, 2010 and ended on June 14, 2010. Comments received and staff responses to those comments are contained in Section 2 of this Final SEIR. Section 3 provides a listing of changes, additions, and corrections to the Draft SEIR recommended by VRPA. Such changes, additions, and corrections are necessary to address revisions resulting from written comments on the Draft SEIR. In addition, this document also includes a Statement of Overriding Considerations (Exhibit A), and the Mitigation Monitoring and Reporting Program (reference Exhibit B).

The Final SEIR is composed of the following documents:

- Fresno County 2011 Regional Transportation Plan, Draft Subsequent Environmental Impact Report, April 30, 2010
- Fresno County 2011 Regional Transportation Plan, July 2010
- Fresno County Conformity Analysis, July 2010
- Fresno County 2011 Regional Transportation Plan, Final Subsequent Environmental Impact Report, July 7, 2010

1.2 PROJECT DESCRIPTION

The project, as defined by CEQA Statutes, Section 21065, is the preparation of the 2011 revision of the RTP. The Fresno County Council of Governments (Fresno COG) has prepared the RTP as required by Section 65080 et seq., of Chapter 2.5 of the California Government Code as well as federal guidelines pursuant to the requirements of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The RTP must also meet Transportation Conformity for the Air Quality Attainment Plan per 40 CFR Part 51 and 40 CFR Part 93. In addition, the RTP must address requirements set forth in Assembly Bill 32, The California Global Warming Solutions Act of 2006. Finally, the California Transportation Commission has prepared guidelines (most recently revised in April 2010 including an Addendum addressing Climate Change and Greenhouse Gas

Emissions adopted by the Commission on May 29, 2008) to assist in the preparation of RTPs pursuant to Section 14522 of the Government Code.

As the designated Regional Transportation Planning Agency (RTPA), Fresno COG is mandated by state and federal law to update the Regional Transportation Plan every four (4) years. The last comprehensive EIR on the RTP was completed in May 2007, which addressed transportation improvement projects, programs, and funding from federal, State and local sources including additional funding from the ½ Cent Sales Tax Measure (Measure "C" Extension). Measure "C" did receive the 2/3rds voter approval required in order to pass in the November 2006 election. The 2011 revision to the RTP has been prepared to address possible environmental impacts resulting from its implementation and sources of funding that are available for programming.

The RTP is used to guide the development of the Regional Transportation Improvement Program (RTIP). The RTIP is the programming document used to plan the construction of regional transportation projects and requires State Department of Transportation (Caltrans) approval. No project-level assessments of environmental impacts are addressed by this SEIR. The RTP is also used as a transportation planning document by each of the sixteen member jurisdictions of Fresno COG. Member jurisdictions include the County of Fresno and the cities of Clovis, Coalinga, Firebaugh, Fowler, Fresno, Huron, Kerman, Kingsburg, Mendota, Orange Cove, Parlier, Reedley, San Joaquin, Sanger, and Selma.

The RTP identifies the region's transportation needs and issues, sets forth an action plan of projects and programs to address the needs consistent with the adopted policies, and documents the financial resources needed to implement the plan. Additional areas of emphasis and policy initiatives in the 2011 RTP include Climate Change (including a Climate Change Element), Congestion Management Process, Environmental Justice, Goods Movement, and Blueprint Planning. In addition, the 2011 RTP includes updated project lists and updated performance measures.

The 2011 RTP consists of required elements referenced in the enabling legislation and is organized into various sections noted below.

- Chapter 1. San Joaquin Valley Regional Transportation Overview
- Chapter 2. Regional Setting, State & Federal Issues
- Chapter 3. Policy Element
- Chapter 4. Needs Assessment & Action Element
- Chapter 5. Climate Change
- Chapter 6. Financial Element
- Chapter 7. Public Outreach
- Appendices

2.0 WRITTEN COMMENTS AND FINAL RESPONSES TO COMMENTS

(*Comments received are provided beginning on Page 2-7)*

FROM: Scott Morgan, Acting Director, State Clearinghouse

DATED: June 16, 2010

RESPONSE #1: No comments regarding the Draft Subsequent Environmental Impact Report (SEIR) were received by the State Clearinghouse from State agencies.

FROM: Erin M. Hanlon, Regulatory Project Manager, Sacramento District, Department of the Army, U.S. Army Engineer District, Sacramento, Corps of Engineers

DATED: May 5, 2010

RESPONSE #2: Appropriate mitigation measures are provided in the Draft SEIR (reference Page 3-60 through 3-65). Such measures address the Corps' comments. Changes to the Draft SEIR are not necessary.

FROM: Bill Pfanner, Supervisor, Local Energy & Land Use Assistance Unit, Special Projects Office, Fuels and Transportation Division, California Energy Commission

DATED: May 13, 2010

RESPONSE #3: 3A A separate Energy Conservation Section has been prepared to address Comment 1 in Chapter 3 of the Final SEIR (Changes to the Draft SEIR). Mitigation measures that address energy conservation were also included in Chapter 3, Section 3.6 of the Draft SEIR under Climate Change.

3B: Comment noted. A new mitigation measure has been added in Chapter 3 of the Final SEIR (Changes to the Draft SEIR) referencing the Energy Commission's *Energy Aware Planning Guide*.

FROM: Tom Krazen, Sanger Hill Ranch

DATE: June 15, 2010

RESPONSE #4: 4A The Draft SEIR considered the impacts of projects and programs referenced in the Draft RTP. The Draft RTP includes a number of programs and projects (reference Chapter 2, Table 2-1 and Figures 2-2 and 2-3 in the Draft SEIR) that will provide for improved multimodal transportation services and facilities between the rural areas of Fresno County and the FCMA. Such projects include the following major highway improvements:

- SR 180 West between James and Yuba – Passing Lanes
- SR 80 West between I-5 and the SR 33/SR180 Junction – new 4-lane highway
- SR 180 East between Temperance and Frankwood - a 4-Lane expressway on a new right-of-way
- SR 99 – various mainline and interchange improvements connecting the rural communities of Kingsburg, Selma and Fowler with the FCMA
- A number of other major arterial facility improvements (additional lanes or new connections)

The RTP also references a number of public transit improvements throughout the County that will increase service frequency, expand service areas, and provide additional services and facilities to enhance public transit access and connections to other travel modes and the FCMA for jobs and services. Referencing Chapter 2, Pages 3-52 through 3-57 and Figure 2-10 of the Draft SEIR, the existing and future rural transit system is detailed, reflecting the various services provided through the Fresno County Rural Transit Agency (FCRTA) and social service transit services provided by FCRTA and the Fresno County Economic Opportunities Commission (FCEOC).

Finally, the Measure "C" Extension provided for a significant increase in transit and rural highway funding. Approximately 24% or $412 million of all Measure "C" funding must be allocated to public transit improvements within the County, including the rural systems. Approximately 34.6 percent or approximately $594 million percent of Measure "C" funding is allocated to the Local Transportation Program, which local agencies throughout the County use to finance maintenance and rehabilitation programs, comply with Americans with Disabilities Act (ADA) requirements, provide funding for any transportation-related project, and allocates funding for bicycle, trails and pedestrian facilities. The funding is allocated on an annual basis considering population and road miles. A number of other federal and state funding programs are also assumed that will benefit the rural areas of the County through to the year 2035. Further, the annual "Unmet Transit Needs" process provides the opportunity for citizens and stakeholders within the County to identify their requests for new, enhanced, or expanded transit services, the need to access new job development opportunities within the County, or other unforeseen occurrences that may require the addition of transit services.

4B Other transportation services, including public transportation services and systems are reflected in the SEIR. Reference response to Comment 4A above.

4C Reference Response to Comments regarding the Draft 2011 RTP.

FROM: Chris Ganson, Transportation Planning Lead, Environmental Review Office, United States Environmental Protection Agency, Region IX

DATE: June 14, 2010

RESPONSE #5: 5A The Draft RTP highlights a number of efficiency measures intended to reduce air emissions and improve the region's air quality. Referencing Chapter 4, Section 4.4, Page 4-33 of the RTP, there are a number of public transit improvements included in the RTP intended to enhance service for commuters and enhanced access to services. In

addition, there is significant emphasis on the expansion of bikeways, trails and pedestrian facilities throughout the County. Further, referencing Chapter 4, Section 4.9 of the RTP, beginning on Page 4-104, a number of transportation control measures (TCMs), transportation demand management (TDM) strategies, transportation systems management (TSM) strategies, and other programs and strategies are recommended to reduce single occupant vehicle (SOV) trips and vehicle miles traveled (VMT). In addition, land use measures are highlighted reflecting the Valleywide effort accomplished over the past three years to prepare develop a coordinated valley vision – the San Joaquin Valley Regional Blueprint. The Valley council of governments (COGs), including Fresno COG, are now in the process of preparing an implementation plan and toolkit to be used by local agencies to guide development and promote the livable and sustainable communities resulting in areas with improved air quality, supportive multimodal transportation systems, and sustainable environmental resources. Finally, a number of strategies are included in the Conformity Analysis document and in the Climate Change Element of the RTP (reference Chapter 5 of the RTP (Page 5-1) and the Draft SEIR (Chapter 3, Section 3.5 – Page 3-66) that will result in reduced air emissions and improved multimodal transportation systems. It should be noted that the Conformity analysis shows that Project emissions do not exceed the base and budget thresholds established by EPA. Emissions (with the exception of PM_{10}, which is in attainment of federal standards) will be reduced between 2010 and 2035 as Project improvements are constructed.

5B Reference Response to Comments regarding the 2011 Draft RTP.

5C Reference Response to Comment regarding the 2011 Draft RTP.

5D The Draft SEIR, Chapter 3, Section 3.5 Climate Change and Chapter 5 of the RTP, provide a detailed discussion of GHG impacts and recommended mitigation measures. Referencing Page 3-78 of the Draft SEIR, an analysis of the project (all projects listed in the 2011 RTP) versus the No Build Alternative has been quantified. Emissions were estimated using the Fresno COG Traffic Model and EMFAC. EMFAC considers vehicle hours traveled, vehicle trips, vehicle miles traveled, and other factors when it computes emissions estimates for all modeled improvement projects listed in the RTP. The traffic model includes estimates of transit, pedestrian, bicycle and other trips during the modeling process. If project improvements are not implemented over time, GHG emissions will increase because congestion and vehicle hours of travel will significantly increase. Reference Table 2-1 in Chapter 2 of the Final SEIR.

It should be noted that the Draft SEIR contains a number of mitigation measures that require local agencies to quantify and mitigate GHG impacts resulting from individual transportation improvement projects listed in the RTP. It is not possible for the RTP to estimate project specific impacts other than from a cumulative perspective.

5E Fresno COG concurs with the importance of a coordinated/cooperative partnership with the local air district and both the Fresno COG and the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) collaborate on air quality issues. The locally adopted Air District Climate Change Action Plan was discussed in Chapter 5, Page 9 of the Draft 2011 RTP. This guidance will be of use in the implementation phase of the Fresno as well as the San Joaquin Valley Blueprint process. The following paragraph has been added to that section:

The first comprehensive regional policy and guidance on addressing and mitigating greenhouse gas (GHG) emission impacts caused by industrial, commercial, and residential development in the San Joaquin Valley was adopted by the Valley Air District's Governing Board December 17, 2009. This set of guidance documents is designed to assist local permitting agencies and businesses by answering several questions related to the California Environmental Quality Act (CEQA) and how to address GHG impacts under existing CEQA law. For more information please see http://www.valleyair.org/Programs/CCAP/CCAP_idx.htm.

Chapter 3, Section 3.5 of the Draft SEIR includes a discussion of the Air District's Climate Change Action Plan; therefore changes to the SEIR are not necessary.

5F Reference the Response to Comments regarding the Draft RTP.

5G The California Environmental Quality Act (CEQA) requires that Fresno COG address impacts that the project (2011 RTP) may have on an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Planning (NCCP) Program, or other approved local, state or regional HCP. The mitigation measure is intended to reduce such impacts should a HCP be approved within the County. Currently, there are no HCP, HCCP or other similar programs or plans adopted within the County by any of the local agencies. A statement to that effect has been included in Chapter 3 of the Final SEIR (Changes to the Draft SEIR).

Recommended biological and sensitive habitat mitigation measures listed in the comment letter have been added to Chapter 3 of the Final SEIR (Changes to the Draft SEIR).

5H The Draft SEIR contains information regarding the use of available data used to inform regional transportation planning decisions. The Draft SEIR provides a detailed description of data sources and information available to identify potential natural or historic resource impacts, as well as appropriate mitigation measures to address impacts associated with the short- and long-range improvement projects to be implemented by various state, local, and other agencies. The Draft SEIR is incorporated in the 2011 RTP by reference. In addition, the specific references to each data source listed in the comment letter, which was not included in the Draft SEIR, has been included in Chapter 3 of the Final SEIR (Changes to the Draft SEIR) including U.S. Fish & Wildlife Service's species recovery plans, the USDA Natural Resources Conservation Service wetland data, the Nature Conservancy data and regional planning document, and local non-profit and land trust group information.

FROM: Cathy Rodriguez, Transportation Planning North Branch, Department of Transportation, District 06

DATE: June 14, 2010

RESPONSE #6: 6A Reference the Response to Comments regarding the Draft RTP.

6B Reference the Response to Comments regarding the Draft RTP.

6C Reference the Response to Comments regarding the Draft RTP.

6D Reference the Response to Comments regarding the Draft RTP.

6E Fresno COG concurs that the LOS methodology that will be applied to assess the level of service associated with individual improvement projects during a focused environmental review, should apply Highway Capacity Manual methods to determine segment and intersection levels of service.

While the project (2011 RTP) relied on mass transit and alternative transportation modes to reduce trips and improve level of service along the street and highway system, the RTP and Draft SEIR identify other strategies. Specifically, the Draft SEIR references measures such as "increasing rideshare and work-at-home opportunities to reduce demand on the transportation system, investments in non-motorized transportation and maximizing the benefits of the land use/transportation connection, other Travel Demand Management measures described in the RTP and in local agency General Plans, and key transportation investments targeted to reduce congestion levels and improve LOS." Finally, land use measures are highlighted reflecting the Valleywide effort accomplished over the past three years to prepare develop a coordinated valley vision – the San Joaquin Valley Regional Blueprint. The Valley council of governments (COGs), including Fresno COG, are now in the process of preparing an implementation plan and toolkit to be used by local agencies to guide development and promote the livable and sustainable communities resulting in areas with improved air quality, supportive multimodal transportation systems, and sustainable environmental resources. Finally, a number of strategies are included in the Conformity Analysis and in the Climate Change section of the RTP (Chapter 5, Page 5-1) and the Draft SEIR (Chapter 3, Section 3.5 – Page 3-66) that will result in reduced air emissions and improved multimodal transportation systems.

6F The analysis of street and highway level of service provided in the Draft SEIR is intended to identify critically congested segments along the regionally significant street and highway system and is reflective of minimum standards that have been adopted by Caltrans, the County of Fresno, and each of the cities. Most of these agencies reflect a Minimum Level of Service Standard of "D"; while a few identify "C" as the minimum standard. Caltrans' minimum level of service standard is "C" in all rural areas and "D" in urban areas. None of the agencies specify specific levels of service for rural areas by terrain type and there are no specific standards for suburban areas. Fresno COG has always identified LOS "D" as the minimum LOS standard for the regionally significant street and highway system including during preparation of previous RTP and associated EIR documents, corridor studies, development of the Measure "C" Extension funding program of projects, development of the Regional Mitigation Impact Fee (RTMF) program, and other similar regional studies. Further, Fresno COG has identified a minimum LOS of "C" in the rural areas of the County and LOS "D" in the urban areas as part of its Congestion Management Program.

It should be noted that Fresno COG will be developing a new set of project evaluation criteria and associated methodologies to evaluate and prioritize regionally significant transportation projects to be incorporated into the 2014 RTP. Fresno COG will consider revising its minimum level of service standard and welcomes consideration of this and future suggested level of service standards considering other studies and plans, facility type,

geographic location, terrain type, and other technical and environmental factors during that process.

6G Unconstrained street and highway projects are included in the Draft RTP in Appendix D-1 beginning on Page D-1.

6H Adopted fee program funding collected by local agencies or through the Regional Transportation Mitigation Fee (RTMF) program is already considered in the constrained Financial Element of the 2011 Draft RTP. Such funding was identified to address RTP improvement projects listed in the street and highway constrained capacity increasing project list along the state highways system or on the local street and highway systems. Other available funding sources (such as Measure "C") that can be relatively assured during the planning period of the RTP or through to the Year 2035, have also already been assumed to address costs associated with constrained capacity increasing street and highway projects.

The statement referenced in Comment 6H regarding funding requirements is meant to indicate that additional coordination with affected agencies will be required to address the list of unfunded or unconstrained street and highway projects over time.

Fresno COG has included the list of improvement projects provided by Caltrans and other local agencies on the unconstrained project list when funding for such projects has not been identified or assumed to be available over the life of the RTP (reference Chapter 6, Section 6.6, Page 6-17 of the Draft RTP).

6I Reference the Response to Comments regarding the Draft RTP.

6J Reference the Response to Comments regarding the Draft RTP.

6K Reference the Response to Comments regarding the Draft RTP.

6L Reference the Response to Comments regarding the Draft RTP.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

June 16, 2010

Clark Thompson
Fresno County Council of Governments
2035 Tulare Street, Suite 201
Fresno, CA 93721

Subject: Fresno COG 2011 Regional Transportation Plan (Notice of Preparation of a Subsequent EIR)
SCH#: 2006121100

Dear Clark Thompson:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on June 14, 2010, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Acting Director, State Clearinghouse

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BY:
FRESNO COG

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Document Details Report
State Clearinghouse Data Base

SCH#	**2006121100**
Project Title	Fresno COG 2011 Regional Transportation Plan (Notice of Preparation of a Subsequent EIR)
Lead Agency	Fresno County Council of Governments
Type	**EIR** Draft EIR
Description	Preparation and approval of the Fresno COG 2011 Regional Transportation Plan (RTP).

Lead Agency Contact

Name	Clark Thompson		
Agency	Fresno County Council of Governments		
Phone	(559) 233-4148	***Fax***	(559) 233-9645
email			
Address	2035 Tulare Street, Suite 201		
City	Fresno	***State*** CA	***Zip*** 93721

Project Location

County	Fresno			
City	Fresno			
Region				
Lat / Long				
Cross Streets	Countywide			
Parcel No.				
Township		***Range***	***Section***	***Base***

Proximity to:

Highways	
Airports	
Railways	
Waterways	
Schools	
Land Use	Various

Project Issues	Agricultural Land; Air Quality; Other Issues; Geologic/Seismic; Toxic/Hazardous; Water Quality; Landuse; Noise; Population/Housing Balance; Public Services; Traffic/Circulation; Growth Inducing; Cumulative Effects; Aesthetic/Visual; Archaeologic-Historic; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Septic System; Soil Erosion/Compaction/Grading; Vegetation; Water Supply; Wetland/Riparian; Wildlife
Reviewing Agencies	Resources Agency; Department of Conservation; Department of Fish and Game, Region 4; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 6; Air Resources Board, Transportation Projects; Regional Water Quality Control Bd., Region 5 (Fresno); Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission; State Lands Commission

Date Received 04/30/2010 ***Start of Review*** 04/30/2010 ***End of Review*** 06/14/2010

Note: Blanks in data fields result from insufficient information provided by lead agency.

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

REPLY TO
ATTENTION OF

May 5, 2010

Regulatory Division SPK-2010-00571

Clark Thompson
The Council of Fresno County Governments
2035 Tulare Street, Suite 201
Fresno, California 93721

Dear Mr. Thompson:

We are responding to your May 3, 2010 request for comments on the Fresno COG 2011 Regional Transportation Plan Subsequent Environmental Impact Report. The report area covered includes Section 35, Township 13 South, Range 21 East, MDB &M Survey, Latitude 36.75874°, Longitude -119.65444°, Fresno County, California. Your identification number is SPK-2010-00571.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

To ascertain the extent of waters on project sites, project applicants should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Preliminary Wetland Delineations", under "Jurisdiction" on our website at the address below, and submit it to this office for verification. A list of consultants that prepare wetland delineations and permit application documents is also available on our website at the same location. #2

The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

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BY:
FRESNO COG

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Please refer to identification number SPK-2010-00571 in any correspondence concerning this project. If you have any questions, please contact me at U.S. Army Corps of Engineers, Regulatory Division, 1325 J Street, Rm. 1480, Sacramento, CA 95814, email *Erin.M.Hanlon@usace.army.mil*, or telephone 916-557-5250. For more information regarding our program, please visit our website at *www.spk.usace.army.mil/regulatory.html*.

Sincerely,

Erin M. Hanlon

Erin M. Hanlon
Regulatory Project Manager
Sacramento District

STATE OF CALIFORNIA – NATURAL RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

May 13, 2010

Clark Thompson
Council of Fresno County Governments
2035 Tulare Street, Suite 201
Fresno, CA 93721

Dear Mr. Thompson:

The California Energy Commission has received the Council of Fresno County Governments' Supplemental/Subsequent EIR titled Notice of Preparation of a Subsequent EIR for the Fresno COG 2011 Regional Transportation Plan, SCH 2006121100 that was submitted on 4/30/2010 for comments due by 6/14/2010. After careful review, the Energy Commission has found the following:

We would like to assist in reducing the energy usage involved in your project. Please refer to the enclosed Appendix F of the California Environmental Quality Act for how to achieve energy conservation. 3A

In addition, the Energy Commission's *Energy Aware Planning Guide* is also available as a tool to assist in your land use planning. For further information on how to utilize this guide, please visit www.energy.ca.gov/energy_aware_guide/index.html. 3B

Thank you for providing us the opportunity to review/comment on your project. We hope that our comments will be helpful in your environmental review process.

If you have any further questions, please call Gigi Tien at (916) 651-0566.

Sincerely,

Bill Pfanner

BILL PFANNER
Supervisor, Local Energy & Land Use Assistance Unit
Special Projects Office
Fuels and Transportation Division
California Energy Commission
1516 Ninth Street, MS 23
Sacramento, CA 95814

Enclosure

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Appendix F
ENERGY CONSERVATION

I. Introduction

The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

(1) decreasing overall per capita energy consumption,
(2) decreasing reliance on natural gas and oil, and
(3) increasing reliance on renewable energy sources.

In order to assure that energy implications are considered in project decisions, the California Environmental Quality Act requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy.

Energy conservation implies that a project's cost effectiveness be reviewed not only in dollars, but also in terms of energy requirements. For many projects, lifetime costs may be determined more by energy efficiency than by initial dollar costs.

II. EIR Contents

Potentially significant energy implications of a project should be considered in an EIR. The following list of energy impact possibilities and potential conservation measures is designed to assist in the preparation of an EIR. In many instances, specific items may not apply or additional items may be needed.

A. Project Description may include the following items:
   1. Energy consuming equipment and processes which will be used during construction, operation, and/or removal of the project. If appropriate, this discussion should consider the energy intensiveness of materials and equipment required for the project.
   2. Total energy requirements of the project by fuel type and end use.
   3. Energy conservation equipment and design features.
   4. Initial and life-cycle energy costs or supplies.
   5. Total estimated daily trips to be generated by the project and the additional energy consumed per trip by mode.

B. Environmental Setting may include existing energy supplies and energy use patterns in the region and locality.

C. Environmental Impacts may include:
   1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
   2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.
   3. The effects of the project on peak and base period demands for electricity and other forms of energy.
   4. The degree to which the project complies with existing energy standards.
   5. The effects of the project on energy resources.
   6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

D. Mitigation Measures may include:
   1. Potential measures to reduce wasteful, inefficient and unnecessary consumption of energy during construction, operation, maintenance and/or removal. The discussion should explain why certain measures were incorporated in the project and why other measures were dismissed.
   2. The potential of siting, orientation, and design to minimize energy consumption, including transportation energy.
   3. The potential for reducing peak energy demand.
   4. Alternate fuels (particularly renewable ones) or energy systems.
   5. Energy conservation which could result from recycling efforts.

E. Alternatives should be compared in terms of overall energy consumption and in terms of reducing wasteful, inefficient and unnecessary consumption of energy.

F. Unavoidable Adverse Effects may include wasteful, inefficient and unnecessary consumption of energy during the project construction, operation, maintenance and/or removal that cannot be feasibly mitigated.

G. Irreversible Commitment of Resources may include a discussion of how the project preempts future energy development or future energy conservation.

H. Short-Term Gains versus Long-Term Impacts can be compared by calculating the energy costs over the lifetime of the project.

I. Growth Inducing Effects may include the estimated energy consumption of growth induced by the project.

Clark Thompson

From: Brenda Lauchner
Sent: Tuesday, June 15, 2010 8:16 AM
To: Barbara Steck; Tony Boren; Clark Thompson
Subject: FW: Additional Comments about the Fresno COG 2011 RTP

From: tomkrazan@gmail.com [mailto:tomkrazan@gmail.com] **On Behalf Of** Tom Krazan
Sent: Monday, June 14, 2010 7:20 PM
To: Brenda Lauchner
Cc: Case, Judy; Kathy Millison; John White; Jose Leon-Barraza; Mayor@fresno.gov; juan.arambula@asm.ca.gov; Dick Sheppard; Al Solis; Al Smith; Jeanette "Nettie" Inouye; Angie Rios; Beth Garcia; Dan L Spears; Gary Hanson; Taryn Harmon; Hal Kissler; Dan Hightower; Ishii, Jeanette; j.olivares; Buzz Burleson; <Kurt Madden; Donna Krazan; <Larry Powell; Richard Olsson; I. Zion Enos; Enrique Zuniga; <Victoria Salisch; Klose, Valerie; Roger Van Groningen; Deborah Nankivell; <Sarah Najera; Melanie Sue; Emma Jeanne Weber; Andrew Rogerson; Robert Calzadilla; RONALD YAMABE; Yulia Chavez; Sanger Medical Supplies; Brenda Pritchard
Subject: Additional Comments about the Fresno COG 2011 RTP

Hi Brenda,

The document is very thick. I wish we had more time to comment on the Draft EIR report. Here are a few of additional comments.

The Draft EIR far under-estimates the needs of poor people in the outlying communities and their individual transportation needs. Most workers in the rural area depend on Fresno as their place of employment. Mass transit is nice but does not meet the needs of flexible work hours for most Hispanics in rural America. Computers are nice for those in Clovis for virtual offices but that is not reality for the remainder of us in rural Fresno County.

Please read the following.

1) The Draft EIR significantly understates the East-West Corridor issues for the Metro area. Kerman and Sanger by a very recent study are the two fastest growing areas of Fresno County. The study was reported in the Fresno Biz Journal a couple of weeks ago. Kerman was number one and Sanger was number two by a zip code study.

Kerman, Sanger, Clovis, Madera, Madera Ranchos, Kingsburg, Selma, and Fowler are all bedroom communities for the Metro Fresno/Clovis area. This is very obvious by the morning and evening drive patterns. 4A

In particular the importance of Kerman and Sanger are far under-estimated in the EIR. Highway 180 is extremely busy but very little is said about these two communities in the EIR and the transportation needs of these two areas. Highway 180 is extremely important to JOBS for the local people of Kerman and Sanger.

2) The importance of the Orange Belt for Rural transportation is far too over-stated. The Orange Belt for Sanger, Parlier, Reedley, and Orange Cove is next to useless. I have tried to ride it from Sanger to Orange Cove. The travel times are extremely poor and we decided to not take the bus. Too 4B

inconvenient for general travel or TRAVELING TO WORK.

3) The function of electric cars for short travel is also too under-estimated. I have been an investor in electric cars for the last 10 years or so. My first investment was in a car called the Corbin. My first car is now on display at CART (High School) in Clovis. I have recently purchased two electric vehicles. I now use an electric truck on my ranch in Sanger. I drive it into town often. It can travel most of the day on one charge. 4C

If I had a way to drive to Fresno from Sanger, I would drive my electric truck into Fresno to sell fresh organic oranges and pecans from my ranch. My electric truck is slow but it is DOT certified at lower speeds. The truck is all steel and has air conditioning (and heater). Over 600 of these trucks are in service in California at this time.

Thank you,

Tom Krazan
Sanger Hill Ranch
Sanger, California
994-0653

6/15/2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

Clark Thompson, Planner III
Council of Fresno County Governments
2035 Tulare Street, Suite 201
Fresno, CA 93721

Subject: U.S. EPA Comments on the Council of Fresno County Governments 2011 Draft Fresno County Regional Transportation Plan and Draft Environmental Impact Report

Dear Mr. Thompson:

The U.S. Environmental Protection Agency (EPA) appreciates the opportunity to provide feedback on the Council of Fresno County Governments (COFCG) 2011 Draft Fresno County Regional Transportation Plan (RTP) and Draft Environmental Impact Report (DEIR). EPA is committed to the goal of incorporating environmental considerations early in the transportation planning process. This early coordination results in greater opportunities to avoid sensitive resources and minimize impacts associated with future transportation projects.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) directs metropolitan planning organizations (MPOs) to consult with resource agencies while developing long-range transportation plans. It also requires such plans to discuss potential environmental mitigation activities and potential locations for these activities to restore and maintain environmental functions that could be affected by the plan. EPA provides the following comments in support of compliance with these requirements.

Delineate Robust Measures to Improve Air Quality through Travel Efficiency

Air quality in the San Joaquin Valley is among the poorest in the country, causing significant health environmental impacts to its residents. The valley's geography and meteorology traps pollutants, so special attention must be given to reducing the amount emitted. Transportation within the valley contributes a significant portion of these pollutants, and so reducing emissions from transportation is necessary to improving the valley's air quality. While improvements in vehicle technology are helping, substantial focus on and investment in travel efficiency measures will need to contribute to emissions reduction as well. 5A

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Use the RTP Process to Spur Transportation Efficient Growth That Accomplishes Multiple Objectives

A regional transportation planning process provides an opportunity to focus growth and activity where it most benefits the region. Compact development built in infill locations shortens trip distances; transit oriented development leads to a greater share of transit use; mixing of uses does both and also creates opportunities for active transportation modes. Such development patterns, and the transportation patterns they help create, in turn create environmental and livability benefits. 5B

EPA, the US Department of Housing and Urban Development (HUD) and the US Department of Transportation (DOT) recently joined in a partnership to support measures to improve livability and sustainability. We encourage COFCG to consider the principles identified through this partnership when working to integrate the blueprint concept into regional planning. More information on this partnership, including grant opportunities, can be found at http://www.epa.gov/smartgrowth/partnership/. Programs offered by the partnership, including funding opportunities, can be found at http://www.epa.gov/smartgrowth/pdf/2010_0506_leveraging_partnership.pdf.

Clarify in the RTP How the Ongoing Regional Blueprint Effort Influenced Any Current Design and Route Network Location Decisions.

EPA commends COFCG for its current efforts in blueprint/scenario planning, including both technical and consensus building components of this work. Again, we recognize the importance of this process in preparing for its next RTP cycle, which will require the preparation of a Sustainable Communities Strategy (SCS) under SB 375. In its SCS, EPA recommends that COFCG also include discussions of the other goals and criteria of the regional blueprint and how each relates to and/or influences the RTP. EPA also encourages COFCG to continue to provide support and resources to local jurisdictions to make their general plans and proposed projects consistent with the RTP and the San Joaquin Valley Blueprint (http://www.valleyblueprint.org/). Further, EPA suggests identifying how the RTP can facilitate and encourage implementation of measures from the local sustainability plans, such as the Fresno Green plan. We recommend describing how the RTP creates a framework for the creation of more local sustainability plans and support their implementation. 5C

EPA recognizes that COFCG intends to apply the ongoing regional blueprint process to identify a preferred growth scenario for the future which will serve as the foundation for determining a Sustainable Community Strategy. However, the RTP should clearly state how the information from the ongoing regional blueprint process or from the information collected to complete it in the future has informed the decision-making behind the projects *already proposed* in the RTP. EPA recommends that, at a regional level, the RTP identify how proposed transportation projects have been planned to (1) maximize use of existing infrastructure, such as improvements to existing roadways and transit service, rather than add new infrastructure; (2) satisfy the region's residents need for efficient access to goods and services in the way that

Page **2** of **6**

causes the least environmental and social harm; and (3) avoid and minimize harm to high quality resources and habitat. The RTP should also identify what design and route network location decisions were proposed in order to avoid and/or minimize impacts to resources. It should be clear how information about resources, including information from existing resource documents, has informed decisions about the route network.

Provide a More Comprehensive Discussion of the RTP's Implications for Greenhouse Gas Emissions.

Upcoming greenhouse gas emissions targets under SB 375 will require Metropolitan Planning Organizations to develop Sustainable Community Strategies which reduce transportation greenhouse gas emissions. EPA recommends further discussion of these upcoming requirements and the steps it is taking towards meeting them.

Additionally, we suggest incorporating discussion of the GHG implications of currently proposed projects. Perhaps the most significant influence an MPO has on greenhouse gas emissions are from the induction and distribution of vehicle travel that results from new infrastructure projects. A growing body of research demonstrates that increasing roadway and highway capacity induces automobile use. We strongly recommend induced demand be considered in assessing impacts from such projects in the RTP. With this in mind, we recommend including a discussion of assumptions underlying Vehicle Miles Traveled and Greenhouse Gas Emissions estimates provided in the document. 5D

In the Absence of Finalized GHG Thresholds Guidance, EPA Recommends Referring to Draft Guidance and/or Finalized Guidance From Other Air Quality Management Districts.

As the RTP states, at this time, no comprehensive federal or state-wide guidance exists for consideration of GHG emissions significance thresholds in environmental review documents. However, guidance has been developed by Air Quality Management Districts around the state, including the San Joaquin Air Quality Management District (SJAQMD). EPA recommends including a discussion of this guidance in the RTP/EIR. Furthermore, the Bay Area Air Quality Management District (BAAQMD) recently finalized its GHG significance threshold guidance, and includes principles that could be applied throughout the state. 5E

In the RTP, Discuss Preparation for a Carbon Constrained Future Transportation Network.

A significant fraction of the built environment that will exist in Fresno County at the planning horizon of this RTP has yet to be built. Thus, significant opportunities exist to make substantial changes to land use development patterns. Because land use has significant direct influence on factors such as mode choice and average trip distance, and therefore indirect influence on factors such as air quality and greenhouse gas emissions, opportunity exists for significant change from current trends. EPA recommends including a discussions of estimates of the range of possibility with respect to these factors, and a discussion of the factors limiting these possibilities (e.g. funding, institutions, politics). 5F

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Pages 4-29 and 4-30 of the RTP contain a discussion that recognizes the need for Transportation Demand Management (TDM) to take on some of the traditional role of roadway expansion:

> Modifying travel demand is a critical issue. It is becoming increasingly apparent that financial, energy, and environmental resources are slowly being overburdened by the need to satisfy ever-increasing demand for travel. Over time it will be necessary to develop and implement a variety of measures to reduce this demand. The measures range from the provision of various incentives to promote multi-occupancy vehicle use (i.e. rideshare and transit), alternative modes such as non-motorized and rail, and trip reduction through various land use planning mechanisms.

EPA applauds the inclusion of this discussion on the need for Travel Demand Management to complement roadway expansion, discussing both more immediate solutions (such as ridesharing and vanpools) as well as potential long-term solutions (such as roadway tolling). We further believe that anticipated fiscal and environmental constraints on the transportation system warrant consideration of stronger measures. While we recognize there may not be an opportunity to include a comprehensive discussion and analysis of these measures in this RTP update, we recommend expanding this discussion with an eye toward the next RTP cycle. We recommend such a discussion focus primarily on opportunities and secondarily on constraints.

Many factors influence transportation greenhouse gas emissions. While population and employment growth drive transportation activity, these two factors are moderated by a number of others that influence travel behavior, which COFCG is in a position to influence directly or indirectly. We encourage you to identify in this RTP measures to achieve regional climate goals such as incentivizing more transportation-efficient land use patterns and implementing a broader array of transportation demand management measures.

In particular, discussion of several of the EIR's impacts and mitigation measures rely on the argument that COFCG does not have land use authority and therefore cannot affect travel demand. While it is true that COFCG does not have direct control over land use, it can facilitate local jurisdictions in the region, coordinate and build consensus through blueprint planning already underway. A number of incentive programs are available to help fund such coordination (see attached list). Further, COFCG can use its role in transportation network planning to influence growth.

Expand COFCG's Discussion of impacts to Critical Habitat Areas and Connect It to a Broader Regional Mitigation Strategy in the RTP.

The RTP DEIR states that the plan may conflict with "an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Planning (NCCP) program or other approved local, regional or state HCP," noting that mitigation will take place in project-level environmental analysis. EPA recommends listing such plans where they exist. Where they do, EPA strongly recommends such plans be considered in the regional transportation planning process. 5G

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The following are EPA's recommendations for expanding COFCG's strategy for biological and sensitive habitat mitigation:

- Use resource data to inform transportation decision-making.
- Use watershed, conservation, and recovery plans to identify important environmental considerations for the COFCG region, such as critical wildlife corridors, the most important areas to protect for sensitive species, and areas with a high concentration of resources.
- Give conservation plans as much weight as General Plans when planning transportation investments.
- Incorporate concepts such as 100 to 200 foot buffers for stream corridors, and identification and improvement of priority culverts that currently restrict wildlife corridors and natural processes of stream and river systems.
- Use parcel maps to identify larger, undivided parcels for ease of acquisition and preservation, and designate areas as potential future mitigation sites.
- Consider the resource, "Eco-logical: An Ecosystem Approach to Developing Infrastructure Projects" (2006)[1] which encourages Federal, State, Tribal and Local partners involved in infrastructure planning, design, review, and construction to use flexibility in regulatory processes. Specifically, Eco-Logical puts forth the conceptual groundwork for integrating plans across agency boundaries, and endorses ecosystem-based mitigation - an innovative method of mitigating infrastructure impacts that cannot be avoided.

The Regional Mitigation Strategy contained in the RTP should also establish the foundation for innovative regional mitigation solutions:

- Identify financial mechanisms to fund mitigation, such as development fees, sales tax, or the use of funds from alternative methods to identify and protect critical resource areas.
- Establish conservation easements that connect to and expand existing conservation areas.
- Describe locally-developed measures such as county/city designation of open-space, measures requiring development set-backs near streams, etc.

Describe the Use of Available Data to Inform Regional Transportation Planning Decisions.

SAFETEA-LU directs MPOs to compare transportation plans with other plans, maps, and data of inventories of natural or historic resources, if available. The RTP should therefore include a discussion of other data, plans, or maps that may be useful to inform long-range transportation planning. EPA recommends that the RTP specifically describe how the proposed transportation network has been designed to avoid resources identified in data sources such as those identified below: 5H

- U.S. Fish & Wildlife Service species recovery plans

[1] Eco-logical is available on-line at: http://www.environment.fhwa.dot.gov/ecological/eco_index.asp. Information on pilots using Eco-logical principals is available on-line at: http://www.trb.org/StrategicHighwayResearchProgram2SHRP2/Public/Pages/capacitypilottests_334.aspx .

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- USDA Natural Resources Conservation Service wetland data
- Nature Conservancy data and regional planning documents
- California Department of Fish and Game Natural Diversity Database
- Local non-profit and land trust group information

EPA values the opportunity to be involved in the regional transportation planning process. When the final RTP and EIR are available, please send a copy of each to the address above (mail code CED-2). If you have any questions about our comments, please contact me at 415-947-4121 or ganson.chris@epa.gov.

Sincerely,

Chris Ganson, Transportation Planning Lead
Environmental Review Office

cc: Garth Hopkins, Caltrans Headquarters
Paul-Albert Marquez, Caltrans District 6
Aimee Kratovil, Federal Highway Administration
Eric Eidlin, Federal Transit Administration
Roberta Gerson, US Fish and Wildlife Service

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STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

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Flex your power!
Be energy efficient!

June 14, 2010

Mr. Clark Thompson, Planner III
Council of Fresno County Governments
2035 Tulare Street, Suite 201
Fresno, CA 93721

Dear Mr. Thompson:

Thank you for the opportunity to review the Council of Fresno County Governments Draft 2011 Regional Transportation Plan.

Caltrans, at both District 6, and various divisions within the Department has reviewed the Draft 2011 RTP of the Council of Fresno County Governments. We collectively offer our comments, suggestions and questions on the following:

District 6 – Planning

Fresno COG has provided current projects, future proposals and a thorough analysis of their region. Fresno COG's RTP must be consistent with the Regional Transportation Improvement Plan (RTIP) to program projects for the State Transportation Improvement Plan (STIP). Fresno COG has incorporated a 25 year planning process of projects.

Corridor preservation of State Highways and intersecting roadways is important to Caltrans. The District will continue to work on developing corridor preservation strategies with the local jurisdictions and Fresno COG, including the development of conceptual alignments of corridors and footprints of interchanges (for planning purposes) on facilities that will require expansion in the foreseeable future. Caltrans believes that preserving and protecting the needed right-of-way for future expansion of State facilities will greatly benefit the State, local communities and the public with regard to a logical and orderly process for subsequent delivery of projects. 6A

Fresno COG's RTP addresses Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, which specifies that by the year 2020 greenhouse gas emissions within the state must be at 1990 levels. Appendix C in the RTP's Environmental Impact Report (EIR) addresses greenhouse gas emissions. The RTP also includes goals, policies and objectives for the Fresno County Regional Blueprint in the Policy Element. This sets the framework for addressing the provisions of Senate Bill (SB) 375 and a Sustainable Communities Strategy (SCS) or Alternate Planning Strategy (APS) in Fresno COG's next RTP Update.

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Page 2

In preparing to meet the requirements of SB 375, it is recommended that Fresno COG staff actively participate in two modeling activities that recently received funding. One of the modeling activities will be funded with Proposition 84 Modeling Incentive funds. These funds were allocated to the Strategic Growth Council by the Legislature to improve modeling capacity of Metropolitan Planning Organizations (MPOs) to meet the requirements of SB 375. The San Joaquin Valley MPOs were awarded $2.5 million of Proposition 84 funds, which will be administered by Fresno COG in coordination with the other San Joaquin Valley MPOs.

The second modeling activity is the Central Valley MPOs I-Place^{3}s Pilot Project, funded with $350,000 in State Planning and Research funds to develop a current conditions layer in the I-Place^{3}s parcel-based model using UPLAN data sets from the Blueprint planning process. The MPOs modeling staff will also receive valuable training with the I-Place^{3}s Program. The funding will also be administered by Fresno COG in coordination with the other valley MPO's

Caltrans completed its Complete Streets Implementation Action Plan in February 2010, which is a significant milestone in implementing Caltrans' Deputy Directive 64-R1 "Complete Streets – Integrating the Transportation System," which was signed in October 2008. Caltrans is committed to providing for the needs of all travelers in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system. Caltrans views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers and recognizes bicycle, pedestrian and transit modes as integral elements of the transportation system.

This effort of implementing complete streets supports the local agencies' efforts required by the California Complete Streets Act of 2008 (AB 1358). It also supports the goals of reducing greenhouse gas emissions set out by AB 32 and SB 375, which further requires development of sustainable communities' strategies. It is also expected that Complete Streets will be included in our next federal transportation reauthorization bill.

Caltrans would like to commend Fresno COG for including goals, objectives and policies addressing Complete Streets. This is particularly evident under the Fresno County Regional Blueprint Policy Element. Caltrans would like to partner with Fresno COG in the implementation of these goals objectives and policies.

Needs Assessment and Action Element, page 4-23

A Corridor System Management Plan (CSMP) is also a refinement of the DSMP. The CSMP is a long-range planning document that identifies the recommended management strategies for a transportation corridor, not just the highway. The CSMP encompasses all transportation components, taken as a whole, through a geographical area, on a major travel path. The corridor includes the highway, major local parallel arterials, local road intersections, ramps and ramp meters, signal controls, transit, rail, bikes, and pedestrians. The CSMP provides one unified concept for managing, operating, improving, and preserving the corridor across all modes and jurisdictions for the highest productivity, mobility, reliability, accessibility, safety and preservation outcomes. The CSMP approach places greater emphasis on performance assessments and operational strategies that yield higher benefit-to-cost results, and proposes the best mix of improvements, strategies, and actions to optimize corridor performance.

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Needs Assessment and Action Element, page 4-29 (State Route 99 Widening)
Add to end: the widening project funded by Proposition 1b, required the preparation of a Corridor System Managment Plan (CSMP) in order to secure funding. The Fresno-Madera Urban Corridor System Management Plan included the section of SR 99 from American Avenue in Fresno County to SR 152 in Madera County. Please see Page 4-13 for more information on CSMPs.

State Route 41
Caltrans District 6 is currently preparing a CSMP to facilitate future planning on SR 41. This CSMP will include the entire length of the SR 41 corridor, including the section in Fresno County. Please see Page 4-13 for more information on CSMPs.

The COG would be the best judge of where this would fit in the current document, but my thought was that it would work in the same section as the 99 widening.

District 6- Transit

Fresno COG is commended for providing an efficient transit facility for the County of Fresno. FCOG is generating more efficient transit standards by promoting, ridesharing, carpooling, bicycle and pedestrian access, and park-and-ride facilities. 6B

In Chapter 3, page 3-1, Policy Element: FCOG's main goal is to *provide an integrated multimodal transportation system which serves the needs of a growing and diverse population for transportation access to jobs, housing, recreation, commercial, and community services.* FCOG provides a transit system that reaches local and rural areas of the County and it serves a diverse population and encourages preservation of existing facilities.

Chapter 6, Page 6.5.1, Financial Revenue Projection Methodology, FCOG provides a flow chart that identifies all their funding categories and programs.

Through their public outreach plan they consulted with various focus groups to solicit response through email, road shows, mailings, public meeting, and the world-wide web, face book and twitter websites to receive feedback on their Regional Transportation Plan FCOG is commended for their transit efforts.

District 6 – Native American Liaison

The Fresno County Council of governments has done excellent work in addressing these issues within their Draft RTP. The comments on the Draft RTP are following:

6C

Chapter 3, Policy Element:
District 06 recommends Environmental Justice and Tribal Consultation & Coordination goals within the Policy Element of the Draft Fresno COG RTP. The work conducted to create the Environmental Justice Plan thorough an Environmental Justice Task Force and Fresno COG's work as part of the Central Valley Tribal Collaboration Transportation Planning Project point to some of the successes of

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Fresno COG's public participation efforts. The 7.2.3 Regional Transportation Plan Public Outreach Plan, II. Summary of RTP Public Outreach Plan Requirements, II. E, Page 7-10, addresses very specifically the consultation and coordination with tribal governments. Chapter 5.11, Page 5-14, mentions the Fresno County Environmental Justice Plan, adopted May 2009, and brings attention to its plans to eliminate barriers and encourage environmental justice communities to take an active role transportation decision-making. The Environmental Justice Plan should be included in Chapter 7 as part of an Environmental Justice section of the Draft Public Outreach Plan. The work is already being conducted for environmental justice and tribal consultation and the accomplishments could be readily acknowledged with goals within the Policy Element of the document.

Chapter 5, Climate change, Page 5-1:
Fresno COG has dedicated an entire chapter (Chapter 5) to address climate change planning within two phases of efforts. The first phase was primarily the adoption of resolution adopted in June, 2008. This phase is laying the groundwork of an interrelated approach for preparing the second phase of planning work. Phase II will conduct all efforts to meet compliance of preparing the 2014 RTP that addresses AB 32, SB 375 (meeting targeted Greenhouse Gas reduction requirements) and all other interrelated efforts such as the San Joaquin Valley Regional Blueprint, modeling updates, etc.

District 6 - Technical Planning Branch

On page 6-14 (Financial Element) at the bottom of the Exhibit 6-2. You have *From California State Controllers Office: Fiscal Year 2007-09. What does this footnote reference?

On page 6-16 (Financial Element) the paragraph under Exhibit 6-4. This paragraph is hard to read. We suggest putting a parenthesis after the word "uses" and after the word "other modes", after "programs and Air Quality", insert a period after the word benefit.

6D

On page 6-17 (Financial Element) Exhibit 6-5, under Project Description, please use the word "new" alignment for Project ID FRE021106, FRE021107, and FRE021108.

On page 6-18 (Financial Element) for Project ID FRE071203 missing the letter "t" for Grantland and Project ID FRE111349 states that SR 269 Bridge @ SR 109 (don't believe there is such a State Route 109).

District 6 - Office of Traffic Operations

The District 6 Office of Traffic Operations has completed its review of the EIR for the Council of Fresno County Governments' 2011 RTP. The vast majority of the 419-page document relates to the typical environmental topics that are analyzed in a standard EIR document (aesthetics, air quality, cultural resources, noise, etc.). The transportation portion of the EIR dealing with roads, streets, and highways relied solely on levels-of-service determined by the Fresno COG model. This office concur that the determination of level-of-service by this methodology is likely adequate for a planning document such as this; however, a more focused study would require a methodology that is consistent with the methodology presented in the most recent edition of the Highway Capacity Manual. The document also seems to rely solely on mass transit and alternative transportation modes (Project) as a

6E

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means to address projected deficiencies on the roads and highways. It is stated on Page 3-197 that "while the Project will improve deficient levels-of-service compared to the No-Build or No-Project alternatives, the Project will not address all deficient levels-of-service anticipated in the future."

Impact 3.2.1 recommends that individual projects should be consistent with local land use plans that preserve agricultural lands. Impact 3.5.2 goes on to state that Fresno COG does not implement land use policy in Fresno County; rather, this is under the jurisdiction of the County and the various other cities. As such, decisions about the place, pace, and scale of growth and development are reflected in local agency general plans and project approvals approved by those agencies. The 2011 RTP is designed to compliment, rather than change the plans adopted at the county and city levels. Thus the ultimate effect of the 2011 RTP on transportation emissions is not to increase the amount of travel, but rather to influence where and how travel occurs within and through the County. It is correctly indicated in the transportation section of the EIR that most of the segments of State Routes 41, 99, 168, and 180 (Figures 3-8 & 3-10) located within the Fresno-Clovis metropolitan area are projected to operate at unsatisfactory levels-of-service by the year 2035. The most significant factors that are related to transportation planning are land use and the transportation network connecting the various land uses. 6F
It is indicated on Page 3-188 that "for the purpose of this environmental analysis, a minimum LOS of 'D' is assumed along the Regionally Significant Road System consistent with most local General Plan Circulation Elements." However, it is the opinion of this office that this is too general of a standard, given the complexity of the various elements that make up the roadway and highway networks. This office suggests adopting standards that are consistent with the 2004 AASHTO Green Book Exhibit 2-32.

On Page 3-197 under Mitigation Measures, it is indicated that "A number of local street, road, and State Route segments along the regional street and highway will experience deficient LOS conditions by 2030. Mitigation measures for these segments have not been identified or programmed in the RTP." It is indicated in the same section that "street and highway needs are constrained by limited funding sources that are necessary to implement additional projects along the regional transportation system." Improvements that are needed for mitigation to the regional street and highway system that cannot be funded currently should be in the RTP as unconstrained projects. 6G

On Page 3-197 under Mitigation Measures, it is indicated that "Intersection improvements and lane additions would improve deficient levels-of-service to acceptable levels consistent with minimum LOS policies identified in the RTP; however, funding to address the improvements is not available or the costs to mitigate the deficiencies are prohibitive…Fresno COG should continue to work with local agencies and Caltrans District 6 to identify alternative improvements, associated costs estimates, and an implementation plan and schedule as part of the Freeway Deficiency Study during update of local general plans and other planning efforts." Several local governing agencies maintain transportation fee programs. These fee programs consist of list of transportation improvements that are to be funded from the fees collected. Additionally, this office has on several occasions provided a list of improvements on state highways that have been identified from various traffic studies reviewed under Caltrans LD/IGR process, as well as to Fresno COG in the review of the Fresno COG 2010-2011 Overall Work Program. 6H

On Page 3-197 under Mitigation Measures, it is indicated that "Local agencies should be encouraged to update general, area, community and specific plans to reflect the current status of future street and highway improvements. The timing of improvements should also be regularly updated. These measures

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will help Fresno COG identify appropriate and available funding for planned street and highway improvements along the regional street and road system during development of future RTPs

On Page 3-197 under Significance After Mitigation, it is indicated that "LOS deficiencies will result along a number of regional street and highway segments and associated intersections because of the inability to widen such facilities due to funding and other constraints even with RTP projects. It is anticipated that even with implementation of the Project significant LOS deficiencies will continue; therefore, this impact would be considered significant and unavoidable."

Thanks for the opportunity to review this document. If you have any questions regarding our comments, you may contact David Garza at (559) 445-5999.

Division of Aeronautics:

The Division of Aeronautics wishes to compliment the Fresno COG on the exceptional job of integrating aviation interests into multiple sections of the Draft RTP. There is sufficient detail to see that the COG recognizes aviation as an important component of the regions health and prosperity. Further, the pro-active approach to integrating aviation into a multi-modal transportation planning program is noteworthy for others outside the region to peruse. 6I

Section 4.6.1 Aviation Overview
There is one aviation-related detail in the RTP that needs to be expanded. Section 4.6.1 introduces that coordination of land use planning surrounding an airport lies within the responsibility of the Airport Land Use Commission (ALUC). However, experience tells us there is sufficient confusion regarding the authority of ALUC reviews, Airport Land Use Compatibility Plans (ALUCP's), and local planning processes. We recommend adding a paragraph to the overview that explains how land use policies contained in the ALUCP are reconciled with your RTP transportation and land use policies. Additionally, please help the reader understand who the ALUC is in the Fresno COG area of responsibility.

Comments on the EIR will be provided directly to the CEQA lead agency per standard State Clearinghouse procedures. Feel free to contact me with any questions at 916-651-0597 or Derek.Kantar@dot.ca.gov.

Division of Mass Transportation

The Division of Mass Transportation would like to commend the Governments on the following items: For planning and establishing a comprehensive transit system through efforts such as: 6J

Collaborating and conducting outreach to the public, transit agencies, and surrounding San Joaquin Valley governments (e.g., San Joaquin Valley Intelligent Transportation Systems Strategic Deployment Plan)
Creating an integrated transit service with other regions through fixed routes, paratransit, school bus, taxi, ridesharing, etc.
Continuing efforts to expand and improve your transit services (e.g., Urban and rural transit efforts)

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We would like to offer the following comments for your consideration:

Please note that in the "Table of Content," Section 1.4 states "model" and differs from the "modal" title heading on page 1-12

In addition, please consider replacing the term "disabled" with "people with disabilities" as it may be offensive to some individuals and appears throughout the document, e.g. page 2-11, 4-33, 4-34, 4-35, 4-41, etc. The United States Department of Labor's Office of Disability Employment Policy suggests addressing members of this community with people first language. Please visit the following website for more information:
http://www.dol.gov/odep/pubs/fact/comucate.htm

For questions or concerns regarding the listed comments, please contact me at (916) 653-3186, or via email at Ryan.Ong@dot.ca.gov.

Division of Transportation Planning -Office of Goods Movement

A very solid discussion and awareness of key goods movement issues was presented in Chapter 4 of the RTP. Valleywide coordination and resumption of the Quad Counties Freight Advisory Group is noteworthy and should lead to continued and increased goods movement awareness in the region. As is discussion related to rail corridor preservation. The Fresno COG has been a front runner with regards to involvement in the goods movement and freight outreach effort in the Valley. Our suggestion is that you put a chapter sub-heading to identify where the goods movement section is located in this somewhat large document to make for easier review. 6K

For questions or concerns, please contact Todd LaCasse at (916) 654-7809, or via email at Todd.LaCasse@dot.ca.gov.

Division of Transportation Planning -Office of Regional and Interagency Planning, Regional Outreach Branch

Chapter 2
Please include a statement that the RTP is consistent with the Public Transit-Human Services Transportation Plan. The regional air quality planning authorities in the region should be identified in your discussion. 6L

Chapter 4:
While there are a minimal number of regional pedestrian trips; there is opportunity to discuss the relationship between transit, bicycling, and pedestrian trips. Commuters are more likely to use transit if they can walk from home and work to transit.

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While there is a good discussion in Chapter 4 of Intelligent Transportation Systems and the development of the regional ITS architecture in the FCOG region, please consider adding a statement that the RTP is consistent (to the maximum extent practicable) with the regional ITS architecture.

We recommend more discussion about regional pedestrian needs. The discussion could include the link between transit ridership and pedestrian access. There is reference to construction of a pedestrian and bicycle facility at Garden Drive and Shaw Place that would support pedestrian policy elements.

Please include a statement that the RTP is consistent with the Public Transit-Human Services Transportation Plan.

Chapter 6:
The projected revenue section is missing a statement ensuring that the first four years of the projected fund estimate is consistent with the 4 year STIP.

We are unable to determine whether the cost estimates for implementing the projects identified in the RTP reflect "year of expenditure dollars" to reflect inflation rates.

Chapter 7:
We would suggest expanding the discussion of the public participation and interagency coordination process in Chapter 7 to clearly demonstrate how FCOG's public outreach and interagency coordination process meets the requirements of 23 CFR 450.316(3)(b) and 23 CFR 450.322(g) 23 CFR 450.316(1)(i-x), CFR 450.316(c), and 23 CFR 450.316(i).

Valleywide Chapter:
We would like to encourage FCOG to begin exploring regional coordination with local jurisdictions, and continue coordination with San Joaquin Valley MPOs in preparation for SB 375 compliance, which will require the region to meet a regional greenhouse gas emissions reduction target which ARB is statutorily required to provide to each region by September 30, 2010. We encourage extensive communication and collaboration amongst all the agencies within the San Joaquin Valley regarding the development of a sustainable communities strategy to meet the requirements of SB 375.

RTP Checklist:
General, Question 1: The checklist page number reference lists chapters 4 and 6. A better reference is 2-1 where FCOG states that the RTP planning horizon is until 2035.

General, Question 4: Please include a discussion of the plan level purpose and need or reference the appropriate section of the RTP.

Consultation/Coordination, Question 9: There is no clear discussion with the regional air quality planning authorities (23 CFR 450.316 (a) and (a) (1) (i). We recommend including a discussion of the outreach activities associated with the appropriate authorities.

Environmental, Question 4: The section discussing mitigation only references the federal requirements and does not outline activities. Federal regulations require MPOs to include a discussion on the

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potential environmental mitigation activities and the potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the RTP, as stated in 23 CFR Part 450.322(f)(7).

General Comments:
The draft RTP should include a signed copy of the RTP Checklist. Please ensure that a signed checklist is contained in the final RTP.

To facilitate timely review and comment on the RTP please include specific page numbers when demonstrating compliance with various provisions on the RTP Checklist. Reference to entire chapters in the Checklist is often insufficient to clearly identify how requirements are met.

If you have any questions please feel free to contact me at (916) 653-4097 or via email at Kevin.tucker@dot.ca.gov.

If you have any questions, please call me at (559) 445-5285.

Sincerely,

Cathy Rodriguez

CATHY RODRIGUEZ
Transportation Planning North Branch
District 06

cc: Sharri Bender-Ehlert, Paul-Albert Marquez, Marta Frausto, Albert Lee, Dara Wheeler, Kevin Tucker, Todd LaCasse, Sue Kiser, Ray Sukys, Ryan Ong, Gary Cathey, Derek Kantar,

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3.0 CHANGES, ADDITIONS AND CORRECTIONS TO THE DRAFT EIR

The following changes, additions and corrections to the Draft SEIR are recommended. Such changes, additions and corrections have been identified to address written or staff comments received on the Draft SEIR.

- Chapter 1, Page 1-15, Section 3.4.2, under the subsection titled "Mitigation Measures"; add the following to the end of the list of measures:

  - Use resource data to inform transportation decision-making.
  - Use watershed, conservation, and recovery plans to identify important environmental considerations for the Fresno COG region, such as critical wildlife corridors, the most important areas to protect for sensitive species, and areas with a high concentration of resources.
  - Give conservation plans as much weight as General Plans when planning transportation investments.
  - Incorporate concepts such as 100 to 200 foot buffers for stream corridors, and identification and improvement of priority culverts that currently restrict wildlife corridors and natural processes of stream and river systems.
  - Use parcel maps to identify larger, undivided parcels for ease of acquisition and preservation, and designate areas as potential future mitigation sites.
  - Consider the resource, "Eco-logical: An Ecosystem Approach to Developing Infrastructure Projects" (2006) which encourages Federal, State, Tribal and Local partners involved in the infrastructure planning, design, review, and construction to use flexibility in regulatory processes.
  - Identify financial mechanisms to fund mitigation, such as development fees, sales tax, or the use of funds from alternative methods to identify and protect critical resource areas.
  - Establish conservation easements that connect to and expand existing conservation areas.
  - Describe locally-developed measures such as designated open space, measures requiring development set-backs near streams, etc.
  - The following list of data resources should be referenced during development of biotic plans and studies for transportation improvement projects:
    - U.S. Fish & Wildlife Service species recovery plans
    - USDA Natural Resources Conservation Service wetland data
    - Nature Conservancy data and regional planning documents
    - California Department of Fish and Game Natural Diversity Database
    - Local non-profit and land trust group information

- Chapter 1, Page 1-18, Section 3.4.5, Paragraph 1, add the following sentence to the end of the paragraph:

  Currently, there are no HCP, HCCP or other similar programs or plans adopted within the County by any of the local agencies.

- Chapter 1, Page 1-18, Section 3.4, change Impact 3.3.6 to Impact 3.4.6.

- Chapter 1, Page 1-19, Section 3.4, Cumulative Impacts 3.3.6, change to Cumulative Impact 3.4.7.

- Chapter 1, Page 1-19, Section 3.4, subsection Cumulative Impact 3.4.7, paragraph two, final sentence, change impacts 3.3.1 through 3.3.5 to impacts 3.4.1 through 3.4.6.

- Chapter 1, Page 1-19, Section 3.4, subsection Cumulative Impact 3.4.7 Mitigation Measures first paragraph, first sentence change impacts 3.3.1 through 3.3.5 to impacts 3.4.1 through 3.4.6.

- Chapter 1, Page 1-21, Impact 3.5.1, change the word "Cause" in the section title to "Contribute to".

- Chapter 1, Page 1-23, 1st Bullet, revise the bullet to read:

  Implementation agencies are encouraged reduce GHG emissions through implementation of the following mitigation measures consistent with Blueprint principals:

- Chapter 1, Page 1-23, 2nd Bullet, revise the bullet to read:

  Prior to or in conjunction with the adoption of the proposed 2014 RTP, Fresno COG will develop a SCS or APS that includes the following:

- Chapter 1, Page 1-23, Intelligent Transportation, 1st Bullet, revise the bullet to read:

  - Developing an Intelligent Transportation Systems strategy, consistent with the adopted ITS Strategic Plan, to implement the Integrated Performance Management System Network that will:

- Chapter 1, Page 1-24, 1st Bullet, 1st Paragraph, 1st Sentence, revise the sentence to read:

  Fresno COG will develop an Alternative Fuel Vehicle (AFV) and Infrastructure Toolkit as part of the Blueprint implementation process for member agencies that will contain best practices related to ordinances, analytical tools, financing opportunities, codes, and standards related to reducing GHG emissions.

- Chapter 1, Page 1-24, 2nd Bullet, remove the bullet. A transportation pricing study has already been completed.

- Chapter 1, Page 1-24, 3rd Bullet, revise the bullet and the following 1st sentence to read:

  - Continue the Public Education Program on Individual Transportation Behavior and Climate Change

    In conjunction with key partners such as local air districts, public utility providers, area chambers of commerce and others, Fresno COG will continue the public information program to educate the public about the connection between individual transportation behavior and global climate change, including transportation behavior modifications the public can make to reduce their GHG emissions over time.

- Chapter 1, Page 1-24, 4th Bullet, revise the bullet to read:

  - Provide Funding for Workshop on Global Climate Change for Local Government Officials and Include in the Blueprint Toolkit

- Chapter 1, Page 1-25, 1st Paragraph, 1st Sentence, revise the sentence to read:

  Fresno COG, in conjunction with other key partners, shall produce a toolkit (as part of the Blueprint implementation process) for local governments to use to take effective action to reduce greenhouse gas emissions over time.

- Chapter 1, Page 1-25, 1st Bullet, revise the bullet to read:

  Continue to implement the Safe Routes to School program and conduct a workshop with cities, the county and school districts to identify other opportunities for collaboration that may reduce GHG emissions.

- Chapter 1, Page 1-25, 1st Bullet, 4th Paragraph, remove the paragraph.

- Chapter 1, Page 1-25, 1st Bullet, 5th Paragraph, 1st Sentence, revise the sentence to read:

  In addition, Fresno COG will host a regional workshop as part of its Transportation Forum or series of SCS workshops, for all cities, the County, school districts and transit operators within the region to identify other potential opportunities for collaboration that would reduce GHG impacts.

- Chapter 1, Page 1-25, 2nd Bullet, remove entire section titled: Establish a baseline for Fresno COG's own GHG impacts and replace with the following:

  - Report on Fresno COG's own GHG Impacts

    Fresno COG should report on its own GHG emissions and track its progress in reducing GHG emissions.

- Chapter 1, Page 1-31, Section 3.6, Cumulative Impacts 3.6.5, change to Cumulative Impact 3.6.5.

- Chapter 1, Page 1-67, Section 3.15, subsection Significance after Mitigation, Paragraph 2, last sentence, add "C" to refer to Appendix C.

- Chapter 1, Page 1-67, Section 3.15, change Impact 3.14.2 to Impact 3.15.2.

- Chapter 1, Page 1-68, Add Section 3.16, as follows:

  <u>Impact 3.16.1</u> - Energy Consumption & Conservation Impacts

  Construction of the transportation improvements programmed in the proposed 2011 RTP would increase energy consumption due to the operation of construction equipment and vehicles. Given the number of large-scale improvements programmed into the proposed 2011 RTP, the increase in energy consumption associated with construction activities would be substantial. Although construction equipment and vehicles would be operated in accordance with all applicable rules and regulations, the substantial increase in energy consumption associated with the construction equipment and vehicles primarily powered by nonrenewable fuels under the proposed 2011 RTP is considered a significant impact.

  Operation of the transportation improvements identified in the proposed 2011 RTP would increase the total and per capita amount of gasoline and diesel fuel consumption associated with the regional transportation network. Since gasoline and diesel are nonrenewable, petroleum-based fuels, the increase in gasoline and diesel consumption under the proposed 2011 RTP is considered a significant impact.

  In addition to increased energy consumption directly associated with transportation activities, energy consumption would also increase as a result of new lighting including, but not limited to, lighting for streets stops or stations, transit station parking structures, and rail tunnels; traffic signals; electronic signage; and other ancillary electric, natural gas, or other energy-consuming components of transportation improvements that would

be implemented under the proposed 2011 RTP. Increased energy consumption levels associated with these ancillary project features are considered a significant impact.

The proposed 2011 RTP includes goals and policies supporting smart growth through financial incentives, housing and mixed-use projects at existing and planned transit stations, support for local efforts to develop pedestrian master plans, and other activities that tend to reduce GHG emissions. However, since Fresno COG has no direct authority over land use planning and other local decisions, the extent to which the goals and policies supporting smart growth would be implemented by local jurisdictions is unknown.

Since the 2011 RTP (2035 Plan scenario) would decrease highway congestion and enhance alternative modes relative to the No Project (2007 RTP) and No Build alternatives (2035 growth versus existing and programmed projects), it would result in potentially beneficial effects on the consumption and conservation of energy resources.

Mitigation Measures

- The following mitigation measures shall be implemented by project implementation agencies to reduce the significant energy impacts of the proposed 2011 RTP. In addition, climate change mitigation measures referenced in Chapter 3, Section 3.5 will also contribute to the mitigation of energy consumption and energy conservation impacts.

  - Project implementation agencies shall review energy impacts as part of any CEQA-required project-level environmental analysis and specify appropriate mitigation measures for any identified energy impacts.

  - During the design and approval of transportation improvements, the following energy efficiency measures shall be incorporated when applicable:

    - The design or purchase of any lighting fixtures including but not limited to lighting at transit stations, arterials or freeways, and parking structures/lots shall achieve energy reductions beyond an estimated baseline energy use for such lighting.
    - LED technology shall be used for all new or replaced traffic lights, rail signals, and other features compatible with LED technology.

  - Project implementing agencies should consider various best practices and technological improvements that can reduce the consumption of fossil fuels such as:

    - Expanding light-duty vehicle retirement programs
    - Increasing commercial vehicle fleet modernization
    - Implementing driver training modules on fuel consumption
    - Replacing gasoline powered mowers with electric mowers
    - Reducing idling from construction equipment
    - Incentivizing alternative fuel vehicles and equipment
    - Developing infrastructure for alternative fueled vehicles
    - Implementing truck idling rules, devices, and truck-stop electrification
    - Requiring electric truck refrigerator units
    - Reducing locomotives fuel use
    - Modernizing older off-road engines and equipment
    - Encouraging freight mode shift

- Limit use and develop fleet rules for construction equipment
- Requiring zero-emission forklifts

- Project implementing agencies should include energy analyses in environmental documentation and general plans with the goal of conserving energy through the wise and efficient use of energy. For any identified energy impacts, appropriate mitigation measures should be developed and monitored. Fresno COG recommends the use of Appendix F, Energy Conservation, of the *CEQA Guidelines.*

- Project implementing agencies should streamline permitting and provide public information to facilitate accelerated construction of solar and wind power.

- Project implementing agencies should adopt a "Green Building Program" to promote green building standards. Green buildings can reduce local environmental impacts, regional air pollutant emissions and global greenhouse gas emissions. Green building standards involve everything from energy efficiency, usage of renewable resources and reduced waste generation and water usage. For example, water-related energy use consumes 19 percent of the state's electricity. The residential sector accounts for 48 percent of both the electricity and natural gas consumption associated with urban water use. While interest in green buildings has been growing for some time, cost has been a main consideration as it may cost more up front to provide energy-efficient building components and systems. Initial costs can be a hurdle even when the installed systems will save money over the life of the building. Energy efficiency measures can reduce initial costs, for example, by reducing the need for over-sized air conditioners to keep buildings comfortable. Undertaking a more comprehensive design approach to building sustainability can also save initial costs through reuse of building materials and other means.

  A comprehensive study of the value of green building savings is the 2003 report to California's Sustainable Building Task Force. In the words of the report: "While the environmental and human health benefits of green building have been widely recognized, this comprehensive report confirms that minimal increases in upfront costs of about 2% to support green design would, on average, result in life cycle savings of 20% of total construction costs -- more than ten times the initial investment. For example, an initial upfront investment of up to $100,000 to incorporate green building features into a $5 million project would result in a savings of $1 million in today's dollars over the life of the building."

- Local governments should alter zoning to improve jobs/housing balance, create communities where people live closer to work, and bike, walk, and take transit as a substitute for personal auto travel. Creating walkable, transit oriented nodes would generally reduce energy use and greenhouse gas emissions. Residential energy use (electricity and natural gas) accounts for 14 percent of California's greenhouse gas emissions. It is estimated that households in transit-oriented developments drive 45 percent less than residents in auto-dependent neighborhoods. In addition, mixed land uses (i.e., residential developments near work places, restaurants, and shopping centers) with access to public transportation have been shown to save consumers up to 512 gallons of gasoline per year. Furthermore, studies have shown that the type of housing (such as multi-family) and the size of a house have strong relationships to residential energy use. Residents of single-family detached housing consume over 20 percent more primary energy than those of multifamily housing and 9 percent more than those of single-family attached housing.

- Project implementing agencies should increase the number of AFVs (i.e., vehicles not powered strictly by gasoline or diesel fuel) both in publically owned vehicles, as well as those owned by franchisees of

these agencies, such as trash haulers, green waste haulers, street sweepers, and curbside recyclable haulers.

- Bid solicitations for construction of projects should preference the use of alternative formulations of cement and asphalt with reduced GHG emissions to the extent that such cement and asphalt formulations are available at a reasonable cost in the marketplace. Solicitations should also preference the recycling of construction waste and debris if market conditions permit.

- Fresno COG shall continue to develop, in coordination with the California Air Resources Board, a data and information collection and analysis system that provides an understanding of the energy demand and greenhouse gas emissions in the Fresno region.

- All mitigation measures listed in Chapter 3, Section 3.5.1, are incorporated by reference and shall be implemented by implementing agencies to address energy conservation impacts.

Significance After Mitigation

Implementation and monitoring of the above mitigation measures will provide the framework and direction for subsequent individual improvement project-specific mitigation designed to avoid or reduce the identified significant Project impacts to a less than significant level.

- Chapter 3, Page 3-22, 1st two Paragraphs, replace with the following:

The Federal Clean Air Act (CAA) and the national ambient air quality standards identify levels of air quality for six "criteria" pollutants, which are considered the maximum levels of ambient air pollutants considered safe, with an adequate margin of safety, to protect public health and welfare. The six criteria pollutants include ozone, CO, nitrogen dioxide, sulfur dioxide, particulate matter 10 and 2.5 microns in size and smaller (PM_{10} and $PM_{2.5}$), and lead.

The U.S. EPA requires each state to prepare and submit a State implementation Plan (SIP) that describes how the state will achieve the federal standards by the specified dates, depending on the severity of the air quality within the state or basin. Based on the provisions contained in the 1990 amendment, EPA designated the entire San Joaquin Valley as nonattainment for two pollutants: ozone and particle matter less than 2.5 microns in size or $PM_{2.5}$.

- Chapter 3, Page 3-22, delete the 3rd Paragraph.

- Chapter 3, Page 3-40, Table 3-6, under Pollutant PM-10, revise Adjusted 2020 Budget emissions for PM_{10} and NO_X from 15.3 and 24.4 tons per day to 16.1 and 23.2 tons per day. Revise the projected emissions for Year 2020 for PM_{10} and NO_X from 15.3 and 23.4 tons per day to 15.1 and 23.1 tons per day.

- Chapter 3, Page 3-61, Section 3.4.2, under the subsection titled "Mitigation Measures"; add the following to the end of the list of measures:

  - Use resource data to inform transportation decision-making.
  - Use watershed, conservation, and recovery plans to identify important environmental considerations for the Fresno COG region, such as critical wildlife corridors, the most important areas to protect for sensitive species, and areas with a high concentration of resources.
  - Give conservation plans as much weight as General Plans when planning transportation investments.

- Incorporate concepts such as 100 to 200 foot buffers for stream corridors, and identification and improvement of priority culverts that currently restrict wildlife corridors and natural processes of stream and river systems.
- Use parcel maps to identify larger, undivided parcels for ease of acquisition and preservation, and designate areas as potential future mitigation sites.
- Consider the resource, "Eco-logical: An Ecosystem Approach to Developing Infrastructure Projects" (2006) which encourages Federal, State, Tribal and Local partners involved in the infrastructure planning, design, review, and construction to use flexibility in regulatory processes.
- Identify financial mechanisms to fund mitigation, such as development fees, sales tax, or the use of funds from alternative methods to identify and protect critical resource areas.
- Establish conservation easements that connect to and expand existing conservation areas.
- Describe locally-developed measures such as designated open space, measures requiring development set-backs near streams, etc.
- The following list of data resources should be referenced during development of biotic plans and studies for transportation improvement projects:
  - U.S. Fish & Wildlife Service species recovery plans
  - USDA Natural Resources Conservation Service wetland data
  - Nature Conservancy data and regional planning documents
  - California Department of Fish and Game Natural Diversity Database
  - Local non-profit and land trust group information

- Chapter 3, Page 3-63, Section 3.4.5, Paragraph 1, add the following sentence to the end of the paragraph:

  Currently, there are no HCP, HCCP or other similar programs or plans adopted within the County by any of the local agencies.

- Chapter 3, Page 3-64, Section 3.4, change Impact 3.3.6 to Impact 3.4.6.

- Chapter 3, Page 3-65, Section 3.4, Cumulative Impacts 3.3.6, change to Cumulative Impact 3.4.7.

- Chapter 3, Page 3-65, Section 3.4, subsection Cumulative Impact 3.4.7, paragraph two, final sentence, change impacts 3.3.1 through 3.3.5 to impacts 3.4.1 through 3.4.6.

- Chapter 3, Page 3-65, Section 3.4, subsection Cumulative Impact 3.4.7 Mitigation Measures first paragraph, first sentence change impacts 3.3.1 through 3.3.5 to impacts 3.4.1 through 3.4.6.

- Chapter 3, Page 3-79, last Paragraph, revise the sentence to read:

  Based upon the findings described in Table 3-11, Fresno COG finds that the 2011 RTP would not result in increased CO_2 impacts compared to the No Build Alternative.

- Chapter 3, Page 3-80, Impact 3.5.1, change the word "Cause" in the section title to "Contribute to".

- Chapter 3, Page 3-82, 1st Bullet, revise the bullet to read:

  Implementation agencies are encouraged reduce GHG emissions through implementation of the following mitigation measures consistent with Blueprint principals:

- Chapter 3, Page 3-82, 2nd Bullet, revise the bullet to read:

  Prior to or in conjunction with the adoption of the proposed 2014 RTP, Fresno COG will develop a SCS or APS that includes the following:

- Chapter 3, Page 3-82, Intelligent Transportation, 1st Bullet, revise the bullet to read:

  - Developing an Intelligent Transportation Systems strategy, consistent with the adopted ITS Strategic Plan, to implement the Integrated Performance Management System Network that will:

- Chapter 3, Page 3-83, 1st Bullet, 1st Paragraph, 1st Sentence, revise the sentence to read:

  Fresno COG will develop an Alternative Fuel Vehicle (AFV) and Infrastructure Toolkit as part of the Blueprint implementation process for member agencies that will contain best practices related to ordinances, analytical tools, financing opportunities, codes, and standards related to reducing GHG emissions.

- Chapter 3, Page 3-83, 2nd Bullet, remove the bullet. A transportation pricing study has already been completed.

- Chapter 3, Page 3-83, 3rd Bullet, revise the bullet and the following 1st sentence to read:

  - Continue the Public Education Program on Individual Transportation Behavior and Climate Change

    In conjunction with key partners such as local air districts, public utility providers, area chambers of commerce and others, Fresno COG will continue the public information program to educate the public about the connection between individual transportation behavior and global climate change, including transportation behavior modifications the public can make to reduce their GHG emissions over time.

- Chapter 3, Page 3-83, 4th Bullet, revise the bullet to read:

  - Provide Funding for Workshop on Global Climate Change for Local Government Officials and Include in the Blueprint Toolkit

- Chapter 3, Page 3-84, 1st Paragraph, 1st Sentence, revise the sentence to read:

  Fresno COG, in conjunction with other key partners, shall produce a toolkit (as part of the Blueprint implementation process) for local governments to use to take effective action to reduce greenhouse gas emissions over time.

- Chapter 3, Page 3-84, 1st Bullet, revise the bullet to read:

  Continue to implement the Safe Routes to School program and conduct a workshop with cities, the county and school districts to identify other opportunities for collaboration that may reduce GHG emissions.

- Chapter 3, Page 3-84, 1st Bullet, 4th Paragraph, remove the paragraph.

- Chapter 3, Page 3-84, 1st Bullet, 5th Paragraph, 1st Sentence, revise the sentence to read:

  In addition, Fresno COG will host a regional workshop as part of its Transportation Forum or series of SCS workshops, for all cities, the County, school districts and transit operators within the region to identify other potential opportunities for collaboration that would reduce GHG impacts.

- Chapter 3, Page 3-84, 2nd Bullet, remove entire section titled: Establish a baseline for Fresno COG's own GHG impacts and replace with the following:

  - Report on Fresno COG's own GHG Impacts

    Fresno COG should report on its own GHG emissions and track its progress in reducing GHG emissions.

- Chapter 3, Page 3-103, Section 3.6, Cumulative Impacts 3.6.5, change to Cumulative Impact 3.6.5.

- Chapter 3, Page 3-197, Section 3.15, subsection Significance after Mitigation, Paragraph 2, last sentence, add "C" to refer to Appendix C.

- Chapter 3, Page 3-198, Section 3.15, change Impact 3.14.2 to Impact 3.15.2.

- Chapter 3, Page 3-199, include the following section on Energy and Energy Conservation in Chapter 3 of the Draft SEIR as Section 3.16:

3.16 ENERGY AND ENERGY CONSERVATION

This section describes the existing energy resources, and analyzes the effects on energy consumption and conservation that would result from implementing the proposed 2035 projects.

Regulatory

Federal

- Energy Policy and Conservation Act

  The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the USDOT, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

- Energy Policy Act of 1992 (EPAct)

  The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

- Energy Policy Act of 2005

  The Energy Policy Act of 2005 was signed into law by President Bush on August 8, 2005. Generally, the act includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

- The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

  SAFETEA-LU, enacted August 10, 2005, authorizes the federal surface transportation programs for highways, highway safety, and transit. SAFETEA-LU addresses the many challenges facing our transportation system today—challenges such as improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment—as well as laying the groundwork for addressing future challenges. SAFETEA-LU promotes more efficient and effective federal surface transportation programs by focusing on transportation issues of national significance, while giving state and local transportation decision makers more flexibility for solving transportation problems in their communities.

State of California

- Senate Bill 1078

  SB 1078 establishes a renewable portfolio standard (RPS) for electricity supply. The RPS requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 20 percent of their supply from renewable sources by 2017. This target date was moved forward by SB 1078 to require compliance by 2010. In addition, electricity providers subject to the RPS must increase their renewable share by at least 1 percent each year. The outcomes of this legislation will impact regional transportation powered by electricity.

- State of California Integrated Energy Policy Report

  In 2002, the Legislature reconstituted the State's responsibility to develop an integrated energy plan for electricity, natural gas, and transportation fuels. The California Energy Commission (CEC) adopts and transmits to the Governor and Legislature a report of findings every 2 years. At a Special Business Meeting on November 12, 2003, the CEC adopted the 2003 Integrated Energy Policy Report. The 2004 Update to the Integrated Energy Policy Report was adopted by the CEC on November 3, 2004. The 2005 Integrated Energy Policy Report was adopted by the CEC on November 21, 2005. These reports make

recommendations to increase California's energy supplies, reduce energy demand, broaden the range of alternatives to conventional energy sources, and improve the State's energy delivery infrastructure.

- California Strategy to Reduce Petroleum Dependence (AB 2076)

  AB 2076 (Chapter 936, Statutes of 2000) requires the CEC and the Air Resources Board (ARB) to develop and submit to the Legislature a strategy to reduce petroleum dependence in California. The statute requires the strategy to include goals for reducing the rate of growth in the demand for petroleum fuels. In addition, the strategy is required to include recommendations to increase transportation energy efficiency as well as the use of nonpetroleum fuels and advanced transportation technologies including alternative fuel vehicles, hybrid vehicles, and high-fuel efficiency vehicles.

  The strategy, Reducing California's Petroleum Dependence, was adopted by the CEC and ARB in 2003. The strategy recommends that California reduce on-road gasoline and diesel fuel demand to 15 percent below 2003 demand levels by 2020 and maintain that level for the foreseeable future; the Governor and Legislature work to establish national fuel economy standards that double the fuel efficiency of new cars, light trucks, and SUVs; and increase the use of nonpetroleum fuels to 20 percent of on-road fuel consumption by 2020 and 30 percent by 2030.

- Alternative Fuels Plan Assembly Bill 1007

  AB 1007 requires the CEC to prepare a state plan to increase the use of alternative fuels in California. The plan shall include an evaluation of alternative fuels for emissions or criteria air pollutants, air toxics, GHGs, water pollutants, and other harmful substances, and their impacts on petroleum consumption. The plan shall set goals for increased alternative fuel use in the state for the years 2012, 2017, and 2022 and recommend policies to ensure the alternative fuel goals are attained, including standards on transportation fuels and vehicle and policy mechanisms to ensure vehicles operating on alternative fuels use those fuels to the maximum extent feasible. The plan was adopted in December 2007.

- Bio-energy Action Plan – Executive Order #S-06-06

  Executive Order #S-06-06 establishes targets for the use and production of bio-fuels and bio-power and directs state agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The executive order establishes the following target to increase the production and use of bio-energy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its bio-fuels within California by 2010, 40 percent by 2020, and 75 percent by 2050. The executive order also calls for the state to meet a target for use of biomass electricity.

- Governor's Low Carbon Fuel Standard (Executive Order #S-01-07)

  Executive Order #S-01-07 establishes a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 through establishment of a Low Carbon Fuel Standard. The Low Carbon Fuel Standard shall be incorporated into the State Alternative Fuels Plan required by AB 1007 and is one of the proposed discrete early action GHG reduction measures identified by ARB pursuant to AB 32.

Environmental Setting

Energy Consumption and Conservation

The study area is comprised of highways, railways, bicycle trails, state routes, roads, and Caltrans rights-of-way. This analysis assumes that automobiles, trucks, transit buses, and other forms of transportation would continue to operate within the Fresno region and use a variety of energy forms, including gasoline, compressed natural gas, diesel, and electricity. This section considers the supply and demand for both electricity and fossil fuels.

Energy is fundamental to the economy and the quality of life of the Fresno County region. The primary energy source for the U.S. is petroleum (also referred to as "oil"), which is refined to produce fuels like gasoline, diesel, and jet fuel. Oil is a finite, nonrenewable energy source. World consumption of petroleum products has grown steadily since 1983; as of 2005, world consumption of oil had reached 84 million barrels per day (GAO 2007). The world supply of oil is anticipated to peak (i.e., reach the point of maximum production) sometime between now and 2040, before beginning a terminal decline that will put a significant strain on the economy if not anticipated and mitigated. However, the timing of the peak depends on multiple, uncertain factors that will affect how quickly remaining oil is consumed, such as the amount of oil that still remains in the ground; how much of the amount in the ground can be extracted and produced based on technological, economic, and environmental feasibility; and future demand for oil.

The U.S., with approximately 5 percent of the world's population, accounts for just fewer than 25 percent of world oil consumption, roughly 21 million barrels per day (EIA 2007). U.S. oil production peaked around 1970 and has been declining ever since; it was about five million barrels per day in 2005. As a result, the U.S. imported about 76 percent of its oil in 2005. The U.S. transportation sector is heavily dependent on oil and represents about 69 percent of U.S. petroleum consumption. Within the transportation sector, light vehicles (i.e., cars, light trucks [two-axle, four-tire trucks], and motorcycles) represent about 60 percent of the petroleum-based energy consumption.

California's transportation sector is equally dependent upon oil, with petroleum-based fuels currently providing nearly all (96 percent) of California's transportation energy needs (State of California 2007). Furthermore, transportation-related activities represent almost half (48 percent) of California's petroleum-based fuel consumption. According to a 2005 California Energy Commission (CEC) report, California's demand for transportation fuels has increased 53 percent in the last 20 years, and in the next 20 years gasoline and diesel demand will increase another 36 percent (CEC 2005). California refineries increasingly rely on imported petroleum products to meet this demand. In 2003 the CEC and ARB adopted a two-part strategy to reduce the state's petroleum demand: promoting improved vehicle efficiency and increasing the use of alternative fuels. In 2005, alternative fuels represented 6 percent of the state's transportation energy needs. In 2006, CEC and ARB set a goal that 20 percent of all transportation energy in 2020 comes from alternative fuels. State plans, programs, and regulations to implement this strategy are further discussed in the Regulatory Setting section below.

Similar to California and the U.S. as a whole, the Fresno region relies primarily on oil to meet its transportation needs. Motor vehicles are the largest consumer of fuels in the region's transportation sector. After gasoline, diesel fuel is the most utilized transportation energy source. The primary consumers of diesel fuel in the transportation sector are heavy-duty trucks, with medium-duty trucks, buses, light-duty passenger cars, and railway locomotives accounting for remaining diesel fuel consumption.

Alternative fuels are defined as fuels not derived from petroleum, such as natural gas, ethanol, and electricity. However, like petroleum, alternative fuels like natural gas and ethanol (which is primarily composed of diesel

fuel) are also nonrenewable, finite resources. Electricity is also considered nonrenewable when generated from natural gas or coal, but considered renewable when generated from sources like solar, hydroelectric, or wind energy. Most alternative fuel facilities in the region supply compressed natural gas (CNG) or electricity. The region's limited alternative fuel infrastructure severely constrains the use of alternative fuel passenger vehicles.

Although average fuel efficiency for autos and trucks has experienced some improvements during the last quarter-century, fuel consumption associated with the large increase in VMT has exceeded the fuel consumption reductions achieved by improved efficiency, and the total amount of annual fuel consumption has continued to increase. The equipment and vehicles involved in the construction of transportation infrastructure (i.e., roadway and highway improvements; rail lines; etc.) also consume energy. Currently, construction equipment and vehicles are generally dependent on petroleum-based fuels.

Energy Conservation and Global Climate Change

The consumption of nonrenewable energy (primarily gasoline and diesel fuel) associated with construction activities and the operation of passenger, public transit, and commercial vehicles results in GHG emissions that cause global climate change (also referred to herein as "climate change" and "global warming"). In addition, alternative fuels like natural gas (including CNG and liquid natural gas [LNG]), ethanol, and electricity (unless derived from solar, wind, nuclear, or another energy source that does not produce carbon emissions) also result in GHG emissions and contribute to global climate change. An overview of climate change, the anticipated impacts of climate change to California, and the climate change impacts of the proposed 2011 RTP are provided in Chapter 3, Section 3.5 of the Draft SEIR. Impacts and mitigation measures associated with climate change also relate to the conservation of energy resources.

Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Criteria for Significance

The following significance criteria were used to determine the level of significance of impacts on energy resources and energy conservation resulting from the proposed Project. Significance criteria were developed based on Appendix F of the State CEQA Guidelines and on professional judgment. In general, an individual improvement project contained within the RTP would result in a significant energy impact if it:

- Results in an increase in total consumption of nonrenewable energy or reduces the ability of the region to conserve energy resources.

Impact Analysis

The proposed 2011 RTP plans improvements to the region's transportation network through the year 2035. Since the transportation sector accounts for a large portion of the energy consumed in the Fresno region, implementation of transportation network improvements would affect the region's energy consumption through 2035. In addition, construction of these improvements would result in increased energy consumption due to the operation of construction equipment and vehicles during construction activities. Multiple factors beyond the control of Fresno COG and outside the scope of the proposed 2011 RTP may influence future transportation-related energy consumption patterns under the proposed 2011 RTP. These factors include but are not limited to state and federal regulatory actions; local land use decisions; technological improvements; regional economic conditions; the fuel-efficiency and fuel-source of private automobiles; the price of oil, gasoline, diesel, electricity,

and other fuels; the source of region's electric power (i.e., proportion of renewable and nonrenewable sources); the amount of oil imported by the U.S. and others.

Although energy consumption would increase under the proposed 2011 RTP, the transportation improvements are designed to the improve energy efficiency of the regional transportation system by increasing use of more fuel-efficient public transit, carpools, and vanpools, and improving circulation system levels of service. See the Climate Change discussion in Section 3.5 of the Draft SEIR for a detailed discussion of RTP actions that promote GHG emissions reductions, energy conservation, energy efficiency and reduced fuel consumption. Examples of transportation improvements included in the proposed 2011 RTP that would improve energy efficiency include proposed transit improvements that would encourage optimized use of public transportation, and enhanced transit programs with new routes that would operate at higher speeds. Public transportation provides a more energy-efficient mode of travel than single-passenger vehicles, thereby reducing the region's transportation energy consumption. Any reductions in traffic congestion realized through implementation of enhanced transit operations would also allow for more energy-efficient vehicular travel.

The proposed 2011 RTP would also involve highway and arterial widenings, and new freeway interchanges. This in turn would decrease travel time and congestion and consequently decrease fuel consumption from individual vehicles. Despite these energy efficient improvements, total and per capita energy consumption associated with the transportation system is still anticipated to increase in 2035 under the proposed 2011 RTP.

The 2011 RTP encourages the transport of goods by rail to reduce congestion on the freeway system. Hauling goods by rail has a positive energy impact. The Federal Railroad Administration estimates that intermodal rail is 1.4 to 3.4 times more fuel efficient than trucks. This indicates reduced energy efficiency of goods movement in the region and increased nonrenewable energy consumption.

The construction of transportation infrastructure identified in the proposed 2011 RTP would involve the use of construction equipment and vehicles, which are generally dependent upon nonrenewable petroleum-based fuels, on a large scale. However, it is not feasible to estimate energy consumption associated with future construction of the projects in the proposed 2011 RTP at this program level of analysis. Nevertheless, the large scale of construction activities that would be required to implement the proposed 2011 RTP would result in an additional amount of additional energy consumption associated with the proposed 2011 RTP.

Lastly, the implementation of new transit stations and centers, transit priority measures, freeway and arterial widenings, and other improvements would include street and station lighting, parking structure lighting, traffic signals, electronic signage, and other ancillary components associated with the types of transportation improvements included in the proposed 2011 RTP. The energy consumption associated with these features would also increase under the proposed 2011 RTP.

Impact 3.16.1 - Energy Consumption & Conservation Impacts

Construction of the transportation improvements programmed in the proposed 2011 RTP would increase energy consumption due to the operation of construction equipment and vehicles. Given the number of large-scale improvements programmed into the proposed 2011 RTP, the increase in energy consumption associated with construction activities would be substantial. Although construction equipment and vehicles would be operated in accordance with all applicable rules and regulations, the substantial increase in energy consumption associated with the construction equipment and vehicles primarily powered by nonrenewable fuels under the proposed 2011 RTP is considered a significant impact.

Operation of the transportation improvements identified in the proposed 2011 RTP would increase the total and per capita amount of gasoline and diesel fuel consumption associated with the regional transportation network. Since gasoline and diesel are nonrenewable, petroleum-based fuels, the increase in gasoline and diesel consumption under the proposed 2011 RTP is considered a significant impact.

In addition to increased energy consumption directly associated with transportation activities, energy consumption would also increase as a result of new lighting including, but not limited to, lighting for streets stops or stations, transit station parking structures, and rail tunnels; traffic signals; electronic signage; and other ancillary electric, natural gas, or other energy-consuming components of transportation improvements that would be implemented under the proposed 2011 RTP. Increased energy consumption levels associated with these ancillary project features are considered a significant impact.

The proposed 2011 RTP includes goals and policies supporting smart growth through financial incentives, housing and mixed-use projects at existing and planned transit stations, support for local efforts to develop pedestrian master plans, and other activities that tend to reduce GHG emissions. However, since Fresno COG has no direct authority over land use planning and other local decisions, the extent to which the goals and policies supporting smart growth would be implemented by local jurisdictions is unknown.

Since the 2011 RTP (2035 Plan scenario) would decrease highway congestion and enhance alternative modes relative to the No Project (2007 RTP) and No Build alternatives (2035 growth versus existing and programmed projects), it would result in potentially beneficial effects on the consumption and conservation of energy resources.

Mitigation Measures

- The following mitigation measures shall be implemented by project implementation agencies to reduce the significant energy impacts of the proposed 2011 RTP. In addition, climate change mitigation measures referenced in Chapter 3, Section 3.5 will also contribute to the mitigation of energy consumption and energy conservation impacts.

  - Project implementation agencies shall review energy impacts as part of any CEQA-required project-level environmental analysis and specify appropriate mitigation measures for any identified energy impacts.

  - During the design and approval of transportation improvements, the following energy efficiency measures shall be incorporated when applicable:

    - The design or purchase of any lighting fixtures including but not limited to lighting at transit stations, arterials or freeways, and parking structures/lots shall achieve energy reductions beyond an estimated baseline energy use for such lighting.
    - LED technology shall be used for all new or replaced traffic lights, rail signals, and other features compatible with LED technology.

  - Project implementing agencies should consider various best practices and technological improvements that can reduce the consumption of fossil fuels such as:

    - Expanding light-duty vehicle retirement programs
    - Increasing commercial vehicle fleet modernization
    - Implementing driver training modules on fuel consumption

- Replacing gasoline powered mowers with electric mowers
- Reducing idling from construction equipment
- Incentivizing alternative fuel vehicles and equipment
- Developing infrastructure for alternative fueled vehicles
- Implementing truck idling rules, devices, and truck-stop electrification
- Requiring electric truck refrigerator units
- Reducing locomotives fuel use
- Modernizing older off-road engines and equipment
- Encouraging freight mode shift
- Limit use and develop fleet rules for construction equipment
- Requiring zero-emission forklifts

- Project implementing agencies should include energy analyses in environmental documentation and general plans with the goal of conserving energy through the wise and efficient use of energy. For any identified energy impacts, appropriate mitigation measures should be developed and monitored. Fresno COG recommends the use of Appendix F, Energy Conservation, of the *CEQA Guidelines.*

- Project implementing agencies should streamline permitting and provide public information to facilitate accelerated construction of solar and wind power.

- Project implementing agencies should adopt a "Green Building Program" to promote green building standards. Green buildings can reduce local environmental impacts, regional air pollutant emissions and global greenhouse gas emissions. Green building standards involve everything from energy efficiency, usage of renewable resources and reduced waste generation and water usage. For example, water-related energy use consumes 19 percent of the state's electricity. The residential sector accounts for 48 percent of both the electricity and natural gas consumption associated with urban water use. While interest in green buildings has been growing for some time, cost has been a main consideration as it may cost more up front to provide energy-efficient building components and systems. Initial costs can be a hurdle even when the installed systems will save money over the life of the building. Energy efficiency measures can reduce initial costs, for example, by reducing the need for over-sized air conditioners to keep buildings comfortable. Undertaking a more comprehensive design approach to building sustainability can also save initial costs through reuse of building materials and other means.

  A comprehensive study of the value of green building savings is the 2003 report to California's Sustainable Building Task Force. In the words of the report: "While the environmental and human health benefits of green building have been widely recognized, this comprehensive report confirms that minimal increases in upfront costs of about 2% to support green design would, on average, result in life cycle savings of 20% of total construction costs -- more than ten times the initial investment. For example, an initial upfront investment of up to $100,000 to incorporate green building features into a $5 million project would result in a savings of $1 million in today's dollars over the life of the building."

- Local governments should alter zoning to improve jobs/housing balance, create communities where people live closer to work, and bike, walk, and take transit as a substitute for personal auto travel. Creating walkable, transit oriented nodes would generally reduce energy use and greenhouse gas emissions. Residential energy use (electricity and natural gas) accounts for 14 percent of California's greenhouse gas emissions. It is estimated that households in transit-oriented developments drive 45 percent less than residents in auto-dependent neighborhoods. In addition, mixed land uses (i.e., residential developments near work places, restaurants, and shopping centers) with access to public

transportation have been shown to save consumers up to 512 gallons of gasoline per year. Furthermore, studies have shown that the type of housing (such as multi-family) and the size of a house have strong relationships to residential energy use. Residents of single-family detached housing consume over 20 percent more primary energy than those of multifamily housing and 9 percent more than those of single-family attached housing.

- Project implementing agencies should increase the number of AFVs (i.e., vehicles not powered strictly by gasoline or diesel fuel) both in publically owned vehicles, as well as those owned by franchisees of these agencies, such as trash haulers, green waste haulers, street sweepers, and curbside recyclable haulers.

- Bid solicitations for construction of projects should preference the use of alternative formulations of cement and asphalt with reduced GHG emissions to the extent that such cement and asphalt formulations are available at a reasonable cost in the marketplace. Solicitations should also preference the recycling of construction waste and debris if market conditions permit.

- Fresno COG shall continue to develop, in coordination with the California Air Resources Board, a data and information collection and analysis system that provides an understanding of the energy demand and greenhouse gas emissions in the Fresno region.

- All mitigation measures listed in Chapter 3, Section 3.5.1, are incorporated by reference and shall be implemented by implementing agencies to address energy conservation impacts.

Significance After Mitigation

Implementation and monitoring of the above mitigation measures will provide the framework and direction for subsequent individual improvement project-specific mitigation designed to avoid or reduce the identified significant Project impacts to a less than significant level.

- Chapter 4, Page 4-1, Impact 4.2.1, Air Quality, revise the last sentence to read:

A detailed assessment of such impacts is provided in Chapter 3 of the Draft SEIR.

EXHIBIT A - STATEMENT OF OVERRIDING CONSIDERATIONS

SUMMARY OF SIGNIFICANT, ADVERSE, UNAVOIDABLE IMPACTS

Fresno COG has prepared a mitigation monitoring program for the Fresno COG 2011 Regional Transportation Plan (RTP) Draft and Final Subsequent Environmental Impact Report (SEIR) as required by the California Environmental Quality Act (CEQA), Public Resources Code 21000 et seq. Fresno COG identified several significant, adverse, and unavoidable impacts in the Draft and Final SEIRs. As such, CEQA requires the Fresno COG Board of Directors to balance the benefits of the Proposed Plan Option against its unavoidable environmental risks in determining whether to approve the RTP. The SEIRs identify the following significant, adverse, and unavoidable environmental impacts:

- Impact 3.1.1: Construction and implementation of individual projects could potentially impede or block views of scenic resources as seen from the transportation facility or from the surrounding area.

- Impact 3.1.2: Construction and implementation of the projects could alter the appearance of scenic resources along or near designated scenic highways and vista points.

- Impact 3.1.3: Construction and implementation of the projects could create significant contrasts with the overall visual character of the existing landscape setting.

- Impact 3.1.4: Construction and implementation of individual projects could potentially create a new source of substantial light or glare that would affect day or nighttime views of scenic resources as seen from the transportation facility or from the surrounding area.

- Impact 3.1.5: Fresno County will experience significant growth and development by 2035. The 2011 RTP influences the pattern of this development, by increasing mobility and including transportation measures. At the regional scale, the 2011 RTP's contribution to impacts on the overall visual character of the existing landscape setting would be cumulatively significant.

- Impact 3.2.1: Strategies aimed at addressing the transportation needs of future growth patterns were considered during development of the proposed RTP. The document promotes alternatives to the automobile through enhanced funding for transit and other alternative modes of transportation such as bicycle facilities, trails, airport improvements, and others. Implementation of strategies proposed in the RTP could result in positive changes to land uses. This would be considered a beneficial impact.

  Implementation of transit improvements included in the Plan could influence land use patterns throughout the region. Land use and transportation policies are emphasized in the RTP in order to address automobile traffic and air quality concerns. Growth patterns that promote alternatives to the automobile by creating mixed-use developments, which would include residences, shops, parks, and civic institutions, linked to pedestrian-and-bicycle friendly public transportation centers, are also discussed in the RTP. Implementation of enhanced alternative modes as provided by the RTP could result in more balanced land use conditions throughout the region, as the mixed-use developments would result in a concentration of jobs and residences in close proximity to one another.

  While the RTP is likely to result in a positive outcome related to supportive land use conditions for alternative forms of transportation such as transit, other projects in the Plan could have significant impacts on land use patterns, potentially causing land use growth and development to occur in areas not previously envisioned for growth and development. This impact could be especially significant on agricultural land uses within the County.

- Impact 3.2.2: Implementation of the proposed Project could potentially result in the disturbance or loss of significant agricultural resources throughout the Fresno region.

- Impact 3.3.3: The Project will result in beneficial effects of system-wide improvement in traffic flows and reduced congestion and vehicle trips and vehicle miles traveled, which would reduce the potential for increased air emissions when compared to emissions budgets established by EPA. While TCMs have been identified in the Air Quality Conformity Finding, the TCMs will not result in attainment of all pollutants over time or by the year 2035. As a result, long-term emission impacts cannot be reduced to a less-than-significant level even with the addition of projects and programs outlined in the RTP.

- Impact 3.4.1: The RTP includes projects that may result in direct removal or degradation of riparian habitat or other sensitive natural communities during construction activities such as grading and grubbing.

- Impact 3.4.2: The RTP includes projects that may result in direct impacts to plant and wildlife species including rare, threatened and/or endangered species during construction and operation of the proposed transportation facilities through the removal of native habitat.

- Impact 3.4.3: The Project may result in indirect impacts to plant and wildlife species including rare, threatened and/or endangered species during the construction and operation through edge effects such as noise, lighting and visual deterrents.

- Impact 3.4.4: The Project would result in temporary and permanent impacts to terrestrial and aquatic wildlife movement. The linear nature of transportation projects increases the potential extent and significance of impacts to wildlife movement. Transportation facilities pose barriers to wildlife crossings that may result in injury of death of wildlife attempting to traverse the facility. These barriers also result in fragmentation of natural habitat and increased impacts associated with edge effects from lighting, noise, human disturbance, exotic plant infestations, urban runoff, etc. Smaller fragments of habitat result in greater intensity of the edge effects. It is also important to maintain connections between populations of wildlife so that interbreeding, and/or that young have no ability to disperse to suitable habitats, does not occur. Impacts to wildlife movement would be greater along entirely new transportation facilities than with improvements to existing facilities, because the existing facility has already formed a barrier, and the addition of new lanes for example, may only slightly increase the barrier effect.

- Impact 3.4.6: The 2011 RTP would potentially increase siltation of streams and other water resources from exposures of erodible soils during construction activities. Excessive siltation can significantly degrade habitat for fish and other aquatic organisms. Heavy sediment deposition can bury slow-moving or sessile bottom-dwelling organisms, fish eggs and larval forms of many aquatic organisms. These losses are not only of direct concern, but also represent a loss of food sources for larger fishes and other organisms, such as birds and mammals, that are not directly affected by sediments.

  Increased sediment can also decrease light penetration for aquatic plant production and increase water temperature from greater insulation. Higher water temperatures can affect aquatic organisms through direct stress of temperature-sensitive organisms (e.g., steelhead require cold water streams), and by increasing nitrate productivity which can exacerbate eutrophication if the sediments contain or are accompanied by excessive nutrients (i.e., algal blooms). The degree of this impact would depend on several factors including the following:
  - *Length of occurrence.* The longer the period of sedimentation, the greater the potential for significance.
  - *Timing of occurrence*. The effect would be of greater significance during particularly sensitive times of year, such as during fish spawning seasons when the eggs and larvae which are particularly sensitive to siltation would be present; and,

- *Significance of Resource.* The effect would be of greater significance where a special status species might be affected, such as near a steelhead spawning stream.

- Impact 3.4.7: Growth and development in Fresno County will increase substantially by 2035. The 2011 RTP, by increasing mobility and including transportation measures, influences the pattern of this growth and development. The 2011 RTP's influence on growth potentially contributes to following regional cumulatively considerable impacts:

  - Displacement of natural vegetation
  - Damage to sensitive species habitat
  - Habitat fragmentation
  - Impacts to riparian and wetland habitats
  - Construction and operational disturbances
  - Siltation

- Impact 3.5.1: Increased Transportation GHG Emissions may contribute to Climate Change.

- Impact 3.5.2: The ultimate sources of increased transportation GHG emissions in Fresno County are population and employment growth, which will increase with or without projects referenced in the 2011 RTP.

- Impact 3.6.2: Construction activities involving excavation and earthmoving may encounter archaeological resources.

- Impact 3.6.3: Construction activities involving excavation and earthmoving may encounter paleontological materials.

- Impact 3.6.4: Construction activities involving excavation and earthmoving may encounter human remains.

- Impact 3.6.5: Growth and development in Fresno County will increase substantially by 2035. The 2011 RTP, by increasing mobility and by inclusion of transportation measures, influences the pattern of this development. The 2011 RTP's influence on growth contributes to regional impacts to existing historic resources and previously undisturbed and undiscovered cultural resources. Impacts to cultural resources from the 2011 RTP would be cumulatively considerable.

- Impact 3.7.2: Some improvement projects require significant earthwork, increasing potential slope failure and long-term erosion. Earthwork can also alter unique geologic features.

- Impact 3.7.5: Implementation of proposed Project could potentially have short-term and long-term effects on water quality downstream from specific project sites. The short-term impacts relate to the grading and construction phases of project implementation that may cause erosion, while the long-term impacts may result from increased runoff flows from larger areas of asphalt.

- Impact 3.7.6: Some street and highway projects may be proposed along alignments that will affect State-owned and State minerals reserved lands.

- Impact 3.7.7: Potentially hazardous geological and seismic factors are found throughout the San Joaquin Valley. Given the regional scale and growth-inducing nature of the projects and programs included in the 2011 RTP, the cumulative impacts of the 2011 RTP on geological units and soils as well as the potential exposure to substantial adverse effects to people and property would be significant.

- Impact 3.8.2: The implementation of the 2011 RTP could create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during transportation. Implementation of the 2011 RTP would facilitate the movement of goods, including hazardous materials, through the region. Transportation of goods, in general, and hazardous materials in particular, can thus be expected to increase substantially with implementation of the 2011 RTP.

- Impact 3.8.4: The 2011 RTP's influence on mobility and its land use-transportation measures would influence population distribution, potentially contributing to a cumulatively considerable impact related to disturbance of contaminated sites by new urban development. With additional pressure for infill development, reuse of "brownfields" properties may become more common as the region grows.

- Impact 3.9.5: Growth and development will increase substantially by 2035. The 2011 RTP, by increasing mobility and by including transportation measures, influences the pattern of this development. The 2011 RTP's influence on growth would contribute to the conversion of undeveloped land, resulting in impacts to water quality, stormwater infiltration and groundwater recharge, flood hazard impacts, and wastewater treatment services, and water demand.

- Impact 3.10.1: While the RTP is likely to result in a positive outcome related to supportive land use conditions for alternative forms of transportation such as transit, other projects in the RTP could have significant impacts on land use patterns, potentially causing land use growth and development to occur in areas not previously envisioned for growth and development. This impact could be especially significant on agricultural land uses within the County.

- Impact 3.10.2: There are many sensitive receptors (residences, educational facilities, medical facilities, and places of worship) located in the urban and rural areas of the County. These receptors may be sensitive to noise, vibration, air pollutants, and other conditions that impact our environment. Sensitive receptors located in the vicinities of proposed improvement projects could be impacted by construction and implementation of the proposed highway, arterial and transit projects due to noise, dust, vibration, etc.

- Impact 3.10.3: Construction and implementation of projects would result in the loss of open space and community recreation areas. This would be considered a potentially significant impact. Pockets of open space vary in size and location throughout the County and within the cities. Open space land uses include agricultural areas, public parks, recreational facilities, and areas planned for such uses.

- Impact 3.10.4: Implementation of the proposed RTP could potentially result in the disturbance or loss of significant agricultural resources throughout the Fresno region. This would be considered a potentially significant impact. The County contains areas designated by the State as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. These areas are interspersed throughout urban areas or are located in undeveloped portions of the region. Development of highway, arterial and transit projects proposed under the RTP could potentially result in the disturbance or loss of some of these designated areas. Specifically, new projects involving construction would be most likely to result in impacts to these areas.

- Impact 3.10.6: Growth and development in the County will increase substantially by 2035. The 2011 RTP, by increasing mobility and including transportation measures, influences the pattern of this urbanization. The 2011 RTP's influence on growth contributes to regional cumulatively considerable impacts to land use and would change the intensity of land use in some areas.

- Impact 3.11.1: Grading and construction activities associated with the proposed highway, arterial, and transit projects would intermittently and temporarily generate noise levels above ambient background levels. Noise levels in the immediate vicinity of the construction sites would increase substantially sometimes for extended durations.

- Impact 3.11.2: Noise-sensitive land uses could be exposed to noise in excess of normally acceptable noise levels and/or could experience substantial increases in noise as a result of the operation of expanded or new transportation facilities (i.e., increased traffic resulting from new highways, addition of highway lanes, roadways, ramps, and new transit facilities as well as increased use of existing transit facilities, etc.).

- Impact 3.11.3: Cumulative ambient noise levels could increase in the region to exceed normally acceptable noise levels or have substantial increases in noise as a result of the operation of expanded or new transportation facilities (i.e., increased traffic resulting from new highways, addition of highway lanes, roadways, ramps, and new use of new transit facilities as well as increased use of existing transit facilities, etc.).

- Impact 3.12.1: The Project could potentially displace or relocate residences and businesses through acquisition of land and buildings necessary for highway, arterial, and transit improvement.

- Impact 3.12.2: The Project has the potential to disrupt or divide a community by separating community facilities, restricting community access and eliminating community amenities.

- Impact 3.12.3: Growth and development in the County will increase substantially by 2035. The 2011 RTP, by increasing mobility and including transportation measures, influences the pattern of this development. The 2011 RTP's influence on growth contributes to regional cumulatively considerable impacts to population, housing and employment and would change the intensity of land use in some areas.

- Impact 3.13.5: Growth and development in the County will increase substantially by 2035. The 2011 RTP, by increasing mobility and including transportation measures, influences the pattern of this development. The 2011 RTP's influence on growth contributes to regional cumulatively considerable impacts to police and fire and emergency services, solid waste services, and other public services in the County.

- Impact 3.14.3: Growth and development in the County will increase substantially by 2035. The 2011 RTP, by increasing mobility and including transportation measures, influences the pattern of this development. The 2011 RTP's influence on growth contributes to regional cumulatively considerable impacts to social and economic conditions and would change the intensity of land use in some areas.

- Impact 3.15.1: While improved mobility will result from implementation of the projects contained in the RTP, some significant unavoidable impacts, considering the regional minimum LOS policy of "D" will occur. LOS deficiencies will result along a number of regional street and highway segments and associated intersections because of the inability to widen such facilities due to funding and other constraints even with RTP projects. It is anticipated that even with implementation of the Project significant LOS deficiencies will continue therefore.

OVERRIDING CONSIDERATIONS

Fresno COG is required to prepare this Statement of Overriding Considerations to explain the reasons for approving the 2011 RTP, despite the unavoidable impacts identified in the SEIR and Findings of Fact (as per Section 15093 of the State CEQA Guidelines). In preparing this Statement, Fresno COG has balanced the benefits of the Proposed Plan Option against its unavoidable environmental risks. Fresno COG finds that the unavoidable significant adverse effects of the individual improvement projects are overridden by the benefits of those projects and the considerations described below. Fresno COG, therefore, makes and adopts the following Overriding Considerations:

- The requirement for updates to the RTP every four (4) years, which provides for the identification of transportation modes to address population and employment growth, is required by State Law and sound local planning practice, and is an overriding concern.

- The specific need to provide necessary, feasible and sustainable transportation system improvements within the region is an overriding concern.

- The need to provide choice in the availability of transportation modes for County residents as a means to avoid significant delay and congestion, which may indirectly harm businesses and residents that depend upon a viable transportation system, is an overriding concern.

- Because there is no alternative other than the "No Build", "No Project" (2011 Regional Transportation Plan), and VMT Reduction Alternatives to converting some prime farmland for expansion of the circulation system, the need for such conversion is an overriding concern.

- While the individual improvement projects will not result in emissions beyond those allowed through the conformity process, and construction and hot spot emission impacts can be mitigated or are not found to be significant, the fact that the Valley continues to be nonattainment for volatile organic compounds, nitrogen oxides, and PM emissions, is an overriding concern.

- Because there is no alternative other than "No Build", "No Project", and VMT Reduction Alternatives to the loss of some biological resources for expansion of the circulation system, the loss of such resources is an overriding concern.

- The 2011 RTP balances the need to preserve valuable agricultural and biological resources with the region's need to provide a viable transportation system to accommodate anticipated population and employment growth and the related increased need for employment opportunities and municipal revenue. This planning balance is an overriding concern.

- Regional benefits associated with implementation of the 2011 RTP (reduced vehicular emissions, reduced congestion, reduced travel time, reduced vehicle miles traveled and improved mobility), will result from the implementation of planned improvement projects, which outweigh the potentially unavoidable localized impacts to land use development that may result from the individual improvement projects.

- Implementation of the 2011 RTP will result in increased unavoidable noise levels as a result of expansion of the planned transportation system, but the specific need to provide necessary, feasible and sustainable transportation system improvements within the region that supports planned growth and development, is an overriding concern.

- Implementation of the 2011 RTP would result in positive impacts on public services; however, long-term maintenance of various transportation modes including streets and highways is an overriding concern.

- Regional and localized benefits associated with implementation of the 2011 RTP (reduced vehicular emissions, reduced congestion, reduced travel time, reduced vehicle miles traveled and improved mobility), that will result from the implementation of planned improvement projects, outweigh the potentially unavoidable impacts associated with individual or localized improvement projects and other projects identified in the Project alternatives. These other alternatives will result in a greater number of Level of Service (LOS) deficiencies and infeasible transportation projects that will not result in further benefits beyond implementation of the 2011 RTP.

Based on substantial evidence in the public record, Fresno COG finds that, for the reasons set forth above, the economic, social and other consideration of the individual improvement projects outweigh the unavoidable agricultural, biological, land use/planning, noise, and transportation/circulation impacts identified in the SEIRs. First, the individual improvement projects identified in the 2011 RTP are required to meet travel demand of residents and businesses through to the year 2035. Second, the planned transportation improvements will enhance continued economic growth in the region. Third, the planned improvements will reduce levels of vehicular emissions and LOS deficiencies compared to the other project alternatives. Fourth, appropriate and achievable mitigation measures have been proposed, which are within Fresno COG's and its member agencies' jurisdiction to mitigate or avoid the significant environmental effects identified in the SEIRs.

OVERRIDING REASONS

Therefore, in accordance with Section 15093 of the State CEQA Guidelines, Fresno COG is required to prepare this Statement of Overriding Considerations to explain the reasons for approving the 2011 RTP, despite the unavoidable impacts identified in the SEIR and Findings of Fact. In preparing this Statement, Fresno COG has balanced the benefits of the Project against its unavoidable environmental risks. For the reasons specified below, Fresno COG finds that the benefits of the Project outweigh the unavoidable environmental risks. In addition, the Findings of Fact identify a number of recommended mitigation measures that are found to be within the jurisdiction of other public agencies and not Fresno COG, and that these measures have been or should be adopted by such other agencies. Fresno COG finds that, for the reasons specified below, the Project should be adopted as the 2011 RTP notwithstanding the fact that responsibility for mitigating the potential adverse impacts rests with agencies other than Fresno COG.

The following reasons are consistent with the intent and purpose of the 2011 RTP:

Quality of Life

- The Project is intended to contribute to the quality of life that is experienced and will be experienced by the residents of Fresno County.

- The Project is designed to meet the needs of everyday travel for all types of purposes as well as for large regional movements over the long-term. Transportation is closely connected with many other issues, such as air quality, the environment, and land use, health, safety, and economic vitality and the Project contains goals and actions to address these issues.

Access and Mobility

- The Project includes many strategies to address both access and mobility and acknowledges that certain major corridors will need major investments in all modes of transportation to maintain and improve both access and mobility for the growth in travel that is occurring.
  - Access: Significant increases are planned for the street and highway, transit, and bicycle, trails, and pedestrian systems in the County. The projects must undergo extensive planning and analysis processes with community involvement.
  - Mobility: The Project includes a slate of projects aimed at reducing the most critical areas of congestion from a regionwide viewpoint. In addition to expanded transit service, which will reduce congestion in particular corridors, mobility projects additional lanes along streets and highways, interchange improvements, maintenance and rehabilitation of the existing system of streets and highways, and other capacity enhancements throughout the region.
- The Project also includes funding for rail consolidation, car and van pools, and local road improvements, including lane additions, intersection improvements, and rehabilitation and maintenance of the existing street and highways system.

Air Quality

- The Project includes funding for significant increases in alternative modes of transportation -- public transit, bicycle, pedestrian projects and community design projects -- that will make alternative modes of transportation more attractive.
- While the individual improvement projects will not result in emissions beyond those allowed through the conformity process, and construction and hot spot emission impacts can be mitigated or are not found to be significant, the fact that the Valley continues to be nonattainment for ozone, PM_{10} and $PM_{2.5}$ emissions is an overriding concern.

Travel Choices

- The Project invests significant funding into offering choices of travel mode to future residents. Major increases in, bus, bicycle, and pedestrian modes are envisioned, along with promotion of sharing rides.
- Regional and localized benefits associated with implementation of the 2011 RTP (reduced vehicular emissions, reduced congestion, reduced travel time, reduced vehicle miles traveled and improved mobility), that will result from the implementation of planned improvement projects, outweigh the potentially unavoidable impacts associated with individual or localized improvement projects and other projects identified in the Project alternatives. These other alternatives will result in a greater number of Level of Service (LOS) deficiencies and infeasible transportation projects that will not result in further benefits beyond implementation of the 2011 RTP.

Economic Vitality

- The Project includes major corridor improvements that connect areas around the periphery of the urban core, providing better access to the region's major job center – the Fresno-Clovis Metropolitan Area (FCMA). It also includes significantly enhanced bus transit systems to help manage demand.

- Investment in road maintenance and rehabilitation is provided, particularly a problem in rural areas where farm-to-market truck travel is important.

Equity

- The Project incorporates the priorities of local communities and many of these local projects are paid for from local funds. Major projects of regional concern are located throughout the region as well.

- The Project will provide alternatives -- pubic transit, bicycle, and pedestrian facilities -- for those who cannot or do not drive. Finally, a large increase in paratransit service (door-to-door wheelchair-equipped van service) is included for the expected increase in the elderly population over the RTP period.

- The need to provide choice in the availability of transportation modes for County residents as a means to avoid significant delay and congestion, which may indirectly harm businesses and residents that depend upon a viable transportation system, is an overriding concern.

Transportation and Land Use

- Investment in the transportation system will offer opportunities to grow logically and address the interaction between land use and transportation more effectively.

- The requirement for amendments to the RTP every four years, which provides for the identification of transportation modes to address population and employment growth, is required by State Law and sound local planning practice, and is an overriding concern.

- The specific need to provide necessary, feasible and sustainable transportation system improvements within the region is an overriding concern.

- Because there is no alternative other than the “No Build”, “No Project” (2007 Regional Transportation Plan), and VMT Reduction Alternatives to converting some prime farmland for expansion of the circulation system, the need for such conversion is an overriding concern.

- Implementation of the 2011 RTP would result in positive impacts on public services; however, long-term maintenance of various transportation modes including street and highway is an overriding concern.

Funding and Revenue

- The Project shows revenues available from all sources -- federal, state, and local. The 2011 RTP would provide additional funding than that included in the RTP. The region will continue to receive federal and state funding to program projects through to the Year 2035.

- Overall, the Project provides funding transit operations and improvements, highway, street and road improvements, highway, street and road maintenance and rehabilitation, and for other kinds of improvements (bicycle, pedestrian, community design, etc.).

Health And Safety

- Pedestrian and bicycle plans and projects are specifically allocated funding in the 2011 RTP and funds have also been identified for such improvements in the RTP. Local road and state highway safety-related improvements are also included.

- Regional benefits associated with implementation of the 2011 RTP (reduced vehicular emissions, reduced congestion, reduced travel time, reduced vehicle miles traveled and improved mobility), will result from the implementation of planned improvement projects, which outweigh the potentially unavoidable localized impacts to land use development that may result from the projects.

Environmental Sustainability

- The Project includes a number of projects and programs that mitigate environmental issues.

- Because there is no alternative other than "No Build", "No Project", and VMT Reduction Alternatives to the loss of some biological, cultural and agricultural resources for expansion of the circulation system, the loss of such resources is an overriding concern.

- The 2011 RTP balances the need to preserve valuable agricultural and biological resources with the region's need to provide a viable transportation system to accommodate anticipated population and employment growth and the related increased need for employment opportunities and municipal revenue. This planning balance is an overriding concern.

- Implementation of the 2011 RTP will result in increased unavoidable noise levels as a result of expansion of the planned transportation system, but the specific need to provide necessary, feasible and sustainable transportation system improvements within the region that supports planned growth and development, is an overriding concern.

Based on substantial evidence in the public record, Fresno COG finds that, for the reasons set forth above, the economic, social and other considerations of the project outweigh the unavoidable agricultural, biological, land use/planning, noise, and transportation/circulation impacts identified in the SEIR. First, the individual improvement projects identified in the 2011 RTP are required to meet travel demand of residents and businesses through to the Year 2035. Second, the planned transportation improvements will enhance continued economic growth in the region. Third, the planned improvements will reduce levels of vehicular emissions and LOS deficiencies compared to the other project alternatives. Fourth, appropriate and achievable mitigation measures have been proposed, which are within Fresno COG's and its member agencies' jurisdiction to mitigate or avoid the significant environmental effects identified in the SEIR.

EXHIBIT B - MITIGATION MONITORING PROGRAM

STATUTORY REQUIREMENT

This Mitigation Monitoring Program for the Fresno COG 2011 Regional Transportation Plan SEIR has been developed in accordance with Section 21081.6 of the Public Resources Code, which requires a Lead Agency that approves or carries out a project, where an SEIR has identified significant environmental effects, to adopt a reporting or monitoring program. The purpose of this program is to identify the changes to the project, which the Lead Agency has adopted or made a condition of a project approval in order to mitigate or avoid significant effects on the environment. Fresno COG is the Lead Agency that must adopt the mitigation monitoring program.

Section 21069 of the CEQA statute defines Responsible Agency as a public agency, other than the Lead Agency, which has the responsibility for carrying out or approving a project. Fresno COG finds that the implementation of some mitigation measures listed on the following pages of the Final SEIR are not within its jurisdiction, and can and should be implemented and monitored by agencies responsible for implementing the projects, including but not limited to the following: cities, Counties, Caltrans, transit districts, and other responsible agencies.

CEQA statutes and Guidelines provide direction for clarifying and managing the complex relationships between a Lead Agency (Fresno COG) and other agencies with respect to implementing and monitoring mitigation measures. In accordance with CEQA Guidelines Section 15097.d, "each agency has the discretion to choose its own approach to monitoring or reporting; and each agency has its own special expertise." This discretion will be exercised by implementing agencies at the time they undertake any of the individual improvement projects identified in the Draft and Final EIRs.

Regular review and update of the 2011 Regional Transportation Plan will be conducted by Fresno COG, as appropriate. These updates involve a determination of regional transportation and air quality impacts and require air quality conformity pursuant to the federal Clean Air Act.

ADMINISTRATION OF THE MITIGATION MONITORING PROGRAM

Mitigation measures listed in this Mitigation Monitoring Program will be implemented by one or more responsible or implementing agencies when those agencies undertake individual transportation improvement projects identified in the Regional Transportation Plan.

The Mitigation Monitoring Program consists of the following components:

- Mitigation measures contained in the Draft and Final SEIR
- Identification of Responsible Party
- Description of mitigation measure timing
- Identification of monitoring agency

This Mitigation Monitoring Program shall be maintained in Fresno COG files for the Fresno COG 2011 Regional Transportation Plan.

MITIGATION MEASURES

Aesthetics

Mitigation Measures

1. All mitigation measures will be included in project-level analysis, as appropriate. The project implementation agency or local jurisdiction will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   - Implement design guidelines, local policies, and programs aimed at protecting views of scenic corridors and avoiding visual intrusions.

   - To the extent feasible, noise barriers that will not degrade or obstruct a scenic view will be constructed. Noise barriers will be well landscaped, complement the natural landscape and be graffiti-resistant.

2. All mitigation measures will be included in project-level analysis, as appropriate. The project implementation agency or local jurisdiction will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   - Avoid construction of transportation facilities in state and locally designated scenic highways and vista points.

   - If transportation facilities are constructed in state and locally designated scenic highways and/or vista points, design, construction, and operation of the transportation facility will be consistent with applicable guidelines and regulations for the preservation of scenic resources along the designated scenic highway.

3. All mitigation measures will be included in project-level analysis, as appropriate. The project implementation agency or local jurisdiction will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   - Develop design guidelines for each type of transportation facility that make elements of proposed facilities visually compatible with surrounding areas. Visual guidelines will, at a minimum, include setback buffers, landscaping, color, texture, signage, and lighting criteria. The following methods will be employed whenever possible:

     - Transportation systems will be designed in a manner where the surrounding landscape dominates.
     - Transportation systems will be developed to be compatible with the surrounding environment (i.e., colors and materials of construction material).
     - If exotic vegetation is used, it will be used as screening and landscaping that blends in and complements the natural landscape.
     - Trees bordering highways will remain or be replaced so that clear cutting is not evident.
     - Grading will blend with the adjacent landforms and topography.

   - Project implementation agencies shall design projects to minimize contrasts in scale and massing between the project and surrounding natural forms and development. Project implementation agencies shall design projects to minimize their intrusion into important viewsheds and use contour grading to better match surrounding terrain. To the maximum extent feasible, landscaping along highway corridors shall be

designed to add significant natural elements and visual interest to soften the hard-edged, linear travel experience that would otherwise occur.

- Project implementation agencies shall use natural landscaping to minimize contrasts between the project and surrounding areas. Wherever possible, interchanges and transit lines shall be designed at the grade of the surrounding land to limit view blockage. Edges of major cut-and-fill slopes should be contoured to provide a more natural looking finished profile. Project implementation agencies shall replace and renew landscaping to the greatest extent possible along corridors with road widenings, interchange projects, and related improvements. New corridor landscaping shall be designed to respect existing natural and man-made features and to complement the dominant landscaping of surrounding areas.

- Project implementation agencies shall construct sound walls of materials whose color and texture complements the surrounding landscape and development and to the maximum extent feasible, use color, texture, and alternating facades to "break up" large facades and provide visual interest. Where there is room, project sponsors shall landscape the sound walls with plants that screen the sound wall, preferably with either native vegetation or landscaping that complements the dominant landscaping of surrounding areas.

4. All mitigation measures will be included in project-level analysis, as appropriate. The project implementation agency or local jurisdiction will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   - Develop design guidelines for each type of transportation facility that make light elements of proposed facilities visually compatible with surrounding areas. The following methods will be employed whenever possible:

     - Transportation systems will be designed in a manner where the surrounding landscape dominates.
     - Transportation systems will be developed to be compatible with the surrounding environment.
     - Lighting devices will be employed such as downward facing light, light shields, and amber lumens.

5. Mitigation measures identified above should also be implemented as applicable to development projects throughout the region.

   - In visually sensitive site areas and prior to project approval, local land use agencies shall apply development standards and guidelines to maintain compatibility with surrounding natural areas, including site coverage, building height and massing, building materials and color, landscaping, site grading, etc.

   - Local agencies should develop design guidelines for each type of transportation facility that make light elements of proposed facilities visually compatible with surrounding areas. The following methods will be employed whenever possible:
     - Transportation systems will be designed in a manner where the surrounding landscape dominates;
     - Transportation systems will be developed to be compatible with the surrounding environment; and
     - Lighting devices will be employed such as downward facing light, light shields, and amber lumens.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Agricultural Resources

Mitigation Measures

1. The impact on significant agricultural resources will be evaluated as part of the appropriate improvement project-specific environmental review. Mitigation measures will be identified to minimize impacts. Implementation agencies will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with all mitigation measures.

    - Individual projects will be consistent with local land use plans and policies that designate areas for urban land use and preserve agricultural lands that support the economic viability of agricultural activities.

    - Prior to final approval of each individual improvement project, the implementing agency will conduct the appropriate project-specific environmental review, including consideration of potential land use impacts.

2. The impact on significant agricultural resources will be evaluated as part of the appropriate improvement project-specific environmental review. Mitigation measures will be identified to minimize impacts. Implementation agencies will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with all mitigation measures.

    - Individual projects will be consistent with federal, state, and local policies that preserve agricultural lands and support the economic viability of agricultural activities, as well as policies that provide compensation for property owners if preservation is not feasible.

    - For projects in agricultural areas, project implementation agencies will contact the California Department of Conservation and the Agricultural Commissioner's office to identify the location of prime farmlands and lands that support crops considered valuable to the local or regional economy.

    - Prior to final approval of each individual improvement project, the implementing agency will establish conservation easement programs to mitigate impacts to prime farmland.

    - Prior to final approval of each individual improvement project, the implementing agency will avoid impacts to prime farmlands or farmlands that support crops considered valuable to the local or regional economy.

    - Prior to final approval of each individual improvement project, the implementing agency will encourage enrollments of agricultural lands for counties that have Williamson Act programs.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Air Quality

Mitigation Measures

1. All mitigation measures will be included in project-level analysis, as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   - Project implementation agencies will ensure implementation of mitigation measures to reduce PM and NOx emissions from construction sites, including:

     - Maintain on-site truck loading zones.
     - Configure on-site construction parking to minimize traffic interference and to ensure emergency vehicle access.
     - Provide temporary traffic control during all phases of construction activities to improve traffic flow.
     - Use best efforts to minimize truck idling to not more than two minutes during construction.
     - Apply non-toxic soil stabilizers (according to manufacturers' specifications) to all inactive construction areas.
     - During construction, replace ground cover in disturbed areas as quickly as possible.
     - During construction, enclose, cover, water twice daily or apply non-toxic soil binders (according to manufacturers' specifications) to exposed piles with 5 percent or greater silt content and to all unpaved parking or staging areas or unpaved road surfaces.
     - During the period of construction, install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.
     - During the period of construction, assure that traffic speeds on all unpaved roads be reduced to 15 mph or less.
     - Pave all construction access roads at least 100 feet on to the site from permanent roadways.
     - Cover all haul trucks.

   - Project implementation agencies will avoid individual improvement project designs requiring significant amounts of material, such as excavated soil and construction debris, to be transported from the site to disposal facilities. Construction sites will employ a balanced cut/fill ratio to the extent possible, thus reducing haul-truck trip emissions.

2. At those facilities or intersections near sensitive receptors where carbon monoxide concentrations may exist, the implementing agency will reduce or alleviate these concentrations by improving traffic flows through improved signalization, restriping, addition of traffic lanes, and other improvements identified as part of the environmental review of an individual improvement project.

3. The various TCMs that have been incorporated into the Air District AQAP, ROP Plans, and the SJVAPCD TCM Program, or have been identified as necessary to provide for positive air quality conformity findings, as referenced in the latest Air Quality Conformity Finding for the 2011 RTP and Federal Transportation Improvement Program (FTIP).

    - All applicable rules and regulations adopted by the Air District will be followed by responsible and implementing agencies as individual improvement projects are designed, constructed and maintained. Fresno COG will be provided with documentation indicating compliance with all mitigation measures.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Biotic Resources

Mitigation Measures

1. All mitigation measures will be included in subsequent project-level environmental analysis, as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for compliance with the mitigation measures during all phases of construction, as appropriate. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

    - When applicable to federally funded projects, Fresno COG and responsible agencies should commit to improved interagency coordination and integration of the National Environmental Policy Act (NEPA) and the Clean Water Act Section 404 procedures during three stages: transportation planning, project programming, and project implementation. Fresno COG and affected state and local agencies should commit to ensuring the earliest possible consideration of environmental concerns pertaining to U.S. water bodies, including wetlands, at each of the three stages identified above. In addition, the agencies should place a high priority on the avoidance of adverse impacts to waters of the U.S. and associated sensitive species, including threatened and endangered species. Implementation of NEPA-404 requirements will expedite construction of necessary transportation projects, with benefits to mobility and the economy at large. The process will also enable more street and highway projects to proceed on budget and on schedule. Finally, the process will improve cooperation and efficiency of governmental operations at all levels, thereby better serving the public.

- Construction and operational Best Management Practices (BMPs) will be identified, installed and maintained in order to prevent silt and other pollutants from entering jurisdictional waters and wetlands thereby degrading or destroying wildlife and/or natural habitat. BMPs may include straw bales and/or mats, temporary sedimentation basins, silt fence, sand bag check dams, dry season construction, etc.

- Native soils in construction areas will be removed, stockpiled separately, and replaced in those areas where onsite revegetation of the native habitat is planned.

- Any disturbed natural areas will be replanted with appropriate native vegetation following the completion of construction activities.

- During the individual improvement project design phase, impacts to jurisdictional waters and wetlands will be minimized to the greatest extent feasible.

- Project proponents will obtain and comply with appropriate regulatory requirements prior to construction.

2. All mitigation measures will be included in subsequent project-level environmental analysis, as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for compliance with the mitigation measures during all phases of construction as appropriate. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

- Each proposed individual improvement project will consider the displacement of sensitive habitat, sensitive species, and non-native habitat during the individual improvement project design phase.

- When avoidance of native vegetation removal is not possible, each transportation project shall replant disturbed areas with commensurate native vegetation of high habitat value adjacent to the project (i.e. as opposed to ornamental vegetation with relatively less habitat value).

- Focused sensitive plant and wildlife species and non-native habitat surveys will be conducted within suitable habitat to determine the distribution of sensitive species within the biological impact area of the proposed transportation improvement project. Sensitive plant and non-native habitat surveys will be conducted during the appropriate flowering season for sensitive plant species with the potential to occur within the individual improvement project area. In all cases, impacts on special status species and/or their habitat shall be avoided during construction to the extent feasible.

- If sensitive plant or wildlife species and non-native habitat are identified within the biological impact area, a Biological Resource Management Plan (BRMP) will be developed to address appropriate avoidance and minimization measures. These measures may include seed collection and salvage measures for sensitive plant species and non-native habitat, silt fencing, exclusion fencing and/or appropriate compensation where impacts cannot be fully avoided.

- Individual transportation projects shall include offsite habitat enhancement or restoration to compensate for unavoidable habitat losses from the project site.

- Locations of sensitive species, sensitive habitat, and non-native habitat will be mapped and shown on construction drawings and identified as Environmentally Sensitive Areas (ESAs). Prior to construction, these areas will be flagged and/or fenced to prevent unnecessary impacts from machinery and foot traffic.

- Temporary access roads and staging areas will not be located within areas containing sensitive plant, sensitive wildlife species or non-native habitat wherever feasible, so as to avoid or minimize impacts to these species.

- Construction activities will be scheduled, as appropriate and feasible, to avoid sensitive times that have a greater likelihood to affect significant resources such as spawning periods for fish, nesting season for birds and/or the rainy season for riparian habitat and sediment/erosion control.

- All vegetation (including tall grasses) will be removed between August 16 and February 14, if possible, to avoid potential conflicts with nesting birds. If it is not possible to remove vegetation during that time frame, a nest clearance survey will be completed prior to vegetation clearing. Any detected nests will be mapped and provided with an appropriate buffer as recommended by a qualified biologist. Construction activities within the buffer area will not be allowed until after September 15 or until fledglings have abandoned the nest.

- A Worker Awareness Program (environmental education) shall be developed and implemented to inform project workers of their responsibilities in regards to avoiding and minimizing impacts on sensitive biological resources.

- An Environmental Inspector shall be appointed to serve as a contact for issues that may arise concerning implementation of mitigation measures, and to document and report on adherence to these measures.

- A qualified wetland scientist shall review construction drawings as part of each project-specific environmental analysis to determine whether wetlands will be impacted, and if necessary perform a formal wetland delineation. Appropriate state and federal permits shall be obtained, but each project EIR will contain language clearly stating the provisions of such permits, including avoidance measures, restoration procedures, and in the case of permanent impacts compensatory creation or enhancement measures to ensure a no net loss of wetland extent or function and values.

- Sensitive habitats (native vegetative communities identified as rare and/or sensitive by the CDFG) and special-status plant species (including vernal pools) impacted by projects shall be restored and augmented, if impacts are temporary, at a 1.1:1 ratio (compensation acres to impacted acres). Permanent impacts shall be compensated for by creating or restoring habitats at a 3:1 ratio as close as possible to the site of the impact.

- When work is conducted in identified sensitive habitat areas and/or areas of intact native vegetation, construction protocols shall require the salvage of perennial plants and the salvage and stockpile of topsoil (the surface material from 6 to 12 inches deep) and shall be used in restoring native vegetation to all areas of temporary disturbance within the project area.

- If specific project area trees are designated as “Landmark Trees” or “Heritage Trees”, then approval for removals shall be obtained through the appropriate entity, and appropriate mitigation measures shall be developed at that time, to ensure that the trees are replaced. Due to the close proximity of these areas to sensitive wildlife habitats, all mitigation trees will use only locally-collected native species.

- Use resource data to inform transportation decision-making.

- Use watershed, conservation, and recovery plans to identify important environmental considerations for the Fresno COG region, such as critical wildlife corridors, the most important areas to protect for sensitive species, and areas with a high concentration of resources.

- Give conservation plans as much weight as General Plans when planning transportation investments.

- Incorporate concepts such as 100 to 200 foot buffers for stream corridors, and identification and improvement of priority culverts that currently restrict wildlife corridors and natural processes of stream and river systems.

- Use parcel maps to identify larger, undivided parcels for ease of acquisition and preservation, and designate areas as potential future mitigation sites.

- Consider the resource, "Eco-logical: An Ecosystem Approach to Developing Infrastructure Projects" (2006) which encourages Federal, State, Tribal and Local partners involved in the infrastructure planning, design, review, and construction to use flexibility in regulatory processes.

- Identify financial mechanisms to fund mitigation, such as development fees, sales tax, or the use of funds from alternative methods to identify and protect critical resource areas.

- Establish conservation easements that connect to and expand existing conservation areas.

- Describe locally-developed measures such as designated open space, measures requiring development set-backs near streams, etc.

- The following list of data resources should be referenced during development of biotic plans and studies for transportation improvement projects:

  - U.S. Fish & Wildlife Service species recovery plans
  - USDA Natural Resources Conservation Service wetland data
  - Nature Conservancy data and regional planning documents
  - California Department of Fish and Game Natural Diversity Database
  - Local non-profit and land trust group information

3. All mitigation measures will be included in subsequent project-level environmental analysis as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for compliance with the mitigation measures during all phases of construction as appropriate. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   - The height, spacing, number and type of light fixtures will be selected and installed to minimize intrusive light escaping from the physical boundaries of the site.

   - Road noise minimization methods such as native brush and tree planting adjacent to heavy noise producing transportation facilities or will be incorporated where feasible.

4. All mitigation measures will be included in subsequent project-level environmental analysis as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for compliance with the mitigation measures during all phases of construction as appropriate. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

- During final design, implementing agencies will design, construct, and maintain terrestrial wildlife crossings in order to minimize barrier effects and habitat fragmentation created by the individual improvement project.

- During final design, implementing agencies will design, construct, and maintain any structure/culvert placed within a stream where endangered or threatened fish occur/may occur. The structure/culvert will not constitute a barrier to upstream or downstream movement of aquatic life, or cause an avoidance reaction by fish that impedes their upstream or downstream movement. This includes, but is not limited to, the supply of water at an appropriate depth for fish migration.

5. All mitigation measures will be included in subsequent project-level environmental analysis as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for compliance with the mitigation measures during all phases of construction as appropriate. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   - Construction and operation of the proposed individual improvement project will comply with the requirements of all adopted HCPs and other preserved areas.

6. Individual projects near water resources shall implement Best Management Practices (BMPs) at construction sites to minimize erosion and sediment transport from the area. BMPs include encouraging growth of vegetation in disturbed areas, using straw bales or other silt-catching devices, and using settling basins to minimize soil transport.

   - Individual projects shall schedule construction activities to avoid sensitive times for biological resources (e.g. steelhead spawning periods during the winter and spring) and to avoid the rainy season when erosion and sediment transport is increased.

7. The cumulative impacts to biological resources, due to the forecast urban development associated with the 2011 RTP, would be mitigated using the same measures detailed for Impacts 3.3.1 through 3.3.5, in addition to the following measure.

   - Future impacts to biotic resources shall be minimized through cooperation and information sharing between the implementation agency and affected resource agencies.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Climate Change

Mitigation Measures

1. Fresno COG cannot require that local agencies, Caltrans, the Air District or other agencies that use diesel-powered vehicles and equipment apply retrofit emission control devices, such as diesel oxidation catalysts and diesel particulate filters verified by CARB. Fresno COG also cannot require that the same agencies use alternative forms of cement and asphalt that have lower GHG emissions. It is recommended however, that responsible agencies (local agencies, the Air District, Caltrans, and others) consider the implementation of such measures during individual project development and construction.

   Both Fresno COG and responsible agencies implementing projects outlined in the 2011 RTP will be required to adhere to any future applicable mandatory regulations regarding global warming resulting from the passage of AB 32 and AB 1493, but the exact character of such future implementing strategies is not known at this time. Fresno COG and the local agencies will quantify GHG emissions consistent with Guidelines and requirements developed by CARB. Once the Guidelines are available, Fresno COG will address GHG emissions and global warming impacts of projects contained in the 2011 RTP.

   All mitigation measures will be included in project-level analysis, as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for ensuring adherence to the mitigation measures.

   - Implementation agencies are encouraged reduce GHG emissions through implementation of the following mitigation measures consistent with Blueprint principals:
     - Develop land use patterns, which encourage people to walk, bicycle, or use public transit for a significant number of their daily trips:
       - Use comprehensive community plans and specific plans to ensure development is consistent and well connected by alternative transportation modes.
       - Adopt transit-oriented or pedestrian-oriented design strategies and select areas appropriate for these designs in the general plan.
       - Support higher density development in proximity to commonly used services and transportation facilities.
     - Develop in a compact, efficient form to reduce vehicle miles traveled and to improve the efficiency of alternatives to the automobile:
       - Use the control of public services to direct development to the most appropriate locations.
       - Promote infill of vacant land and redevelopment sites.
     - Encourage project site designs and subdivision street and lot designs that support walking, bicycling, and transit use:
       - Adopt design guidelines and standards promoting plans that encourage alternative transportation modes.
       - Require certain sites to be created to allow convenient access by transit, bicycle, and walking.

   - Prior to or in conjunction with the adoption of the proposed 2014 RTP, Fresno COG will develop a SCS or APS that includes the following:
     - General discussion of the potential impacts that GCC poses to the Fresno County region, with particular focus on potential impacts related to RTP facilities, to the extent that such information is available.
     - A baseline inventory of total GHG emissions directly and indirectly from transportation in the County that currently exist, and review of potential targets and timelines for achieving GHG reductions.

- Development of feasible GHG emissions reduction measures and strategies to achieve reductions in RTP GHG emissions. Such reduction measures may include construction of new transportation projects, modification of existing facilities or services, incentive or funding programs, pricing strategies, regulations or any other actions that reduce GHG emissions associated with RTP activities.
- State protocols and GHG emissions inventory mechanisms are necessary tools to track and monitor GHG emissions at the local level. Fresno COG and member agencies must determine, in cooperation with the state, the solutions that will best minimize its potential risks and maximize its potential benefits.

- Intelligent Transportation

  - Develop an Intelligent Transportation Systems strategy, consistent with the adopted ITS Strategic Plan, to implement the Integrated Performance Management System Network that will:
    - Interconnect the region's local transportation management centers, including the use of cameras, and computer hardware and software to detect and clear accidents.
    - Use technology to improve traffic signal timing in order to optimize traffic flow and transit service.
    - Involve new equipment to improve on-time transit performance and provide real-time transit information at stops and stations.

- Create Alternative Fuel Vehicle and Infrastructure Toolkit for Local Governments

  Fresno COG will develop an Alternative Fuel Vehicle (AFV) and Infrastructure Toolkit as part of the Blueprint implementation process for member agencies that will contain best practices related to ordinances, analytical tools, financing opportunities, codes, and standards related to reducing GHG emissions. Fresno COG will identify the alternative fuel vehicle(s) (e.g. neighborhood electric vehicles) and alternative fuel infrastructure with the potential to result in the greatest GHG emission reductions. Fresno COG will conduct a public education program for local governments and other public agencies, as appropriate to encourage the use of alternative fuel vehicles and infrastructure.

  Fresno COG will work with its member agencies to increase the number of AFVs (i.e., vehicles not powered strictly by gasoline or diesel fuel) both in municipally owned vehicles, as well as those owned by franchisees of these cities, such as trash haulers, green waste haulers, street sweepers, and curbside recyclable haulers. Such AFVs shall have GHG emissions at least 10 percent lower than comparable gasoline- or diesel-powered vehicles. The Alternative Fuel Vehicle and Infrastructure Toolkit described above will include best practices strategies to aid in the transformation of municipally owned or contracted fleets, including vehicle fleets operated and/or funded, at least in part by Fresno COG.

- Continue the Public Education Program on Individual Transportation Behavior and Climate Change

  In conjunction with key partners such as local air districts, public utility providers, area chambers of commerce and others, Fresno COG will continue the public information program to educate the public about the connection between individual transportation behavior and global climate change, including transportation behavior modifications the public can make to reduce their GHG emissions over time. Fresno COG shall include information on its website that is focused on global climate change. The website shall identify actions the public can take to reduce their carbon footprint, and provide web links to sources of information designed to promote alternative mode use (carpools, vanpools, public transit, bicycling, walking, telecommuting) and other travel demand management strategies.

- Provide Funding for Workshop on Global Climate Change for Local Government Officials and Include in the Blueprint Toolkit

Fresno COG will provide funding for a workshop on global climate change for local government officials that will focus on practical techniques that local governments can implement to reduce greenhouse gas emissions at the city and county level. Workshop topics shall include, but are not limited to the following:

- The basic science behind climate change and its effects on the Fresno County Region.
- Addressing the California Environmental Quality Act (CEQA) and the effects of AB 32.
- What cities and counties are doing to address climate change and CEQA.
- Cost effective actions cities can take to reduce greenhouse emissions.
- Actions being taken in the Fresno County area to advance and support innovative "green" business.

Fresno COG, in conjunction with other key partners, shall produce a toolkit (as part of the Blueprint implementation process) for local governments to use to take effective action to reduce greenhouse gas emissions over time. The toolkit will incorporate recommendations by the workshop participants to identify which issues are important for the region and the tools and resources they would like to have available to reduce greenhouse emissions.

- Continue to implement the Safe Routes to School program and conduct a workshop with cities, the county and school districts to identify other opportunities for collaboration that may reduce GHG emissions.

Within 3 years from the adoption of the 2011 RTP, Fresno COG shall adopt a Safe Routes to Schools (SRTS) policy to promote the practice of safe bicycling and walking to and from schools throughout the Plan Area in order to reduce traffic congestion, improve air quality, and enhance neighborhood safety. There are both federal and state funding programs for SRTS. As a regional agency, Fresno COG is an eligible applicant under the federal program for both infrastructure and non-infrastructure projects. Under the state program, only cities and counties are eligible applicants for infrastructure projects only. (Caltrans, 2007) With the passage of the Safe Routes to School bill (AB 1475), a "one third" distribution formula for federal safety funds to be allocated in equal amounts to: state highways, local roads, and Safe Routes to School (SRTS) construction program was established.

The federal Safe Routes to School program (SRTS) was authorized by Section 1404 of the *SAFETEA-LU (the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users*). SACOG shall also obtain federal funds from the Federal Highway Administration through Caltrans to implement at least one SRTS pilot program within the Plan Area.

The State-legislated Safe Routes to School program (SR2S) is contained in Streets & Highways Code Section 2330-2334. Fresno COG shall encourage its member agencies to apply for funds available through the State Highway Safety Improvement fund for eligible infrastructure projects in order to improve bicycle and pedestrian safety for school children.

In addition, Fresno COG will host a regional workshop as part of its Transportation Forum or series of SCS workshops, for all cities, the County, school districts and transit operators within the region to identify other potential opportunities for collaboration that would reduce GHG impacts. At a minimum, the issues discussed will include the findings from the Safe Routes to School activities described above, opportunities to increase the number of students with bus or other transit options to get to and from school, and integrating school siting practices with goals of promoting walkable neighborhoods with a wide range of easily accessible services. This workshop will be patterned after the "Stretching Community Dollars Guidebook" and workshop series that the SACOG Executive Director wrote for the California City, County, Schools (CCS) Partnership (a non-profit organization of the League of California Cities, California State Association of Counties and California School Boards Association). That workshop series is specifically

designed to help these three local government entities to take maximum advantage of opportunities for collaboration. Fresno COG will ask the CCS Partnership to co-host the event, and offer to make the materials prepared for the event available to the CCS Partnership for use in its on-going workshop series around the state.

- Report on Fresno COG's own GHG Impacts

  Fresno COG should report on its own GHG emissions and track its progress in reducing GHG emissions.

Responsibility for Implementation of Mitigation Measures:

Fresno COG and/or Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

As noted in the mitigation measure. During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Fresno COG, Caltrans and/or local agencies.

Cultural Resources

Mitigation Measures

1. All mitigation measures will be included in project-level analysis, as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   - As part of the appropriate environmental review of individual projects, the project implementation agencies will identify potential impacts to historic resources. A record search at the appropriate Information Center will be conducted to determine whether the individual improvement project area has been previously surveyed and whether resources were identified.

   - As necessary, prior to construction activities, the project implementation agencies will obtain a qualified architectural historian to conduct historic architectural surveys as recommended by the Archaeological Information Center. In the event the records indicate that no previous survey has been conducted, the Information Center will make a recommendation on whether a survey is warranted based on the sensitivity of the individual improvement project area for cultural resources.

   - The project implementation agencies will comply with Section 106 of the National Historic Preservation Act if federal funding or approval is required. This law requires federal agencies to evaluate the impact of their actions on resources included in or eligible for listing in the National Register of Historic Places. Federal agencies must coordinate with the State Historic Preservation Officer in evaluating impacts and developing mitigation. These mitigation measure may include, but are not limited to the following:

- The project implementation agencies will carry out the maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation, relocation, or reconstruction of any impacted historic resource, which will be conducted in a manner consistent with the Secretary of the Interior's Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings.

- In some instances, the following mitigation measure may be appropriate in lieu of the previous mitigation measure:

  - The project implementation agencies will secure a qualified environmental agency and/or architectural historian, or other such qualified person to document any significant historical resource(s), by way of historic narrative, photographs, or architectural drawings, as mitigation for the effects of demolition of a resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur.

2. All mitigation measures will be included in project-level analysis, as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   Implementation of the following mitigation measures for archaeological resources is recommended to reduce impacts to a less-than-significant level. Project proponents will implement the following measures as part of the individual improvement project review process for proposed transportation projects:

   - As part of the appropriate environmental review of individual projects, the project implementation agencies will consult with the Native American Heritage Commission to determine whether known sacred sites are in the project area, and identify the Native American(s) to contact to obtain information about the individual improvement project site.

   - Prior to construction activities, the project implementation agencies will obtain a qualified archaeologist to conduct a record search at the appropriate Information Center of the California Archaeological Inventory to determine whether the individual improvement project area has been previously surveyed and whether resources were identified.

   - As necessary prior to construction activities, the project implementation agencies will obtain a qualified archaeologist or architectural historian (depending on applicability) to conduct archaeological and/or historic architectural surveys as recommended by the Information Center. In the event the records indicate that no previous survey has been conducted, the Information Center will make a recommendation on whether a survey is warranted based on the sensitivity of the individual improvement project area for cultural resources.

   - If the record search indicates that the individual improvement project is located in an area rich with cultural materials, the individual improvement project proponent will retain a qualified archaeologist to monitor any subsurface operations, including but not limited to grading, excavation, trenching, or removal of existing features of the subject property.

   - Construction activities and excavation will be conducted to avoid cultural resources (if found). If avoidance is not feasible, further work may need to be done to determine the importance of a resource. The project implementation agencies will obtain a qualified archaeologist familiar with the local archaeology, and/or an architectural historian should make recommendations regarding the work necessary to determine

importance. If the cultural resource is determined to be important under state or federal guidelines, impacts on the cultural resource will be mitigated.

- The project implementation agencies will stop construction activities and excavation in the area where cultural resources are found until a qualified archaeologist can determine the importance of these resources.

3. All mitigation measures will be included in project-level analysis, as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with mitigation measures. Project proponents in the Fresno region will implement the following measures as part of the review process for proposed transportation projects:

   - As part of the appropriate environmental review of individual projects, the project implementation agencies will obtain a qualified paleontologist to identify and evaluate paleontological resources where potential impacts are considered high; the paleontologist will also conduct a field survey in these areas.

   - Construction activities will avoid known paleontological resources, especially if the resources in a particular lithic unit formation have been determined through detailed investigation to be unique. If avoidance is not feasible, paleontological resources will be excavated by the qualified paleontologist and given to a local agency, State University, or other applicable institution, where they can be displayed.

4. All mitigation measures will be included in project-level analysis, as appropriate. The individual improvement project proponent or local jurisdiction will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   As part of the appropriate environmental review of individual projects, the project implementation agencies, in the event of discovery or recognition of any human remains, during construction or excavation activities associated with the individual improvement project, in any location other than a dedicated cemetery, will cease further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the coroner of the county in which the remains are discovered has been informed and has determined that no investigation of the cause of death is required

   - If the remains are of Native American origin, the coroner will contact the Native American Heritage Commission in order to ascertain the proper descendants from the deceased individual. The coroner will make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, which may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains.

   - If the Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission, in which case:

     - The landowner or his authorized representative will obtain a Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance where the following conditions occur:

- The Native American Heritage Commission is unable to identify a descendent.
- The descendant identified fails to make a recommendation.
- The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

5. The cumulative impacts to cultural resources, due to the forecast growth and development associated with the 2011 RTP, would be mitigated using the same measures detailed for Impacts 3.6.1 and 3.6.4, in addition to the following measure.

   - Future impacts to cultural resources shall be minimized through cooperation and information sharing between the implementation agency and affected resource agencies.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Geology/Soils

Mitigation Measures

1. Project structures will be built by responsible agencies to the seismic standards contained in the most recent edition of the Uniform Building Code (UBC).

   - Implementing agencies will ensure that improvement projects located within or across active fault zones comply with design requirements, published by the CGS, as well as local, regional, state, and federal design criteria for construction of projects in seismic areas.

   - The project implementing agencies will guarantee that geotechnical analysis is conducted within construction areas to establish soil types and local faulting prior to individual improvement project design preparation.

2. The project implementing agencies will ensure that individual improvement project designs provide adequate slope drainage and appropriate landscaping to minimize the occurrence of slope instability and erosion.

   - Design features will include measures to reduce erosion from storm water.

   - Road cuts will be designed to maximize the potential for revegetation.

- Implementing agencies will ensure that projects avoid landslide areas and potentially unstable slopes wherever feasible.

- Where practicable, routes and individual improvement project designs that would permanently alter unique geologic features will be avoided.

3. Implementing agencies will ensure that geotechnical investigations are conducted by a qualified geologist to identify the potential for subsidence and expansive soils.

   - Recommended corrective measures, such as structural reinforcement and replacing soil with engineered fill, will be implemented in individual improvement project designs.

   - Implementing agencies will ensure that, prior to preparing individual improvement project designs, new and abandoned wells are identified within construction areas to ensure the stability of nearby soils.

4. Implementing agencies shall ensure that projects are designed in accordance with county and city code requirements for seismic ground shaking. The design of projects shall consider seismicity of the site, soil response at the site, and dynamic characteristics of the structure, in compliance with the appropriate California Building Code and State of California design standards for construction in or near fault zones, as well as all standard design, grading, and construction practices in order to avoid or reduce geologic hazards.

   - Implementing agencies shall ensure that projects located within or across Alquist- Priolo Zones comply with design requirements provided in Special Publication 117, published by the California Geological Survey, as well as relevant local, regional, state, and federal design criteria for construction in seismic areas.

   - The project implementing agencies shall ensure that geotechnical analyses from qualified geotechnical experts are conducted within construction areas to ascertain soil types and local faulting prior to preparation of project designs. These investigations would identify areas of potential failure and recommend remedial geotechnical measures to eliminate any problems.

5. Improvement projects with significant cuts or fill should include a geotechnical investigation to identify adverse soil conditions and develop recommendations for design and construction that would limit the effects of adverse soil and bedrock conditions.

   - Cut and fill plans will be prepared for all improvement projects where cut and fill will be reburied, so that all fill materials are properly designed, placed, and compacted.

   - Preparation of a detailed erosion control plan will be prepared to limit the effects of soil erosion and water degradation during improvement project construction, in accordance with permit conditions and requirements of the State Water Resources Control Board's Best Management Practices (BMPs), or equally effective measures will be employed.

6. Where possible, improvement projects will be designed by responsible agencies to limit potential impacts on State-owned or State mineral-reserved lands.

7. Mitigation measures 3.7.1 through 3.7.6 would be applied to this impact in addition to the following measure:

   - Future impacts to geologic resources shall be minimized through cooperation and information sharing between the implementation agency and affected resource agencies.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Hazardous Materials

Mitigation Measures

1. The implementation agency shall comply with all applicable laws, regulations, and health and safety standards set forth by federal, state, and local authorities that regulate the proper handling of such materials and their containers to the routine transport, use, and disposal of hazardous materials does not create a significant hazard to the public or the environment.

2. Implementing agencies shall encourage the USDOT, the Office of Emergency Services, and Caltrans to continue to conduct driver safety training programs and encourage the private sector to continue conducting driver safety training.

   - Implementing agencies shall encourage the USDOT and the CHP to continue to enforce speed limits and existing regulations governing goods movement and hazardous materials transportation.

3. Prior to approval of any RTP project, the project implementation agency shall consult all known databases of contaminated sites and undertake a standard Phase 1 Environmental Site Assessment in the process of planning, environmental clearance, and construction for projects included in the 2011 RTP. If contamination is found the implementing agency shall coordinate clean up and/or maintenance activities.

   - Where contaminated sites are identified, the project implementation agency shall develop appropriate mitigation measures to assure that worker and public exposure is minimized to an acceptable level and to prevent any further environmental contamination as a result of construction.

   - Local agencies should contact the Chevron Environmental Management Company (CEMC) to determine whether an improvement project may be in the vicinity of the Tidewater Oil Company or Standard Oil Company historical pipeline alignments. A map of the alignments is provided in Appendix B of this SEIR.

4. Mitigation Measures 3.8.1 through 3.8.3 as implemented by responsible agencies and private developers would address this impact.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Hydrology/Water Quality

Mitigation Measures

1. Improvement projects along existing facilities will include upgrades to storm water drainage facilities to accommodate increased runoff volumes. These upgrades may include the construction of detention basins or structures that will delay peak flows and reduce velocity.

2. Transportation network improvements will comply with local, state and federal floodplain regulations. Proposed transportation improvements will be engineered by responsible agencies to accommodate storm drainage flow.

   - Responsible agencies should ensure that operational best management practices for street cleaning, litter control, and catch basin cleaning are provided to prevent water quality degradation. Responsible agencies implementing projects requiring continual water removal facilities should provide monitoring systems including long-term administrative procedures to ensure proper operations for the life of the Project.

3. Prior to construction, and when a potential drainage issue is known, a drainage study should be conducted by responsible agencies for new capacity-increasing projects. Drainage systems should be designed to maximize the use of detention basins, vegetated areas, and velocity dissipaters to reduce peak flows where possible. Transportation improvements will comply with federal, state and local regulations regarding storm water management. State-owned freeways must comply with Storm Water Discharge NPDES permit for Caltrans facilities.

   - Responsible agencies should ensure that new facilities include water quality control features such as drainage channels, detention basins, and vegetated buffers to prevent pollution of adjacent water resources by runoff.

   - Letters of Map Revision (LOMR) will be prepared and submitted to FEMA (when applicable) by responsible agencies where construction would occur within 100-year floodplains. The LOMR will include revised local base flood elevations for projects constructed within flood-prone areas.

4. Improvement projects along existing facilities will include upgrades to storm water drainage facilities to accommodate increased runoff volumes. These upgrades may include the construction of detention basins or structures that will delay peak flows and reduce velocity.

5. Mitigation Measures 3.9.1 through 3.9.4 shall be applied to all development projects, as feasible, in addition to the following measures:

- Local governments should encourage Low Impact Development and natural spaces that reduce, treat, infiltrate and manage stormwater runoff flows in all new developments.

- Local governments should implement green infrastructure and water-related green building practices through incentives and ordinances. Green building resources include the U.S. Green Building Council's Leadership in Energy and Environmental Design, Green Point Rated Homes, and the California Green Builder Program.

- Local governments should integrate water resources planning with existing greening and revitalization initiatives, such as street greening, tree planting, development and restoration of public parks, and parking lot conversions, to maximize benefits and share costs.
- Developers, local governments, and water agencies should maximize permeable surface area in existing urbanized areas to protect water quality, reduce flooding, allow for groundwater recharge, and preserve wildlife habitat. New impervious surfaces should be minimized to the greatest extent possible, including the use of in-lieu fees and off-site mitigation.

- Future impacts to water quality shall be avoided through cooperative planning, information sharing, and comprehensive pollution control measure development.

- Local jurisdictions and water agencies are encouraged to continue regional-scale planning for improved stormwater management and groundwater recharge. Future adverse impacts shall be avoided through cooperative planning, information sharing, and comprehensive implementation efforts.

- Local governments should prevent development in flood hazard areas that do not have appropriate protections, especially in alluvial fan areas of the region.

- Local jurisdictions should encourage new development and industry to locate in those service areas with existing wastewater infrastructure and treatment capacity, making greater use of those facilities prior to incurring new infrastructure costs.

- Wastewater treatment agencies are encouraged to have expansion plans, approvals and financing in place once their facilities are operating at 80 percent of capacity.

- Local jurisdictions should promote reduced wastewater system demand by: designing wastewater systems to minimize inflow and increase upstream treatment and infiltration to the extent feasible, reducing overall source water generation by domestic and industrial users, deferring development approvals for industries that generate high volumes of wastewater until wastewater agencies have expanded capacity.

- Project developers and agencies should consider potential climate change hydrology and attendant impacts on available water supplies and reliability in the process of creating or modifying systems to manage water resources for both year round use and ecosystem health.

- Local water agencies should continue to evaluate future water demands and establish the necessary supply and infrastructure to meet that demand.

- Developers, local governments, and water agencies should include conjunctive use as a water management strategy when feasible.

- Developers and local governments should reduce exterior uses of water in public areas, and should promote reductions in private homes and businesses, by shifting to drought-tolerant native landscape plantings (xeriscaping), using weather-based irrigation systems, educating other public agencies about water use, and installing related water pricing incentives.

- Future impacts to water supply shall be minimized through cooperation, information sharing, and program development.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Land Use/Planning

Mitigation Measures

1. The impact on significant agricultural resources will be evaluated as part of the appropriate improvement project-specific environmental review. Mitigation measures will be identified to minimize impacts. Implementation agencies will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with all mitigation measures.

    - Individual projects will be consistent with local land use plans and policies that designate areas for urban land use and preserve agricultural lands that support the economic viability of agricultural activities.

    - Prior to final approval of each individual improvement project, the implementing agency will conduct the appropriate project-specific environmental review, including consideration of potential land use impacts.

2. Impacts to sensitive receptors will be evaluated as part of the appropriate project-specific environmental review, and mitigation measures will be identified to minimize impacts. Implementation agencies will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with all mitigation measures.

    - Prior to commencing construction activities on individual projects, project implementation agencies will comply with applicable federal, state and applicable city and county land use plans, policies, and regulations.

- Prior to commencing construction activities with individual projects, project implementation agencies will obtain necessary local permits and meet conditions for approval from applicable cities and counties.

- Prior to final approval of each individual improvement project, the implementing agency will conduct the appropriate project-specific environmental review, including consideration of potential land use impacts.

- Potential significant impacts to land uses will be mitigated.

3. The impact on open space and community recreation areas will be evaluated as part of the appropriate project-specific environmental review and mitigation measures will be identified to minimize impacts. Implementation agencies will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with all mitigation measures.

   - Project implementation agencies will ensure that projects are consistent with federal, state, and local plans that preserve open space and recreation.

   - Project implementation agencies will identify open space and recreation areas that could be preserved and will include mitigation measures (such as dedication or payment of in-lieu fees) for the loss of open space.

   - Prior to final approval of each individual improvement project, the implementing agency will conduct the appropriate project-specific environmental review, including consideration of loss of open space and recreation.

   - Potential significant impacts to open space will be mitigated.

   - For projects that require approval or funding by the U.S. Department of Transportation, project implementation agencies will comply with Section 4(f) of the U.S. Department of Transportation Act.

4. The impact on significant agricultural resources will be evaluated as part of the appropriate project-specific environmental review, and mitigation measures will be identified to minimize impacts. Implementation agencies will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with all mitigation measures.

   - Individual projects will be consistent with federal, state, and local policies that preserve agricultural lands and support the economic viability of agricultural activities, as well as policies that provide compensation for property owners if preservation is not feasible.

   - For projects in agricultural areas, project implementation agencies will contact the California Department of Conservation and the County Agricultural Commissioner's office to identify the location of prime farmlands and lands that support crops considered valuable to the local or regional economy.

   - Prior to final approval of each individual improvement project, the implementing agency will establish conservation easement programs to mitigate impacts to prime farmland.

   - Prior to final approval of each individual improvement project, the implementing agency will avoid impacts to prime farmlands or farmlands that support crops considered valuable to the local or regional economy.

- Prior to final approval of each individual improvement project, the implementing agency will encourage enrollments of agricultural lands in the Williamson Act.

5. The mitigation measures listed above for Impacts 3.10.1 through 3.10.5 would be applied as mitigation for this impact. In addition, the following measure would apply.

   - Regional planning efforts will be used to build a consensus in the region to support changes in land use to accommodate future population growth while maintaining the quality of life in the region.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Noise

Mitigation Measures

1. As part of project-specific environmental review, a detailed evaluation of noise impacts will be undertaken. Project-specific mitigation measures will be identified, as necessary. All mitigation measures will be included in project-level analysis, as appropriate. The project implementing agency or local jurisdiction will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   - Project implementing agencies will comply with all local sound control and noise level rules, regulations, and ordinances.

   - Project implementing agencies will limit the hours of construction to between 6:00 a.m. and 8:00 p.m. on Monday through Friday and between 7:00 a.m. and 8:00 p.m. on weekends.

   - Equipment and trucks used for construction will utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) in order to minimize construction noise impacts.

   - Impact equipment (e.g., jackhammers, pavement breakers, and rock drills) used for individual improvement project construction will be hydraulically or electrical powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves will be

used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures will be used such as drilling rather than impact equipment whenever feasible.

- Project implementing agencies will ensure that stationary noise sources will be located as far from sensitive receptors as possible. If they must be located near existing receptors, they will be adequately muffled.

- The Project implementing agencies will designate a complaint coordinator responsible for responding to noise complaints received during the construction phase. The name and phone number of the complaint coordinator will be conspicuously posted at construction areas and on all advanced notifications. This person will be responsible for taking steps required to resolve complaints, including periodic noise monitoring, if necessary.

- Noise generated from any rock-crushing or screening operations performed within 3,000 feet of any occupied residence will be mitigated by the individual improvement project proponent by strategic placement of material stockpiles between the operation and the affected dwelling or by other means approved by the local jurisdiction.

- Project implementing agencies will direct contractors to implement appropriate additional noise mitigation measures including, but not limited to, changing the location of stationary construction equipment, shutting off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources to comply with local noise control requirements.

- Project implementing agencies will implement use of portable barriers during construction of subsurface barriers, debris basins, and storm water drainage facilities.

- No pile-driving or blasting operations will be performed within 3,000 feet of an occupied residence on Sundays, legal holidays, or between the hours of 8:00 p.m. and 8:00 a.m. on other days. Any variance from this condition will be obtained from the individual improvement project proponent and must be approved by the local jurisdiction.

- Wherever possible, sonic or vibratory pile drivers will be used instead of impact pile drivers, (sonic pile drivers are only effective in some soils). If sonic or vibratory pile drivers are not feasible, acoustical enclosures will be provided as necessary to ensure that pile-driving noise does not exceed speech interference criterion at the closest sensitive receptor.

- In residential areas, pile driving will be limited to daytime working hours.

- Engine and pneumatic exhaust controls on pile drivers will be required as necessary to ensure that exhaust noise from pile driver engines are minimized to the extent feasible.

- Where feasible, pile holes will be pre-drilled to reduce potential noise and vibration impacts.

2. As part of the appropriate environmental review of each project, a project specific noise evaluation shall be conducted and appropriate mitigation identified and implemented.

   - Project implementation agencies shall employ, where their jurisdictional authority permits, land use planning measures, such as zoning, restrictions on development, site design, and use of buffers to ensure that future development is compatible with adjacent transportation facilities.

- Project implementation agencies shall, to the extent feasible and practicable, maximize the distance between noise-sensitive land uses and new roadway lanes, roadways, rail lines, transit centers, park-and-ride lots, and other new noise generating facilities.

- Project implementation agencies shall construct sound reducing barriers between noise sources and noise-sensitive land uses. Sound barriers can be in the form of earth-berms or soundwalls. Constructing roadways so as appropriate and feasible that they are depressed below-grade of the existing sensitive land uses also creates an effective barrier between the roadway and sensitive receptors.

- Project implementation agencies shall, to the extent feasible and practicable, improve the acoustical insulation of dwelling units where setbacks and sound barriers do not sufficiently reduce noise.

- The project implementation agencies shall implement, to the extent feasible and practicable, speed limits and limits on hours of operation of rail and transit systems, where such limits may reduce noise impacts.

- Passenger stations, central maintenance facilities, decentralized maintenance facilities, and electric substations should be located away from sensitive receptors.

3. Mitigation measures intended to reduce the noise impacts on sensitive receptors are part of the 2011 RTP. These include: site design, buffers, soundwalls, etc.

   - Further reduction in noise impacts would be obtained through the implementation of the measures described in 3.11.1 and 3.11.2.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Population/Housing

Mitigation Measures

1. As part of the appropriate project-specific environmental review, population and job displacement impacts will be evaluated. Mitigation measures will be identified to minimize impacts. Implementation agencies will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with all mitigation measures.

- For projects with the potential to displace homes or businesses, project implementation agencies will evaluate alternate route alignments and transportation facilities that minimize the displacement of homes and businesses. An iterative design and impact analysis would help where impacts to persons or businesses are involved. Potential impacts will be minimized to the extent feasible. If possible, existing rights-of-way should be used.

- Project implementation agencies will identify businesses and residences to be displaced. As required by law, relocation and assistance will be provided to displaced residents and businesses, in accordance with the federal Uniform Relocation and Real Property Acquisition Policies Act of 1970 and the State of California Relocation Assistance Act, as well as any applicable City and County policies.

- Project implementation agencies will develop a construction schedule that minimizes potential neighborhood deterioration from protracted waiting periods between right-of-way acquisition and construction.

2. As part of the appropriate project-specific environmental review, community disruption or division will be evaluated. Mitigation measures will be identified to minimize impacts. Implementation agencies will be responsible for ensuring adherence to the mitigation measures prior to construction. Fresno COG will be provided with documentation indicating compliance with all mitigation measures.

   - Project implementation agencies will design new transportation facilities that protect access to existing community facilities. During the design phase of the individual improvement project, community amenities and facilities should be identified and access to them considered in the design of the individual improvement project.

   - Project implementation agencies will design roadway improvements, in a manner that minimizes barriers to pedestrians and bicyclists. During the design phase, pedestrian and bicycle routes will be determined that permit easy connections to community facilities nearby in order not to divide the communities.

3. The mitigation measures listed above for Impacts 3.12.1 and 3.12.2 would be applied as mitigation for this impact. In addition, the following measure would apply.

   - Regional planning efforts will be used to build a consensus in the region to support changes in population, housing and employment to accommodate future growth while maintaining the quality of life in the region.

Responsibility for Implementation of Mitigation Measures:

Fresno COG and/or Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

As noted in the mitigation measure. During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Fresno COG, Caltrans and/or local agencies.

Public Utilities, Other Utilities & Services Systems

Mitigation Measures

1. As part of project-specific environmental review, project implementation agencies will evaluate the impacts on police, fire, and medical services in the County. Appropriate mitigation measures should be identified for all impacts. The implementation of projects by agencies or local jurisdiction will be responsible for ensuring adherence to the mitigation measures. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   - Prior to construction, the project implementation agency will ensure that all necessary local and state road and railroad encroachment permits are obtained. The project implementation agency also will comply with all applicable conditions of approval. As deemed necessary by the governing jurisdiction, the road encroachment permits may require the contractor to prepare a traffic control plan in accordance with professional engineering standards prior to construction. Traffic control plans should include the following requirements:

     - Identify all roadway locations where special construction techniques (e.g., directional drilling or night construction) would be used to minimize impacts to traffic flow.
     - Develop circulation and detour plans to minimize impacts to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone.
     - Schedule truck trips outside of peak morning and evening commute hours.
     - Limit lane closures during peak hours to the extent possible.
     - Use haul routes, minimizing truck traffic on local roadways, to the extent possible.
     - Include detours for bicycles and pedestrians in all areas potentially affected by individual improvement project construction.
     - Install traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones.
     - Develop and implement access plans for highly sensitive land uses such as police and fire stations, transit stations, hospitals, and schools. Access plans will be developed with the facility owner or administrator. To minimize disruption of emergency vehicle access, affected jurisdictions will be asked to identify detours for emergency vehicles, which will then be posted by the contractor. The facility owner or operator will be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures.
     - Store construction materials only in designated areas.
     - Coordinate with local transit agencies for temporary relocation of routes or bus stops in work zones, as necessary.

   - Projects requiring police protection, fire service, and emergency medical service will coordinate with the local fire department and police department to ensure that the existing public services and utilities would be able to handle the increase in demand for their services. If the current levels of service at the individual improvement project site are found to be inadequate, infrastructure improvements and personnel requirements for the appropriate public service will be identified in each individual improvement project's CEQA documentation.

   - The growth inducing potential of individual projects will be carefully evaluated so that the full implications of the Project are understood. Individual environmental documents will quantify indirect impacts (growth that could be facilitated or induced) on public services and utilities. Lead and responsible agencies should then make any necessary adjustments to the applicable General Plan.

2. As part of project-specific environmental review, project implementation agencies will evaluate the impacts on demand for solid waste, wastewater, and potable water services in the County. Appropriate mitigation measures should be identified for all impacts. The project implementation agencies or local jurisdiction will be responsible for ensuring adherence to the mitigation measures. Fresno COG will be provided with documentation indicating compliance to mitigation measures.

   - Projects requiring wastewater service, solid waste collection, or potable water service will coordinate with the local public works department to ensure that the existing public services and utilities would be able to handle the increase. If the current infrastructure servicing the individual improvement project site is found to be inadequate, infrastructure improvements for the appropriate public service utility will be identified in each individual improvement project's CEQA documentation.

   - Reclaimed water will be sued for landscaping purposes instead of potable water wherever feasible.

   - Each of the proposed projects will comply with applicable regulations related to solid waste disposal.

   - The construction contractor will work with the County Recycling Coordinator to ensure that source reduction techniques and recycling measures are incorporated into individual improvement project construction.

   - The amount of solid waste generated during construction will be estimated prior to construction, and appropriate disposal sites will be identified and utilized.

3. As part of project-specific environmental review, project implementation agencies will evaluate the impacts resulting from soil accumulation during construction of the projects. Appropriate mitigation measures will be identified for all impacts. The project implementation agencies or local jurisdiction will be responsible for ensuring adherence to the mitigation measures. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   Implement appropriate measures, such as the washing of construction vehicles undercarriages before leaving the construction site or increasing the use of street cleaning machines, to reduce the amount of soil on local roadways as a result of construction.

4. As part of project-specific environmental review, project implementation agencies will evaluate the impacts resulting from the potential for severing underground utility lines during construction of the projects. Appropriate mitigation measures will be identified for all impacts. The project implementation agencies or local jurisdiction will be responsible for ensuring adherence to mitigation measures. Fresno COG will be provided with documentation indicating compliance with mitigation measures.

   Prior to construction, the implementing agency or contractor will identify the locations of existing utility lines. All known utility lines will be avoided during construction.

5. The growth inducing potential of individual projects shall be carefully evaluated so that the full implications of the projects are understood. Individual environmental documents shall quantify indirect impacts (growth that could be facilitated or induced) on public services and utilities to the extent feasible.

   - The California Integrated Waste Management Board shall continue to enforce solid waste diversion mandates that are enacted by the Legislature.

- Local jurisdictions shall continue to adopt programs to comply with state solid waste diversion rate mandates and, where possible, shall encourage further recycling to exceed these rates.

- Local jurisdictions shall implement or expand city or county-wide recycling and composting programs for residents and businesses. This could include extending the types of recycling services offered (e.g., to include food and green waste recycling) and providing public education and publicity about recycling services.

- Project implementation agencies shall coordinate regional approaches and strategic siting of waste management facilities.

- Project implementation agencies shall prioritize siting of new solid waste management facilities including recycling, composting, and conversion technology facilities in conjunction with existing waste management or material recovery facilities.

- Project implementation agencies shall increase programs to educate the public and increase awareness of reuse, recycling, composting, and green building benefits and raise consumer education issues at the county and city level, as well as at local school districts and education facilities.

Responsibility for Implementation of Mitigation Measures:

Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Caltrans and local agencies.

Social & Economic Effects

Mitigation Measures

1. The mitigation measures listed above for Impacts 3.14.1 and 3.14.2 would be applied as mitigation for this impact. In addition, the following measure would apply.

   - Regional planning efforts will be used to build a consensus in the region to support changes in social and economic conditions to accommodate future growth while maintaining the quality of life in the region.

Responsibility for Implementation of Mitigation Measures:

Fresno COG and/or Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

As noted in the mitigation measure. During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Fresno COG, Caltrans and/or local agencies.

Transportation/Traffic

Mitigation Measures

1. Implementation of street and highway improvement projects and programs generally will serve to improve traffic flows and reduce congestion and delay within Fresno County. However, street and highway needs are constrained by limited funding sources that are necessary to implement additional projects along the regional transportation system. As indicated above, LOS deficiencies are projected to occur, even considering the wide range of financially constrained street and highway improvements identified in the RTP.

   To address these and other transportation/circulation related impacts, the following mitigation measures are recommended:

   - A number of local street and road and State Route segments along the regional street and highway will experience deficient LOS conditions by 2030. Mitigation measures for these segments have not been identified or programmed in the RTP. Intersection improvements and lane additions would improve deficient levels of service to acceptable levels consistent with minimum LOS policies identified in the RTP; however, funding to address the improvements is not available or the costs to mitigate the deficiencies are prohibitive. Fresno COG should coordinate efforts to identify appropriate strategies that would improve deficient levels of service along the affected streets and highways. Fresno COG should work continue to with local agencies and Caltrans, District 06 to identify alternative improvements, associated cost estimates, and an implementation plan and schedule as part of the Freeway Deficiency Study and during update of local general plans and other planning efforts. Various funding sources should be analyzed as part of implementation plans and findings should be incorporated into future RTPs.

   - Local agencies should be encouraged to update general, area, community and specific plans to reflect the current status of future street and highway improvements. The timing of improvements should also be regularly updated. These measures will help Fresno COG identify appropriate and available funding for planned street and highway improvements along the regional street and road system during development of future RTPs.

2. Measures intended to reduce vehicle miles traveled and reduce congestion are part of the RTP. These include: increasing rideshare and work-at-home opportunities to reduce demand on the transportation system, investments in non-motorized transportation and maximizing the benefits of the land use/transportation connection, other Travel Demand Management measures described in the RTP and in local agency General Plans, and key transportation investments targeted to reduce congestion levels and improve LOS.

Responsibility for Implementation of Mitigation Measures:

Fresno COG and/or Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

As noted in the mitigation measure. During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Fresno COG, Caltrans and/or local agencies.

Energy & Energy Conservation

Mitigation Measures

1. The following mitigation measures shall be implemented by project implementation agencies to reduce the significant energy impacts of the proposed 2011 RTP. In addition, climate change mitigation measures referenced in Chapter 3, Section 3.5 will also contribute to the mitigation of energy consumption and energy conservation impacts.

   - Project implementation agencies shall review energy impacts as part of any CEQA-required project-level environmental analysis and specify appropriate mitigation measures for any identified energy impacts.

   - During the design and approval of transportation improvements, the following energy efficiency measures shall be incorporated when applicable:

     - The design or purchase of any lighting fixtures including but not limited to lighting at transit stations, arterials or freeways, and parking structures/lots shall achieve energy reductions beyond an estimated baseline energy use for such lighting.
     - LED technology shall be used for all new or replaced traffic lights, rail signals, and other features compatible with LED technology.

   - Project implementing agencies should consider various best practices and technological improvements that can reduce the consumption of fossil fuels such as:

     - Expanding light-duty vehicle retirement programs
     - Increasing commercial vehicle fleet modernization
     - Implementing driver training modules on fuel consumption
     - Replacing gasoline powered mowers with electric mowers
     - Reducing idling from construction equipment
     - Incentivizing alternative fuel vehicles and equipment
     - Developing infrastructure for alternative fueled vehicles
     - Implementing truck idling rules, devices, and truck-stop electrification
     - Requiring electric truck refrigerator units
     - Reducing locomotives fuel use
     - Modernizing older off-road engines and equipment

- Encouraging freight mode shift
- Limit use and develop fleet rules for construction equipment
- Requiring zero-emission forklifts

- Project implementing agencies should include energy analyses in environmental documentation and general plans with the goal of conserving energy through the wise and efficient use of energy. For any identified energy impacts, appropriate mitigation measures should be developed and monitored. Fresno COG recommends the use of Appendix F, Energy Conservation, of the *CEQA Guidelines.*

- Project implementing agencies should streamline permitting and provide public information to facilitate accelerated construction of solar and wind power.

- Project implementing agencies should adopt a "Green Building Program" to promote green building standards. Green buildings can reduce local environmental impacts, regional air pollutant emissions and global greenhouse gas emissions. Green building standards involve everything from energy efficiency, usage of renewable resources and reduced waste generation and water usage. For example, water-related energy use consumes 19 percent of the state's electricity. The residential sector accounts for 48 percent of both the electricity and natural gas consumption associated with urban water use. While interest in green buildings has been growing for some time, cost has been a main consideration as it may cost more up front to provide energy-efficient building components and systems. Initial costs can be a hurdle even when the installed systems will save money over the life of the building. Energy efficiency measures can reduce initial costs, for example, by reducing the need for over-sized air conditioners to keep buildings comfortable. Undertaking a more comprehensive design approach to building sustainability can also save initial costs through reuse of building materials and other means.

  A comprehensive study of the value of green building savings is the 2003 report to California's Sustainable Building Task Force. In the words of the report: "While the environmental and human health benefits of green building have been widely recognized, this comprehensive report confirms that minimal increases in upfront costs of about 2% to support green design would, on average, result in life cycle savings of 20% of total construction costs -- more than ten times the initial investment. For example, an initial upfront investment of up to $100,000 to incorporate green building features into a $5 million project would result in a savings of $1 million in today's dollars over the life of the building."

- Local governments should alter zoning to improve jobs/housing balance, create communities where people live closer to work, and bike, walk, and take transit as a substitute for personal auto travel. Creating walkable, transit oriented nodes would generally reduce energy use and greenhouse gas emissions. Residential energy use (electricity and natural gas) accounts for 14 percent of California's greenhouse gas emissions. It is estimated that households in transit-oriented developments drive 45 percent less than residents in auto-dependent neighborhoods. In addition, mixed land uses (i.e., residential developments near work places, restaurants, and shopping centers) with access to public transportation have been shown to save consumers up to 512 gallons of gasoline per year. Furthermore, studies have shown that the type of housing (such as multi-family) and the size of a house have strong relationships to residential energy use. Residents of single-family detached housing consume over 20 percent more primary energy than those of multifamily housing and 9 percent more than those of single-family attached housing.

- Project implementing agencies should increase the number of AFVs (i.e., vehicles not powered strictly by gasoline or diesel fuel) both in publically owned vehicles, as well as those owned by franchisees of these agencies, such as trash haulers, green waste haulers, street sweepers, and curbside recyclable haulers.

- Bid solicitations for construction of projects should preference the use of alternative formulations of cement and asphalt with reduced GHG emissions to the extent that such cement and asphalt formulations are available at a reasonable cost in the marketplace. Solicitations should also preference the recycling of construction waste and debris if market conditions permit.

- Fresno COG shall continue to develop, in coordination with the California Air Resources Board, a data and information collection and analysis system that provides an understanding of the energy demand and greenhouse gas emissions in the Fresno region.

- All mitigation measures listed in Chapter 3, Section 3.5.1, are incorporated by reference and shall be implemented by implementing agencies to address energy conservation impacts.

Responsibility for Implementation of Mitigation Measures:

Fresno COG and/or Implementing Agencies (Caltrans and local agencies).

When Mitigation Measure is to be Implemented:

As noted in the mitigation measure. During project review by Caltrans and local agencies. Inspection during construction. At Sign-off by Caltrans and local agencies.

Responsibility for Monitoring Implementation:

Fresno COG, Caltrans and/or local agencies.