2011 Regional Transportation Plan for Merced County

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INTRODUCTION

WHAT IS THE RTP?

The Regional Transportation Plan (RTP) specifies the policies, projects, and programs necessary over a 20-25 year period to maintain, manage, and improve the region's transportation systems. The RTP provides a comprehensive long-range view of transportation needs and opportunities for Merced County. It establishes goals and objectives for the future system. It identifies the actions necessary to achieve these goals. Finally, it describes a funding strategy and options for implementing the actions.

The RTP's scope is **Regional:** The issues transcend the boundaries of local jurisdictions. Local, state, and federal government work together to achieve an effective system.

The RTP concerns **Transportation:** The movement of people and goods, for purposes such as working, shopping, school, or recreation, and by means of autos, trucks, buses, trains, planes, bicycles, or walking.

The RTP is a **Plan:** It identifies problems and proposes solutions. It is long-term, looking more than twenty years into the future. It must balance priorities with expected funding.

The RTP is updated every three to four years; the previous update occurred in 2007 and was amended in 2009. This 2011 RTP is based largely on the 2004 RTP but concerns the period from 2010 to 2035. It includes an updated socioeconomic forecast, numerous minor revisions and updates throughout, as well as an expanded discussion of Global Climate Change.

WHO IS RESPONSIBLE FOR THE RTP?

The RTP is prepared by the **Merced County Association of Governments**. **MCAG** is a regional planning organization for multi-jurisdiction issues such as transportation, solid waste and housing.

Members of this Association are the County and the six incorporated cities of Atwater, Dos Palos, Gustine, Livingston, Los Banos and Merced. MCAG has an 11 member Governing Board comprised of the five county Supervisors, plus one representative from each city.

RTP PURPOSE

The RTP provides a foundation for transportation decisions by local, regional, and state officials. This foundation is based on a vision of an efficient and environmentally sound multi-modal system. The RTP also has many specific functions. It must:

- Assess current modes of transportation
- Predict future needs
- Propose solutions to current and future problems
- Detail the financial resources needed to implement the plan
- Be consistent with related plans and activities
- Involve the public
- Coordinate with other government agencies
- Provide enough detail on proposed projects to assist:
 - Capital improvement programs
 - Identification of project purpose and need
 - Environmental review
 - Estimates of emissions impacts for air quality conformity
 - Decisions related to development and growth.

DOCUMENT STRUCTURE

The RTP is divided into chapters as follows:

- This **Introduction** describes what the RTP is, how it is developed, its setting and context, and the main transportation issues facing the region.
- The **Policy Element** outlines the goals of the plan, the development of alternatives and the selection of one, and the objectives and policies to achieve them.
- The **Action Element** addresses the needs and issues by transportation mode, as well as the actions proposed in each area. Projects and programs are divided into short and long term plans.
- The **Financial Element** identifies the funding strategy to implement the Action Element, and funding shortfalls.

In addition, there are several appendices which support or expand on the information in the plan.

PUBLIC PARTICIPATION

The RTP is the result of a broad and sustained planning process. This process involves many government agencies as well as the public and private interests.

To develop the RTP, input is received from elected representatives, government agencies, the business sector, special interest groups and county citizens, as well as others who have an interest in or are affected by decisions made by Merced County.

2004 Plan Outreach

In July 2000, the Federal Highway Administration (FHWA), U.S. Environmental Protection Agency (EPA) and the California Department of Transportation (Caltrans) signed the Mare Island Accord, an agreement to combine resources for the purpose of streamlining the project delivery process and lessening the environmental impacts of transportation planning. Merced County Association of Governments (MCAG) was chosen to pilot the new program called Partnership for Integrated Planning (PIP). MCAG's plan was to engage resource agencies and a broad array of county residents in transportation planning, rather than waiting until the later project stage, when changes become quite costly.

The federal agencies involved felt that the issues facing Merced County made it a good test case for the PIP program. By 2030, the county population will double. The population is very diverse culturally and ethnically, with 48% of the county being Hispanic and 14% Hmong. In addition, the county has severe economic needs which, combined with growth, will require major transportation improvements. The area is rich both in prime agriculture land and environmentally sensitive habitats.

FHWA, EPA and Caltrans formed the backbone of a Steering Committee, chaired by MCAG. During the 18-month program, two workshops were held for federal and state resource agencies, with over 40 representatives and elected officials in attendance. From these meetings and in one-to-one discussions, environmental agencies gave input on sensitive habitat areas to facilitate development of an Environmentally Sensitive Areas map, with data available to all county and city planners and other interested parties.

There was a high level of support for the process from local City Councils, Planning Commissions and Municipal Advisory Committees. MCAG staff presented each quarterly workshop either at one of these meetings or in general meetings throughout the county.

MCAG held about 100 meetings, starting in Jan. 2003, and involved over 800 individuals in the process.

These meetings are listed in Appendix C.

2008 – Public Participation Plan Update

Public participation is essential to the RTP development process. A Public Participation Plan to insure public involvement on transportation related issues was updated in 2008 and is included as Appendix B.

2011 Plan Outreach

MCAG staff followed the formal process outlined in MCAG's Public Participation Plan, which included public meetings, workshops, and a legally noticed 45-day public comment period and

public hearing in May 2010. Appendix H contains copies of the public notice, proof of publication, and comments received during the 45-day comment period as well as responses to those comments.

MCAG conducted a series of workshops and public meetings beginning in October 2009. These meetings were as follows:

- Oct. 7, 2009 Workshop at Los Banos City Council
- Oct. 8, 2009 Workshop at Delhi Municipal Advisory Council
- Oct. 19, 2009 Workshop at Merced City Council
- Oct. 22, 2009 Workshop at McSwain Municipal Advisory Council
- Nov. 5, 2009 Workshop at Technical Planning Committee
- Nov. 6, 2009 Workshop at Citizens Advisory Committee
- Nov. 9, 2009 Workshop at Atwater City Council
- May 6, 2010 Draft Plan presentation at Technical Planning Committee
- May 7, 2010 Draft Plan presentation at Citizens Advisory Committee
- May 20, 2010 Public Hearing at MCAG Governing Board Meeting in Los Banos

At the workshops, staff presented an overview of the RTP planning process, the RTP's goals, objectives, and performance indicators, the RTP project lists, and RTP funding scenarios.

INTERAGENCY CONSULTATION

Interagency consultation efforts for the 2011 RTP are well established both for Merced County and Valley wide. MCAG has several standing committees through which RTP-related items are discussed with local cities and the county. These committees include the: Technical Planning Committee, Citizen's Advisory Committee, Technical Review Board, MCAG Governing Board. These meetings are open to the public, and include time for public comment. Members of these committees represent local jurisdictions, transit, airports, goods movement, economic development, citizens, and other stakeholders.

The San Joaquin Valley MPOs hold ongoing Interagency Consultation Group meetings attended by MPO staff from across the Valley, the San Joaquin Valley Unified Air Pollution Control District, Caltrans District and Headquarters, Air Resources Board, U.S. Environmental Protection Agency, and the Federal Highway and Transit Administrations.

The San Joaquin Valley Directors also meet periodically to discuss higher level policy matters that frequently include air quality or coordinated transportation planning issues. Throughout the RTP development process, the MPO directors were regularly updated and consulted on a variety of issues.

The San Joaquin Valley MPOs also sponsored two Interagency workshops (August 2009 and February 2010) to discuss the Valley MPOs progress in development of the 2011 RTPs. Participants in these workshops included Air Resources Board; Caltrans Headquarters, Districts 6, and District 10; Federal Highway Administration, U.S. EPA; San Joaquin Valley Air Pollution Control District; the 8 San Joaquin Valley MPOs. Topics of discussion for the workshops include: updates on the 2011 RTP development process undertaken by each MPO; the San Joaquin Valley conformity

process; and public outreach efforts. The goal of each workshop was to facilitate an open discussion between the Valley MPOs and state and federal partner agencies in the development of the 2011 RTPs.

Interagency consultation also took place in the context of the 2011 RTP Supplemental Environmental Impact Report (SEIR) as required by CEQA. The Notice of Preparation was distributed to interested parties and stakeholder agencies, and a 45-day comment period and public hearing were held during May/June 2010. The Notice of Preparation and the SEIR were distributed to many agencies and stakeholders including resource agencies.

REGULATORY REQUIREMENTS

Merced County Association of Governments (MCAG) was designated the Regional Transportation Planning Agency (RTPA) for Merced County in 1972. As the RTPA, MCAG is required by State law to prepare the Regional Transportation Plan (RTP) and transmit it to the California Transportation Commission and the California Department of Transportation (Caltrans) every three years. The RTP is required to be developed as per State legislation, Government Code Section 65080 et seq., of Chapter 2.5 and Federal legislation, U.S. Code, Title 23, Sections 134 and 135 et seq.

The RTP is required to contain a Policy Element, an Action Element, a Financial Element, and to reference environmental and air quality documents. The RTP is to be adopted by the MCAG Governing Board, then submitted to Caltrans and the California Transportation Commission. Federal regulations issued by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) also require the development and adoption of an RTP.

Air Quality Requirements

The San Joaquin Valley is currently designated as nonattainment for ozone and particulate matter greater than 2.5 microns (PM2.5); and has a maintenance plan for PM-10, as well as a maintenance plan for carbon monoxide (CO) for the urbanized/metropolitan areas of Kern, Fresno, Stanislaus and San Joaquin Counties. State Implementation Plans have been prepared to address carbon monoxide, ozone, PM-10 and PM2.5.

The San Joaquin Valley Air Pollution Control District is responsible for developing and adopting measures and methods for controlling ozone levels. The Ozone Attainment Demonstration Plan, prepared by the District, identifies all possible control measures necessary to make attainment. This plan uses a computer model to simulate future air quality in the Valley while reflecting the effects of measures proposed to curb pollution. Within this plan are transportation emission budgets for each county.

A multi-modal approach is used to meet the transportation needs of tomorrow, while also attaining the National Ambient Air Quality Standards. Thus, emphasis has been given to balance improvements of highways, streets and roads, bus and rail transit and non-motorized facilities. The RTP recognizes that expeditious implementation of Transportation Control Measures (TCMs) appropriate to Merced County, which are included in the updated State Implementation Plan, must also be achieved.

Title VI

Title VI of the Civil Rights Act of 1964 set a standard that authoritatively outlawed discrimination in the conduct of all federal activities. It reads as follows: "No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Although considerable progress has been made during the 1990s, individuals both inside and outside government are troubled by the high and adverse environmental impacts of private or governmental actions that fall disproportionately on populations protected by laws such as the civil rights act. The term "environmental justice" was created by people concerned that everyone within the United States deserves equal protection under the country's laws. Executive Order 12898 issued in 1994, responded to this concern by organizing and explaining in detail the federal government's commitment to promote environmental justice. Each Federal agency was directed to review its procedures and to make environmental justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on minority and low-income populations.

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) guidance on Environmental Justice (EJ) requires that Metropolitan Planning Organizations ensure that traditionally underrepresented groups are engaged in the regional transportation planning process and demonstrate how their influence and feedback impacted development of the Regional Transportation Plan. Further, the guidance also requires an evaluation of the adopted plan to ensure that there is no disparate negative impact borne by low-income or minority communities. Moreover, environmental justice is more than a set of legal and regulatory obligations. FHWA and FTA have embraced the principles of environmental justice as a means toward improving the transportation decision-making process. Today, effective transportation decision-making requires understanding and addressing the unique needs of many different socioeconomic groups. Early, inclusive, and meaningful public involvement in transportation decision making is a proven means of designing transportation facilities that fit more harmoniously into communities. There are three fundamental principles at the core of environmental justice:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Environmental Justice does not end with the RTP, rather it is just one of many arenas where EJ principles apply. EJ is also applicable at the project level when project sponsors are proposing to build a new project in a local community and federal funds are involved. Unfortunately, neither Title VI nor Executive Order 12898 prescribes the specific methods and processes for ensuring environmental justice in transportation planning. States and MPOs are free to explore and devise more effective analytical techniques and public involvement approaches to ensure that transportation plans successfully integrate environmental justice into decision-making.

Governmental Framework

There are three levels of government that guide transportation planning and programming decisions. These are local, regional, and state agencies.

Local Agencies

Merced County and the cities of Atwater, Dos Palos, Gustine, Livingston, Los Banos, and Merced each make decisions about local transportation facilities through their individual planning processes. These agencies are also responsible for the operation and maintenance of the road systems under their jurisdictions. Each of these agencies work through MCAG to program regionally allocated local funds which are available from the Federal Government.

Regional Agencies

MCAG fulfills several planning roles for Merced County. MCAG is the regional transportation planning agency which is responsible for preparing the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP). MCAG is also the Metropolitan Planning Organization and is required to prepare the Federal Transportation Improvement Program (FTIP). Finally, MCAG has been designated the Local Transportation Authority for Merced County.

The San Joaquin Valley Air Pollution Control District is responsible for preparing the State Implementation Plan for the San Joaquin Valley, a federally mandated air quality attainment plan.

State Agencies

The California Department of Transportation (Caltrans) is responsible for biannually preparing the Interregional Transportation Improvement Program (ITIP). The ITIP identifies Caltrans' high priority projects for funding. Caltrans is also responsible for the operation and maintenance of the State Highway System.

The California Transportation Commission (CTC) is responsible for programming most State and Federally funded transportation projects. The CTC staff prepares the biannual Fund Estimate for each county. The CTC must approve the Regional Transportation Improvement Programs and the Interregional Transportation Improvement Program prior to projects moving forward.

Other Documents

The Regional Transportation Improvement Program (RTIP) is each region's four year program of State and Federally funded transportation projects. The RTIP also nominates projects to the California Transportation Commission (CTC) for funding in the State Transportation Improvement Program (STIP), and must be consistent with the Regional Transportation Plan.

The Federal Transportation Improvement Program (FTIP) contains all federally funded surface transportation projects at the State and regional level. Projects in the RTIP are programmed by the CTC into the STIP. The projects are finally programmed by MCAG in the FTIP. The difference between the FTIP and the RTIP is that the FTIP is financially constrained, including only those projects that are approved and funded, whereas the RTIP nominates projects for funding.

Regional transportation agencies must insure that projects in the RTP and FTIP conform to all Federal Air Quality standards. The conformity finding must be based on the most recently approved State Implementation Plan (SIP).

REGIONAL SETTING

Geography

Merced County is part of the San Joaquin Valley located in Central California and consists of about 2,000 square miles of predominantly flat topography drained by the San Joaquin River and its tributaries. The area is bordered by the Sierra Nevada mountain range to the east and the Diablo mountain range to the west. Santa Clara and San Benito Counties are to the west, Mariposa County to the east, Stanislaus County to the northwest, and Fresno and Madera counties to the southeast.

Merced County is one of the richest agricultural regions in the United States. The combination of rich flood plains, climate, and irrigation systems creates an ideal environment for agribusiness.

About 40,000 acres of wetlands in the center of the

County support one of the most concentrated water fowl habitats in the western United States. The principal waterways in the County are the San Joaquin River and its largest tributaries, the Merced and Chowchilla Rivers, the Bear, Owens, and Mariposa Creeks in the eastern portion of the County, and the Los Banos and San Luis Creeks in the west.

ISSUES

Merced County faces many changes in the coming years, which will have a dramatic impact on the transportation system. Thoughtful planning will play an important role in maintaining a successfully balanced system that meets the need to move people and goods.



Lack of Sufficient Funding

There is not enough funding dedicated to transportation in California to accommodate the current demand nor the anticipated growth of our county or state.

Growth

Merced County and the Valley have grown and will continue to grow faster than California and the USA. Growth and land use patterns have a vast and far-reaching effect on the transportation system. Good long-term planning, coordination amongst government, and innovative solutions will be needed to keep transportation viable.

Traffic Congestion and Commuting

Congestion on roads in Merced County will increase dramatically in years to come because demand will soon outstrip supply. Many of the principal roadways are near capacity limits now and there will be substantial increases in years to come due to growth. By 2035, about one-fourth of all travel will be "stuck in traffic". Part of the increase in demand is "through" traffic and part is from the dramatic increase in commuting. Currently 25% of workers who live in Merced County commute to jobs outside of the county.

Maintenance of Existing Facilities

Local agencies within Merced County are responsible for more than 2000 miles of public streets and roads. The funding allocated to road maintenance is not enough to keep them all at an acceptable level. Untreated streets and roads continue to deteriorate resulting in poorer pavements that become costlier to repair . Additional funding needs to be identified.

Safety

Merced County has many at-grade crossings on its freeways and highways, and many railroad crossings on its rural roads. Increasing safety has been and continues to be a priority of every jurisdiction involved with transportation.

Highway 99

The current design of Highway 99 is antiquated and not to Caltrans' standards. Eliminating at-grade crossings and upgrading this facility to a full freeway must be accomplished as soon as possible.

Agriculture

Agribusiness is the leading industry in the County, with \$1.7 billion of products and \$6 billion in economic impacts. Most communities in the county are surrounded by agricultural lands: 93% of the county is farm or grazing and 3% is urban (the rest is either water or other).

The Environment

There are many environmentally sensitive areas in Merced County. Protection of the environment is one of the goals of this plan.

Clean Air

Central Valley air is designated as an extreme nonattainment area. Motor vehicles are the source of about 1/2 of the air pollution. About one-fourth of pollution is blown in from the Bay Area. The most benefits to the air come from improved fuels and engines. Local governments have no control over fuels and fuel economy standards.

Climate Change, AB 32, and SB 375

The State has passed several laws with the goal of reducing California's contribution to global climate change. The RTP addresses these efforts and document what its impact would be, specifically in greenhouse gas emissions. A Supplemental EIR has been prepared for the 2011 RTP which contains a new chapter on Climate Change.

TRENDS AND ASSUMPTIONS

GROWTH TRENDS

Merced County and the San Joaquin Valley have historically grown at a faster rate than the rest of California, and will likely continue to do so,. according to the state and federal forecasters.

MCAG prepares and maintains population and employment forecasts for use in regional planning. The population and employment forecasts reflect the growth that is anticipated to occur during the next 25 years within Merced County and its cities and communities. They are consistent with the Department of Finance county-wide projections. The totals for the county and each of its communities are shown below. These forecasts are incorporated into MCAG's transportation model and used in the preparation of the needs assessment.

Current Population

Population growth is a significant issue for the San Joaquin Valley and for Merced County. Incorporated urban areas in Merced County include: Atwater (population 27,300), Dos Palos (5,000), Gustine (5,200), Livingston (13,900), Los Banos (36,200), and the county seat, the City of Merced (80,500). The total population for Merced County (including ten rural population centers) is 256,450 as of January 2009 (source: Department of Finance, May 2009).

Population Forecast

MCAG relies on the latest Department of Finance (DOF) projections for the county-wide total and works with local planning departments to sub-allocate the totals to each area. This practice is recommended by the state so that regional forecasts are consistent with each other as well as with state planning efforts. Regions have the option to use another forecast, but if they do so, adequate justification must be provided. For example, in our previous forecasts (2001, 2004, 2007) we added to the DOF forecast to account for the influence of UC Merced, which at that time was not considered in their forecasting (note: it is now).

DOF's latest projection was published in 2007 (after our prior RTP was adopted). It goes to 2050, it does include UC Merced, and it was used in the "Blueprint" effort that MCAG and the other Valley agencies undertook over the last few years, which was primarily looking at 2050.

Staff calculated an alternate forecast, using the decennial (ten-year) growth rates implied by the DOF 2007 projections, but starting from a lower base population in 2010, because of the recent slowdown in growth (2007-present) associated with the economic downturn. We assume 260,000 for the population in 2010 – an increase of 4,000 over 2009, and consistent with recent trends.

City or Community	2010	2015	2020	2025	2030	2035
Atwater	28,100	30,100	34,200	37,700	41,600	45,400
Dos Palos	5,000	6,700	7,100	7,500	8,000	8,500
Gustine	5,300	5,600	6,200	6,700	7,300	8,000
Livingston	14,100	16,400	19,900	22,900	26,200	29,500
Los Banos	36,600	41,000	48,100	54,300	61,200	68,000
Merced	81,500	91,500	107,600	121,800	137,400	152,100
Delhi	10,900	12,400	14,800	16,800	19,000	21,300
Franklin / Beachwood	4,500	4,800	5,400	5,900	6,400	7,100
Hilmar	5,600	6,100	7,000	7,800	8,600	9,500
Le Grand	1,800	1,800	1,900	2,000	2,100	2,300
Planada	4,800	5,000	5,500	5,900	6,300	6,800
Santa Nella	1,800	2,600	3,600	4,500	5,400	6,400
Winton	9,900	10,300	11,300	12,100	13,000	14,100
UC Merced & Community	1,900	4,700	9,400	15,600	22,500	31,300
Remainder Unincorporated	48,200	48,000	49,000	50,500	52,500	55,200
(Subtotal: Incorporated)	170,600	191,300	223,100	250,900	281,700	311,500
(Subtotal: Unincorporated)	89,400	95,700	107,900	121,100	135,800	154,000
TOTAL COUNTY	260,000	287,000	331,000	372,000	417,500	465,500

Table 1: Population Forecast for Merced County, Cities and Communities, 2010-2035

Table 2: Housing Projections for Merced County, 2010-2035

Housing	2010	2020	2030	2035
Single-family	63,800	80,100	99,700	109,100
Multiple-family	20,100	26,700	35,000	40,400
Total Number of Units	83,900	106,800	134,700	149,500

Table 3: County-Wide Employment Forecast

	2010	2020	2030	2035
Employment	85,200	110,800	138,200	155,300

FINANCIAL ASSUMPTIONS

This section describes anticipated revenues to 2035. Also discussed is the potential for other revenue sources.

To determine the level of available funding for each project mode and type, several assumptions were made. In all cases, assumptions regarding available funds are moderate and clearly identified. There are three primary funding levels for regional transportation projects: federal, state, and local. The tables in this section summarize estimated revenues for the RTP period. The most pertinent information provided in each of these tables is described in more detail afterwards.

Funding Sources

Federal Funding Sources

Federal funds are used for all modes, including highways and transit projects. These funds normally require a non-federal match of between 11.47-20% for road projects, and a 11.47%-50% match for transit projects. Nine federal funding programs are identified below.

Table 4: Federal Funding Sources

Fund Source	Abbreviation	Primary Mode
Surface Transportation Program	STP	Streets (local)
Congestion Mitigation / Air Quality	CMAQ	Air quality attainment
Transportation Enhancement Activities	TEA	Bicycle, Pedestrian, Landscaping
Federal Transit Administration Section 5307	FTA 5307	Urban transit
Federal Transit Administration Section 5311	FTA 5311	Rural transit operations
Federal Transit Administration Section 5309	FTA 5309	Discretionary transit
Highway Bridge Replacement/Rehabilitation	HBRR	Bridges (local)
Hazard Elimination/Safety	HES	Streets (local)
Federal Airport Improvement Program	FAIP	Aviation

Fund Source	Decision Maker	Guarantee?	Annual Funding		Fu	unding thru 2035
STP	MCAG	Yes (TEA-21)	\$	1,900,000	\$	58,000,000
CMAQ	MCAG	Yes (TEA-21)	\$	2,750,000	\$	84,000,000
TEA	MCAG	Yes (TEA-21)	\$	400,000	\$	12,000,000
FTA 5307	MCAG	Yes (TEA-21)	\$	1,700,000	\$	52,000,000
FTA 5311	MCAG	Yes (TEA-21)	\$	200,000	\$	6,000,000
FTA 5309	Federal	No	\$	125,000	\$	3,800,000
HBRR	Caltrans	No	\$	415,000	\$	12,700,000
HES	Caltrans	No	\$	270,000	\$	8,200,000
FAIP	Caltrans	No	\$	90,000	\$	2,700,000
TOTAL			\$	7,850,000	\$	239,400,000

Table 5: Federal Funding Sources, Projected Revenue (in escalated dollars)

Congestion Mitigation Air Quality Funds

As a non-attainment area, Merced County receives federal Congestion Mitigation Air Quality (CMAQ) funds. These funds are to be used for projects that contribute to improving air quality in the region. MCAG oversees the distribution of these funds. Examples of eligible CMAQ projects include the following:

- Public transit improvements.
- High occupancy vehicles (HOV) lanes.
- Intelligent Transportation Infrastructure (ITI).
- Traffic management, traveler information systems, and electric toll collection systems.
- Employer-based transportation management plans and incentives.
- Traffic flow improvement programs such as signal coordination.
- Fringe parking facilities serving multiple occupancy vehicles.
- Shared ride services.
- Bicycle and pedestrian facilities.
- Flexible work-hour programs.
- Outreach activities establishing Transportation Management Associations.
- Fare/fee subsidy programs.
- PM-10 projects, under certain conditions.

Approximately \$84 million in CMAQ funds are estimated to be available for programming over the next 25 years. CMAQ projects are evaluated and selected on a countywide competitive basis. All of the estimated funding for CMAQ under SAFETEA-LU has been programmed to specific projects.

State Funding Sources

State funds are generated by license fees, truck fees, sales and fuel taxes, and other state apportioned funds. Eleven state funding programs are identified below.

Table 6: State Funding Sources

Fund Source	Abbre- viation	Primary Mode
Interregional Improvement Program	IIP	Significant State Highways
Regional Improvement Program	RIP	Flexible: Regional Needs
TDA: Local Transportation Fund	LTF	Transit needs first, Streets (Local)
TDA: State Transit Assistance Fund	STAF	Transit
Gas Tax - Proposition 111	Prop 111	Streets (Local)
State Highway Operation and Protection	SHOPP	Safety & Rehab on State Highways
Caltrans' Minor Program	Minor	Safety & Rehab on State Highways
Bicycle Transportation Account Funds	BTA	Bicycle Projects
California Aid to Airports Program	CAAP	Aviation

Table 7: State Funding Sources, Projected Revenue (in escalated dollars)

Fund Source	Decision Maker	Guarantee?	Annual Funding		th	Funding rough 2035
IIP	Caltrans	No	n/	а	\$	207,000,000
RIP	MCAG	Yes (State law)	\$	11,000,000	\$	288,000,000
LTF	MCAG	Yes (State law)	\$	5,100,000	\$	157,000,000
STAF	MCAG	Yes (State law)	\$	350,000	\$	11,500,000
Prop 111	Local	Yes (State law)	\$	6,700,000	\$	198,000,000
SHOPP	Caltrans	No	\$	5,843,000	\$	165,000,000
Minor	Caltrans	No	\$	750,000	\$	20,000,000
BTA	Caltrans	No	\$	50,000	\$	1,500,000
CAAP	Caltrans	Yes (formula)	\$	380,292	\$	125,000,000
TOTAL			\$	30,173,292	\$	1,173,000,000

The RTP is consistent with the first 4 years of the State fund estimate and the 4-year STIP fund estimate

Local Funding Sources

Local funds for transportation could be derived from taxes, development fees, impact mitigation fees, and transit revenues. There are four possible local funding sources identified in Table 8.

Fund Source	Primary Mode	Decision Maker	Annual Funding	Funding through 2035
Regional Transportation Impact Fees	Streets	MCAG	\$ 6,000,000	\$ 210,000,000
Developer Mitigations/Local	Streets	Local	\$ 3,450,000	\$ 112,000,000
Transportation Measure	Streets	MCAG	\$ 13,350,000	\$ 267,000,000
Farebox Recovery	Transit	Local	\$ 900,000	\$ 18,000,000
TOTAL			\$ 23,700,000	\$ 607,000,000

Table 8: Potential Local Funding Sources (in escalated dollars)

Local Transportation Measure

Based on a recommendation in the 1990 RTP, MCAG prepared and approved a Transportation Expenditure Plan (TEP) in November of 1991, for the purpose of obtaining voter approval of a Transportation Measure. However, action to implement the plan was delayed due to the nationwide recession and announcement that Castle Air Force Base would be closed by 1995.

In April 2006, MCAG adopted a revised TEP. Projects included in the TEP were identified through an evaluation of the county's transportation system and interviews with key staff and elected officials representing the county and all of the cities. Projects were evaluated in a public opinion poll conducted as a part of the study. Projects were prioritized using an objective set of criteria.

Key elements of the TEP include:

- Funds for transportation projects of countywide significance.
- Funds for maintenance, repair, safety and operational improvements to city streets and county roads
- Funds to improve transit.
- A requirement that the county and cities adopt local traffic impact fees to insure that new development pays its own way.

A Transportation Measure for a period of 30 years would generate about \$450 million in additional revenue. The Measure would automatically sunset after 30 years. Measure funds would be allocated as follows:

- 45 percent to Local Street and Road Maintenance with funds allocated to the county and cities on a formula basis.
- 50 percent to fund projects of countywide significance
- 4 percent to fund transit improvements.
- 1 percent for administrative oversight.

A Transportation Measure (Measure M) was placed on the November 2002 ballot. 61% of the voters supported the measure. As a 2/3 support was needed, it did not pass. The Measure was placed on the ballot in June 2006 and November 2006. It again failed to pass.

Regional Transportation Impact Fee

The Regional Transportation Impact Fee program was adopted in August 2005.

- The RTIF contributes to the funding of 13 projects across the county.
- The total cost of these projects is \$830 million.
- The RTIF contributes about 17%, or \$210 million towards these projects.
- The fee is uniform throughout the county.
- The RTIF will receive an annual review to monitor administration and project progress.

Funding by Mode

Table 9 shows the breakdown of funding by Transportation Mode. Funding sources for all modes are discussed in the text below.

Funding Program	Regional Improve- ments	Local Roads	Transit	Control Measures	Bicycle Pedestrian	Totals by Fund
Interregional Improvement Program	208					208
99 Bond Program	298					298
Regional Improvement Program	288					288
Regional Transportation Impact Fee	210					210
Gas Tax Prop 111		108				108
Local Transportation Funds			157			157
Surface Transportation Funds		50				50
Congestion Mitigation Air Quality			63	13	8	84
Federal Transit Administration			61			61
State Transit Assistance			11			11
Transit Fares			18			18
Development Fees, other Local funds		112				112
Bicycle Transportation Grants					20	20
Totals by Mode	1,004	270	310	13	28	1,723

Table 9: Funding by Program and Mode (Amounts in Millions) (in escalated dollars)

Regional Road Projects

Several funding programs are expected to be primarily used for funding safety and maintenance projects on the regional road system. The State Highway Operation and Protection Program (SHOPP) funds are used for safety and rehabilitation projects on the state highway system. On local regional roads, bridge and safety projects are expected to be funded from the following programs: Highway Bridge Replacement and Rehabilitation (HBRR), Hazard Elimination/Safety (HES). HBRR and HES funds are programmed by Caltrans for local projects. SHOPP projects are programmed by Caltrans for State Highway projects. It is reasonable to expect that the Merced region will receive a share of statewide available revenues, in proportion to its share of statewide

need, although the Merced County region is not guaranteed to receive funds under these programs. Historically, only about 20% of the candidate projects are approved for funding due to the program funding limitations. Caltrans has responsibility and authority to prioritize and program these types of projects.

Capacity-increasing or improvement projects on the regional road network are primarily funded through the State Transportation Improvement Program (STIP). Through the Regional Transportation Improvement Program, Merced County proposes projects using Regional Improvement Program (RIP) funds. Through the Interregional Transportation Improvement Program, Caltrans nominates highway construction projects using Interregional Improvement Program (IIP) funds. In the past, projects from the regional and interregional programs in a county competed for the same reservoir of funding, then known as the county minimum. Now, seventy-five percent of the STIP dollars available are allocated to the regions. Twenty-five percent of the STIP is allocated to the interregional program, with funds programmed on a statewide basis, and no requirement that any minimum amount be spent in each county.

Approximately \$288 million in Regional Improvement Program funds are estimated to be available for programming. These estimates are subject to change as more accurate information becomes available.

Local Road Projects

There are limited guaranteed funding sources available for funding local road projects. The following funding sources are allocated to each jurisdiction. These funds are primarily used to maintain the local system.

- State Transportation Program (STP) Federal, exchanged for state dollars
- Local Transportation Funds (LTF) derived from State sales tax
- State Gas Tax subventions derived from State fuel tax

Under state law, the Merced County region and Merced County (the political subdivision of the State of California) are eligible to exchange STP funds for an equal amount of state-collected gasoline tax revenues. This opportunity provides more flexibility in the use of these funds, eliminates the required local match and eliminates the bureaucracy associated with using federal funds on a project. MCAG and Merced County have entered into agreements with the state for exchanging unobligated balances of STP funds. Exchanges are expected on an annual basis. Exchange of funds will have no fiscal impact on available revenues.

Transit Projects

Transit funds are available through passenger fares, funding from the Federal Transit Administration (FTA), and the Transportation Development Act.

The Federal Transit Administration provides funding for operating, capital and special earmark projects. Table 10 identifies the projected revenue from each Federal Transit Administration Section.

The Transportation Development Act established a State Transit Assistance Fund (STAF) and a Local Transportation Fund (LTF). The Merced region is expected to receive \$7,000,000 over the next 20 years in STAF funds. These funds are subject to approval by the Governor, and the annual amount fluctuates with each annual state budget.

By law, LTF funds are first and foremost to be used to fund transit projects. After all "unmet transit needs, which are reasonable to meet" have been met, unspent LTF funds may be used for street and road purposes.

Other potential transit revenues is available includes Congestion Mitigation Air Quality (CMAQ) funds for air quality non-attainment areas, and STP funds which may be used for transit capital projects.

Non-Motorized/Bicycle Projects

Funds for non-motorized projects are available from several state and Federal programs, as well as local sources. However, only the Bicycle Transportation Account funds are designed with non-motorized projects as a primary use. Another potential funding source assumed to be used for non-motorized projects includes CMAQ funds.

Revenues for non-motorized projects from the BTA program during the RTP implementation period is anticipated to be \$1 million with an addition \$5 million dollars worth of projects being funded using CMAQ funds.

Aeronautics Projects

The primary sources of funds for aeronautic projects in the Merced region are the California Aid to Airports Program (CAAP) and the Federal Airport Improvement Program.

Rail Projects

Intercity rail projects are funded by State Highway Account funds (for projects programmed in the STIP), as well as funding for specific projects from the Public Transportation Account, the Traffic Congestion Relief Program and Proposition 116. There are no regional guarantees for such projects. As the intercity rail system operates on an interregional basis, improvements must be planned on a scale larger than any single county.

REVENUE VERSUS NEED

Regional Highways, Streets, and Roads

The Highways, Streets, and Roads section identified regional project priorities that are necessary within the RTP implementation.

Planned expenditures of Regional Improvement Program and other locally generated funds for regional road improvements total \$498 million. With the expenditure of these funds, it is assumed that approximately \$506 million in state discretionary funding will be leveraged for projects on the state highway system. Additional projects (Tier 2) that are projected to be of regional significance in the RTP implementation period, but are excluded from the RTP due to a lack of available revenues, total \$992 million.

Transit

Local governments in the Merced County region have consolidated transit services, resulting in a reduced cost of providing public transit. Transit expenditures are projected to be \$310 million for the RTP implementation period. There is no funding shortfall identified for transit over the RTP implementation period.

Local Street and Road Maintenance

Over the RTP implementation period, local agencies expect to receive \$158 million in revenues. However the total necessary expenditures to adequately maintain local streets and roads over the RTP implementation period will be approximately \$381 million, representing a significant shortfall in revenues – approximately \$223 million.

Non-motorized (Bikeways & Pedestrian)

Expenditures for non-motorized projects, which include maintenance and construction of pedestrian and bicycle facilities are estimated to be \$28 million during the 25-year implementation period. These projects will be implemented using discretionary grant funds through other sources and Congestion Mitigation Air Quality Funds. Approximately \$57 million is needed for full implementation of all planned bikeway and pedestrian projects, leaving a shortfall of \$29 million.

Summary of Revenue vs. Need

The region's priority transportation projects and strategies cannot all be implemented within the RTP implementation period given estimates of available revenue.

In Table 10, projected revenues for each mode of transportation are compared with estimated costs of transportation projects and strategies identified in the Action Element, and to the projected needs. Projected needs include all projects that will be necessary to achieve the transportation goals of the RTP, including projects excluded from the RTP because of financial constraint requirements. Shortfall of revenue for each mode is also identified.

Transportation Mode	Revenue	Needs	(Shortfall)
Regional Road & Highway Improvements	1,004	1,996	(992)
Local Road Improvement	112	112	0
Local Road Maintenance	158	381	(223)
Transit	310	310	0
Air Quality Control Measures	13	13	0
Bicycle & Pedestrian Facilities	28	57	(29)
Tota	l 1,625	2,869	(1,244)

Table 10: Projected Revenues vs. Needs, by Mode (Amounts in Millions)

POLICY ELEMENT

The Policy Element describes the overall vision of the Plan and the goals, objectives, and policies for each of the transportation modes and strategies within the Plan. It also identifies the development of alternative plan-level scenarios for the Plan and the selection of a preferred alternative.

VISION – THEMES AND GOALS

Seven "Vision Themes" provide the foundation for the plan. They are listed below along with the goals associated under each vision theme.

Provide a good system of roads that are well maintained, safe, efficient and meet the transportation demands of people and freight

- Improve mobility and reduce congestion-related delays.
- Maintain the existing road system.
- Enhance safety for the traveling public.
- Promote an efficient, linked system of interstate freeways, major streets, rail lines, public transit, bikeways and pedestrian paths that enhances accessibility and the movement of people and goods and maximizes use of technological innovations.

Provide a transit system that is a viable choice

- Provide and promote the availability of an affordable, accessible, effective dynamic public transit system responsive to current and future customer needs.
- Meet the individual needs of those who depend on public transit, such as the elderly, handicapped, youth and economically disadvantaged.

Support full-time employment with livable wages – i.e. support job creation & economic vitality

- Recognize and respond to disparities in economic circumstances, accessibility and mobility among the region's diverse population and communities.
- Recognize and respond to the transportation needs of area employers.
- Promote transportation strategies that are innovative and market-based, encourage new technologies and support the economy.

Preserve productive agricultural land/maintain strong agricultural economy and the quality of life that goes with it

• Preserve and enhance agricultural resources by implementing transportation improvements that avoid, minimize or mitigate negative impacts to productive agricultural land

Support orderly and planned growth that enhances the integration and connectivity of various modes of transportation

- Provide a variety of transportation choices that strengthen and direct development towards existing communities, thus preserving open space, farmland, natural beauty and critical environmental areas.
- Coordinate future land use patterns and transportation systems (aviation, rail, light rail, high speed rail, transit, bike and pedestrian paths, and roads) to foster economic prosperity, environmental protection and mitigation, trip reduction and the creation of efficient, integrated mixed-use communities.
- Encourage land and use and growth patterns that enhance the livability of our communities and maximizes the productivity of transportation investments.

Support clean air and water and avoid, minimize or mitigate negative impacts to the environment

- Enhance environmental stewardship through protection of natural and human resources and creation or preservation of aesthetic amenities.
- Favor transportation investments that protect the environment including improving air quality, promoting energy efficiency and enhancing the quality of life.

Funding

- Identify and allocate funding and resources for building, operating and maintaining the existing and future regional transportation system.
- Ensure that transportation investments are cost-effective.

POLICIES

The tables on the following pages identify goals, objectives, and policies that have been established for each of the transportation modes.

1. Highways, Streets, and Roads

Goal: A safe and efficient regional road system that accommodates the demand for movement of people and goods.

Objective	Policy / Action
1.1 Maintain a Level of	1.1.1. Fund and implement the projects identified on the Tier 1 priority list in the Action Element of the RTP.
Service D on all regionally significant roads.	1.1.2. Aggressively pursue discretionary Caltrans funding such as IIP, HBRR, HES.
	1.1.3. Implement a Regional Impact Fee for Transportation to pay for congestion relief projects.
	1.1.4. Aggressively pursue the passage of a 1/2 sales tax for transportation.
	1.2.1. Prepare and apply evaluation criteria to prioritize regional road projects identified to improve the overall transportation system of the region.
1.2. Identify and prioritize improvements to the regional road system.	1.2.2. Evaluation criteria will evaluate how the projects achieve the following objectives: 1) an integrated and balanced road system; 2) improvement in traffic flow & safety; 3) minimum adverse environmental effects; and 4) minimum adverse impacts on agricultural land.
	1.2.3. Use Regional Improvement Program funds to finance the prioritized regional improvements.
1.3. Use the existing	1.3.1. Maintain street and road system for vehicle travel, transit services, bicycle travel, and pedestrians.
street and road system	1.3.2. Aggressively pursue the passage of a 1/2 sales tax for transportation.
possible manner to	1.3.3. Continue to exchange Federal STP for state dollars.
improve local circulation.	1.3.4. Aggressively pursue all available and potential fund sources to implement improvements to the present transportation system and maintain the transportation system.
1.4. Monitor the impact	1.4.1. Prepare and maintain transportation land use databases for determining future travel demand on the regional road system.
of development on the	1.4.2. Develop and maintain a regional transportation model.
regional road system.	1.4.3. Analyze the cumulative impact of local development for the county and cities through the RTP Updates.

2. Transit

Goal: Provide an efficient, effective, coordinated regional transit system that increases mobility for urban and rural populations, including transportation disadvantaged persons.

Objective	Policy / Action
2.1. Meet all transit needs that are	2.1.1. Provide dial-a-ride transit services for the elderly, handicapped, and those residents not served by a fixed route service.
"reasonable to meet".	2.1.2. Provide adequate fixed route transit system to serve the general public, including transit-disadvantaged persons.
2.2. Increase transit ridership at rate that exceeds annual population growth rate.	2.2.1. Add additional routes and expand services as necessary to meet ridership demand to achieve established transit standards.
	2.2.2. Provide improved transit service through the county wide Consolidated Transit System.
	2.2.3. Plan for transit expansion to UC Merced.
	2.2.4. Coordinate Countywide transit system with neighboring transit services and modes – Stanislaus, Madera, Amtrak, & YARTS.
2.3. Promote citizen participation and education in transit planning.	2.3.1. Involve the Social Services Transportation Advisory Council and the Citizens Advisory Committee in the regional transit planning process.
	2.3.2. Use the MCAG newsletter for transit education.
2.4. Promote transit ridership to and from Mariposa County and Yosemite National Park.	2.4.1. Participate in the Joint Powers Authority for the Yosemite Area Regional Transportation System.

3. Passenger Rail

Goal: A rail system that provides safe and reliable service for passengers.

Objective	Policy / Action
3.1. Maintain adequate passenger service on AMTRAK San Joaquin route.	3.1.1. Monitor the activities of the Amtrak to assure passenger rail services in Merced County.
3.2. Establish a High Speed Rail system connecting Merced and Los Banos to Sacramento and the Bay Area.	3.2.1. Support the High Speed Rail planning process and actively provide comments and input.

4. Goods Movement

Goal: Provide a transportation system that enables safe movement of goods in and through Merced County.

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Policy / Action

4.1. Provide an adequate regional road system for goods movement.	4.1.1. Support and participate in the Valley-wide Goods Movement Study.
	4.1.2. Work with the Freight Advisory Committee to enhance and maintain a viable transportation system freight and goods movement.

5. Aviation

Goal: A fully functional and integrated air service and airport system complementary to the countywide transportation system.

Objective	Policy / Action
5.1. Maintain daily commercial airline service to the Bay Area	5.1.1. Support commercial airline service in Merced County.
5.2. Work with local agencies to ensure compatible land uses around existing airports to reduce noise conflicts	5.2.1. Support the Merced County Airport Land Use Commission and local airports in their efforts to ensure compatible land uses around airports.
	5.2.2. Support the local airports in their attempts to acquire the land surrounding the airports.
	5.2.3. Support noise abatement procedures.
5.3. Maintain alternative modes of transportation to and from local airports	5.3.1. Support regularly scheduled transit service from airports to the Transportation Center.

6. Bicycle

Goal: A regional transportation system for bicyclists.

Objective	Policy / Action
6.1. Develop and construct bike and walkway facilities in urban areas and other communities where non-motorized systems do not currently exist.	6.1.1. Construct class I, II and III bike routes as designated in the Merced County Regional Bikeway Plan.
	6.1.2. Actively pursue bicycle and pedestrian related funding sources to implement local and regional plans.
6.2. Update the Merced County	6.2.1. Use the Bicycle Transportation Advisory Committee for bike planning and project implementation recommendations.
Regional Bikeway Plan every five years.	6.2.2. Implement the Merced Commuter Bikeway Program.
-	6.2.3. Implement the Bicycle Safety Program.

7. Pedestrian

Goal: A transportation system for pedestrians.

Objective	Policy / Action
7.1. Develop and construct walkway facilities in urban areas and other communities where pedestrian systems do not currently exist.	7.1.1. Construct sidewalks and walkways as designated in the Merced County Pedestrian Plan.
	7.1.2. Actively pursue pedestrian related funding sources to implement local and regional plans.
7.2. Create and Update the Pedestrian Master Plan every five	7.2.1. Use the Transportation Citizen Advisory Committee for pedestrian planning and project implementation recommendations.
years.	7.2.2. Implement the Pedestrian Master Plan.
	7.2.3. Implement the Pedestrian Safety Program.

8. Management & Operations (M&O)

Goal: Provide economical, short-range solutions to transportation problems such as traffic congestion.

Objective	Policy / Action
8.1. Apply TSM strategies to	8.1.1. Assist local agencies in evaluating the impacts of M&O strategies.
those problems on which they can be most productive.	8.1.2. Consider the use of M&O strategies where appropriate.

9. Energy

Goal: Reduce usage of nonrenewable energy resources for transportation purposes.

Objective	Policy / Action
9.1. Increase public transit and carpooling/vanpooling and bicycling/walking to exceed population growth.	9.1.1. Add additional transit routes and services where feasible.
	9.1.2. Support passage of ordinances that provide for vanpooling and carpooling programs.
	9.1.3. Support passage of ordinances that provide for park and ride lots.

10. Air Quality

Goal: Achieve air quality standards set by the Environmental Protection Agency (EPA), and the State Air Resources Board.

Objective

Policy / Action

	10.1.1. Assist the San Joaquin Valley Air Pollution Control District to develop the transportation-related portions of the State Implementation Plan for air quality.	
	10.1. Coordinate transportation planning with air quality planning at the technical and policy level.	10.1.2. Evaluate and assist in the implementation of appropriate transportation control measures.
		10.1.3. Support the expeditious implementation of transportation control measures identified in the State Implementation Plan for Merced region jurisdictions.
		10.1.4. As required by federal regulation, give funding priority to transportation control measures.

11. Land Use Strategies

Goal: Provide economical, long-term solutions to transportation problems by encouraging community designs which encourage walking, transit, and bicycling.

Objective

Policy / Action

11.1. Innovative land use and transportation planning.	11.1.1. Assist cities and County in assessing their existing road network system to find the problem areas and to identify necessary improvements that would improve traffic movement.
	11.1.2. Evaluate land use strategies for member jurisdictions.
11.2. Plan future roads to accommodate land uses at a regional level.	11.2.1. Assist member jurisdictions in taking a regional approach in land use and developing a road network that serves the entire region.
	11.2.2. Encourage all jurisdictions to actively participate in the Regional Transportation Plan Update process.
11.3. Roads that are pedestrian friendly, encourage bicycle trips and the use of mass transportation.	11.3.1. Assist member jurisdictions in developing and implementing strategies and design criteria that make new commercial and residential developments friendly to pedestrian and bicyclists.
11.4. Preserve productive farmland and land that provides habitat for rare, endangered or threatened species.	11.4.1. Consider impacts on prime farmland and areas that support protected wildlife.
11.5. Goals and Policies consistent at both the regional and local levels.	11.5.1. Assist cities and County during their General Plan updates to ensure that the Plans are consistent with the RTP.

12. Transportation Financing

Goal: Develop and support financing strategies that provide for a continuous implementation of the Regional Transportation Plan projects and strategies.

Objective

Policy / Action

12.1. Develop and adopt policies that will provide adequate funding resources for all transportation modes and strategies.	12.1.1. Seek voter approval of ballot measure for a 1 percent or $\frac{1}{2}$ percent per dollar increase in the sales tax, for transportation system maintenance and improvements.
	12.1.2. Implement and manage a regional transportation development fee program for priority road and transit improvement projects.
	12.1.3. Provide technical assistance to local jurisdictions in the development of transportation financing mechanisms.
	12.1.4. Consider cost efficiency in project evaluation criteria.

13. Outreach and Coordination

Goal: Provide a forum for participation and cooperation in transportation planning and facilitate relationships for transportation issues that transcend jurisdictional boundaries.

Objective	Policy / Action	
	13.1.1. Evaluate transportation impacts of land use and development proposals.	
13.1. Assist jurisdictions in local transportation planning.	13.1.2. Provide technical assistance in the preparation of transportation financing mechanisms.	
	13.1.3. Assist in the preparation of Circulation Elements for general plans and community plans.	
13.2. Promote consistency among all levels of Transportation Planning.	13.2.1. Involve the local, state and federal agencies and elected officials in the transportation planning process.	

PLAN-LEVEL ALTERNATIVES

In the development of the 2004 RTP, plan-level alternatives were developed and one was selected for implementation. Plan alternatives are needed because resources (expected revenues) are insufficient to do everything that is needed or desired. The approach used to fashion alternatives was to research, educate, listen, and combine public input, governmental agency input, technical work, previous and corollary plans, and stakeholder guidance to create broad strategies for the Plan.

The previous chapter discussed the transportation and financing challenges faced by this rapidlygrowing region. A countywide vision and list of transportation-related goals was crafted to respond to these challenges. A financial analysis demonstrated that not all needs could not be addressed, so several approaches to expenditure of discretionary funds were developed and subsequently refined based on input and guidance. Plan-level performance measures were used to evaluate how well each scenario met the goals of the plan. Based on the results of the analysis and public comments the MCAG Board selected a preferred scenario and list of priority projects.

Expenditure Scenarios

An initial set of scenarios was crafted based on three major choices:

- 1. meet all needs in all modes or not
- 2. delivers more transit and choices or continues emphasis on roads and autos
- 3. constrained to expected revenues or requires additional funding from this region

Subsequent feedback from the public and stakeholders led to the set of scenarios described below. Specific projects and programs in each scenario were gathered from previous Regional Transportation Plans, local plans, model plans, and public and stakeholder suggestions. The following table shows all scenarios considered in the process. Scenarios A, B, C, D, and E were initially presented. Scenario A was dropped since it met almost none of the objectives of the plan, but analysis of this scenario was used to compare the others to. Scenario E was dropped since it required revenues in excess of what could be reasonably possible. Scenarios C2 and D2 were added as hybrids.

Scenario	А	В	С	C2	D	D2	E
	No Build	Roads	Some	More	Alternative	Modes and	Ultimate
			Changes	Changes	Modes	Roads	
Focus on	none	roads	roads	roads	modes	modes	all
Meets all	no	no	no	no	no	no	yes
objectives?							
Financially	yes	yes	no	no	yes	no	no
Constrained?					-		
disposition	dropped						dropped

Table 11:	Scenarios	considered

Scenario Descriptions

Scenario A: "No-Build"

"No Build" implements only the required elements of the regional transportation plan, which are road maintenance and transit. No new road and highway projects are included. While this appears to save \$200 million over 20 years, the money that would have gone to road projects can not be transferred to other needs. Instead, it would be returned to the State or Federal governments and used elsewhere. The no-build scenario would not meet the goals of the Regional Transportation Plan. Because of projected increases in population, the level of service would fall to "F" throughout the county, and transit services would fail.

Scenario B: "Roads"

"Current Policy" maintains the same transportation projects and expenditures that Merced County now has. It includes seven major highway improvements, keeps road maintenance and transit at existing levels, gives some thought to bicycle projects but funds them strictly through grants, and has no programs for other transportation modes such as pedestrian, rail or aviation. Scenario B would continue with the existing planned projects and focus on maintenance of existing facilities. It does the best for roads and the economy given current funding, while providing the minimum transit service.

Scenario C: "Some Changes"

"Some Changes" adds three more major highway improvements and introduces a countywide maintenance program where efforts and funds are better coordinated. This scenario improves transit to 30-minute frequencies in cities and 60-minute frequencies between areas. Higher capacity bike racks and multi-lingual service are provided. Local jurisdictions are encouraged to require pedestrian-friendly development, bike paths have connectivity, a commute by rail program is implemented, and expanded air service is encouraged. Over a 20-year period, the change in cost from current policy would be about \$300 million.

Scenario C would include new projects in the Regional Transportation Plan and would improve upon existing transportation modes within the county. It would do a better job addressing the transportation needs as compared to Scenario A & B in all modes of transportation, including road improvements, road maintenance, and transit, but requires additional funding.

Scenario C2: "More Changes"

Scenario C2 proposes the most regional transportation improvements, including several new highway facilities and provides more financial resources for street and road maintenance. This scenario improves transit to 30-minute frequencies in cities and 60-minute frequencies between areas. Higher capacity bike racks and multi-lingual service are provided. Local jurisdictions are

encouraged to require pedestrian-friendly development, bike paths have connectivity, a commute by rail program is implemented, and expanded air service is encouraged. This scenario reduces future congestion the most by providing additional road capacity. It also requires additional funding in the amount of about \$500 million.

Scenario D: "Alternative Modes"

The "Alternative Modes" scenario has the same regional cost as Current Policy, but monies are shifted from road projects to improving road maintenance, transit, pedestrian and bicycle. A "fix it first" road maintenance program is launched, transit frequencies in cities/county are 15 minutes/30 minutes, financial incentives are provided to jurisdictions that require new development to be walkable, priority bike projects are funded, rail continues to be promoted as an alternative choice, and air service in Merced County increases. Scenario D focuses on alternative modes of transportation. It shifts emphasis to alternative modes (bus, bike, walking) and maintaining the existing system.

Scenario D2: "Alternative Modes and Roads"

Scenario D2 has the second most proposed regional transportation improvements, including new highway facilities. It expands transit, bike, and pedestrian choices as in option D, but not at the cost of increasing traffic in general.

Table 12: Scenario Matrix

Scenario		В	С	C2	D	D2	
		Roads	Some Changes	More Changes	Alternative Modes	Alt. Modes + Roads	
Description		Same as existing Regional Transportation Plan	Better job in each area, but requires more funds	More roads, maintenance, transit. Requires more funds	Major shift in emphasis from road improvements to alternative modes	Expansion of alternative modes, but not at cost of road improvements	
Regiona	al Cost	\$582,000,000	\$855,210,000	\$1,038,210,000	\$582,000,000	\$1,010,000,000	
Cost Change from B: Current Policy		\$0	\$273,210,000	\$456,210,000	\$0	\$428,000,000	
Transportation Mod	de						
Roads & Highways	₳	8 major improvements to highways 152, 59, 140 and 99 and regional roads	11 major improvements to highways and regional roads	22 major improvements to highways and regional roads.	Only 3 projects: 152 Bypass, Existing 59, 140 Bradley Overhead	15 major improvements to highways and regional roads.	
Region Cost Change	onal Cost: e from B:	\$242,000,000 \$0	\$375,000,000 \$133.000,000	\$535,000,000 \$293,000,000	\$84,000,000 (\$158,000,000)	\$450,000,000 \$208,000,000	
Local Road Maintenance	Ì	Continues at existing levels. Roads deteriorate.	Much more funding for maintenance	Much more funding for maintenance	More funding for maintenance	Much more funding for maintenance	
Region Cost Change	nal Cost: e from B:	\$209,000,000 \$0	\$331,000,000 \$122,000,000	\$354,000,000 \$145,000,000	\$290,000,000 \$81,000,000	\$352,000,000 \$143,000,000	
Transit (Bus)		Transit service meets the needs of the transit dependent.	Some improvement: 30 minute frequency in urban areas, 60 minute between areas.	Some improvement: 30 minute frequency in urban areas, 60 minute between areas.	Transit is a viable trip choice. Greater coverage, higher frequencies (15/30), aggressive marketing	Transit is a viable trip choice. Greater coverage, higher frequencies (15/30), aggressive marketing	
Region Cost Change	onal Cost: e from B:	\$130,000,000 \$0	\$143,000,000 \$13,000,000	\$143,000,000 \$13,000,000	\$195,000,000 \$65,000,000	\$195,000,000 \$65,000,000	
Pedestrian	X	Considered a local issue.	Local jurisdictions encouraged to require pedestrian-friendly development.	Local jurisdictions encouraged to require pedestrian-friendly development.	New communities are walkable and transit-friendly. Financial incentives are provided.	New communities are walkable and transit-friendly. Financial incentives are provided.	
Region Cost Change	onal Cost: e from B:	\$0 \$0	\$10,000 \$10,000	\$10,000 \$10,000	\$1,000,000 \$1,000,000	\$1,000,000 \$1,000,000	
Bicycle	杨	Bicycle improvements are consistent with plans but dependent on grants.	Bike paths are well-planned and have connectivity. Several priority projects are funded.	Bike paths are well-planned and have connectivity. Several priority projects are funded.	More priority bike projects are funded. New communities are planned to be bike-friendly.	More priority bike projects are funded. New communities are planned to be bike-friendly.	
Region Cost Change	onal Cost: e from B:	\$1,000,000 \$0	\$6,000,000 \$5,000,000	\$6,000,000 \$5,000,000	\$11,000,000 \$10,000,000	\$11,000,000 \$10,000,000	
Passenger Rail	J,	No projects	"Commute by Rail" program. Rail schedules are adjusted to meet northern commutes.	"Commute by Rail" program. Rail schedules are adjusted to meet northern commutes.	Rail is also promoted for recreational trips and vacations.	Rail is also promoted for recreational trips and vacations.	
Region Cost Change	onal Cost: e from B:	\$0 \$0	\$200,000 \$200,000	\$200,000 \$200,000	\$1,000,000 \$1,000,000	\$1,000,000 \$1,000,000	
Aviation	+	Same as today: Merced to Las Vegas four times a day.	Expanded air service to Los Angeles and San Francisco.	Expanded air service to Los Angeles and San Francisco.	Air is a viable alternative to auto for long trips: service to LA, SF, other hubs, a variety of airlines, good transit to airports.	Air is a viable alternative to auto for long trips: service to LA, SF, other hubs, a variety of airlines, good transit to airports.	
Funding Assumption	\$	Existing Funding	1/2 cent Transportation Measure	New Development Fee and 1/2 cent Transportation Measure	Existing Funding	New Development Fee and 1/2 cent Transportation Measure	
		В	С	C2	D	D2	

Performance Measures

The evaluation of scenarios was done using performance measures. According to guidelines issued by the state, each RTP should define a set of program level transportation system performance measures that reflect the objectives of the RTP, to evaluate and select plan alternatives. This plan's performance measures were defined based on the objectives of the Plan. Each goal was mapped to one of ten measurable criteria. These criteria formed the basis of the performance measures used to evaluate how well each scenario met the goals of the Plan. The performance measures are described in Appendix F.

A table with the numerical results of the analysis is shown below.
Scenario

Criteria		Performance Measure	Unit	В	С	C2	D	D2
	1	Delay	%	20%	18%	16%	22%	18%
Mobility	2	Peak Hour Level of Service	%	25%	34%	40%	17%	34%
	1	Time to Destinations	minutes	26.3	25.6	24.7	26.7	24.9
Access	2	Time to Transportation System	minutes	6.1	5.9	5.8	5.7	5.6
	1	Mode Choice	\$millions	1	6	6	12	12
Connectivity	2	Land Use Integration (not used)	n/a					
Safety	1	Accident History	accident s	995	1691	2425	642	2009
Curcty	2	Unsafe conditions	accident s	1152	1848	2582	1223	2583
System Preservation	1	Pavement Condition	index	21	40	45	32	45
Efficiency	1	Roadway Utilization	%	47%	49%	50%	46%	49%
Emeleney	2	Transit Utilization	%	37%	51%	51%	82%	82%
	1	Agriculture	acres	1477	1618	2092	1237	1840
	2	Habitat and Species	acres	1574	1953	2487	1294	2211
Protection	3	Total Land Consumption	acres	17055	17037	16967	17119	17040
1101001011	4	Air Quality	tons/day	26.78	26.77	26.54	26.98	26.68
	5	Water Quality	Acres	616	748	871	564	852
	6	Noise - <i>n/a per EIR</i>	n/a					
	7	Energy	million VMT	10.66	10.79	10.82	9.78	10.05
Equity	1	Minorities, Low- Income	persons	1687	1799	1954	1542	1865
Economic Vitality	1	Access to employment centers	minutes	2.1	2.1	1.9	2.2	2.0
	2	Time (goods)						

Table 13: Scenario performance

Preferred Scenario

The results of these analyses, including the benefits, costs, and impacts of each scenario, were presented to the public and compiled into the drafts of the Regional Transportation Plan, the Air Quality Conformity Analysis, and the Environmental Impact Report. All of these materials were available for review and comment. Based on the previous work, the comments received on the draft Regional Transportation Plan and draft Environmental Impact Report, and the comments received at public workshops through the PIP process (see the Introduction), the Merced County Association

of Governments Governing Board selected a preferred scenario and list of priority projects to be included in the final Regional Transportation Plan.

Scenario C2 accomplishes the greatest reduction in future traffic congestion while doing the best job of preserving pavement. It also increases the transit service and provides increased options for alternative transportation.

As of this 2011 RTP Update conducted in 2009-2010, Merced County does not have a transportation measure (1/2 cent sales tax), which was a necessary component for the preferred scenario to be implemented. Unless additional revenues become available it will not be possible to fully implement the preferred scenario.

ACTION ELEMENT

This chapter identifies the transportation needs and issues of the region, and establishes improvement projects and programs needed to address them, following the goals and objectives of the Policy Element. The discussion and actions are grouped by mode or strategy:

- Highways, Streets and Roads
- Transit (Bus)
- Rail (Passenger)
- Goods Movement (Trucking and Rail)
- Aviation
- Bicycle
- Pedestrian
- Alternatives (Ridesharing, TCMs)
- Management and Operations
- Land Use Strategies
- Environmental and Agricultural Preservation

A multi-modal transportation system offers the most diversity and flexibility for a strong economy, sound environment, and a livable community. The transportation system should provide links between modes. Various modes should work in concert to meet the goals of the Plan. There is no single solution for the transportation system that will be the answer to all of the region's transportation needs. A variety of options will provide a system that is flexible.

Actions are divided into a short and long range plans. The short-range plan is more detailed and carries through the year 2020, while the long-term plan is less specific and goes through the year 2035. The short range plan is the basis for the Regional Transportation Improvement Program (RTIP) and the Federal Transportation Improvement Program (FTIP). Agencies responsible for implementing actions are identified throughout.

REGIONAL ROAD SYSTEM

The regional road system is the fundamental component of transportation in Merced County. It provides the basic network for the movement of people and goods. Regional roads are used by nearly all travel modes including automobiles, ridesharing (carpools and vanpools), transit buses, paratransit, trucks, bicycles, and pedestrians.

The regional road system consists of State and Interstate Highways as well as local routes which connect urban areas and other major activity centers. Facilities that are not included in the regional road system are considered to primarily serve local transportation needs.

Figure 1 shows the Regional Road Network.

Figure 1: Regional Road Network



The Regional Road Network consists of the following roadways:

- All **State Highways** and Interstates.
 - o Interstate 5, Highways 33, 59, 99, 140, 152, and 165
 - o including any *future* realignments and bypasses
 - Highway 152 Los Banos Bypass
 - Highway 59 realignment between Atwater and Merced (aka Atwater-Merced Expressway)
 - Highway 59 realignment extension southwest of Merced
 - Highway 140 Gustine Truck Route / Bypass

- Highway 165 Hilmar Bypass
- **Santa Fe Drive** from Stanislaus County to Highway 59 is an arterial, which connects Stanislaus to Winton, Atwater, Castle, and Merced.
- Olive Avenue in Merced and the County, from Highway 59 / Santa Fe Drive to the future Campus Parkway is an arterial serving large amounts of traffic from other jurisdictions such as the County and Atwater.
- **Lincoln Boulevard** in the County, from Hwy. 165 to Peach Ave. is a major collector, which connects westside jurisdictions to Livingston via Hwys 165 and 140.
- Main St. in Livingston, from Peach Ave. to Hwy. 99 is an arterial serving through traffic connecting westside jurisdictions and the county to Hwy. 99 and Livingston.
- Livingston-Cressey Road in Livingston and the County, from Hwy. 99 to Santa Fe Drive is an arterial and major collector, which connects northern Merced County to Livingston and Hwy. 99.
- Applegate Rd. in the County and Atwater, from Hwy 140 to Bellevue Rd. is a major collector and arterial connecting the westside to Atwater and Winton.
- Winton Way in Atwater and the County, from Bellevue Rd. to Santa Fe Drive is a major collector connecting Atwater to Winton.
- **Buhach Rd.** in the County and Atwater, from Hwy 140 to Santa Fe Drive is a major collector and an arterial connecting the westside to Atwater and Castle.
- Walnut Ave. in the County, from Livingston to Santa Fe Drive is a major collector connecting Livingston to Winton, north Atwater, and Castle.
- Westside Boulevard in the County, from Hwy 165 to Hwy 99 is a major collector connecting the westside to the eastside and Atwater and Merced.
- **Bloss Avenue** in the County, from Hwy 165 to Hwy 99 is a major collector connecting Hilmar and the westside to Livingston and Delhi.
- **Bellevue Road** from Hwy 99 west of Atwater to Lake Rd. or Campus Parkway, including "gaps" which may be connected in the future is a major collector and an arterial, which connects Atwater, Winton, Castle, Merced, and UC Merced.
- **G Street** in Merced and the County, from Hwy 99 to Hwy. 59 is an arterial and major collector, which serves through traffic and connects to UC Merced and the north.
- **Mission Ave**. south of Merced, from Hwy. 59 to Hwy. 99 is a major collector and future arterial, which will serve heavy interregional movements connecting these highways.
- **Santa Fe Avenue** from Plainsburg Rd. in Planada to the Madera County line connects Le Grand to the rest of the network.
- **Plainsburg Road** in the County, from Hwy. 99 to Hwy. 140 is a major collector, which connects Planada and points east to Hwy. 99
- Le Grand Road in the County, from Hwy. 99 to Santa Fe Ave. is a major collector, which connects Le Grand and eastern Merced County to Hwy. 99.
- **Minturn Road** in the County, from Le Grand Rd. to the Madera County line is a major collector, which connects to Hwy. 99 and serves interregional movements.
- **Oakdale Road** in the County, from Highway 59 to the Stanislaus County line is a major collector, which connects to Stanislaus County and Oakdale.
- La Grange Road in the County, from Highway 59's termination in Snelling to the Stanislaus County line is a major collector, which connects to the foothills and eventually Sonora.

- Merced Falls Road in the County, from Highway 59's termination in Snelling to the Mariposa County line is a major collector, which connects to Lake McClure and Mariposa County.
- the future **Campus Parkway** from Highway 99 to end of route at Yosemite Ave. or UC Merced
- **Henry Miller Avenue** east from Interstate 5 in Santa Nella, across State Route 165 to Turner Island Road (an important farm-to-market route and informal bypass of Los Banos).
- Los Banos to Gustine Route an important route that connects farms to several packing plants from State Route 152 north along Volta Road, Ingomar Grade, Cottonwood Road and Hunt Road to Gustine.
- Sandy Mush Road/Turner Island Road west from State Route 99, across State Route 59 to Turner Island Road and south to State Route 152. This is an important farm-to-market road and alternate route from Highway 99 to Los Banos.
- Bradbury Road from its interchange with State Route 99 west to Highway 165.
- Gurr Road from State Route 140 near the McSwain area to Sandy Mush Road.
- Washington Road from Indiana Avenue to Highway 59.
- Hutchins Road from Carlucci Road to Indiana Avenue.
- Indiana Ave. from Highway 152 to Washington Road.
- Merced Falls Road in the County, from Highway 59's termination in Snelling to the Mariposa County line is a major collector, which connects to Lake McClure and Mariposa County.
- Future extension of **Pioneer Road** to Volta Road.

HIGHWAYS, STREETS, AND ROADS

Most of the identified needs relate either directly or indirectly to the system of highways, streets, and roads. The passenger automobile is the method by which most travel occurs, however it is measured: time, cost, mileage, or trips. However, other modes – including transit, goods movement, and bicycle – are also dependent on the road system. Preserving the viability and capacity of this system is vital to the region's economy and quality of life.

Maintenance of Existing System

There are approximately 435 miles of roadways on the Regional Road system in Merced County and approximately 330 of those miles are State Highways. Caltrans has set aside funds for maintenance of their system. The responsibility for maintenance on the remaining 105 miles of Regional Road system and the more than 2,000 miles of off-system roads rest with the seven local jurisdictions.

A typical local two-lane roadway costs approximately \$770,000 per mile to construct. The expected life of that facility is around 20-30 years, if no preventative maintenance is applied during the life of that road.

Streets and roads take quite a beating under the weight of traffic and the vagaries of weather. Also, goods movement by freight trucks will significantly lower the pavement life and accelerate the need for maintenance, rehabilitation, and replacement.

Public roads allow for moving people and freight. Due to their value and importance to the national economic vitality (supportive data to be found in goods movement section of this report), preserving their condition and performance should be a priority.

Poor-quality streets and roads are costly to motorists and safety issues for cyclists and pedestrians. A "Rough Roads Ahead" report (2009), prepared jointly by the American Association of State Highway and Transportation Officials (AASHTO) and The Road Information Program (TRIP), estimated the annual costs per motorist for poor roads to be \$461 for Fresno and \$538 for Modesto.

To keep the streets and roads in good repair requires substantial investment in transportation infrastructure and cost-effective maintenance strategies.

Pavement Management System

A pavement management system (PMS) is a decision-making process or system that helps public works personnel make cost-effective decisions concerning the maintenance and rehabilitation of their jurisdiction's pavements. It provides tools for rating a roadway's pavement condition, establishing a consistent maintenance and repair schedule, and evaluating the effectiveness of maintenance strategies.

Pavement Management is done, basically, to save money. Most jurisdictions lack the tools to strategize how to best spend limited funds, so they may choose a typical approach to pavement maintenance and repair such as "fix the worst first". Unfortunately, in the long run, this is actually the least effective strategy.

A critical concept in street and road maintenance is that, while pavements deteriorate only 40 percent in quality in the first 75 percent of their life, this deterioration subsequently accelerates rapidly, resulting in another 40 percent drop in quality in the next 12 percent of life.

Figure 2: Pavement Life Cycle



A pavement management system can identify pavements that are headed toward such a precipitous decline, so that preventive maintenance can be applied in a timely fashion. This makes PMP a good tool for aiding local agencies with planning short- and long-term system-wide maintenance strategies to maximize the impacts of expenditures on the system.

Maintenance Needs

Looking at the initial streets and roads network (minus the State Highways), 76% would be considered in fair to good condition, while 24% would require minor-major rehabilitation or reconstruction. To maintain, rehabilitate, and restore the system would require about \$187 million (2009).

Jurisdiction	Preventative	Rehab/Recon	Totals
Atwater	\$2,544,208	\$12,825,652	\$15,369,860
Dos Palos	\$722,345	\$9,131,770	\$9,854,115
Gustine	\$221,851	\$6,975,283	\$7,197,134
Livingston	\$1,042,323	\$4,712,263	\$5,754,586
Los Banos	\$3,127,240	\$17,748,468	\$20,875,708
Merced	\$3,989,098	\$23,297,287	\$27,286,384
Merced County	\$10,915,345	\$88,985,055	\$99,900,400
	\$22,562,410	\$163,675,778	\$186,238,188
Pavement Condition	Good to Fair	Poor and Worse	
	76%	24%	



Funding Shortfalls

Currently, about \$15 million a year is allocated to the local jurisdictions for local streets and road projects. The local jurisdictions decide how to use this money on their streets and roads. The cost to perform the preventative and minor rehabilitation activities is about \$23 million, and the cost to conduct minor-major rehabilitation and reconstruction activities is about \$164 million. If the local agencies applied all their transportation funding to road maintenance there would be a shortfall of \$172 million.

Jurisdiction	RSTP	LTF	Prop42	Prop111	FY 08-09
Atwater	241,580	72,164	232,877	440,873	\$987,494
Dos Palos	44,970	13,902	42,481	85,035	\$186,387
Gustine	46,701	15,842	43,998	89,504	\$196,044
Livingston	115,929	42,985	117,015	222,619	\$498,547
Los Banos	299,764	88,747	305,338	572,209	\$1,266,058
Merced	684,683	154,674	681,909	1,267,544	\$2,788,809
Merced County	1,083,765	214,838	3,044,689	4,275,381	\$8,618,673
	\$2,517,391	\$603,151	\$4,468,306	\$6,953,165	\$14,542,013

This funding level has not changed much in the past decade, even though costs for maintenance have largely escalated in more recent years due significantly to the rise in oil prices (oil is major component of pavement treatment material). These funding sources are inadequate to maintain an ever-increasing, continually-deteriorating streets and roads network.

Future Funding Shortfall

Future maintenance needs have been determined and compared with estimated revenues to assess the possible funding shortfall. The future need is nearly 2 ½ times the anticipated revenue. Given the existing annual revenue sources, the estimated future-funding shortfall is about \$220 million. In order to maintain pavement infrastructure for Merced County, other revenue sources will be needed.

Jurisdiction	FY 08-09	Actual Exp. (A.E.)	A.E.: 25 years	Future Need
Atwater	\$985,000	\$550,000	\$13,750,000	\$38,500,000
Dos Palos	\$185,000	\$185,000	\$4,625,000	\$15,000,000
Gustine	\$195,000	\$195,000	\$4,875,000	\$7,500,000
Livingston	\$500,000	\$300,000	\$7,500,000	\$7,500,000
Los Banos	\$1,250,000	\$600,000	\$15,000,000	\$30,500,000
Merced	\$2,750,000	\$1,500,000	\$37,500,000	\$36,500,000
Merced County	\$8,500,000	\$3,000,000	\$75,000,000	\$245,000,000
	\$14,365,000	\$6,330,000	\$158,250,000	\$380,500,000

Traffic Congestion & Travel Demand

Nearly everyone experiences traffic congestion in one form or another. Although Merced County does not currently have the severe congestion problems that one sees in the very large metropolitan

areas of the Bay Area and Southern California, the congestion that we do face is rapidly getting worse. Congestion can be described in terms of "Delay", "Level of Service", and "Deficiencies", as explained below. All of these analyses are performed using advanced computer software known as a Traffic Model.

County-wide Traffic Model

To estimate current and future traffic on the Regional Road Network, MCAG uses a county-wide traffic model. The model is a computer program (Citilabs' Cube) that simulates which roads get used when people travel from one place to another – from homes to work, shopping, or recreation, for example. The model was originally developed in the early 1990's in cooperation with local jurisdictions. It was recalibrated to year 2000 traffic data and is used to forecast traffic for years up to 2035.

Delay

Travel delay is the extra time that it takes to make a trip, which would not occur if there were no congestion. Currently, about 5% of all travel in Merced County is delayed or congested. This will increase dramatically in the future if no improvements are made to the system. In 2035 about one-fourth of all travel will be in congested conditions. In the urbanized areas and along the major highways, the delays could be especially unpleasant since most of this five-fold increase in congestion will be occurring on the freeways, highways, and major thoroughfares. Table x shows that the total amount of travel time per day is projected to more than double, from about 240,000 hours per day to over 500,000.

Table 14: Vehicle Hours of Travel and Delay per Day

	Today	Soon	No Plan	With Plan
	2010	2015	2035	2035
Total Vehicle Hours per day	238,687	280,471	505,781	460,454
Hours if no congestion	217,442	249,563	374,735	385,445
Hours of delay per day	21,245	30,908	131,046	75,009
Percent of travel that is DELAY	8%	11%	26%	16%

Level of Service

MCAG evaluates existing and potential future deficiencies in the regional road network in terms of Level of Service (LOS). This is a concept used for expressing the traffic flow conditions of a road segment in relation to the capacity of the roadway. LOS describes in a general way what the traffic conditions are, in terms of speed and travel time, volume and capacity, traffic interruptions, and safety. Level of Service for a road may range from LOS "A" to "F" with "A" being free-flow and "F" being heavily congested.

The MCAG Governing Board has established a LOS standard of "D" for the entire regional road network. Any segment of roadway that is worse than LOS D is considered to be a deficiency in the transportation system. These deficiencies may then become the basis for project priorities in the capital improvement program.

Caltrans' LOS standard is "C" on routes within the Interregional Road System, which includes routes 5, 99, 140 from Merced to Mariposa County, and 152. The LOS standard is "D" on all other state routes.



Figure 3: 2035 Traffic Congestion

Capacity-Increasing Improvement Projects

A list of projects necessary to preserve the capacity of the regional road system was prepared. It was based on the Policy goal of having no worse than level of service "D" on any significant roadway. Projects were drawn from the prior Regional Transportation Plan, the Regional Transportation Improvement Fee (RTIF) Study, the Transportation Expenditure Plan improvement projects, and local and state improvement programs.

Project costs were estimated by project sponsors and have been updated to reflect the latest information. For programmed projects, the project sponsor determined the rate of inflation to escalate future year costs. For other projects where cost estimates are in current dollars, future costs were escalated at 3% per year to account for inflation.

The following projects are recently constructed and open to traffic, or under construction, or going to construction soon (as of July 2010):

- SR 99 Livingston Freeway upgrade and interchange at Sultana
- SR 99 North of Atwater Freeway and interchange at Westside
- SR 140 Bradley Overhead replacement and widening to 4 lanes
- Campus Parkway from SR 99 to Childs Ave.
- G St. Railroad Grade Separation in Merced

Some deficiencies are expected to be funded by local agencies, development, or other sources. These projects are listed below:

Table 15: Non RIP Funded Projects:

Agency	Project	Strategy
Caltrans	SR 33 - widen to 4 lanes - from SR 152 to I-5	Development or Local
Caltrans	SR 33 - widen bridge over I-5 to 4 lane	Dev/Local
Caltrans	SR 59 - passing lanes and shoulders - SR 152 to Mission Ave.	SHOPP
Los Banos	Complete Los Banos' circulation loop system (Pioneer, Ward, Overland and/or Capri, Badger Flat and/or Ortigalita)	Dev/Local
Los Banos	Pioneer Rd new/extend - from SR 165 to Ward Rd.	Dev/Local
Merced	Cardella Rd new 4 lane arterial - from SR 59 to G St.	Dev/Local
Merced	Gardner Ave new/widen - Yosemite Ave. to Old Lake Rd.	Dev/Local
Merced	M St new transitway - Lehigh Rd. to Bellevue Rd.	Dev/Local
Merced	Parsons Ave new/widen to 4 lane arterial - from Childs Ave. to Yosemite Ave.	Dev/Local
Merced	R St new 4 lane arterial - Yosemite Ave. to Bellevue Rd.	Dev/Local

Recommended Regional Highway Improvement Project Priorities

Table 16 shows projects that need regional discretionary funding to be constructed. The projects listed are consistent with the state's Interregional Transportation Improvement Program (ITIP) as well as with MCAG's own Federal Transportation Improvement Program (FTIP).

Table 16: Re	gionally F	unded Projects	– all amounts ir	n millions (x \$	1,000,000) in YOE*
	5 5			•	

		Year	Total Cost	al Cost by Funding Programs/Source (deciding agency in parentheses)			urce ses)	
	Projects	(CON / Open to traffic)	(in YOE dollars)	IIP, TCRP, SHOPP (State)	99 Bond (State)	RIP (MCAG)	RTIF (MCAG)	Dev., Local (Other)
map	Route - Project – Scope/Type - Limits and/or (Post-miles)							
	Tier 1							
D	99 - Arboleda Freeway - 4E to 6F - (4.6 - 10.5)	'10 / '13	177	37	140			
Ε	99 - Plainsburg Freeway - 4E to 6F - (0.0 / 4.6)	'11 / '14	119	11	108			
F	99 - Livingston-Delhi Widen - 4F to 6F - (28.8 / 37.3)	'14 / '16	80	80				
G2	n/a - Campus Parkway - new 4E – Childs Ave. to Hwy. 140	'12 / '14	43	5			27	11
G3	n/a - Campus Parkway - new 4E - Hwy 140to Yosemite Ave	'14 / '16	57				21	36
H1	152 - Los Banos Bypass, segment 1 - new 4E - Hwy. 165 to Santa Fe Grade (x / 24.8)	'14 / '16	72	30		17	25	
H2	152 - Los Banos Bypass, segment 2 - new 4E - w. of Los Banos to Hwy. 165 (16.0 / x)	'20 / '22	154	45		84	25	
11	59 – Widening phase 1 – intersection, turn lanes	'12 / '13	6			6		
12	59 - Widening - 2C to 4C - 16 th to Olive (15.4 / 16.6)	'16 / '18	35			35		
K1	99 – Atwater-Merced Expressway Phase 1A (19.3 / 20.9)	'12 / '15	98		50	18	30	
Κ	59 - Atwater-Merced Expressway - new 4E	'22 / '25	116			52	30	34
	Tier 1 Subtotal		957	208	298	212	158	81
	Tier 2 - Unconstrained							
	Bellevue Rd connection to 99 Westside		10				2.15	
	Mission Ave. Improvement (59 to 99)		16				1.70	
	SR 99 Merced to Atwater Freeway – to 6 lane - (12.8 - 19.3)		260					
	SR 99 Atwater Freeway and Applegate Interchange – to 6 lanes – (20.9 – 23.8)		160					
	SR 59 widen to 4/5 lanes – Mission to Childs		10				5.00	
	SR 59 widen shoulders, passing lanes – SR 152 to Mission Ave.		45					
	SR 140 widen to 4 lanes – Bradley Overhead to Campus Pkwy		14				5.25	
H3	152 - Los Banos Bypass, segment 3 - interchanges		191					
	SR 165 realignment / N. of Hilmar		43				11.20	
	140/33 Gustine Truck Route		15				3.05	
	Campus Parkway – Yosemite Ave. to Bellevue Rd.		50					
	SK 105 Widening/bypass Los Banos		25					
	Santa re ave. widening from 54 to winton		50					
L			1.020					
_	Tier 2 subtotal		1,039					
	Total Need =		1,996					

*: YOE is "Year of Expenditure". Note that all amounts are estimates based on the information available and are subject to change.



Figure 4: Map of Regionally Funded Projects

Short and Long Range Plan

- Maintain street and road system for vehicle travel, transit services, bicycle travel, and pedestrians.
- Prepare and maintain transportation land use databases for determining future travel demand on the regional road system.
- Develop and maintain a regional transportation model.
- Analyze the cumulative impact of local development for the county and cities through the RTP Updates.
- Fund and implement the projects identified on the Tier 1 priority list in the Action Element of the RTP.
- Aggressively pursue discretionary Caltrans funding such as IIP, HBRR, HES
- Aggressively pursue the passage of a 1/2 sales tax for transportation
- Prepare and apply evaluation criteria to prioritize regional road projects identified to improve the overall transportation system of the region.
- Use Regional Improvement Program funds to finance the prioritized regional improvements
- Continue to exchange Federal TEA and STP for state dollars
- Aggressively pursue all available and potential fund sources to implement improvements to the present transportation system and maintain the transportation system.
- Evaluate transportation impacts of land use and development proposals.
- Provide technical assistance in the preparation of transportation financing mechanisms.
- Assist in the preparation of Circulation Elements for general plans and community plans.
- Involve the local, state and federal agencies and elected officials in the transportation planning process.
- Promote consistency between the Regional Transportation Plan and local and state level plans.
- Use the MCAG newsletter for transportation planning education.
- Conduct workshops and information sessions for transportation planning.

Responsibilities

The planning process requires that agencies work in concert to oversee projects. The following lists identify the responsibilities of each agency:

Federal Highway Administration

- Disseminate transportation regulations
- Fund highway, street, and road projects.
- Review and approve conformity determinations.

State of California

- Maintain highway system.
- Fund highway, street and road projects.
- Prepare project study reports (PSRs) for state highway deficiencies.

- Design and implement state highway projects.
- Enforcement of state and federal laws and speed limits.

MCAG

- Develop a safety education campaign.
- After the reasonable unmet transit needs are funded., allocate Local Transportation Fund (LTF) funds for street and road projects,
- Identify deficiencies and/or future congestion impacts on the regional road network.
- Prepare Regional Transportation Improvement Program (RTIP) and monitor its implementation.
- Assist cities and county with transportation planning.
- Review local developments for consistency with General Plan circulation elements and with Regional Transportation Plan.
- Review local General Plans for consistency with Regional Transportation Plan.
- Prepare transportation planning studies, project study reports, and major investment studies as needed.
- Continue to exchange federal Surface Transportation Program funds for state only funds.
- Continue to exchange federal Transportation Enhancement Activity funds for state only funds.
- Pursue legislation for additional transportation funding.
- Aggressively pursue all discretionary transportation funding sources for projects within Merced County.

Local jurisdictions

- Maintain street and road system.
- Enforcement of local laws and speed limits.
- Prepare Project Study Reports for projects within their respective jurisdictions.
- Use Pavement Management System to maximize cost-effectiveness of preventive maintenance.
- Identify and implement operational improvements.
- Build and maintain new streets and roads to serve growth as identified in individual General Plans.
- Construct local projects identified in the Transportation Improvement Program (TIP).
- Participate in transportation planning studies

Corridor Preservation

Corridor preservation is a strategy aimed at minimizing future expenditures related to transportation by either purchasing right-of-way or preventing or slowing development in areas that are potentially needed for future improvements. The following corridors are likely locations for future improvements:

- Los Banos Bypass: SR 152 re-routed to the north of the City of Los Banos. Environmental studies are complete and an alignment selected.
- Hilmar Bypass: Highway 165 Bypass of Hilmar
- Campus Parkway

- Merced-Atwater Expressway: the area between Merced and Atwater, roughly bounded by Highway 99, Buhach Rd., Bellevue Rd., and Highway 59
- Highway 99: potential widening from southeast Merced to northwest Atwater

TRANSIT (BUS)

There are a variety of transit options available in Merced County including bus and rail service. The level of transit service available to Merced County residents has increased regularly since transit was introduced to the area in 1974. Historically, public transit has developed in response to the basic transportation needs of Merced's transit dependent population and has maintained that standard of service.

Existing System

In 1996, Merced County Transit – "The Bus" – began providing a consolidated public transit service throughout Merced. Prior to that time public transit service had been provided by some of the individual jurisdictions. The Transit Services Consolidation Agreement established a Joint Powers Agreement (JPA) between Merced County and the Cities of Atwater, Dos Palos, Gustine, Livingston, Los Banos and Merced. The County of Merced, through the Department of Public Works' Transportation Division – Merced County Transit, administered and managed the consolidated services until July 1, 2010. At that time, administration of the service was handed over to the Transit Joint Powers Authority for Merced County. The Bus serves the entire County of Merced with fixed route, demand response or Dial-A-Ride service and subscription bus service for commuters. Transit services are provided by a private operator under contract to the TJPA.

"The Bus"



Merced County Transit operates an urban and rural bus transit

services, known as The Bus. The Bus operates on 15 fixed route lines and demand response services. Demand response services include services open to the general public in rural areas where fixed route service in limited or non existent and is limited to seniors and disabled customers in urban areas such as Merced where extensive fixed route service is provided. The Bus currently operates 36 buses with 21 assigned to fixed routes and the remaining 15 providing Dial-A-Ride service to all of Merced County and a small portion of the City of Turlock in Stanislaus County. Generally, The Bus fixed route services operate from 7:00 AM to 6:00 PM Monday through Friday, and from 8:00 AM to 5:00 PM on Saturdays.

Urban Services

Merced County is currently served by seven urban transit lines (Lines 1,2,3,4,5,11,12). All urban lines are located within Merced the cities of Atwater and Merced and the unincorporated communities of Cressy and Winton plus the Beachwood-Franklin neighborhood. This service provides access to

local shopping centers, schools, medical facilities and the Merced Transpo, where transfers to other urban and rural lines may be made. All lines operate weekdays and Saturdays, with no service provided on Sundays.





Rural Services

The remaining six lines (Lines 7, 9, 10, 10A, 10X, 14, and 20) are classified as rural fixed routes, which, along with providing services to shopping centers, schools and medical facilities also provide service to neighboring cities and unincorporated areas of Merced County. All lines operate weekdays and Saturdays.

Dial-A-Ride

Paratransit services, called Dial-a-Ride, are provided using a total of sixteen vehicles throughout Merced County. Nine buses operate in the Merced urban area, making up the urban Dial-a-Ride

fleet, and 6 buses serve the rest of the county making up the rural fleet. Dial-a-Ride is available to the general public except in the City of Merced and the City of Los Banos, where only persons who are 60 or older or persons with disabilities are eligible. Dial-A-Ride is generally open for service between 7:00AM and 6:00PM on Monday through Friday and 8:00AM to 5:00PM on Saturdays. However, service hours may vary from community to community depending on ridership demand.

Car-less Commute

The Car-less Commute service is The Bus' subscription fixed route service for commuters. CLC routes operate from various areas throughout the county and transport individuals primarily to their work locations. CLC fares vary based on the distance traveled, and range from \$50 to \$150 per month. There are currently 13 buses operating CLC routes.

Transit Needs and Issues

Successful transportation systems are becoming more dependent on modes of travel besides the automobile. Bus and rail, if well planned for and coordinated with each other, have the unique ability to transport larger numbers of people with fewer resources. Future improvements in area transit services will support the overall goals of this plan.

Ridership Trends

The ridership trend of "The Bus" – Merced County Transit have gone from a first year (1996-1997 FY) total of 379,780 passengers to a total of 974,324 passengers in the systems tenth year of service (2005-2006 FY). That represents a 256% gross ridership increase in a ten-year period. Show in the table are the annual ridership totals for the system for the previous ten fiscal years.

		Increase (Decrease)		
Fiscal Year	Total Ridership	over Prior Year	(%)	
1996-1997	379,780			
1997-1998	456,696	76,916	20%	
1998-1999	528,621	71,925	16%	
1999-2000	659,246	130,625	25%	
2000-2001	736,822	77,576	12%	
2001-2002	720,475	(-16,347)	- 2%	
2002-2003	704,429	(-16,046)	- 2%	
2003-2004	701,035	(-3,394)	0%	
2004-2005	775,944	74,909	11%	
2005-2006	974,324	198,380	26%	
2006-2007	1,291,362	317,038	33%	
2007-2008	1,414,506	123,144	10%	
2008-2009	1,339,899	(74,706)	-5%	
2009-2010	973,076	(366,823)	-27%	
*. 2000 2010	numbers one maliminer	r_{00} of July 2010		

*: 2009-2010 numbers are preliminary as of July 2010.

Ridership downturns in the 2009 and 2010 fiscal years are the result of several factors. First is the overall decline in the economy. Merced County has had, and continues to have, one of the highest unemployment rates in the state. Second, a significant fare increase was implemented in the spring of 2009. While some of the effect of this increase was seen in 2009, the bulk of the effect was felt in FY2010. Finally, TheBus operated a pre-paid (free) fare system in the months of August, September and October in the 2006, 2007 and 2008 fiscal years. This had a significant effect on ridership during those years, one which was not repeated in subsequent years.

Unmet Transit Needs Process

MCAG annually monitors whether transit needs are being met for the citizens of Merced County, as is required by Section 99401.5 of the Transportation Development Act (TDA). The TDA governs the administration of the Local Transportation Fund (LTF). The TDA requires that the Regional Transportation Planning Agency (MCAG) make a finding, after a public hearing, that there are no unmet public transportation needs within a jurisdiction that can reasonably be met before it may approve LTF claims for streets and roads.

The RTP is the guiding document for the provision of transit services; therefore, any service implementation should be consistent with the RTP. The Transportation Development Act requires that prior to claim approval, an RTP consistency finding be made.

To determine if there are any unmet transit needs within the county, MCAG has established the Social Services Transportation Advisory Council (SSTAC), in compliance with the Senate Bill 498 legislation. The SSTAC meets on a quarterly basis in various communities of Merced County, to hold noticed public meetings for interested and concerned citizens. According to Article 3.99238 of the TDA, the SSTAC shall have the following responsibilities:

- Annually participate in the identification of transit needs in the jurisdiction, including unmet transit needs that may exist within the jurisdiction of the council and that may be reasonable to meet by establishing or contracting for new public transportation or specialized transportation services or by expanding existing services.
- Annually review and recommend action by the transportation planning agency for the area within jurisdiction of the council which finds by resolution, one of the following: that (A) there are no unmet transit needs, (B) there are no unmet transit needs that are reasonable to meet, (C) there are unmet transit needs, including needs that are reasonable to meet.
- Advise the transportation planning agency on any other major transit issues, including the coordination and consolidation of specialized transportation services.

The Unmet Transit Needs Process has been a useful tool in identifying transit service deficiencies. The introduction of Saturday bus service resulted from this process as have other alterations to the existing system.

Coordinated Transit Service Plan

The Coordinated Plan was adopted by MCAG in July 2009 in response to requirements established by SAFETEA-LU. This document outlines existing public and private social service transportation

systems within Merced County and offers strategies for improvement of transportation service through increased coordination and consolidation.

The Future Transit system

The basic needs of Merced County's transit dependent population are being met. This section will make suggestions for what will be required to continue to meet those basic needs and what could be done in the future to develop a more substantial transit system.

Short Range Service Levels

The Transit Joint Powers Authority for Merced County adopted a *Short Range Transit Plan* in Fall of 2004. The Plan identified system improvements that should occur within five years. A new short range transit plan will be prepared in 2010-2011 and its recommendations will be incorporated into this RTP by reference.

The 2004 Short Range Transit Plan established standards for public transit operators to ensure that adequate transit service would be provided to the public, and to give managers a tool for measuring progress for meeting the goals and objectives of the SRTP. These transit standards were prepared in cooperation with the public transit operator. In addition to the standards set forth in the plan, the SRTP makes a number of recommendations aimed at meeting projected transit needs over the next five years. Those recommendations include:

- Increased (30 minute) headways on two urban fixed routes;
- Improved West Side fixed route service;
- Improve Dial-a-Ride dispatch;
- Limit Dial-a-Ride service to the elderly and disabled;
- Make use of Intelligent Transportation Systems, where feasible;
- Purchase buses to prepare for increased service when UC Merced opens; and
- Conduct regular customer service surveys

Listed below are two service level options for short term transit operations. The first level illustrates what is currently provided. Level two details a higher quality service.

Level 1: Current Operations

- 43 buses
 - 27 buses on 17 fixed routes
 - 16 buses on 9 routes with 30 minute frequency
 - 7 buses on 5 routes with 45-60 minute frequency
 - 4 buses on 2 routes with 90+ minute frequency
 - 16 buses providing Dial-a-Ride
- System operates weekdays from 7 a.m. to 6:15 p.m. with limited Saturday service
- Annual operating cost = \$9,400,000
- 20-year operating cost = \$188,000,000

Level 2: Increased Operations

- Achieves 30 minute frequency on all urban fixed routes and 60 minute or less on inter-city fixed routes.
- 50 buses
 - 34 buses on 17 fixed routes
 - 26 buses on 13 routes with 30 minute frequency
 - 8 buses on 4 routes with 60 minute frequency
 - 16 buses providing Dial-a-Ride
- System operates weekdays from 7 a.m. to 7 p.m. with limited Saturday service
 Hours include Employer Based Transit System
- Annual operating cost = \$11,000,000
- 20-year operating cost = \$220,000,000

Long Range Service Level

Listed below is the ultimate level of service for future transit operations and long term planning consideration. This higher level of service will be evaluated for implementation in future Regional Transportation Plans.

Level 3: Ultimate Operations

- Achieves 30-minute frequency on all routes.
- 58 buses
 - 44 buses on 22 fixed routes
 - All buses operate with 30 minute frequency
 - 16 buses providing Dial-a-Ride
- System operates weekdays from 6 a.m. to 7 p.m. with limited service on weekdays from 7 p.m. to midnight, Saturdays, and Sundays
- Annual operating cost = \$15,000,000
- 20-year operating cost = \$300,000,000

Other Transit Providers

Yosemite Area Regional Transportation System (YARTS)

Each year, the already substantial number of visitors to Yosemite National Park increases. Travel demand to and from the Park is tremendous during peak periods. In order to plan better public transportation, several of the counties that serve as access points to the park have individually studied transit systems. However, recognizing the importance of working together and pooling resources, these counties have formed a means by which they can more closely coordinate transit activities.

In 1999, a Joint Powers Agreement (JPA) for the provision of transit service in the greater Yosemite Region was formed by Mariposa County, Merced County, and Mono County. The YARTS JPA is

governed by a three member Board of Commissioners. A county supervisor is appointed to the board of commissioners from each of the member counties. This board determines transit service plans, operating and capital budgets, transit fare structure and capital improvement programs. In May of 2000 YARTS began providing transit service throughout the Yosemite Region.

The YARTS JPA has adopted the following mission:

YARTS will provide a positive alternative method of access to Yosemite National Park, carrying visitors, employees and residents. YARTS service is not intended to replace auto access or trans-Sierra travel, but is intended to provide a viable alternative that offers a positive experience, emphasizing comfort and convenience for riders while guaranteeing access to the Park.

YARTS contracts with MCAG for staffing to administer and manage the transit service. MCAG performs all accounting and billing functions for the JPA, administers construction contracts for bus stops, and prepares outreach materials including schedules, route maps, and pamphlets.

VIA Charter Lines

VIA Charter Lines provides charter services to private groups as well as limited regional fixed route service from Merced to Yosemite National Park. VIA maintains a fleet of approximately 20 coaches and 5 large vans.

Greyhound Bus Lines

The Greyhound Trailways bus lines are a combined national bus carrier providing service in and through the county. Bus depots are located in Merced and Los Banos. Some of the scheduled buses leaving these two depots will make drop-offs at other cities within the county.

Social Service Transportation Providers

Various social service providers throughout Merced County offer specialized transportation service for their clients. These services tend to address the needs that public transit cannot reasonably meet, including evening service, non-emergency medical transport, and job training transport, to name a few. MCAG regularly inventories the various area transit providers to prevent duplication of services and thereby the waste of resources.

Merced County Going Places

Going Places is funded by First 5 Merced County and is a collaborative partnership between VIA Transportation, Healthy House, and the Merced County Department Of Public Health.

Going Places assists pregnant women and families with children 0 - 5 that have special health care needs with transportation to specialty medical care located outside of Merced County.

Merced County Area Agency on Aging

The Senior Transportation Program provides transportation funding subsidy to disabled and older adults, 60 years of age or older. Monthly bus passes are available for purchase at a discounted price. Limited number of free bus passes also available.

Average daily attendance is 8 of which approximately 2 require transportation services.

Transportation budget - \$50,000 for bus passes. Funding sources are derived from local general funds, minimal donations, and the California Department of Aging.

Merced County Human Services Agency

The Merced County Human Services Agency (HSA) provides immediate assistance in crisis situations to protect children and vulnerable adults from abuse, neglect, and exploitation. They also help people and families when they are temporarily unable to obtain food, clothing, and shelter.

HSA assists senior citizens and disabled adults in achieving the greatest degree of independence possible, sponsoring services such as food deliveries, caregiver support, assistance with transportation, and help with home repairs.

HSA has a fleet of 98 vehicles that serve 9 or fewer passengers. 30-50 agency staff are available to transport clients at any given time, 24 hours a day, seven days a week. The Agency averages 9,000 vehicle miles per month and has a budget of approximately \$1,331,637:

- Vehicle Operations\$40,000
- Buss passes or other specialized transportation services \$162,459
- Mileage reimbursement \$1,102,101
- Subsidize cost for Seniors \$27,077

Merced County Mental Health

A variety of mental health services and programs are available to mental health consumers in Merced County. The County is able to provide a selection of mental health services to children, youths, adults, and their families. Merced County also offers drug and alcohol services. Mental Health services are available 24 hours a day, 7 days a week and can be accessed by appointment, walk-in, or by contacting emergency services.

Caseworker has access to one vehicle that serves less than 9 passengers and averages 500 vehicle miles per month.

Transportation budget for bus passes is approximately \$1,620. Funding sources are derived from Projects for Assistance in Transition from Homelessness (PATH) and the Department of Housing and Urban Development (HUD).

Short Range Plan

• Prepare a new Short Range Transit Plan.

- Provide dial-a-ride transit services for the elderly, handicapped, and those residents not served by a fixed route service.
- Provide adequate fixed route transit system to serve the general public, including transitdisadvantaged persons.
- Add additional routes and expand services as necessary to meet ridership demand to achieve established transit standards.
- Provide improved transit service through the county wide Consolidated Transit System.
- Provide 30 minute service on the urban routes and 60 minute service on the intercity routes.
- Provide expanded transit to serve UC Merced.
- Coordinate countywide transit system with neighboring transit services and modes in Stanislaus, Madera, Amtrak, & YARTS.
- Involve the Social Services Transportation Advisory Council and the Citizens Advisory Committee in the regional transit planning process.
- Use the MCAG newsletter for transit education.
- Continue to be a member and active participant of the YARTS JPA.
- Support alternative transportation choices to Yosemite National Park.
- Provide staffing, administration and management services for the Yosemite Area Regional Transportation System (YARTS) per contracts with the YARTS JPA.

Responsibilities

Transit Operators

- Monitor existing transit services and make adjustments to routes and schedules as necessary
- Provide effective, efficient public transportation which meets the needs of Merced County residents
- Provide cost effective transit service.

MCAG

- Assist transit operators with transit planning and funding.
- Develop tools to accurately assess future transit needs.
- Coordinate transit system development with community planning and development efforts and land use policy
- Oversee the annual Unmet Transit Needs determination process
- Aggressively pursue all discretionary transit funding to accomplish our transit goals.
- Address unmet transit needs that are reasonable to meets prior to allocating Local Transportation Funds for street and road purposes.

Social Service Agencies

• Continue to provide specialized transit service, which cannot be reasonably provided by public transit.

- Apply for funds available through FTA
- Continue to support and coordinate with general transit operators.

Long-Range Plan

- Develop a Long Range Transit Plan
- Continue to meet the transit needs of Merced County residents by closely monitoring changes in transit use and need.
- Make use of technological advances that will enhance transit service and improve efficiency.
- Continue to coordinate with area transit providers to prevent duplication of services.
- Continue to follow planning direction as identified in the Short Range Transit Plan.

PASSENGER RAIL

Existing System

The San Joaquin Corridor (Bakersfield to Oakland and Sacramento) is a major transportation resource between Southern and Northern California and boasts the fifth highest ridership of any Amtrak service in the country. It serves a vital function in providing intercity service within and between cities in California's Central Valley.

The 363-miles of the San Joaquin Corridor carry intercity passenger rail and freight service, with connections to commuter rail services in Stockton. The current operating schedule includes six daily round trip trains: four between Oakland and Bakersfield and two between Sacramento and Bakersfield. All trains run between Stockton and Bakersfield. In order to provide the six-frequency service between all points on the route, connecting buses are provided between Stockton and Sacramento for trains serving Oakland - Bakersfield; and for trains serving Sacramento - Bakersfield, connecting buses are provided between Stockton, Oakland and San Francisco. See Figure x for a San Joaquin route map including the connecting bus service.

The average run time between Oakland and Bakersfield is 6 hours and 13 minutes with an overall average speed, including station dwell time, of 50 miles per hour. Between Sacramento and Bakersfield, the average run time is approximately 5 hours and 19 minutes with an overall average speed of 53 miles per hour. The maximum track speed on the San Joaquin Corridor is 79 miles per hour.

Amtrak operates the San Joaquin line under provisions of its contracts with the BNSF and UPRR. Predominant right-of-way ownership is by the BNSF which owns the 276 miles of track from Port Chicago to Bakersfield. The UPRR owns 39 miles at the north end of the route between Oakland and Port Chicago and 49 miles in the segment between Stockton and Sacramento..





Future Issues

San Joaquin Corridor Strategic Plan (2008) describes planned improvements to the San Joaquin Rail Corridor. The purpose of the San Joaquin Corridor Strategic Plan is to develop a program of improvements that would increase rail ridership, revenue, capacity, reliability, and safety within the corridor. (http://www.dot.ca.gov/rail/go/dor/division-of-rail-reports/index.cfm)

High Speed Rail

The California High-Speed Train (HST) system will approximately be an 800-mile system that will serve Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire, Orange County and San Diego. By 2030, High-Speed Rail (HSR) will potentially be carrying 93 million passengers annually at operating speeds of up to 220 miles per hour. At such high speeds, the expected trip time from San Francisco to Los Angeles will be just over 2 ½ hours.

In 1996, the California High-Speed Rail Authority (CHSRA) was created to plan for the development, financing, construction and operation of the HST system. The CHSRA is made up of a nine-member policy board and a small core staff.

In 2000, CHSRA adopted the Business Plan, which described the economic viability of the HST system. This Final Business Plan included investment-grade forecasts of ridership, revenue, cost and benefits of the HST system.

In 2005, CHSRA, in cooperation with Federal Railroad Administration (FRA), completed the final program-level Environmental Impact Report / Environmental Impact Statement (EIR/EIS) that looked at the entire proposed statewide HST system. This was the first phase of a tiered environmental review process.

In 2007, CHSRA adopted a Phasing Plan and laid out the Preliminary Financial Plan. Factors and conditions for adopting Phase I (San Francisco to Central Valley to Anaheim) of the Phasing Plan included the following:

- Early utilization of some segments
- Local and regional funding participation in construction
- Service to several regions
- Significant operating surplus to attract private sector financing
- Timely construction



In 2008, CHSRA, in cooperation with FRA, completed another program-level EIR/EIS, specifically for the Bay Area to Central Valley corridor. This program-level EIR/EIS finalization resulted in the CHSRA selecting Pacheco Pass (over Altamont Pass) as the preferred alignment. The reasons for selecting Pacheco Pass as the preferred alignment can be found on CHSRA's website (http://www.cahighspeedrail.ca.gov/faqs/route.htm)



Also, in 2008, the CHSRA released an updated Business Plan with updated ridership and revenue forecasts.

In 2008, California voters approved \$9.95 billion in state bonds for California's HSR.

In 2009, with the state bond money, CHSRA and FRA have initiated the project-level EIR/EIS for the HST system from San Jose to Merced through Pacheco Pass and from Merced to Bakersfield. For this more-detailed level of project impact study, CHSRA has invited local and transportation agencies to actively participate in the process in determining final alignments, station locations, and site for the central heavy maintenance facility. Endorsed by the SJV, the CHSRA are looking at station locations in Merced, Fresno, Bakersfield, and Hanford, and the central heavy maintenance facility somewhere within the SJV.

The CHSRA and the San Joaquin Regional Rail Commission (SJRRC) entered into a Memorandum of Understanding for the joint planning and development of the Altamont Corridor Rail Project between the northern SJV and the Bay Area. The Altamont Corridor Rail Project will be a dedicated, grade-separated, electric regional rail corridor, which will support intercity and commuter rail passenger services. The project would transform the existing Altamont Commuter Express (ACE) service into the new Altamont Corridor Express by accommodating more trains per day, reducing travel times with high speed travel (150 mph or higher), and eliminating freight railroad delays by providing separate passenger tracks. The Altamont Corridor Express would possibly provide connections to potential bus links, BART, CalTrain, and the Valley Transportation Authority (VTA)

light rail network. The Altamont Corridor Express will service large riderships (with proposed stations in San Jose, Milpitas, Fremont/Union City, Pleasanton, Livermore, Tracy, Stockton, and Modesto), and also serve as a feeder to the statewide HST system (with considered connections at stations located in San Jose, Stockton, and Modesto). Additionally, the San Joaquin Valley supports the Altamont Corridor Rail Project to connect to Merced in order to tie in to Phase I of the statewide HST system. By ending in Modesto and not extending to Merced, there will be a gap (disconnect) between this Altamont Corridor Rail Project service and the statewide HST system.



The California High-Speed Train (HST) System is very important to the San Joaquin Valley (SJV). By connecting the SJV to other major metropolitan areas, high-speed rail will contribute to significant economic development opportunities, less vehicular congestion, safer highways, and improved air quality.

Short and Long Range Plan

- Support the activities, including the pursuit of available future funds, of the California High Speed Rail Authority and the development of a HST network across our valley and throughout the state
- Support the station locations in the cities of Merced, Fresno, Bakersfield, and Hanford
- Support the heavy maintenance facility location somewhere within the Valley
- Support the Altamont Corridor Rail Project service improvements including connection to Merced, which will tie in to Phase I of the statewide HST system

GOODS MOVEMENT

Merced County's economic vitality relies heavily upon the efficiency of freight transportation, also known as "Goods Movement". Movement of goods throughout the region is accomplished by trucking, railroads, air freight, and pipelines.

Understanding goods movement in Merced County requires understanding the modes of freight and how they are employed the San Joaquin Valley.

The following freight flow diagram shows the supplier-to-marketplace chain by modes for the San Joaquin Valley.



The paths to processing centers are not included in the above diagram. However, if included, it would show an even greater usage of trucks.

The overwhelming majority of the tonnage, 94%, is moved by trucks. Rail accounts for about 6% of the total, while air is less than 0.1%.



Figure 7: Freight Commodities and Distribution by Mode for Merced County

As shown in the pie charts, most of the freight transport for Merced County involves agricultural & forestry goods being moved by trucks.

In 2008, Merced County's farm commodities generated \$2.6 billion. Using conversion factors from the University of California Davis research study, this \$2.6 billion agricultural production creates 47,000 jobs (29,000 in the farm sector and 18,000 in other industries).

Freight is transported from, to and within the San Joaquin Valley predominantly by the following modes: trucks, rail, and air.

Trucks

Trucking is the most commonly used mode for transporting freight. Trucks are used for being the most economical and for having the widest network for transloading (at docks or to/from distribution centers or to other modes) and for regional deliveries. Commodity movement by this mode is a major cause of street and highway surface failures (necessitating a high level of street and highway network maintenance), poor air quality, and worsening congestion.

Heavy trucks damage roads much faster than do automobiles. Because of the high level of truck travel, streets and highways are subject to rapid deterioration and failure. A fully loaded truck (80,000 pounds) has a significant impact on a roadway. The American Association of Highway officials conducted road tests that establish that the passage of approximately 9,600 cars equal the effect of one fully loaded truck on the roadway.

In addition to the deterioration of streets and highways throughout the Valley, emissions from trucks have an adverse affect on air quality. Many trucks use diesel fuel, which releases more emissions than regular unleaded gasoline. By their very size and slower speeds, trucks lead to congestion and reduced Levels of Service. Major highway corridors in Merced County experience relatively high truck traffic, between 20-30 percent of the Annual Average Daily Traffic. While current legislation focuses on implementing Traffic Control Measures (TCMs) for passenger vehicles, TCMs do not specifically address truck usage.

Travel along the major corridors in Merced County is mostly in a north-south direction. State Route 99 and Interstate 5 are the primary north/south interregional routes used by trucks. State Route 99 is a significant interregional route of state-wide importance and carries most of the truck-transported agricultural goods. Other state highways and county roads play major roles in distribution as well. State Routes 152, 140, 33, 59 and 165 provide the major east-west connections between Interstate 5 and Route 99.

Presently, there are over 30 trucking companies located throughout the county. There is also an undetermined amount of businesses that provide their own trucking, including retail outlets such as department stores and grocery stores.

Merced County has both agricultural and light industrial demands for trucking. The needs of individual growers and manufacturers to get their goods to major terminals, market places, and processing centers are met by trucks. In addition, trucks are used as feeder lines to distribute goods from major rail, water, and air centers. Because many Valley agricultural products are destined for world markets, efficient freight access at California export points must be ensured.

Future Issues for Trucks

The movement of goods by trucks is essential for the economy of Merced County. Trucking will continue to be the most flexible form of goods movement and will continue to add to highway congestion. Trucks, like cars, have an adverse effect on air quality, and the presence of trucks carrying hazardous materials increases the probability of dangerous spills. Air and rail services are under-utilized for the movement of goods.

Cooperative efforts are needed between the trucking industry, the driving public and local officials to assess the impacts that trucks have on local streets, and to create regulatory guidelines for trucks in urban areas. Alternative transportation modes for the movement of goods should be explored and used when possible – although agricultural products need to be collected from throughout the rural area and trucks on local roadways will continue to be the best way to deliver these products. These include improved inter-modal freight transfer facilities and access at major airports and rail terminals, and the inter-modal linkage of trucks on rail as a technique for reducing truck traffic on selected highway corridors.

As the Valley develops to support a more mobile and service-oriented population, the need for eastwest travel corridors will become crucial. Special attention must be given to the regional routes to keep them in a serviceable condition and to avoid major reconstruction costs. Investing in the means to limit future congestion will be economically and environmentally beneficial to the county. With freight tonnages and values projected to significantly expand by 2035 (FHWA Freight Ops and Management), planning for this future growth will be instrumental to regional, state, and national vitality.

The movement of goods for the new University of California Campus is also an issue. The UC Campus itself opened in the year 2005. The movement of goods and supplies will increase incrementally as the population of the campus increases. The first segment of the new Campus Parkway facility is currently being constructed, and the remaining segments connecting to the UC Campus will hopefully be funded for construction.

Rail

Trains are considered the most feasible for longer-haul, out-of-region (transcontinental) transport.

There are two railroads that operate through Merced County: the Union Pacific (UP) and the Burlington Northern Santa Fe (BNSF). These two rail lines provide for the transportation of freight, while the BNSF also provides Amtrak passenger service in and through Merced County.

Union Pacific Transportation Company

The Union Pacific (UP) Railroad currently operates 84 miles of track within Merced County. UP tracks are located both east and west of the San Joaquin River. They move freight in and through the county.

Burlington Northern Railway Company

The Burlington Northern Santa Fe (BNSF) Railroad maintains 43 miles of track within Merced County. Freight trains and Amtrak share these rail lines. Amtrak has one station located in the City of Merced on the Burlington Northern tracks. BNSF has a rail spur on the Castle Airport business park through which businesses on Castle are receiving deliveries.

Freight Service

The BNSF and UP Railroads provide freight movement in and through Merced County on a daily basis. Freight is moved by rail cars of several types, these include: flat bed cars, piggy-back cars, refrigerated produce cars, fuel tanker cars and regular stock box cars.

Several industrial/manufacturing and agricultural companies within the county use rail freight service. The largest of these rail freight service users are located in the Cities of Merced, Atwater, and Los Banos.

Future Issues for Rail

Rail freight service within Merced County is expected to increase due to higher costs associated with trucking. Merced will also have more industry in the future that should require more rail freight service. Consideration of increased rail transport should include grade-separations (approximately \$15 million per) so that increased rail-haul frequencies don't lead to worse congestion in other modes.

Air Freight

Air transport is utilized for most costly, long-range, fastest delivery of higher-cost merchandise.

Goods movement by air is an emerging element of freight movement in Merced County. Currently, Merced Municipal Airport and Castle Airport provide air cargo services.

Pipelines

Merced County has two natural gas main lines and three crude oil pipelines in the county. These pipelines run parallel to Highway 99 and I-5. Storage, pumping, and branch line facilities are used to distribute those products.

Pacific Gas and Electric (PG&E) is responsible for the maintenance and operation of the natural gas line, while major petroleum corporations are responsible for the crude oil pipelines throughout the region.

Future of Goods Movement

California's seaports, airports, railroads, and highways together move over one billion tons of freight annually (2002 freight value of \$1.7 trillion) overseas, across the Canadian and Mexican borders, to and from other states, and within the state. The amount of freight tonnage is projected to double by 2035 (2035 freight value close to \$7.5 trillion). This volume of freight places a high demand on the state's transportation system. Much of this freight originates from, passes through, or comes to the San Joaquin Valley by various modes.

Economic development is one of the vital interests of the San Joaquin Valley. Hundreds of small and mid-sized companies are making decisions based on their own best judgments about the extent of future goods movement. Much of this judgment is proprietary. It is expected that rail transport will continue to increase because of its availability to haul large amounts of long distance cargo at lower cost. Trucking is expected to increase because of its flexibility and timeliness. Increases in fuel costs will affect all modes of transportation.

The movement of goods by trucks is essential to the economy of the San Joaquin Valley. Trucking will continue to be the most inexpensive form of goods movement, and will continue to add highway congestion. In addition, trucks, like cars, produce an adverse effect on air quality, and the
presence of trucks carrying hazardous materials increases the probability of dangerous spills. Air and rail services are under-developed for the movement of goods. However, most goods will continue to be moved by trucks.

Short and Long Range Plan

State of California

- Continue to fund street, road, highway, and rail projects to ensure the movement of goods.
- Oppose higher cargo weights for the trucking industry.

MCAG

- Provide technical and planning assistance to local jurisdictions for industrial and wholesale land use and transportation planning.
- Continue working with the Freight Advisory Committee to identify regional goods movement needs and operational improvement needs.

Merced County and Cities

• Continue to identify obstacles that prevent goods movement.

Industry

• When possible, use rail and air service for the movement of goods.

AVIATION

Current Conditions

The Merced region has five publicly owned, public-use airports: Gustine Airport, Castle Airport, Los Banos Municipal Airport, and Merced Regional Airport. Turlock Municipal Airport is located within the county but is owned by the City of Turlock, which is in Stanislaus County. In addition to the public use airports, there are eight privately-owned airfields located within Merced County, some of which allow public use.

Merced Regional Airport

Merced Regional Airport is the only airport in Merced County that provides scheduled commercial airline, freight air cargo, and general aviation services. It is one of only 31 airports in California offering scheduled commercial passenger service, and one of only three California airports where

passenger service is supported by the Federal Essential Air Service (EAS) program. The airport is included in the National Plan of Integrated Airport Systems (NPIAS) and is classified as a Commercial Service - Non-Primary airport which means it receives scheduled commercial air service and enplanes 2,500 or more, but less than 10,000 enplaned passengers a year. The airport is also contained in the California Aviation System Plan (CASP) and is classified as a Commercial/Primary Non-hub Airport.

The present air carrier is Great Lakes Airlines which provides two scheduled flights daily to Las Vegas. In addition, the airport is also serviced by the Hangar Café restaurant and a full service Avis rental car facility.

Gateway Air Center is the Full-Service Fixed Base Operation (FBO). Besides full service maintenance, air charter, and aircraft rentals, the FBO provides Jet-A and LL-100 fuel, both available by truck. Additionally, LL-100 fuel is also available through their self-service facility.

There are 85 aircraft hangars currently available, the majority ranging from 1,000 - 1,200 sf. However, the thirty newest hangars are all over 1,500 sf. In addition, ample space is available for aircraft tie-down. Additional land is also available for future development of personal/corporate hangar spaces.

Under the FAA's design criteria, the airport reference code (ARC) is designated as C-III. The Boeing 737-700 is the design aircraft for the Airport Layout Plan. Runway length at the Merced Regional Airport is 5,903 feet, capable of handling the Boeing 737 design aircraft (as well as other C-III aircraft), regional turbo-props, and all types and categories of general aviation aircraft. The FAA also owns and maintains all airfield lighting as well as then Instrument Landing System (ILS) and other airfield nav aids used for aircraft approaches and departures. Airfield weather is provided by the automated service observing system (ASOS) on the airfield, owned and operated by the National Weather Service.

Gustine Airport

The Gustine Airport is classified as a basic utility airport, and is primarily used by private aircraft. Runway length at Gustine Airport is 3,200 feet, capable of handling multi-engine aircraft. Available hangar space is 11,500 square feet.

Los Banos Municipal Airport

The Los Banos Municipal Airport is a basic utility airport used primarily by private aircraft. Runway length at the Los Banos Airport is 800 feet, capable of handling multi-engine aircraft. The Los Banos Airport has 32,000 square feet of hangar space.

Castle Airport

For approximately 50 years, Castle Air Force Base, near the City of Atwater was operated as a military airfield. The facility's primary mission was a base for long-range bombers. The facility also

served as a training facility for bombers and air refueled aircraft crew training. Upon closure of Castle as a military base in 1995, the majority of the facility's property was transferred to Castle Joint Powers Authority (CJPA) for the purposes of transforming the facility to a civilian airport. The CJPA members consisted of the cities of Merced, Atwater and the County of Merced. The size of the property is approximately 2,700 acres with 1,600 acres designated as airport property. The airfield, apron, and hanger areas cover approximately 1,100 acres and 500 acres is for revenue-producing airport support.

In 1994, an Airport Feasibility Study/ Airport Master Plan was prepared by a consultant that recommended some concepts for the base re-use. This plan was not formally adopted. In 1996, the Castle Air Force Base Reuse Plan was prepared which outlined disposition of the property and utilization of the existing buildings with respect to compatibility of those uses with a commercial airport capable of handling large aircrafts. All leases for utilization of the buildings were under the jurisdiction of the CJPA. With the Cities of Merced and Atwater withdrawing from the CJPA in 1997 and 2000 respectively, all the facility's land except a small portion that is within the City of Atwater's urban limit line was placed under the jurisdiction of the County of Merced.

In 2004, the County of Merced realigned the management and operation of Castle Airport into a new department, that being Commerce, Aviation and Economic Development (CAED). On December 19, 2006, the US Air Force fully deeded the entire Castle Airport property to the County of Merced. The County, through an interim Asset Management Agreement is working with Federal Development, Inc. as a private partner Master Developer for the marketing, leasing, and sale of buildings and properties at Castle. All final decisions on building utilization and property disposition are processed by CAED and are approved by the County Board of Supervisors.

The conversion of Castle from military to civilian use has greatly changed the character and magnitude of aviation-related impacts on surrounding land uses. Military aircraft operation produced noise impacts in excess of 65 db CNEL extending 12 to 15 miles from the runway, including much of the City of Merced. Today, most of the civilian activity is by light aircraft and the 65 db CNEL contour does not even extend past the airport boundary. However, this impact will increase as the facility develops, but not to a level that it once was.

The capability of the 11,800-foot runway and heavy-duty taxiways at the Castle Airport makes the facility a regionally significant airport. In August 2006, Castle Airport was inspected by the FAA and certified as meeting all physical requirements of a Commercial Service Airport. In January 2007, the Castle Airport Control Tower was reopened. In addition to the existing buildings that have been leased for variety of uses, there is still a vast acreage of vacant land available that is being developed into a business park for light industrial and commercial uses. This will benefit the economy of the surrounding communities.

Airport Land Use Commission (ALUC)

The California Public Utilities Code governs the responsibilities and powers of the Merced County Airport Land Use Commission (ALUC). Among the responsibilities of the ALUC is the requirement to establish planning boundaries around each public airport within Merced County, to adopt a comprehensive Land Use Plan, and to provide growth for the airports and the area surrounding the airports. The Merced County ALUC is composed of two members representing the cities within Merced County, two members representing Merced County, two members representing the airports within the County, and one member representing the general public.

The Merced County Airport Land Use Commission Policy Plan consists of policies which guide height restriction, safety, noise, and other land use considerations; rules and regulations of the ALUC; plan implementation procedures; and other information.

The Merced County ALUC received funding from the Aeronautics Program to update the Countywide Comprehensive Land Use Plan (CLUP) in fiscal year 1996/97. The "Merced County Airport Land Use Compatibility Plan" was prepared by a consultant and was adopted by the Airport Land Use Commission in April 1999. The Merced County ALUC meets on a "need to" basis, generally to review airport master plans, to review general plans developed by the cities, and to review the compatibility of development projects where there is a question of general plan or CLUP consistency.

Future Issues

Currently, each of the airport facilities in the county are meeting the basic aviation needs of the public. Based on forecasts for airport operations, none of the airports within the county will exceed operations capacity over the RTP implementation period.

Castle Airport, over the next decade and beyond, will figure prominently in goods movement into and out of the San Joaquin Valley. Castle Airport has the longest San Joaquin Valley heavy-jet runway (the only airport able to provide heavy freighters the capability to fly non-stop to Asia without re-fueling), capable of handling aircrafts weighing up to a million pounds, and hundreds of acres of ramp space for intermodal activities. Castle Airport has reasonable access to Highway 99 and Interstate 5, and also has a spur on the property from BNSF Railroad. The increased use of Castle Airport and the potential of developing an international aviation facility could provide an excellent opportunity for this region.

Airport Projects

The Appendix contains lists all aeronautics projects and costs identified in the RTIP.

Short and Long Range Plan

- Support commercial airline service in Merced County.
- Support commercial air service to Los Angeles and San Francisco.
- Support large and small package cargo services in Merced County.
- Support the Merced County Airport Land Use Commission and the local airports in their efforts to ensure compatible land uses around airports.
- Support the local airports in their attempts to acquire the land surrounding the airports.
- Support noise abatement procedures around the local airports.

• Support regularly scheduled transit service from airports to the Transportation Center.

Responsibilities

Federal Aviation Administration

• Continue funding for airport projects.

State of California

• Continue funding of airport projects.

Merced County

- Update Merced County Airport Land Use Policy Plan.
- Develop Castle Airport and Aviation Center
- Update Airport Land Use Plan for Castle Airport.

City of Merced

- Maintain existing facilities.
- Review and revise Airport Master Plan.
- Install helicopter pads
- Update Airport Land Use Plan for Merced Municipal Airport.

City of Atwater

• Work with the County to identify uses for Castle Airport and Aviation Center.

City of Gustine

- Maintain existing facilities.
- Review and revise Airport Master Plan.
- Update Airport Land Use Plan for Gustine Airport.

City of Los Banos

- Maintain existing facilities.
- Review and revise Airport Master Plan.
- Continue to evaluate plans to relocated the Los Banos Airport
- Update Airport Land Use Plan for Los Banos Airport.

BICYCLE

Existing

Among non-motorized forms of transportation, bicycling and walking have traditionally been predominate modes of choice. For this reason, these forms of transportation are considered the most in the planning, design, and construction of non-motorized facilities.

With the legislation continuation of SAFETEA-LU, non-motorized facilities have been elevated to greater importance as a necessary component of the overall transportation system. While the term "non-motorized" includes both, pedestrian and equestrian modes, we will primarily focus on the development of bicycle facilities in Merced County. Pedestrian facilities are most often the responsibility of local government and are implemented during the normal land use development process. Equestrian trails are generally considered in passive recreational areas.

Bicycle facilities are classified by three types:

- Class I Bike Paths provide a completely separate right-of-way designated for the exclusive use of cyclists or pedestrians.
- Class II Bike Lanes provide restricted right-of-way bike lanes on the street.
- Class III Bike Routes provide a right-of-way generally designated by signs and shared with pedestrians or motorists. Pedestrian walkways are most often made up of a city sidewalk systems and the bike paths.

Merced County maintains existing bike paths along portions of Bear Creek, McKee Avenue, Yosemite Avenue, Bellevue Road and Lake Road.

The City of Merced has the most extensive bike path system in the county. Merced's bikeway system consists of class I paths and class II bike lanes. Most of the class II bike lanes run within the urban area of Merced, while the class I bike paths run along portions of Black Rascal and Bear Creeks.

Merced's pedestrian networks include the popular bike paths along Black Rascal and Bear Creeks and the city sidewalk system. Bicycles are allowed on all rural highways.



Non-Motorized Planning

Overall development of non-motorized facilities is a responsibility of local government and state and federal agencies. Local governments are responsible for the planning and development of bikeways within their city limits. Caltrans is responsible for developing and maintaining bikeways along state highways or where established bike paths are interrupted by highway construction. The federal government is responsible for funding along interstate highways if provision of bikeways will enhance safety.

The state of California in recent years has shown a growing interest in the development of bicycle and pedestrian facilities as a commute alternative. The State has made several moves in support of non-motorized facilities. The Bicycle Transportation Account has grown from \$375,000 in 1999 to \$7.2 million each year for the next five years. In addition, a funding program called Safe Routes to School, (SR2S) just completed its fourth funding cycle. The program made a total of \$40 million available to local agencies for improvements around schools, which would increase safety for students who walk or ride bikes to school.

Regional Bicycle Plan

MCAG adopted a Regional Bikeway Plan in 2008. The intent of the plan is to connect to major destinations throughout the County as well as bikeway systems in the local communities. Additionally, the Plan calls for safety in all aspects, development and maintenance, as well as ongoing bicycle education

Local Bicycle Plans

The City of Atwater adopted a Bicycle Plan in January of 2004, which identifies the need to create a balanced, safe, and efficient circulation system. Policies included in the plan range from developing programs to reduce over-dependence of the automobile to creating incentives for developers to provide pedestrian/bicycle transportation systems.

The City of Dos Palos adopted a Bicycle Plan in October 2008. The Plan documents that the City recognizes the need to encourage bicycle travel for both transportation and recreation. The goal of the City is to create and maintain, through the Plan, an integrated system of bikeways.

The City of Gustine adopted a Bicycle Plan in October 2008. Both the Bicycle Plan and Gustine's General Plan identify the need to provide a safe system of bikeways as an alternative to motor vehicle travel and establish and maintain routes that are designed to ensure safety while being aesthetically pleasing.

The City of Livingston adopted a Bicycle Plan in November 2005. Both the Bicycle Plan and Livingston's General Plan identify the need to establish a safe and efficient transportation system that provides adequate access throughout the City as well as routes that provide alternatives to motor vehicle travel.

The City of Los Banos adopted a Bicycle Plan in October 2006. It is the goal of the Plan to create and maintain an integrated system of bikeways, provide safe and convenient travel for bicyclist throughout the city, and to encourage travel for both transportation and recreation. Additionally, the City's General Plan documents that development of bikeways will be given equal priority to vehicle traffic as part of the multi-modal transportation system. The City of Merced adopted a Bicycle Plan in October 2008. It is the goal of the City of Merced to create and maintain an integrated system of bikeways, which provide safe and convenient travel for bicyclists throughout the plan area. Additionally, the City's General Plan documents that it will encourage area employers to promote bicycle use through incentive programs or other means and will continue to support, whenever, feasible, local efforts to promote cycling. The City of Merced recently approved the development of a Bicycle Coalition to involve bicycle users in bicycle planning efforts and transportation-related bicycle activities

Future

In recent years non-motorized travel has become more popular due to several factors: energy savings, health advantages, and environmental improvement. It should continue to increase in popularity due to public awareness of health and environmental benefits. It is also assumed that bike traffic will increase when the UC Merced campus begins enrollment.

With the passage of state and federal air quality legislation in 1990, the San Joaquin Valley Air Pollution Control District will become more involved with local development and land use issues and in developing bicycle and pedestrian facilities. Because non-motorized facilities are a relatively inexpensive Transportation Control Measure, it is anticipated that the air district will encourage development of non-motorized facilities by local planning agencies.

There is no indication that the county-wide bike paths and other pedestrian facilities will reach capacity within the RTP implementation period.

Short Range Plan

MCAG

- Develop safety education campaign to promote safety in walking and bicycling
- Continue to implement the Regional Bicycle Plan and Program
- Work with local agencies to include bicycle and pedestrian facilities with maintenance and improvement projects as they occur.
- Aggressively pursue funding to implement the Regional Bicycle Plan projects.
- Use Congestion Mitigation Air Quality Funds to implement priority bicycle/pedestrian projects
- Promote walking and cycling as viable commute alternatives
- Support the cities and the County in designing, updating, and implementing bicycle and pedestrian plans
- Oversee the Regional Bicycle Technical Advisory Committee

Local Jurisdictions

- Aggressively purse "Safe Routes to Schools" funding to improve pedestrian safety
- Promote pedestrian friendly development.

- Incorporate sound bicycle and pedestrian planning in General Plans
- Seek funding to construct bicycle and pedestrian facilities
- Work with MCAG to design, update and implement local bicycle and pedestrian plans.
- Coordinate with neighboring jurisdictions to implement the Regional Bicycle Plan.
- Maintain existing bicycle facilities.

Long Range Plan

- Work towards a regional bikeway network that enables safe bicycle commuting opportunities.
- Coordinate with neighboring counties and the state to connect regional bikeways to create a statewide system of bicycle facilities.

PEDESTRIAN

Walking is the oldest and most efficient, affordable, and environmentally-friendly form of transportation there is—it's how transit riders eventually reach their destinations, how drivers get from the parking lot to the front door, and how cyclists get from the bike rack to the business. Walking is the primary way that neighbors get to know one another and begin to build strong communities. Nearly everyone, for at least some portion of every day, is a pedestrian.

A walkable community is a place where people walk because walking is convenient, fun, and a healthy choice. People choose to walk to get to nearby places and to greet their neighbors. Walkable communities share common elements:

- Enjoyable **space to walk** on every street, such as a walkway, a trail, or a shared space that invites walking;
- Well-maintained **pedestrian facilities** that are easy to navigate for all;
- **Destinations** within walking distance that allow people to live close to many different types of shops, schools, jobs, services, and parks;
- Walkable **connections to transit** to provide access to destinations that are beyond walking distance; and
- **Places of respite** that invite casual conversation, encourage connection with nature, and provide places to play.

In a walkable community, the pedestrian realm is attractive—whether it be a street tree turning colors in the fall, an interesting detail in a facade or on a walkway, a sidewalk café that bubbles with laughter, an inviting display in a shop window, or the smile on the face of a passerby.

Walkable communities invite people to explore, to experience people and places first-hand, and to use their feet to connect with their culture.

The quality and location of existing pedestrian facilities and other conditions that affect the pedestrian experience are important factors in achieving the pedestrian goals of safety, equity, vibrancy, and health.

Developing a vibrant pedestrian environment is one of the goals of a Pedestrian Master Plan. Destinations that generate pedestrian traffic—such as transit stations, parks, schools, grocery stores, and libraries—play a key role in creating vibrancy. However, not all destinations generate the same levels of pedestrian activity. For example, a regional transit station is likely to generate more pedestrian traffic than a local bus stop. Multi-family residential buildings and regional destinations, are likely to generate more pedestrian activity than low density office and retail uses. In addition, the distances people are willing to walk to and from different types of destinations vary. For example, people may be more likely to walk farther to a light rail station than to a coffee shop.

A Pedestrian Master Plan would help achieve the following objectives:

- Objective 1: Complete and maintain the pedestrian system identified in the Pedestrian Master Plan
- Objective 2: Improve walkability on all streets
- Objective 3: Increase pedestrian safety
- Objective 4: Plan, design, and build complete streets to move more people and goods
- Objective 5: Create vibrant public spaces that encourage walking
- Objective 6: Get more people walking for transportation, recreation, and health

Short Range Plan

MCAG

- Develop a Pedestrian Master Plan.
- Develop safety education campaign to promote safety in walking
- Work with local agencies to include pedestrian facilities with maintenance and improvement projects as they occur.
- Use Congestion Mitigation Air Quality Funds to implement priority pedestrian projects
- Promote walking as viable commute alternatives
- Support the cities and the County in designing, updating, and implementing pedestrian plans

Local Jurisdictions

- Aggressively purse "Safe Routes to Schools" funding to improve pedestrian safety
- Promote pedestrian friendly development.
- Incorporate sound pedestrian planning in General Plans
- Seek funding to construct pedestrian facilities
- Work with MCAG to design, update and implement local pedestrian plans.
- Maintain existing pedestrian facilities.

Long Range Plan

• Work towards a pedestrian network that enables safe traveling opportunities.

MANAGEMENT & OPERATIONS (M&O)

M&O is an integrated approach to optimize the performance of existing infrastructure through the implementation of multimodal, intermodal, and often cross-jurisdictional systems, services and projects. This includes regional operations collaboration and coordination activities between transportation and public safety agencies. M&O strategies aim at improving service efficiency, enhancing public safety and security, reducing traveler delays, and improving access to information for travelers. M&O strategies include a broad range of activities, including:

- Traffic incident management
- Travel information services
- Roadway weather information
- Freeway management
- Automatic vehicle location
- Traffic signal coordination
- Work zone management
- Electronic payment/toll collection
- Transit priority/integration
- Emergency response and homeland security
- Freight management
- Transportation demand management
- Transit fleet management and dispatching

It is important to note that M&O does not encompass traditional maintenance activities, such as lawn cutting, pothole repair, or resurfacing. **M&O strategies focus on optimizing the performance of the transportation system**. Although M&O strategies may be implemented on a regional, area-wide, or project-specific basis, those included in a transportation plan should typically be those that have importance on a regional level. M&O strategies enable transportation agencies to provide higher levels of customer service in the near-term without incurring the high costs and time to implement major infrastructure projects. The purpose of Transportation Systems Management (TSM) is to increase the efficiency of the existing system without adding new lanes and thus, reduce the amount of energy required to make the system function. The intent is to get the most use out of the existing system without investing in large and expensive capital improvements.

Traffic Flow

In Merced County effective M&O strategies are measures that improve the flow of traffic on existing streets, roads, and highways. Measures may include: re-striping, ramp meters, meter bypass lanes, changeable message signs, television surveillance, traffic metering, establishing auxiliary lanes on freeways, traffic flow improvements for transit, coordinated traffic signalization which minimizes block to block, stop-and-go driving and several other capacity enhancing measures. Research has shown that an auto traveling at a constant speed is more energy efficient than one starting and stopping, or speeding up and slowing down. Vehicles traveling at constant speeds also emit less pollutants than vehicles traveling at variable speeds, thereby resulting in improved air quality. The

emphasis is on vehicles maintaining a higher, constant speed. Traffic flow improvements are also a component of air quality planning.

Intelligent transportation systems

Intelligent Transportation Systems represent a means of applying new technological breakthroughs in detection, communications, computing and control technologies to improve the safety and performance of the surface transportation system. This could be accomplished by using the technologies to manage the transportation system to respond to changing operating conditions, congestion or accidents. ITS technology can be applied to arterials, freeways, transit, trucks and private vehicles. ITS includes Advanced Traffic Management Systems (ATMS), Advanced Traveler Information Systems (ATIS), Advanced Public Transportation Systems (APTS), Advanced Vehicle Control Systems (AVCS) and Commercial Vehicle Operations (CVO).

Merced County belongs to an eight-county collaborative ITS group of the San Joaquin Valley (SJV). The SJV ITS group adopted the SJV ITS Deployment Plan in 2001 and developed the SJV ITS Maintenance Plan in 2005. Since then, the SJV ITS group has worked collaboratively with the ITS Maintenance Manager (Kern COG) to coordinate, update and maintain the SJV ITS projects database.

Today, applications of ITS technologies allow the monitoring of traffic conditions and the dynamic adjustment of traffic signals to reduce unnecessary delay, the automated collection of transit fares and advanced detection and television cameras to detect, assess and respond to traffic accidents and incidents. In the future, ITS technologies will automate transit fare collection and parking payments, use vehicle location systems to track trains and buses to give users "real time" arrival and departure information, as well as use onboard systems to detect and avoid collisions.

For Merced County, employment of ITS includes:

- Implementation of ITS traveler information and traffic management in support of the University of California facility, red-light running enforcement and train warning and information system applications in Merced.
- Consideration of further ITS traffic signal applications in support of Merced's major interchange improvements.
- Consideration of ITS traffic signal applications in Los Banos, and possibly in other jurisdictions.
- Implementation of ITS bicycle signalizations at intersections and bicycle system inventories.
- Development of traveler information and other transit management strategies to improve coordination of the regional bus service ("The Bus") with the intermodal transportation center in downtown Merced.
- Investigation of options for supplemental railroad crossing warning and information systems at high-volume train crossings where delays are frequent and long.

Transportation Control Measures (TCM)

The term "transportation control measure" (TCM) encompasses elements of both "transportation system management" (TSM) and "transportation demand management" (TDM). Transportation

system management generally refers to the use of low capital improvements to increase the efficiency of facilities and services. These can include carpool and vanpool programs, parking management, traffic flow improvements, high occupancy vehicle lanes, and park-and-ride lots. Transportation demand management generally refers to policies, programs, and actions that are directed towards decreasing the use of single occupant vehicles. TDM also can include activities to encourage shifting or spreading peak travel periods. In practice, there is considerable overlap among these concepts and TCM, TSM and TDM are often used interchangeably. The following TCMs are included in Section 108(f)(1)(A) of the Clean Air Act Amendments of 1990:

- Programs for improved public transit.
- Restriction of certain roads or lanes to, or construction of such roads or lanes for use by passenger buses or high occupancy vehicles.
- Employer-based transportation management plans, including incentives.
- Trip-reduction ordinances.
- Traffic flow improvement programs that achieve emission reductions.
- Fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit service.
- Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use.
- Programs for the provision of all forms of high-occupancy, shared-ride services.
- Programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place.
- Programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas.
- Programs to control extended idling of vehicles.
- Programs to reduce vehicle emissions from extreme cold-start conditions.
- Employer-sponsored programs to permit flexible work schedules.
- Programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity.
- Programs for new construction and major reconstruction of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest. For purposes of this clause, the Administrator shall also consult with the Secretary of the Interior.

Transportation control measures specific to Merced County are contained in the 1994 Ozone Attainment Demonstration but are not clearly delineated. Both transportation control measures and mobile source measures are discussed under the heading of transportation control measures. The Attainment Demonstration specifically includes Rule 9001 – Commute Based Trip Reduction; however, this rule was never approved by EPA as part of the SIP. In addition, the Revised 1996 Rate of Progress Plan specifically identifies TCMs committed for implementation from 1990 through 1996. The commitments are listed within the following TCM categories:

- TCM1 Traffic Flow Improvements
- TCM2 Public Transit

- TCM3 Rideshare Programs (Rule 9001)
- TCM4 Bicycle Programs
- TCM5 Alternative Fuels Program

Most of the TCMs in the plans were implemented in the short term, and have been fully implemented. As a result, any resulting creditable emission reduction benefits have been incorporated into the traffic forecasts for the region. However, the TIP/RTP provides continued funding for transportation projects that support TCM programs (e.g., traffic flow improvements, public transit, rideshare programs, and bicycle programs). In addition, voluntary implementation of Rule 9001 (Employee Commute Options) is ongoing even though the Rule was not approved by EPA and cannot be implemented as a mandatory program under SB437.

Transportation Demand Management

While Merced County has not yet experienced the level of transportation congestion present in other parts of California, pressures on the existing system are increasing. Transportation Demand Management focuses on altering commuter behavior. Most people operate on similar schedules, which results in higher use of the system during certain parts of the day. TDM such as ridesharing, telecommuting, flexible work schedules, bicycling, walking and transit use, encourage people to change the way in which they use the system.

Merced County has had an active Transportation Demand Management program since 1984. The nature of the program has changed over the years and the intensity with which it has been implemented fluctuates. The job of decreasing per person impacts on the existing transportation system is particularly challenging where congestion levels have not forced people to consider alternative modes of travel. However, as this plan has indicated in a number of sections, the opportunity to implement TDM measures is growing.

Three primary issues in Merced County that lend themselves to TDM are: 1) Increasing numbers of westside residents whose daily commute exceeds 100 miles, 2) the increasing number of workers who commute north, and 3) The future development of the University of California Merced. These conditions present opportunities to boost the use of alternative modes.

Van/Carpool

Van and Carpools are intended to provide alternatives for commuters. The Central Valley is increasingly becoming home to people who work in the San Francisco Bay Area and the San Jose area. This results in a significant portion of the population who commute long distances for employment thereby impacting the existing transportation system and air quality. To reduce such impact, MCAG is working to facilitate vanpooling and carpooling. Vanpools and carpools allow commuters who live in the same area and work in the same area to rideshare with the intention of reducing wear and tear on the roads, air quality, and themselves.

The City of Los Banos, home to an estimated 8,000 commuters, has a Vanpool Coordinator available to commuters seeking assistance in finding potential ride sharers. In addition, MCAG has

established a web site at http://mercedrides.com which is capable of matching people who wish to set up vanpools or carpools.

Short and Long Range Plan

- Identify Management and Operations strategies for short term solutions to immediate transportation concerns.
- Use Congestion Mitigation Air Quality funds to implement Management & Operation projects.
- Assist local agencies in evaluating the impacts of M&O strategies.
- Consider the use of M&O strategies where appropriate.
- Assist the San Joaquin Valley Air Pollution Control District develop the transportation-related portions of the State Implementation Plan for air quality.
- Evaluate and assist in the implementation of appropriate transportation control measures.
- Support the expeditious implementation of transportation control measures identified in the State Implementation Plan for Merced region jurisdictions.
- As required by federal regulation, give funding priority to transportation control measures.
- Encourage local jurisdictions to implement TCMs where feasible.
- Study the impact of TCMs in other parts of the country to determine potential local uses.
- Promote and support high occupancy vehicle travel for work, school, leisure.
- Promote and support walking and bicycle use.
- Promote and support the knowledge of and use of public transit.
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ENVIRONMENTAL & AGRICULTURAL PRESERVATION

Agriculture preservation and implementation of environmentally sensitive transportation solutions have been specifically identified as goals of the Regional Transportation Plan. The RTP is responding to this goal by examining the possible need to use agricultural lands and sensitive areas to implement the projects contain within the plan.

If the projects cannot avoid agricultural lands and sensitive areas, this plan proposes to use land conservation easements. These easements would help protect the future development of lands within our county, maintain our agricultural lifestyle, and protect environmentally sensitive areas.

As required by law, the 2011 RTP and EIR was compared to the California State Wildlife Action Plan and was found to be consistent with that Plan.

The map below shows a representation of the relative environmental sensitivity throughout the county. The darker redder areas being more sensitive and the lighter areas being less sensitive.



Environmental Impact Report

Environmental impacts of the recommended and alternative scenarios have been assessed in an Environmental Impact Report (EIR) (2004) and Supplemental Environmental Impact Report (SEIR) (2010). The SEIR is in compliance with the California Environmental Quality Act of 1970 (CEQA). MCAG, as the lead agency, has determined that implementation of the Regional Transportation Plan may result in potentially significant environmental impacts and prepared a Program EIR to analyze them. The RTP EIR is intended to provide a cumulative analysis of potential impacts that will result from implementation of projects included in the RTP. The focus of the EIR is on impacts directly related to transportation, including:

- Agricultural lands
- Endangered species and sensitive habitat
- Prehistoric and historic cultural resources
- Growth-related and cumulative impacts
- Traffic congestion on the regional roadway network
- Air quality
- Flood zone

The table below provides a list of the potential impacts associated with implementation of the Regional Transportation Plan.

	Total County	Scenario	Scenario	Scenario	Scenario	Scenario
Potential Impact	Resources	В	С	C2	D	D2
		1477	1618	2092	1237	1840
Agricultural lands (acres)	1,172,187	(0.13%)	(0.14%)	(0.18%)	(0.11%)	(0.16%)
Williamson Act Lands						
(acres)	425,247	83	83	142	66	108
Wetlands (acres)	11,240	13	14	19	10	15
Riparian area (acres)	13,688	70	94	116	54	109
All Non-Urban Area						
(potential habitatacres)	1,187,966	1491	1845	2352	1230	2087
Flood Zone A (acres)	26,745	616	748	871	564	852
Cultural Prehistoric						
Resources						
(medium sensitivityacres)	219,035	1019	1345	1547	788	1464
Cultural Prehistoric						
Resources (high sensitivity-						
-acres)	748,300	246	246	338	246	255
Historic Buildings						
(potential number affected)	194	24	30	30	23	30
Historic Bridges						
(potential number affected)	27	8	10	11	8	11
Hazardous Waste Sites						
(potential number			10			
encountered)	838	12	18	27	11	24
Businesses and Residences						
(potential number of				0.0	50	0.0
acquisitions)	-	54	62	90	60	80
Traffic Congestion		2504	2.494	67 0/	170/	2.494
Reduction by 2030	-	25%	34%	67%	17%	34%
Paleontological Resources	All scenarios w	ould have a	low potentia	i to affect pa	lleontologica	1
	resources	d fodorol sta				
Air Quality	Ivieets state an	u lederal sta		-		
Noise	Potential effects	are site and p	roject specific	3		
Aesthetics	Potential effects are site and project specific					

Potential Impacts Associated with Regional Transportation Plan

In Chapter 16 of the Environmental Impact Report it analyzes the cumulative impacts of implementing the Regional Transportation Plan. For some resources, the cumulative impacts of the RTP are less then if the RTP was not implemented.

Cumulative Effects

			with no	Antici	pated	cumul	ative e	ffects	Difference from A		Δ		
			RTP		by R	FP Sce	nario						~
Resource	unit	Total in County	Α	В	С	C2	D	D2	В	С	C2	D	D2
Farmland	acres	1,172,187	15,057	15,020	14,976	14,916	15,022	14,979	-37	-81	-141	-35	-78
Prime Farmlands	acres	287,029	7,514	7,570	7,580	7,471	7,659	7,582	56	66	-43	145	68
Statewide Importance	acres	158,528	2,524	2,489	2,462	2,445	2,353	2,495	-35	-62	-79	-171	-29
Local Importance	acres	46,085	2,754	2,689	2,689	2,623	2,647	2,686	-65	-65	-131	-107	-68
Unique Farmlands	acres	98,959	1,552	1,635	1,615	1,546	1,665	1,581	83	63	-6	113	29
Grazing Lands	acres	581,586	713	637	630	831	698	635	-76	-83	118	-15	-78
Williamson Act Land	acres	425,248	25	27	28	23	22	26	2	3	-2	-3	1
Riparian Habitat	acres	13688	882	904	931	964	887	961	22	49	82	5	79
(Rivers, Creeks and													
Seasonal Streams)													
Habitat (Potential Plant	acres	1,187,966	17,066	17,541	17,087	17,094	17,069	17,084	475	21	28	3	18
and Animal Habitat)													
Threatened and	occuren	316	0	0	6	7	5	6	5	6	7	5	6
Endangered Species	ces												
Vernal Pools (Fish & Wildlife)	acres	35,522	3,048	2,735	2,736	2,935	2,874	2,741	-313	-312	-113	-174	-307
Habitat Connectivity	acres	436,868	274	250	235	299	249	243	-24	-39	25	-25	-31
Habitat Linkages: Natural Lands	acres	289,601	267	244	229	293	243	237	-23	-38	26	-24	-30
Habitat Linkages: Species Preserve Area	acres	820	0	0	0	0	0	0	0	0	0	0	0
Proposed Habitat Linkages	acres	146,446	7	6	6	6	6	6	-1	-1	-1	-1	-1
Federal & State Lands	acres	240,391	1	0	0	1	0	1	-1	-1	0	-1	0
Grassland Ecological Area	acres	180,451	1	0	0	1	0	1	-1	-1	0	-1	0
Grassland Proposed Expansion Area	acres	59,940	0	0	0	0	0	0	0	0	0	0	0
Wetlands	acres	11,240	102	89	99	107	95	95	-13	-3	5	-7	-7
Flood Plains	acres	26,745	3,463	3,437	3,405	3,368	3,293	3,384	-26	-58	-95	-170	-79
Pre-Historic Resources	acres	1,252,187	17,251	17,055	17,037	16,967	17,119	17,040	-196	-214	-284	-132	-211
Low Sensitivity	acres	284,852	8,064	7,767	7,812	7,615	8,066	7,778	-297	-252	-449	2	-286
Medium Sensitivity	acres	219,035	7,738	7,930	7,927	7,843	7,505	7,911	192	189	105	-233	173
High Sensitivity	acres	748,300	1,449	1,358	1,298	1,509	1,548	1,351	-91	-151	60	99	-98
Historic Resources	occuren ces	221	29	21	19	19	19	19	-6	-10	-10	-10	-10
Buildings	occuren ces	194	26	18	16	16	16	16	-6	-10	-10	-10	-10
Bridges	occuren ces	27	3	3	3	3	3	3	0	0	0	0	0

reformatted from Merced County Environmental Impact Report, page 16-5

The Environmental Impact Report is published as a separate document to the Regional Transportation Plan.

Mitigation Monitoring Program

CEQA Guidelines section 15097 requires public agencies to adopt reporting or monitoring programs when they approve projects subject to an environmental impact report or a negative declaration that includes mitigation measures to avoid significant adverse environmental effects. The reporting or monitoring program is to be designed to ensure compliance with conditions of project approval during project implementation in order to avoid significant adverse environmental effects.

The law was passed in response to historic non-implementation of mitigation measures presented in environmental documents and subsequently adopted as conditions of project approval. In addition, monitoring ensures that mitigation measures are implemented and thereby provides a mechanism to evaluate the effectiveness of the mitigation measures.

A definitive set of project conditions would include enough detailed information and enforcement procedures to ensure the measure's compliance. This monitoring program is designed to provide a mechanism to ensure those mitigation measures, and subsequent conditions of project approval, are implemented.

The basis for this monitoring program is the mitigation measures included in the Merced County Regional Transportation Plan EIR, certified by the MCAG Governing Board on August 19, 2004. These mitigation measures are designed to eliminate or reduce significant adverse environmental effects to less than significant levels. The mitigation measures and implementation procedures are contained therein.

Monitoring Program Procedures

CEQA Guidelines section 15097 states that "a public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program." The monitoring program should be implemented as follows:

1. The mitigation measures contained in the EIR have been incorporated into the RTP as policies.

2. CEQA compliance and subsequent mitigation monitoring and reporting shall be the responsibility of the lead agency for each individual RTP project.

3. MCAG staff will be responsible for reviewing RTP projects' notice of preparation (of an environmental impact report) to provide direction to lead agencies to ensure their projects are consistent with the policies of the RTP.

4. MCAG staff will be responsible for reviewing RTP projects' proposed mitigated negative declarations or environmental impact reports, and provide comment on how the RTP project under consideration may be inconsistent with the policies of the RTP.

5. If a responsible individual or agency determines that a non-compliance has occurred, a written notice should be delivered by certified mail to the lead agency responsible for the applicable project, with a copy to MCAG.

Mitigation Measures

These mitigation measures (policies) shall be further explored during site-specific project environmental review and implemented prior to implementation of each applicable RTP improvement project.

Biological Resources

- Avoidance and minimization: This involves redesigning or modifying the project to avoid direct and indirect impacts to resources.
- Environmentally Sensitive Area: This involves the installation of fencing around known sensitive resources.
- Transplantation: This involves the removal and replanting of sensitive plant species.
- Noxious weed avoidance: This involves the use of certified, weed-free, erosion-control materials, the implementation of Best Management Practices, the education of construction workers, and the cleaning of construction equipment at designated wash stations after leaving noxious weed infestation areas.
- Storm Water Pollution Prevention Plan: This involves using Best Management Practices to ensure that waters (wetlands, rivers, streams, lakes, etc.) are not affected by storm water runoff.
- Habitat corridors: This involves the purchase or construction of facilities that allow animal species to migrate safely without barriers. These would include, but is not limited to, the acquisition of land for the preservation of habitat corridors and the construction of culverts for the safe, easy highway-crossing by animals.
- Compensate for the loss of habitat: This involves the purchase of habitat (of the same type affected) either adjacent to the project vicinity or at a site in the vicinity.
- Partnership for Integrated Planning II: A Partnership for Integrated Planning II is currently being proposed. This involves the acquisition of habitat mitigation lands for future transportation projects. Please see Chapter 3 of the EIR for a more thorough discussion of this issue.

Cultural Resources

- Avoidance: Avoidance is the preferred mitigation measure for cultural resources, and involves the redesigning of the project to completely avoid the resource.
- Photographic and written documentation: This involves a thorough evaluation of the site, a written report, and photography.

- Educate the public: This involves creating plaques, web sites, brochures, museum exhibits, and public art, or other means.
- Relocation: This involves moving a building or structure to a new location.
- Design review: This involves a site review that analyzes aesthetic or noise-related changes to the cultural resource setting. View changes and noise increases can be mitigated through vegetation plantings and soundwalls.
- Data recovery: This process occurs when an archaeological site that is eligible for the National Register of Historic Places will be adversely affected by project construction activities. To ensure important information is not lost, careful hand excavation is used to remove all artifacts for cataloguing, studying, and archiving. In the case of human remains, however, respectful removal and reburial (usually in coordination with Native Americans representatives) would take place.

Geological Resources

- Use State Water Pollution Prevention Plans and Best Management Practices to limit soil erosion.
- A paleontological monitor, under the direction of the qualified principal paleontologist will be onsite to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.
- When fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Construction work in these areas will be halted or diverted to allow recovery of fossil remains in a timely manner.
- Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and catalogued.
- Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections.
- A final report will be completed that outlines the results of the mitigation program.
- Where feasible, selected road cuts or large finished slopes in areas of critically interesting geology may be left exposed so they can serve as important educational and scientific features. This may be possible if no substantial adverse visual impact results.

Aesthetic (Visual) Resources

Visual impacts can be mitigated through a variety of actions ranging from location and alignment through design, construction, and maintenance. Some of the more common measures include landscaping, screening, the incorporation of architectural features in the design of structures, selective clearing and thinning, earthwork, and litter control. Highway corridors themselves can sometimes be located to avoid or minimize impacts upon visual resources that are controversial or exceptional in quality.

Hazardous Waste

- Avoidance measures: Redesign project plans to avoid sites.
- Minimization measures: Redesign project plans to minimize take of sites.

• Remediation: Clean up sites.

Hydrological Resources

- Protect areas that provide important water quality benefits or are particularly susceptible to erosion or sediment loss.
- Limit land disturbance such as clearing, grading, and cut-and-fill to reduce erosion and sediment loss.
- Limit disturbance of natural drainage features and vegetation.
- Place bridge structures so that sensitive and valuable aquatic ecosystems are protected.
- Prepare and implement an approved erosion control plan.
- Ensure proper storage and disposal of toxic material.
- Incorporate pollution prevention into operation and maintenance procedures to reduce pollutant loadings to surface runoff.
- Create ponding basins to prevent backwater from flooding adjacent properties.
- Redesign the highway to prevent longitudinal encroachment.
- Prevent floodway development by constructing bridges that completely span floodways.
- Construct bridges and culverts to facilitate the natural flow of flood waters.

Noise Effects

- Install soundwalls where prudent and feasible.
- Use newer equipment with improved muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators intact and operational.
- Use construction methods or equipment that would provide the lowest level of noise and ground vibration impact, such as scenario low noise pile installation methods.
- Turn off idling equipment.
- Temporary noise barriers would be used and relocated, in some cases, to protect sensitive receptors against excessive noise from construction activities. Noise barriers can be made of heavy plywood or moveable insulated sound blankets.
- Implement a construction noise and vibration-monitoring program to limit the impacts.
- Plan noisier operations during times of least sensitivity to receptors.
- Keep noise levels relatively uniform and avoid impulsive noises.
- Maintain good public relations with the community to minimize objections to the unavoidable construction impacts. Provide frequent activity update of all construction activities.

Socioeconomics

- Shift alignment.
- Elevate facility.
- Depress facility.
- Reduce traffic lanes.

- Reduce right-of-way width.
- Provide trees and other landscaping.
- Provide scenic and rest areas.
- Add public artwork to a structure.
- Set aside land for a park.
- Phase the project to avoid disruption.
- Limit ingress (temporary or permanent).
- Provide access (temporary or permanent).
- Provide for or eliminate interchanges.
- Provide pedestrian/bicycle crossings or paths.
- Provide for joint use development.
- Provide signing.
- Provide street lighting.
- Provide for replacement land and facilities.
- Eliminate incompatible land uses.
- Erect sound or visual buffers to the facility.
- Relocation assistance.

Agricultural Resources

- Avoidance and minimization: This involves redesigning or modifying the project to avoid direct and indirect impacts to agricultural resources.
- Keeping farmland in production as long as possible (e.g., farmland purchased for an interchange would be leased back for farming until needed for construction).
- Sell remnant parcels to adjoining farms.
- Plan construction along property lines.
- Avoid diagonal roads through farmland.

Local lead agencies will be required to evaluate the loss of farmland in site specific environmental review for each project. The Land Evaluation and Site Assessment Model (LESA) from the State Department of Conservation could be used to evaluate the impacts.

Agricultural Resources Map



Where the loss of prime, unique, and local farmland is still considered significant after evaluation, the lead agency (for the specific project under review) shall consider the use of agricultural land conservation easements, to the greatest extent feasible. The lead agency should utilize a sliding scale for determining a mitigation ratio (acres protected by conservation easements to acres lost to a project) be considered, utilizing the LESA model identified above. Other mitigation measures to be considered could include an in-lieu contribution to a recognized Land Conservancy group.

Avoid the cancellation of Williamson Act contracts. Where avoidance is not feasible, the project shall be designed to minimize the loss. Local lead agencies will be required to evaluate the conversion of Williamson Act contract property in site-specific environmental review for each project.

Climate Change/Global Warming

Global climate change is a problem caused by combined worldwide greenhouse gas emissions, and mitigating global climate change will require worldwide solutions. Combined gases in the Earth's atmosphere called atmospheric greenhouse gases (GHGs) play a critical role in the Earth's radiation budget by trapping infrared radiation emitted from the Earth's surface, which could have otherwise escaped to space. Prominent GHGs contributing to this process include water vapor, carbon dioxide, methane, ozone, nitrous oxide, and certain fluorocarbons. This phenomenon, known as the "greenhouse effect" keeps the Earth's atmosphere near the surface warmer than it would be otherwise and allows for successful habitation by humans and other forms of life. Increases in these gases lead to more absorption of radiation and warm the lower atmosphere further, thereby increasing evaporation rates and temperatures near the surface. Emissions of the GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and to contribute to what is termed "global warming", a trend of unnatural warming of the Earth's natural climate.

Climate change is a global problem, and GHGs are global pollutants, unlike criteria air pollutants (such as ozone precursors) and TACs, which are pollutants of regional and local concern. Worldwide, California is the 12th to 16th largest emitter of CO2 (California Energy Commission [CEC] 2006), and is responsible for approximately 2% of the world's CO2 emissions (CEC 2006)).

The Intergovernmental Panel on Climate Change (IPCC) has been established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical and socio- economic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation. The IPCC predicts substantial increases in temperatures globally of between 1.1 to 6.4 degrees Celsius (depending on scenario) (Intergovernmental Panel on Climate Change 2007).

This may impact the natural environment in California in the following ways, among others:

- Rising sea levels along the California coastline, particularly in San Francisco and the San Joaquin Delta due to ocean expansion;
- Extreme-heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent;
- An increase in heat-related human deaths, infection diseases and a higher risk of respiratory problems caused by deteriorating air quality;
- Reduced snow pack and stream flow in the Sierra Nevada mountains, affecting winter recreation and water supplies;
- Potential increase in the severity of winter storms, affecting peak stream flows and flooding;
- Changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield;
- Changes in distribution of plant and wildlife species due to changes in temperature, competition from colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.

These changes in California's climate and ecosystems are occurring at a time when California's population is expected to increase from 34 million to 59 million by the year 2040 (CEC 2005). As

such, the number of people potentially affected by climate change as well as the amount of anthropogenic GHG emissions expected under a "business as usual" scenario are expected to increase. Similar changes as those noted above for California would also occur in other parts of the world with regional variations in resources affected and vulnerability to adverse effects.

GHG emissions in California are attributable to human activities associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors (CEC 2006) as well as natural processes. Transportation is responsible for 41% of the state's GHG emissions, followed by the industrial sector (23%), electricity generation (20%), agriculture and forestry (8%) and other sources (8%) (CEC 2006). Emissions of carbon dioxide and nitrous oxide are byproducts of fossil fuel combustion, among other sources. Methane, a highly potent GHG, results from off-gassing associated with agricultural practices and landfills, among other sources. Sinks of carbon dioxide include uptake by vegetation and dissolution into the ocean.

Cumulative Effects

- Avoiding, minimizing, or mitigating the direct impacts that could contribute to the cumulative effects this is accomplished through coordination of transportation and land use planning, redesigning the project, and development of project specific mitigation.
- Advanced planning and coordination with planning and resource agencies.
- Purchasing habitat near or adjacent to the project limits, or in another area as approved by the appropriate resource agency.

APPENDIX A:

RTP CHECKLIST

Regional Transportation Plan Checklist (Revised September 2007)

(To be completed electronically Microsoft Word format by the MPO/RTPA and submitted along with draft RTP to the Calif. Department of Transportation)

Name of MPO/RTPA:	Merced County Associat	tion of Governments
Date Draft RTP Completed:	April 30, 2	010
RTP Adoption Date:	July 15, 20	10
What is the Certification Date of th Document (ED)?	<i>e Environmental</i> Ju	ly 15, 2010
Is the ED located in the RTP or is i document?	t a separate S	eparate

By completing this checklist, the MPO/RTPA verifies the RTP addresses all of the following required information within the RTP.

Regional Transportation Plan Contents

	General	Yes/No	Page #
		Yes	1
1.	Does the RTP address no less than a 20-year planning horizon (23 CFR 450.322(a))?		Action
2.	Does the RTP include both long-range and short-range strategies/actions (23 CFR part 450.322(b))?	Yes	Element
3.	Does the RTP address issues specified in the policy, action and financial elements identified in California Government Code Section 65080?	Yes	Thruout
		Yes	Thru-
4.	Does the RTP include Project Intent i.e. Plan Level Purpose and Need Statements?		out
	Consultation/Cooperation		
1.	Does the RTP contain a public involvement program that meets the requirements of Title 23, CFR part 450.316 (1)(i-x)?	Yes	Арр В
2.	Did the MPO/RTPA consult with the appropriate State and local representatives including representatives from environmental and economic communities; airport;	Yes	pgs 2-5 App B
	transit; freight during the preparation of the RTP? (23CFR450.316(3)(b))		

		Yes/No	Page #
3.	Did the MPO/RTPA who has federal lands within its jurisdictional boundary involve the federal land management agencies during the preparation of the RTP?	Yes	
4.	Where does the RTP specify that the appropriate State and local agencies responsible for land use, natural resources, environmental protection, conservation and historic preservation consulted? (23 CFR part 450.322(g))		pgs. 2-5 EIR
5.	Did the RTP include a comparison with the California State Wildlife Action Plan and (if available) inventories of natural and historic resources? (23 CFR part 450.322(g))	Yes	p.86
6.	Did the MPO/RTPA who has a federally recognized Native American Tribal Government(s) and/or historical and sacred sites or subsistence resources of these Tribal Governments within its jurisdictional boundary address tribal concerns in the RTP and develop the RTP in consultation with the Tribal Government(s)? (Title 23 CFR part 450.316(c))	N/A	
7.	Does the RTP address how the public and various specified groups were given a reasonable opportunity to comment on the plan using the participation plan developed under 23 CFR part 450.316(a)? (23 CFR 450.316(i))	Yes	pgs.3-5
8.	Does the RTP contain a discussion describing the private sector involvement efforts that were used during the development of the plan? (23 CFR part 450.316(l))	Yes	pgs.3-5
9.	Does the RTP contain a discussion describing the coordination efforts with regional air quality planning authorities (23 CFR 450.316(3)(b)? (MPO nonattainment and maintenance areas only)	Yes	pgs.4-5
10.	Is the RTP coordinated and consistent with the Public Transit-Human Services Transportation Plan?	Yes	pgs.54-55
11.	Were the draft and adopted RTP posted on the Internet? (23 CFR part 450.322(j))	Yes	

Modal Discussion

1.	Does the RTP discuss intermodal and connectivity issues?	Yes	Thru-
			out
2.	Does the RTP include a discussion of highways?	Yes	pgs.40-51
3.	Does the RTP include a discussion of mass transportation?	Yes	pgs.51-60
4.	Does the RTP include a discussion of the regional airport system?	Yes	pgs.71-75
5.	Does the RTP include a discussion of regional pedestrian needs?	Yes	pgs.80-81

- 6. Does the RTP include a discussion of regional bicycle needs?
- 7. Does the RTP include a discussion of rail transportation?
- 8. Does the RTP include a discussion of maritime transportation (if appropriate)?
- 9. Does the RTP include a discussion of goods movement?

Programming/Operations

- 1. Is a congestion management process discussed in the RTP? (MPOs designated as TMAs only) (23 CFR part 450.450.320(b))
- 2. Is the RTP consistent (to the maximum extent practicable) with the development of the regional ITS architecture?
- 3. Does the RTP identify the objective criteria used for measuring the performance of the transportation system?
- 4. Does the RTP contain a list of un-constrained projects?

Financial

- 1. Does the RTP include a financial plan that meets the requirements identified in 23 CFR part 450.322(f)(10)?
- 2. Does the RTP contain a consistency statement between the first 4 years of the fund estimate and the 4-year STIP fund estimate? (2006 STIP Guidelines, Section 19)
- 3. Do the projected revenues in the RTP reflect Fiscal Constraint (23 CFR part 450.322(f)(10)(ii))?
- 4. Does the RTP contain a list of financially constrained projects? Any regionally significant projects should be identified. (Government Code 65808(3)(A))
- 5. Do the cost estimates for implementing the projects identified in the RTP reflect "year of expenditure dollars" to reflect inflation rates? (23 CFR part 450.322(f)(10)(iv))
- 6. After 12/11/07, does the RTP contain estimates of costs and revenue sources that are reasonably expected to be available to operate and maintain the freeways, highway and transit within the region (23 CFR 450.322(f)(10)(i))?

Yes	pgs.76-80
Yes	pgs.60-65
N/A	
Yes	pgs.66-71

N/A	
Yes	pg.83
Yes	pgs.34-35
Yes	pg.47

Yes	pgs.13-20
Yes	pg.15
Yes	pgs.13-20
Yes	pg.47
Yes	pg.47
Yes	pgs.13-20

7.	Does the RTP contain a statement regarding consistency between the projects in the RTP and the ITIP (2006 STIP Guidelines section 33)?	Yes	p.46
8.	Does the RTP contain a statement regarding consistency between the projects in the RTP and the FTIP (2006 STIP Guidelines section 19)?	Yes	p.46
9.	Does the RTP address the specific financial strategies required to ensure the identified TCMs from the SIP can be implemented? (nonattainment and maintenance MPOs only) (23 CFR part 450.322(f)(10)(vi)	Yes	pgs.13-20

		Yes/No	Page #
	Environmental		
1.	Did the MPO/RTPA prepare an EIR or a program EIR for the RTP in accordance with CEQA guidelines?	Yes	EIR
2.	Does the RTP contain a list of projects specifically identified as TCMs, if applicable?	Yes	pgs.84-85
3.	Does the RTP contain a discussion of SIP conformity, if applicable? (MPOs only)	Yes	Confor mity doc.
4.	Does the RTP specify mitigation activities? (23 CFR part 450.322(f)(7))	Yes	EIR
5.	Where does the EIR address mitigation activities?	Yes	through- out
6.	Did the MPO/RTPA prepare a Negative Declaration or a Mitigated Negative Declaration for the RTP in accordance with CEQA guidelines?	N/A	
7.	Does the RTP specify the TCM's to be implemented in the region? (federal nonattainment and maintenance areas only)	Yes	pgs.84-85

I have reviewed the above information and concur that it is correct and complete.

July 28, 2010

Date

(Must be signed by MPO/RTPA Executive Director or designated representative)

Jesse B. Brown

Print Name

Executive Director

Title
APPENDIX B:

PUBLIC PARTICIPATION PLAN

Merced County Association of Governments Public Participation Plan

Adopted February 21, 2008

Table of Contents

1. Introduction

MCAG Purpose of the Pubic Participation Plan

- 2. Federal Requirements SAFETEA-LU Title VI of the Civil Rights Act of 1964 Executive Orders The Brown Act Americans with Disabilities Act Other Requirements
- 3. Project/Plan Specific Public Participation Requirements Regional Transportation Plan Federal Transportation Improvement Program Public Participation Plan
- 4. Development of the Public Participation Plan
- 5. Public Participation Techniques
- 6. Additional Participation Policies

1. Introduction

Merced County Association of Governments

As a Regional Transportation Planning Agency (RTPA), the Merced County Association of Governments (MCAG) addresses issues of mutual concern to the county and the cities in the Merced County region, and satisfies Federal and State transportation planning and programming mandates. MCAG provides a forum for planning, discussion, and study of area-wide issues, prepares and adopts regional plans and programs, serves as the regional agency for federal and state transportation programs and funding opportunities and addresses other area-wide issues based on the desires of the member jurisdictions. MCAG represents its member jurisdictions as planner, programmer, and broker in developing an efficient and effective inter-modal transportation system that provides for the mobility needs of people, goods, and services while protecting the environment.

MCAG and its member agencies are responsible for determining policy, adopting plans and programs, and awarding funds to implement these plans. This procedural document is intended to give the MCAG elected officials and staff guidance in providing for public involvement and interagency consultation in the regional planning process. It contains procedures and strategies MCAG uses to instigate, seek and foster greater public involvement regarding transportation matters within its discretion. MCAG's documented participation plan defines a process for providing reasonable opportunities to be involved in the metropolitan transportation planning process.

Purpose of the Public Participation Plan

MCAG has developed this Public Participation Plan (PPP) as a guide to meeting the requirements for public participation outlined in PPP. The PPP is intended to provide direction for public participation activities to be conducted by MCAG and contains the procedures, strategies and techniques used by MCAG for public participation. In its public participation process, MCAG will:

- **P**rovide adequate public notice of public participation activities and time for public review and comment at key decision points, including but not limited to, a reasonable opportunity to comment on the proposed Regional Transportation Plan (RTP) and the Federal Transportation Improvement Program (FTIP);
- Provide timely notice and reasonable access to information about MCAG's issues and processes;
- Employ visualization techniques to describe the RTP and FTIP;
- Make public information (technical information and meeting notices) available in electronically accessible formats and means, such as the internet;
- Hold any public meetings at convenient and accessible locations and times;
- Demonstrate explicit consideration and response to public input received during the development of the RTP and the FTIP;

- Seek out and consider the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services;
- Provide an additional opportunity for public comment, if the final RTP or FTIP differs significantly from the version that was made available for public comment by the MCAG and raises new material issues which interested parties could not reasonably have foreseen from the public involvement efforts;
- Coordinate with the statewide transportation planning public involvement and consultation processes;
- Periodically review the effectiveness of the procedures and strategies contained in this PPP to ensure a full and open participation process.

2. Federal Requirements

SAFETEA-LU

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users — better known as SAFETEA-LU — signed into law in 2005, underscores the need for public involvement and requires metropolitan planning agencies such as MCAG to "provide citizens, affected public agencies, representatives of transportation agency employees, private providers of transportation and other interested parties with a reasonable opportunity to comment" on transportation plans and programs.

SAFETEA-LU legislation also requires MCAG — when developing the Regional Transportation Plan (RTP) and the Federal Transportation Improvement Program (FTIP) — to coordinate transportation plans with expected growth, economic development, environmental protection and other related planning activities within our region. Toward this end, this Public Participation Plan outlines key decision points for consulting with affected local, regional, state and federal agencies and Tribal governments.

Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 requires that transportation planning and programming be non-discriminatory on the basis of race, color, national origin or disability. The federal statute was further clarified and supplemented by the Civil Rights Restoration Act of 1987 and a series of federal statutes enacted in the 1990s relating to the concept of environmental justice. The fundamental principles of environmental justice include:

- Avoiding, minimizing or mitigating disproportionately high and adverse health or environmental effects on minority and low-income populations;
- Ensuring full and fair participation by all potentially affected communities in the transportation decision-making process; and
- **P**reventing the denial, reduction or significant delay in the receipt of benefits by minority populations and low-income communities.

Executive Orders

An Executive Order is an order given by the President to federal agencies. As a recipient of federal revenues, MCAG assists federal transportation agencies in complying with these orders.

Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

In February 1994, President Clinton signed Executive Order 12898, Federal Actions to Address Environmental Justice for Minority Populations and Low-Income Populations, which mandates that federal agencies make achieving environmental justice part of their missions. This order requires that disproportionately high and adverse human health or environmental effects on minority and low-income populations be identified and addressed in order to achieve environmental justice. Minority populations are defined in the order as Black/African-American, Hispanic, Asian/Pacific Islander, American Indian and Alaskan Native. Low-income populations are defined in the order as persons whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services poverty guidelines, with those at 0 percent of median income classified as low income and those at 50 percent of median income classified as very-low income.

Executive Order 13166: Improving Access to Services for Persons with Limited English Proficiency

Executive Order 13166 states that people who speak limited English should have meaningful access to federally conducted and federally funded programs and activities. It requires that all federal agencies identify any need for services to those with limited English proficiency and develop and implement a system to provide those services so all persons can have meaningful access to services.

The Brown Act (State of California Government Code sections 54950-54962)

The Brown Act governs the meeting and actions of governing boards of local public agencies and their created bodies. Requirements of the Brown Act also apply to any committee or other subsidiary body of a local agency, whether permanent or temporary, decision-making or advisory, which is created by such a governing board. The Brown Act sets minimum standards for open meetings relative to access to the public, location of meetings, notice posting, agenda distribution, and public input. The public agency may adopt reasonable regulations ensuring the public's right to address the agency, including regulations to limit the total amount of time allocated for public testimony. The MCAG Board and its standing committees all adhere to these requirements involving proper noticing, access and the ability to address the Board and committees.

Due to time constraints, unscheduled comments by the public may be limited to 3 minutes in length, however the agency encourages interested citizens to provide written copies of presentations to the Board/Committees, particularly if the statement is too long to be presented in its entirety. Citizens unable to attend the meetings may submit their concerns and ideas in writing

to staff, who will then present the comments to the respective Board/Committee in either a written or oral format.

Americans with Disabilities Act

The Americans with Disabilities Act of 1990 (ADA) stipulates involving the community, particularly those with disabilities, in the development and improvement of services. All events held for programs or projects with Federal aid and open to the general public must be made accessible to everyone, including the disabled.

MCAG complies with the ADA by having accessible formats and public hearings, consulting with individuals from the disabled community, and conducting outreach by maintaining an extensive mailing and email lists, developing contacts, and other means of notification to participate in the planning process.

Other Requirements

A number of other federal and state laws call on MCAG to involve and notify the public in its decisions. MCAG complies with all other public notification requirements of the California Public Records Act, the California Environmental Quality Act, as well as other applicable state and federal laws.

3. Project/Plan Specific Public Participation Requirements

There are two key transportation initiatives that are specially called out in federal law as needing early and continuing opportunities for public participation — development of the Regional Transportation Plan (RTP) and the Federal Transportation Improvement Program (FTIP).

Because of its comprehensive, long-term vision, the RTP provides the earliest and the best opportunity for interested residents and public agencies to influence MCAG's policy and investment priorities for Merced County transportation. It is at this earlier RTP stage where investment priorities and major planning-level project design concepts are established, and broad, regional impacts of transportation on the environment are addressed.

A. Regional Transportation Plan (RTP)

The long-range Regional Transportation Plan (RTP) prioritizes and guides all Merced County transportation development over 20-25 years. The RTP is the comprehensive blueprint for transportation investment (transit, highway, local roads, bicycle and pedestrian projects), and establishes the financial foundation for how the region invests in its surface transportation system by identifying how much money is available to address critical transportation needs and setting the policy on how projected revenues are to be spent. The RTP is generally updated every four years, with a limited number of amendments as needed. Opportunities for public participation for the RTP are different for RTP updates versus RTP amendments. RTP Updates include significant revisions to the RTP document, while RTP amendments are generally specific to project scopes, schedules, or costs.

RTP Update

The RTP update reflects reaffirmed or new planning priorities and changing projections of growth and travel demand based on a reasonable forecast of future revenues available to the region. As necessary, MCAG prepares two technical companion documents for RTP updates: a program-level Environmental Impact Report per California Environmental Quality Act (CEQA) guidelines, and transportation air quality conformity analyses (to ensure clean air mandates are met) per federal Clean Air Act requirements. Certain revisions to the RTP may warrant a revision or update to these technical documents. See the update outreach requirements listed below.

RTP Amendment

An amendment is a major revision to a long-range RTP, including adding or deleting a project, major changes in project costs, and/or design concept and scope (e.g., changing project locations, open to traffic dates, or the number of through traffic lanes). Changes to projects that are included in the financially unconstrained portion of the RTP (as information only) do not require an amendment. An amendment requires public review and comment, demonstration that the project can be completed based on expected funding, and/or a finding that the change is consistent with federal transportation conformity mandates. Amendments that require an update to the air quality conformity analysis will be subject to conformity and interagency consultation procedures. See the update outreach requirements listed below.

RTP Administrative Modification

This is a minor revision to the RTP for minor changes to project/project phase costs, or funding sources. An administrative modification does not require public review and comment, demonstration that the project can be completed based on expected funding, nor a finding that the change is consistent with federal transportation conformity requirements.

Outreach for RTP Updates

Public Meetings, workshops, and surveys during the RTP development period to solicit public dialogue and comment on the RTP process including, but not limited to issues such as:

- Overview of the planning process
- **R**TP goals, objectives, performance indicators
- **R**TP project lists
- **R**TP funding scenarios
- Legally noticed public comment period on the Draft RTP Update. The length of the public comment period is generally 30 days
- Legally noticed public hearing

RTP Updates may also require an amendment to the Federal Transportation Improvement Program (FTIP) and a new Air Quality Conformity Analysis.

B. Federal Transportation Improvement Program (FTIP)

The Federal Transportation Improvement Program (FTIP) implements the policy and investment priorities expressed by the public and adopted by MCAG in the Regional Transportation Plan (RTP). In this way, public comments made as part of the RTP are reflected in the FTIP as well. The FTIP covers a four-year timeframe, and all projects included in the FTIP must be consistent with the RTP. The FTIP is a comprehensive listing of Merced County Area surface transportation projects — including transit, highway, local roadway, bicycle and pedestrian investments — that:

- feceive federal funds, or are
- Subject to a federally required action, or are
- fegionally significant, for federal air quality conformity purposes.

The FTIP includes a financial plan that demonstrates there are sufficient revenues to ensure that the funds committed (or "programmed") to the projects are available to implement the projects or project phases. Adoption of the FTIP also requires a finding of conformity with federal transportation-air quality conformity mandates. The FTIP is updated every two years, with amendments occurring as needed. FTIP updates are generally considered similar to the Type 5 amendment (see below), and follow a similar public participation process.

Expedited Project Selection Procedures (EPSP) allows eligible projects to be moved between FTIP fiscal years as long as the project cost and scope do not change. MCAG staff is federally authorized to utilize EPSP without additional State or Federal approval action. MCAG does not require a formal public participation process for EPSP actions. A more detailed description of the EPSP is available from MCAG staff upon request.

Federal rules allow MPOs to group or combine projects that are not considered to be of appropriate scale for individual listing. Such grouped projects are often referred to as "Lump Sum Project Listings." MCAG uses this ability to program lump sums within the FTIP. Such projects may be grouped by function (e.g., bike lanes), work type (e.g., maintenance), or geographical area. Once grouped, the MPO is required to maintain, outside of the FTIP, a detail list of the projects contained in each group.

Modifications to the projects or costs within the lump sum listings are conducted on an as needed basis and do not require a formal public participation process. However, any changes to the overall lump sum costs or scope are done in accordance with the amendment types below. Lump sum project listings are made available through the MCAG website and distributed to Caltrans and FHWA.

Amendment Type 1. Administrative

Administrative amendments include minor changes to project cost, schedule, scope, or funding sources. Administrative amendments require action by MCAG and approval by Caltrans. Federal agencies are notified, but do not take approval action on Type 1 amendments. Public notification of an administrative amendment is posted on MCAG's website at the time of action, and subsequently posted on Caltrans website after Caltrans' approval.

Amendment Type 2. Formal Amendment – Funding Changes

Type 2 amendments primarily include project cost changes that are greater than 20% of the total project cost or \$2 million, whichever is higher. Type 2 amendments require approval by MCAG, Caltrans, and FHWA. Publicly accessible notification of a Type 2 formal amendment is posted on MCAG's website at least 14 days prior to action, and distributed to local agency partners through MCAG's standing committees. MCAG will consider public comments on the amendment prior to approval action.

Amendment Type 3. Formal Amendment – Exempt Projects

Type 3 amendments primarily include adding or deleting projects that are exempt from regional air quality emissions analyses. These amendments typically include transit or safety projects. Type 3 amendments require approval by MCAG, Caltrans, and FHWA. Public notification of a Type 3 formal amendment is posted on MCAG's website at least 14 days prior to action, and distributed to local agency partners through MCAG's standing committees. MCAG will consider public comments on the amendment prior to approval action.

Amendment Type 4. Formal Amendment – Conformity Determination that Relies on a Previous Regional Emissions Analysis

Type 4 amendments primarily include adding or deleting projects that have already been appropriately modeled for air quality purposes as part of the RTP. In this case, the Federal approving agencies can use a previous analysis of the project's impact on air quality for approval purposes. Type 4 amendments may be accompanied by an RTP amendment to maintain consistency. The FTIP amendment and RTP Amendment (if applicable) follow the same public process. Type 4 amendments require approval by MCAG, Caltrans, and FHWA. Public notification of a Type 4 formal amendment includes:

- Legally noticed 30-day public comment period
- Legally noticed public meeting
- **P**osting of amendment information on MCAG's website during public
- comment period
- Publishing amendment information as part of the following publicly available MCAG agendas: Transportation Technical Committee, Policy Advisory Committee and MCAG Policy Board
- Consideration and response to public comments received during comment period

Amendment Type 5. Formal Amendment – Conformity Determination and New Regional Emissions Analysis

Type 5 amendments are the highest level amendment and primarily involve adding or deleting new projects that must be modeled for their air quality impacts, or significantly changing the design concept, scope, or schedule of an existing project. Type 5 amendments are accompanied by a new Air Quality Conformity Document that demonstrates conformity with applicable air quality requirements, and if applicable, an RTP amendment to maintain consistency. The FTIP amendment, Air Quality Conformity Document, and RTP Amendment (if applicable) follow the same public process. Type 5 amendments require approval action by MCAG, Caltrans, and FHWA. Public notification of a Type 5 formal amendment includes:

- Legally noticed 30-day public comment period
- Legally noticed public meeting
- Posting of amendment information on MCAG's website during public comment period
- Publishing amendment information as part of the following publicly available MCAG agendas: Transportation Technical Committee, Policy Advisory Committee, and MCAG Policy Board
- Consideration and response to public comments received during comment period

Public Participation Plan

Major revisions or updates to the MCAG Public Participation Plan include a 45-day public review period and public hearing. MCAG staff will conduct a periodic review of the effectiveness of the Public Involvement Process to determine if current strategies are effective.

4. Development of the Public Participation Plan

While updating the Public Participation Plan in compliance with Federal legislation (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, known as SAFETEA-LU), MCAG embarked upon an evaluation of our current public participation practices by requesting input and consultation on how to best engage the public and interested parties in our transportation planning process. This was accomplished via online and hard copy survey and through committee. The survey results and focus group communication summaries are included in Appendices C and D in this Public Participation Plan.

5. Public Participation Techniques

MCAG Staff uses several techniques to provide interested parties with reasonable opportunities to be involved in the planning process. Staff understands that prior to involvement in MCAG's planning activities, members of the public must understand what MCAG's mission is, and what issues are under consideration.

A list of participation strategies follows that includes tried-and-true approaches as well as new suggestions received during the Public Participation Plan development process. MCAG staff will define appropriate outreach strategies for each plan/program on a case-by-case basis, and select appropriate options from the following lists.

Public Meetings/Workshops

- Participate in or speak at meetings of existing agencies/community groups
- Co-host workshops with community groups, business associations, etc.
- Partner with community-based organizations in low-income and minority communities for targeted outreach

Techniques for Public Meetings/Workshops

• Øpen Houses

- **F**acilitated discussions
- Question-and-Answer sessions with planners and policy board members
- Break-out sessions for smaller group discussions on multiple topics
- Interactive exercises
- Customized presentations
- Vary time of day for workshops (day/evening)

Visualization Techniques

- Maps
- Charts, illustrations, photographs
- Table-top displays and models
- Web content and interactive games
- Electronic voting
- **P**owerPoint slide shows

Polls/Surveys

- Ttelephone polls
- Electronic surveys via Web
- Pntercept interviews where people congregate, such as at transit hubs
- Printed surveys distributed at meetings, transit hubs, on-board transit vehicles, etc.

Focus Groups

- Participants recruited randomly from telephone polls
- Participants recruited by interest area

Printed Materials

- User-friendly documents (including use of executive summaries and simplified language)
- **P**ost cards
- Maps, charts, photographs, and other visual means of displaying information

Targeted Mailings/Flyers

- Work with community-based organizations to hand deliver flyers
- Mail to targeted database lists
- Distribute flyers to key community organizations
- Place notices on board transit vehicles and transit hubs

Utilize local media

- News Releases
- Submit human interest stories that center around projects
- Privite reporters to news briefings
- Meet with editorial staff
- Opinion pieces/commentaries
- Purchase display ads/radio & TV advertising

- Negotiate inserts into local printed media
- Visit minority media outlets to encourage use of news releases
- Place speakers on Radio/TV talk shows
- Public Service Announcements on radio and TV
- Develop content for public access/cable television programming
- Civic journalism partnerships

Electronic Access to Information

- Web site with updated content and simplified layouts
- Audio/videocasts of current and past public meetings/workshops
- Electronic duplication of open house/workshop materials
- Interactive Web with surveys, comment line
- Access to maps, charts, plans
- Provide information in advance of public meeting
- Post event/meeting information on online news sites, calendars, community & discussion websites

Notify Public via

- E-mail
- Notice widely disseminated through new partnerships with community-based and interest organizations
- Newsletters
- **P**rinted materials
- Electronic access to information
- Local Media
- Notices placed on board transit vehicles and at transit hubs

Newsletters

- MCAG's newsletter
- **P**roject specific email and print newsletters
- Board Action Summaries
- Submit articles for publication in community/corporate/online newsletters

Techniques for Involving Environmental Justice Communities

- Make regular reports to MCAG's ongoing committees
- Grants to community-based organizations to organize & tailor meetings, customize presentation materials, provide incentives and remove barriers to participation in their communities
- Flyers on transit vehicles and transit hubs
- Outreach in the community (flea markets, churches, health centers, etc.)
- Translate materials; have translators available at meetings as requested
- Pnclude information on meeting notices on how to request translation assistance
- Robust use of "visualization" techniques, including maps and graphics to illustrate trends, choices being debated, etc.

• Use of community and minority media outlets to announce participation opportunities

Techniques for Reporting on Impact of Public Comments

- Summarize key themes of public comments in staff reports to MCAG standing committees
- Direct mail and email to participants from meetings, surveys, etc. to report final outcomes
- Newsletter articles
- Updated and interactive Web content

Other Outreach

• Pnformation/comment tables or booths at community events and public gathering spaces

6. Additional Public Participation Policies

The following requirements will apply as deemed appropriate by the MCAG management staff and Governing Board Chair:

1. No person shall be denied participation.

2. As required, a public notice will be placed in the legal advertising sections of at least one newspaper of general circulation within the affected community, including a Spanish-language publication when possible.

3. MCAG shall provide appropriate assistance, auxiliary aids, a translator/interpreter for non-English speaking and hearing impaired individuals and/or services when necessary if requested 3 working days in advance of the meeting, to afford disabled individuals an equal opportunity. If MCAG is unable to accommodate a request for a public hearing then the hearing will be continued on a specified date when accommodations are available.

4. Meeting agendas and minutes are currently made available upon written request via regular mail, and they are added regularly to MCAG's internet website. Agendas are also posted at meeting locations are posted at least 72 hours before regular meetings of advisory or standing committees or 24 hours before special meetings. The Brown Act (CA Government Code 54954.1) also states that any person may request a copy of the agenda or a copy of all the documents constituting the agenda packet, of any meeting of a legislative body be mailed to that person. That request is valid for the calendar year in which it is filed, and must be renewed following January 1 of each year. The legislative body may establish a fee for mailing the agenda or agenda packet, which fee shall not exceed the cost of providing the service.

5. Public hearings will be held prior to a decision point as a formal means to gather citizen comments and positions from all interested parties for public record and input into the decision making process. MCAG hearings are required for the adoption of major plans, programming of money and for the annual Unmet Transit Needs analysis. Notices for public hearings will be published in a general circulation newspaper. MCAG will accept prepared comments from the public during the period between the notice and hearing date. These comments will be

considered part of the public record. Also during this period, MCAG staff will accept questions and provide clarification on issues raised by the public.

6. MCAG's media list includes newspapers, radio and television broadcast media, and appropriate business or government publications and contacts serving Merced County.

7. If major amendments are made to any plans or programs during the review and comment period, the plan(s) will be made available for an additional 30-45 day (as appropriate) public review and comment period prior to final adoption. Such changes shall also be advertised via news release to all media outlets, on community flyers and on the MCAG website as deemed necessary in the specific project area prior to final adoption.

8. The Executive Director or her designee will coordinate with the state to enhance public consideration for the State Transportation Plan or the State Transportation Improvement Plan.

9. For high-profile projects/plans MCAG may form a citizens' advisory committee specific to that particular plan or project, or determine what, if any, existing committees would appropriately review the plan or project.

APPENDIX C:

PUBLIC MEETINGS 2003-2004

Public Outreach Meetings 2003-2004

In total, 100 Public Meetings were held in 2003 and 2004:

Workshops Round 1: Vision

Date	Group	Agency Partner	Meeting Type	Attendees
Jan. 27, 2003	Seniors	Area Agency on Aging Advisory Council	Focus group	55
Feb. 4, 2003	Youth		Focus group	6
Feb. 5, 2003	Merced City		Public workshop	9
Feb. 7, 2003	Business/ Education		Focus group	9
Feb. 10, 2003	Environmental/ OutdoorRecreation		Focus group	14
Feb. 11, 2003	Atwater		Public workshop	18
Feb. 13, 2003	Delhi	Delhi MAC	Public workshop	12
Feb. 18, 2003	Franklin	Franklin MAC	Public workshop	17
Feb. 18, 2003	Winton	Winton MAC	Public workshop	23
Feb. 19, 2003	Southeast Asian	Lao Family Center	Focus group	10
Feb. 19, 2003	Agriculture		Focus group	8
Feb. 20, 2003	Los Banos		Public workshop	7
Feb. 24, 2003	Hilmar	Hilmar MAC	Public workshop	24
Feb. 25, 2003	Dos Palos		Public workshop	4
Feb. 26, 2003	Livingston		Public workshop	0
Mar. 5, 2003	Gustine		Public workshop	2
Mar. 6, 2003	TPC	Technical Planning Committee – MCAG	Committee	6
Mar. 7, 2003	CAC	Citizens Advisory Committee – MCAG	Committee	11
Mar. 12, 2003	Dos Palos PC	Dos Palos Planning Commission	Public workshop; engage PC in PIP process	
Mar. 12, 2003	Governing Board	Governing Board – MCAG	Board meeting	13
Mar. 19, 2003	Merced City PC	Merced City Planning Commission	Public workshop; engage PC in PIP process	
Mar. 24, 2003	Hispanic	1:1 interviews	Focus group	6
Mar. 26, 2003	Los Banos PC	Los Banos Planning Commission	Public workshop; engage PC in PIP process	14
Mar. 26, 2003	Merced County PC	Merced County Planning Commission	Public workshop; engage PC in PIP process	7
Mar. 26, 2003	Commuters/Drivers	The Bus	Focus group	7
Mar. 31, 2003	PIP Advisory	PIP Advisory Committee – MCAG	Ad hoc committee	23
Apr. 8, 2003	Livingston PC	Livingston Planning Commission	Public workshop; engage PC in PIP process	10
Apr. 9, 2003	Gustine PC	Gustine Planning Commission	Public workshop; engage PC in PIP process	7
Apr. 9, 2003	TRB	Technical Review Board – MCAG	Board	15

Workshops Round 2: Goals

Date	Group	Agency Partner	Meeting Type	Attendees
May 5, 2003	Le Grand	Le Grand MAC	Public workshop	12
May 6, 2003	Youth		Focus group	2
May 8, 2003	Delhi	Delhi MAC	Public workshop	22
May 9, 2003	Business/Education		Focus group	7
May 12, 2003	Agriculture		Focus group	6
May 13, 2003	Livingston	Livingston PC	Public workshop	24
May 14, 2003	Gustine	Gustine PC	Public workshop	7
May 25, 2003	Environmental/ Outdoor Recreation		Focus group	9
May 19, 2003	Seniors	Area Agency on Aging Advisory Council	Focus group	37
May 19, 2003	Franklin	Franklin MAC	Public workshop	11
May 20, 2003	Winton	Winton MAC	Public workshop	11
May 21, 2003	Merced City	Merced City PC	Public workshop	9
May 22, 2003	Southeast Asian	Lao Family Center	Focus group	9
May 27, 2003	Hilmar	Hilmar MAC	Public workshop	12
May 28, 2003	Atwater	Atwater PC	Public workshop	7
May 28, 2003	Dos Palos	Dos Palos PC	Public workshop	4
June 5, 2003	TPC	Technical Planning Committee – MCAG	Committee	11
June 6, 2003	CAC	Citizens Advisory Committee – MCAG	Committee	11
June 11,2003	Merced County	Merced County PC	Public workshop	6
June 11,2003	TRB	Technical Review Board – MCAG	Board	12
June 11,2003	Los Banos	Los Banos PC	Public workshop	9
June 12,2003	Commuters/Drivers	The Bus	Focus group	7
June 12,2003	Hispanic	Hispanic Network	Focus group	8
June 19,2003	Planada	Planada MAC	Public workshop	5
June 30,2003	PIP Advisory	Pip Advisory Committee – MCAG	Ad hoc committee	19

Date	Group	Agency Partner	Meeting Type	Attendees
Aug. 25, 2003	Seniors	Area Agency on Aging Advisory Council	Focus group	45
Sep. 4, 2003	TPC	Technical Planning Committee – MCAG	Committee	8
Sep. 8, 2003	Environmental/ Outdoor Recreation		Focus group	2
Sep. 10, 2003	Dos Palos		Public workshop	0
Sep. 10, 2003	Gustine		Public workshop	7
Sep. 17, 2003	Atwater/Franklin/ Winton		Public workshop	6
Sep. 17, 2003	Hispanic	Hispanic Network	Focus group	5
Sep. 18, 2003	Agriculture		Focus group	5
Sep. 19, 2003	Business/Education		Focus group	3
Sep. 23, 2003	Commuters/Drivers	The Bus	Focus group	3
Sep. 23, 2003	Le Grand/Planada		Public workshop	8
Sep. 24, 2003	Merced City		Public workshop	9
Sep. 25, 2003	Hilmar/Delhi		Public workshop	5
Sep. 29, 2003	Southeast Asian	Lao Family Center	Focus group	6
Oct. 1, 2003	Livingston	Livingston PC	Public workshop	15
Oct. 2, 2003	Los Banos		Public workshop	0
Oct. 3, 2003	CAC	Citizens Advisory Committee – MCAG	Committee	8
Oct. 16, 2003	Governing Board	Governing Board - MCAG	Study session	

Workshops Round 3: Problems and Solutions

Date	Group	Agency Partner	Meeting Type	Attendees
Jan. 21, 2004	PIP Advisory	PIP Advisory	Ad hoc committee	
		Committee – MCAG		
Jan. 26, 2004	Hilmar	Hilmar PC	Public workshop	14
Jan. 28, 2004	Atwater	Atwater PC	Public workshop	14
Feb. 2, 2004	Le Grand	Le Grand PC	Public workshop	15
Feb. 4, 2004	Merced City	Merced City PC	Public workshop	5
Feb. 5, 2004	Planada	Planada MAC	Public workshop	8
Feb. 5, 2004	TPC	Technical Planning Committee – MCAG	Committee	7
Feb. 6, 2004	CAC	Citizens Advisory Committee – MCAG	Committee	11
Feb. 9, 2004	Environmental/ Outdoor Recreation		Focus group	7
Feb. 10, 2004	Livingston	Livingston PC	Public workshop	23
Feb. 11, 2004	Gustine	Gustine PC	Public workshop	5
Feb. 11, 2004	TRB	Technical Review Board – MCAG	Board	11
Feb. 12, 2004	Delhi	Delhi MAC	Public workshop	19
Feb. 17, 2004	Winton	Winton MAC	Public workshop	20
Feb. 20, 2004	Business/Education		Focus group	9
Feb. 20, 2004	Commuters/Drivers	The Bus	Focus group	6
Feb. 23, 2004	Southeast Asian	Lao Family Center	Focus group	9
Feb. 23, 2004	Seniors	Area Agency on Aging Advisory Council	Focus group	37
Feb. 24, 2004	Agriculture		Focus group	3
Feb. 24, 2004	Hispanic	Hispanic Network	Focus group	8
Feb. 25, 2004	Merced County	Merced County PC	Public workshop	7
Feb. 25, 2004	Los Banos	Los Banos PC	Public workshop	11
Feb. 26, 2004	Dos Palos	Dos Palos PC	Public workshop	3
Mar. 10, 2004	PIP Advisory	PIP Advisory	Ad hoc committee	13
		Committee – MCAG		
Mar. 12, 2004	Youth	Golden Valley High	Focus group	21
		civics class		
May 15, 2004	All	Los Banos	Interactive Open House	
May 19, 2004	All	Livingston	Interactive Open House	
May 22, 2004	All	Merced	Interactive Open House	

Workshops Round 4: Scenarios

APPENDIX D:

LOCAL PROJECT LISTS

These are lists of planned local projects by mode. They are not part of the financially constrained project set. They are provided for information only.

Lead Agency	Project Description	Total Cost
		(x \$1,000)
	Bridge Projects	
Dos Palos	Branch 3 & California Avenue	65
Dos Palos	Branch 3 & Golden Gate Ave.	65
Merced Co.	Oakdale Rd. over Edendale Creek	400
Merced Co.	Arboleda Dr. over Duck Slough	400
Merced Co.	Dickenson Ferry Rd. over Bear Creek	250
Merced Co.	La Grange Rd. over S. Dry Creek	250
Merced Co.	Avenue Two over Canal Creek	600
Merced Co.	La Grange Rd. over N. Dry Creek	700
Merced Co.	Almond Ave. over Livingston Canal	400
Merced Co.	Bradbury Ave. over Highline Canal	100
Merced Co.	Relocate Concrete Headwalls (Roosevelt east of 59, Roosevelt @ Orchard, Arbor @ Roosevelt, McNamara west of Healy	349
Merced Co.	Relocate Concrete Headwalls (Sandy Mush west of Bliss, Gerard @ Tyler, Worden east of 99)	261
Merced Co.	Signal at August & 165 in Hilmar	253
Merced Co.	Sybil Crookham in Winton	260
Merced Co.	Franklin Elementary in Merced	222
Merced Co.	Merquin & Cesar E. Chavez	124
Merced Co.	Le Grand H.S. in Le Grand	217
Merced Co.	El Capitan Elementary in Delhi	401
Merced Co.	McSwain Elementary in Merced	236
Merced Co.	Lighted Crosswalk in Delhi	28
Merced Co.	Lighted Crosswalks in Hilmar	53
Merced Co.	Lighted Crosswalk in Planada	28
Merced City	16th Street over Bear Creek	500
Merced City	Bridge #C46L on Left side Bear Creek	600
Merced City	Bridge #C46R on Right side Bear Creek	600
Merced City	Highway 59 over Black Rascal Creek	3000
Merced City	M St. over Fahrens Creek	1500
Merced City	Bellevue Rd over Farens Creek	2500
Merced City	Gardner Road over Cottonwood Creek	300
	Safety Projects	
Atwater	Construction of new median barrier on Bellevue Road	338
Merced Co.	Signal Hwy 152 @ Volta	250
Merced Co.	Signal Hwy 140 @ Planada	250
Merced Co.	Signal Hwy 165 @ Bradbury	250
Merced Co.	Signal Hwy 165 @ American	250
Merced Co.	Signal Hwy 165 @ August	250
City of Los Banos	Signal Hwy 165 @ B Street	292
	Non-motorized Projects	
MCAG	Bike program- 5% set aside of CMAQ appportionment	
MCAG	I ransportation Demand Management	80
Merced City	North Merced Bike Path	280

Lead Agency	Project Description	Total Cost (x \$1,000)
Merced City	Bikeway Construction	1470
Merced City	Yosemite Parkway Beautification	150
Merced City	Bike Path to Ashby Road	150
Merced City	Ped Under-Xing along Blk Rascal Creek	90
Merced City	Pedestrian/Bikeway Bridge	100
Merced City	Merced Fahrens Bikeway	595
Merced County- Merced	Bike Under-crossing at Yosemite Ave. & Lake Road	
Merced County- Merced	Reconstruct Class I Bike Path adjacent to Lake Road from Yosemite Ave. to Lake Yosemite	635
Merced County- Merced	Class II Bike Lane on Bellevue road from UC Merced to Atwater	378
Merced County- Merced	Class II Bike Lane extension, southside Hwy 140 in Planada; Sutter St.	265
Merced County-	Class II Bike Lane, northside Hwy 140 in Planada; Plainsburg Rd east	300
Caltrans- Merced area	Bike crossing at Highway 59 and existing Class I Bear Creek Bike Path *to be included in the Highway 59 widening project	
Merced County - Hilmar	Hilmar Bike/Pedestrian Bridge across TID lateral canal No. 7	200
Merced County - Hilmar	Class II Bike Lane on Highway 165 north to Merced County Line	161
Merced County - Hilmar	Class II Bike Lane on Highway 165 south to Stevinson/Highway 140	292
Merced City	Class II Bike lane on Parsons from Yosemite Ave. south to Bear Creek Bike Path. A 4-way stop is needed at Olive Ave. & Parsons. *4-way stop not included in project cost.	67
Merced City	Class II Bike Lane on Yosemite Ave. from G Street to Lake Road	89
Merced City	Bike/Ped Bridge over Bear Creek connecting north to south between G Street and McKee Road - Parsons is likely connector	200
Merced City	Bicycle signalization at Cottonwood Creek Class I Bike Path and G Street signal	?
Merced City	Connect Class I Black Rascal Creek Bike Path north of Olive Ave. to Class I Bear Creek Bike path south of Olive Ave. at Highway 59	9
Merced City	Connect Class I Cottonwood Creek Bike path to Lake Road Class I Bike Path	200
Merced City/ Merced County	Bicycle signalization at intersections (left hand turn lane for bicycles to signal independently)	?
Merced County-	Class II Bike Lane on Hunt Road south to Ingomar Grade Road on to Volta	555
Merced County-	Class II Bike Lane on Highway 33 north to Merced County line	142
Merced County-	Class II Bike Lane on Highway 33 south to Santa Nella	22
City of Los Banos	Los Banos Bikelanes - installation of 130,000 feet of Class II Bike lanes	373
City of Los Banos	Los Banos Bicycle/Pedestrian Bridge at Monte Vista Drive	184
City of Los Banos	Los Banos Bike/Pedestrian Business Park Class I Trail	148
Merced County-	Class II Bike Lane on Walnut Ave. from Winton to Livingston	312
Merced County-	Class II Bike lane on Walnut Ave. east to Shaffer Road	45
Merced County-	Class Bike Lane on Sante Fe Drive to Cressey	139
Merced County-	Class II Bike Lane on Shafffer Road north to Oakdale Road	219
Merced County-	Class II Bike Lane on Sante Fe Drive northeast to Merced County line	214
Merced County-	Class II Bike Lane on Ballico Ave. south to El Capitan Way	78

Lead Agency	Project Description	Total Cost (x \$1,000)
Merced County-	Class II bike Lane on El Capitan Way southeast to Hilmar	274
Merced County-	Class I bike Path on TID lateral canal No. 6 from Highway 99 to Merced Ave.	100
Merced County-	Class II Bike Lane on El Capitan Way at Vincent east to Sante Fe Ave. (Cressey)	252
Merced County-	Class II Bike Lane on Livingston-Cressey Road southwest to Livingston	185
Merced County-	Class II Bike Lane on Sante Fe Drive east to Ballico	117
Merced County-	Class II Bike Lane on El Capitan Way east to Delhi	250
Merced County-	Class II Bike Lane on Highway 140 east to Gustine	420
Merced County-	Class II bike Lane on Highway 165 south to Los Banos	456
Merced County-	Class II Bike Lane on Highway 333 south to Highway 152	69
Merced County-	Class II Bike Lane on Henry Miller Road east to Los Banos	211
Merced County-	Class I Bike Path on the Delta Mendota Canal from the Merced County Line north to south	3600
Dos Palos	Class I Bike Path loop on Delhi canals (Colony Main canal, Colony Branch No. 2, colony Branch No. 3)	900
Merced County-	Class II Bike Lane on Plainsburg Road from Highway 140 north to South Bear Creek	90
Merced County-	Class II Bike Lane on Plainsburg Road from Highway 140 east to Merced County line	297
Merced County-	Class II Bike Lane on Santa Fe Drive southeast to Le Grand	244
Merced County-	Class II Bike Lane on Sante Fe Drive south to Merced County line	259
Merced County-	Class II bike lane on Highway 59 from G Street to Merced Falls Road	47
Merced County-	Class II Bike Lane on La Grange Road north to Merced County line	47
Merced County-	Class II Bike Lane on Highway 59 east to La Grange Road	523
	Various Local Projects	020
Dos Palos	Reconstruct sidewalks, curbs, & gutters	185
Dos Palos	Various Road Maintenance & Repair	700
Dos Palos	Reconstruct California Avenue	320
Dos Palos	Downtown Alley Replacement	10
Dos Palos	ROW Acquisition Powers/Pafford Street	15
Dos Palos	Reconstruct Frank Avenue	300
Dos Palos	Reconstruct Golden Gate Avenue	310
Dos Palos	Reconstruct Center Avenue	300
Dos Palos	Reconstruct East Blossom	250
Dos Palos	Reconstruct Marguerite Street	285
Dos Palos	Repair & Overlay Lorraine Street	9
Dos Palos	Reconstruct W. Almond, Redfern, & General	22
Gustine	Citywide Reconstruction of Curbs, Gutters, and sidewalks	140
Gustine	New Signal at intersection of Hwy 33 and Hwy 140	35
Gustine	New Signal at intersection of Hwy 33 and Sullivan Rd.	70
Gustine	Reconstruct Various City Alleys	210
Gustine	Reconstruct Carnation Rd.	157
Gustine	Overlay Fentem Rd. from Jensen to Canal	89
Gustine	Overlay North Avenue from Linden to Hwy 33	92
Gustine	Overlay Lucerne Avenue from Jensen Rd. to West Avenue	70
Gustine	Citywide Overlay in Conjunction with Waterline Replacements	210
Livingston	Winton Parkway 4 mil	4000
Livingston	Livingston-Cressy Rd. (Highway 99 - Swan Street)	400
Livingston	F Street (City Limits to 5th Street)	200

Lead Agency	Project Description	Total Cost (x \$1,000)
Livingston	Main Street (F Street to Front Street)	400
Livingston	Peach Street (within City Limits)	300
Livingston	D Street (West of 5th Street)	53
Livingston	E Street (Main to 5th Street)	100
Livingston	5th Street (E Street to F Street)	25
Livingston	White Street (Hwy 99 to Swan Street) Completed	60
Livingston	Front Street (West of 6th Street)	125
Livingston	Various Curb & Gutter Projects	150
Livingston	Hammatt Street (F to Park)	180
Los Banos	New Construction: Page Ave from 11th St East to Hwy 165	101
Los Banos	Construct alley in block surrounded by Fourth, Fifth, H and I St	21
Los Banos	New Construction: parts of Cardoza Rd. from Center to Ortigalita	138
Los Banos	Construct Right Turn Lane: EB Hwy 152 to SB Hwy 165	157
Los Banos	Place Rd. Extension, east of new Los Banos Jr. High	262
Los Banos	Extension of Place Rd. from Hwy 152 to San Luis St.	472
Los Banos	Extension of West I St. to Pioneer Rd.	184
Los Banos	Extension of Jefferson St. from South 11th to Hwy 165	157
Los Banos	Extension of South 12th St. from Hwy 152 to Page Ave.	735
Los Banos	Extension of Ward Rd. to Henry Miller Ave.	1575
Los Banos	Construct Intersection of Overland Ave. and Ingomar Grade	157
Los Banos	Extension of Airport Blvd. from Airport to Badger Flat Rd.	236
Los Banos	Extension of Pioneer Rd. to Ward Rd.	367
Merced City	Class I Bikeway Maint/Repair	350
Merced City	Street Cyclical Maintenance (PMS)	15970
Merced City	Alley Reconstruction	1937
Merced City	Class II Repaint Bikelanes	78
Merced City	Parsons Avenue Construction	9000
Merced City	Miscellaneous Drainage Improvements	1050
Merced City	Bradley Overhead	700
Merced City	Curb/Gutter Replacement	3500
Merced City	Sidewalk Repalcement	1540
Merced City	New Signals - Growth	9800
Merced City	New Signal - 13th & G Street	150
Merced City	New Signal - 13th & M Street	150
Merced City	New Signal - Santa Fe & Glen Avenue	120
Merced City	New Bridge - Yosemite Avenue at Fahrens Creek	2250
Merced City	Reconstruct 14th Street	160
Merced City	Reconstruct Melody Lane	120
Merced City	Overlay 28th - G Steet to Canal Street	75
Merced City	Reconstruct 13th Street - X Street Loop	100
Merced City	New Signal - Main & V Street	120
Merced City	Replace Signal 18th & R Street	120
Merced City	Replace Signal 18th & MLK Way	150
Merced City	Overlay G Street - 16th to Olive Avenue	5000
Merced City	New Signal - 25th & M Streets	150
Merced City	Childs Avenue Drainage Correction	350
Merced City	New Signal - 8th & R Steets	100
Merced City	Reconstruct E Santa Fe G Street to 6th Street	1200
Merced City	Reconstruct North Bear Creek Drive	1800
Merced City	Reconstruct West Ave Wardrobe to Hwy 140	600
Merced City	Replace Signal 18th & Canal Streets`	150

Lead Agency	Project Description	Total Cost (x \$1,000)
Merced City	Replace Signal Main & Canal Streets	150
Merced City	Resurface Brookdale Drive Area	160
Merced City	New Signal - Alexander & Parsons	120
Merced City	New Signal 8th & M Streets	150
Merced City	Reconstruct D Street - Childs Ave. to 12th Street	2000
Merced City	Reconstruct B Street - Childs Ave. to 13th Street	2500
Merced City	New Signal - Olive & McKee	130
Merced City	New Signal - Olive & Parsons	130
Merced City	Overlay 25th to 27th - G to M Streets	1400
Merced City	Overlay 18th to 23rd - G to M Streets	2800
Merced City	Replace Signal 18th & G Streets	150
Merced City	New Bridge - R Street at Fahrens Creek	2250
Merced City	R Street - Yosemite to Cardella	3335
Merced City	G Street - Yosemite to Cardella	3335
Merced City	Cardella - Thorton to Hwy 59	3000
Merced City	Bellevue - Thorton to Hwy 59	3335
Merced City	Resurface 23rd Street - P to N Streets	240
Merced City	Resurface Q Street - 16th to 23rd Streets	380
Merced City	New Signal 11th & K Streets	120
Merced City	New Signal 7th & T streets	100
Merced City	Yosemite Avenue - R to Hwy 59	1500
Merced City	Cardella Rd R to G Streets	3000
Merced City	Bellevue - Hwy 50 to R Street	3335
Merced City	New Bridge on G Street at Cottonwood Creek	2250
Merced City	New Bridge on M Strret at Cottonwood Creek	1500
Merced City	Replace Signal - 21st & Glen	150
Merced City	Replace Signal - 20th & R Street	150
Merced City	Cardella Rd Hwy 59 to R Street	3000
Merced City	Bellevue Rd R to G Street	3335
Merced City	New Bridge - Cardella at Fahrens Creek	1875
Merced City	Replace Signal at 26th and G	130
Merced City	Replace Signal at Main St. and N	120
Merced City	Childs Ave.	8788
Merced City	New Signal at Grogan and West	120
Merced City	New Signal at Yosemite Ave. and R Street	200
Merced City	New Signal at 15th and O	120
Merced City	New Signal at Childs and R	1120
Merced City	R St Cardella to Bellevue	3335
Merced City	G St Cardella to Bellevue	3335
Merced City	Cardella - G to Gardner	3000
Merced City	Cardella - Gardner to Old Lake	3000
Merced City	Yosemite Ave Hwy 59 to Thornton	3000
Merced City	Gardner - Yosemite to Cardella	2480
Merced City	Bellevue - G to Gardner	3335
Merced City	Bellevue - Gardner to Old Lake	3335
Merced City	Thorton - Mission to Hwy 140	4960
Merced City	M St. Transitway - Yosemite to Cardella	5000
Merced City	M St. Transitway - Cardella to Bellevue	2500
Merced City	Santa Fe/Lake RR Grade Separation	7000
Merced City	Santa Fe/G St. RR Grade Separation	8000
Merced City	Reconstruct Lopes from West to Thornton	500

Lead Agency	Project Description	Total Cost (x \$1.000)
Merced County	Husman RdHwy 33 To Ingomar	900
Merced County	Gurr RdDickenson Ferry To Rodner	600
Merced County	Gurr Rd- Rodner To Duck Slough	600
Merced County	Gurr RdDuck Slough To Sandy Mush	600
Merced County	Hunt RdR/R To Cottonwood	2000
Merced County	Letteau Avenue-Griffith To Shanks	350
Merced County	Buchanan Hollow-Hwy 99 To Minturn	1600
Merced County	Cottonwood RdHwy. 33 To Hunt	500
Merced County	Ortigalita RdL.B. To Mervel	470
Merced County	Childs Avenue- Plainsburg To Merced City	420
Merced County	La Grange RdHwy 59 To County Line	450
Merced County	Pioneer Rd Ortigalita To Volta	800
Merced County	Volta RdPioneer To Hwy 152	400
Merced County	Volta RdHwy 152 To Ingomar	250
Merced County	Merced Falls-La Grange To Hornitos	420
Merced County	Merced Avenue-August To Swanson	525
Merced County	Mitchell RdTurner To County Line	1000
Merced County	Mc Henry RdArboleda To Hwy 99	150
Merced County	Burchell Road - Le Grand Rd. To Santa Fe	1000
Merced County	Burchell RdSanta Fe To Childs	600
Merced County	Plainsburg RdMiles Ck To Hwy 99	650
Merced County	Arboleda Drive-Yosemite To Hwy 99	500
Merced County	Yosemite Avenue-Merced City To Arboldeda	250
Merced County	Olive Avenue-Merced City To Arboleda	1500
Merced County	Sandy Mush-Hwy 99 To Healy	2000
Merced County	Sandy Mush -Healy To Hwy 59	250
Merced County	Ingomar Grade - Henry Miller to Cottonwood	750
Merced County	Turned Island - Hwy 152 to Sandy Mush	1000
Merced County	Snelling Rd - Bellevue to Hwy 59	1500
Merced County	Mariposa Avenue- Hwy 99 To Burchell	500
Merced County	Santa Fe Drive-El Capitan To Co.Line	375
Merced County	Oakdale RdDry Creek To County Line	375
Merced County	Turlock RdDry Creek To Lee	200
Merced County	Bradbury Ave - Lee To Santa Fe	200
Merced County	Lee Road-Bradbury To Oakdale	200
Merced County	Santa Fe Drive-Hwy 59 To Atw.	1000
Merced County	Buhach RdHwy 99 To Hwy 140	200
Merced County	Bellevue -Hwy 99 To City Atwater	1000
Merced County	Bellevue-Santa Fe To Franklin	1500
Merced County	Bellevue-Franklin To Lake Rd	450
Merced County	Westside BlvdLincoln To Hwy 99	1700
Merced County	Le Grand RdSanta Fe To 99	500
Merced County	Bloss Ave-Sycamore To Hwy 165	350
Merced County	Sycamore Avenue-Bloss To Main Street	70
Merced County	Vincent Avenue-El Capitan To Co. Line	250
Merced County	Montgomery Street-Hwy 59 To Keyes Rd	70
Merced County	Keyes RdMontgomery St. To Cox Ferry	210
Merced County	River RdKelley To Hwy 165	2450
Merced County	Lincoln Blvd-Livingston To Hwy 140	375
Merced County	Almond Avenue-Creek Rd To Hwy 165	225
Merced County	Orchard RdCo.Line To Cottonwood	400

Lead Agency	Project Description	Total Cost (x \$1,000)
Merced County	Poleline RdHwy 165 To Co. Line	400
Merced County	Eagle Field RdPoleline To County Line	260
Merced County	Rosevelt-Hwy 59 To Bliss	4100
Merced County	Washington -Hwy 59 To County Line	375
Merced County	Lexington-Eucalyptus To Blossom	150
Merced County	Henry Miller- Hwy 33 to Turner Island	2000
Merced County	Mission Avenue-Henry To Hwy 59	1500
Merced County	Henry Street-Vassar To Mission	500
Merced County	Vassar Avenue-Healy To Henry	750

APPENDIX E:

SAFETEA-LU PLANNING AREAS

SAFETEA-LU PLANNING AREAS

On August 10, 2005 President Bush signed into law the Safe, Accountable, Flexible, Efficient, Transportation Equity Act – A Legacy for Users (SAFETEA-LU). SAFETEA-LU is the most recent federal transportation bill, having been preceded by the 1998 Transportation Equity Act for the 21st Century (TEA-21) and the 1991 Intermodal Surface Transportation Equity Act (ISTEA).

Federal transportation statutes have for years required multimodal transportation planning by MPOs. Previous federal transportation legislation and now SAFETEA-LU require states to plan as well. Each state must create a long-range plan, which should be a composite of the MPOs' plans combined with the state's plan for the areas outside of the MPOs jurisdiction. SAFETEA-LU provides the framework in its provision of flexible funds so that areas can build the systems that best meet their needs.

SAFETEA-LU identifies eight broad planning areas to be considered in the planning process. Those areas are as follows:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

Transportation infrastructure and transit service intrinsically support the Merced County economy and its agricultural base. Major routes including I-5, SR 99, and SR 152 serve regional and interstate freight and travel; numerous projects on these routes and others that feed them are included in this plan. Construction of the 10th campus for the University of California, Merced, and providing transportation infrastructure to serve it will support economic growth and enable our region to compete globally.

2. Increase the safety of the transportation system for motorized and non-motorized users.

Safety projects are included in the project lists for this plan, but many more are merged into other categories such as intersection improvements. One program is directly focused on safety: the Safety Authority for Freeway Emergencies (call box) program (SAFE).

3. Increase the security of the transportation system for motorized and non-motorized users.

In addition to safety and security as it relates to the streets and highways system, continued development of the region's multipurpose trail and bicycle facilities will also require development of policies by local agencies to promote safety and security for users

4. Increase the accessibility and mobility options available to people and for freight.

The enhancement of mobility for people is discussed in numerous sections of the Action Element. Goods movement is discussed in its own section of the Action Element. Policies supportive of this desired outcome are included in comparable sections of the Policy Element.

5. Protect and enhance the environment, promote energy conservation, and improve quality of life.

The overall environmental impacts of transportation decisions are discussed and documented in the Environmental Assessment prepared in conjunction with the RTP. The Policy Element of the RTP reflects specific goals, objectives and policies directed toward energy conservation. The Transportation Systems Management section of the RTP seeks to be responsive to energy conservation goals by implementing traffic and public transit improvements and by encouraging the use of non-motorized forms of transportatio

6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

Better integration of modes is addressed in this plan through a variety of projects. The transit system is continually working on better transfer connections between modes. The Ridesharing and Bicycle programs are new and revitalized initiatives to integrate transportation modes. The YARTS program, administered by MCAG, is a major effort to enhance connectivity between modes for people. The transit system allows Park visitors and gateway community employees the option of taking transit to the Park.

7. Promote efficient system management and operation.

The plan encourages efficient management and operation in the Policy Element and includes numerous projects in the areas of transportation demand management (TDM) and transportation system management (TSM). Also, MCAG operates a Geographic Information System and a Traffic Model. These are key in the promotion of system management. They permit the efficient collection of data and the use of analytical tools to evaluate and select strategies for management and operation.

8. Emphasize the preservation of the existing transportation system.

Maintenance is a concern often expressed both by the staff of local agencies and by local elected officials., and a large portion of the available funding is dedicated to preservation and maintenance. A cooperative partnership with member agencies resulted in a Pavement Management System which will enable each agency to constructive preventative maintenance programs, making the best use of inadequate funding.
APPENDIX F:

PERFORMANCE MEASURES

Criteria	Criteria System-Wide Technique (info source & tools in pare		
	Performance Measures		
Mobility	1. Delay	1. % of daily travel on Regional Road Network that is delay (traffic model)	
	2. Peak Hour Level of Service	2. % reduction from no build in lane miles that are deficient (Level of Service E or worse) in the peak hour (traffic model)	
Access	1. Time to Destinations	1. average time from home to major destinations (work, shop, school, play), weighted by population density (GIS)	
	2. Time to Transportation System	2. average time from home to each modal system (highway, transit, rail, air, bike), weighted by population density (GIS)	
Connectivity	1. Mode Choice	1. % increase in investments promoting alternate modes	
	2. Land Use Integration	2. % reduction from no-build in average trip length	
Safety	1. Accident History	1. 3-year accident history at all locations where improvements are	
		proposed (CHP accident database, GIS)	
	2. Unsafe conditions	2. number of safety deficiencies corrected (manual analysis)	
System Preservation	1. Pavement Condition	1. average pavement condition (Pavement Management System)	
Efficiency	1. Roadway Utilization	1. % of daily travel that is at 50-90% of capacity (traffic model)	
	2. Transit Utilization	2. % of transit system capacity used (transit plan)	
Protection	1. Agriculture	1. acres of ag lands directly impacted by transportation improvements (GIS, UPlan)	
	2. Habitat and Species	2. acres of habitat and species directly impacted (GIS, UPlan)	
	3. Total Land Consumption	3. acres of all land converted to urban uses. <i>including cumulative</i>	
	er rom zune consumption	effects of land use plans (UPlan and Cumulative Impact Analysis)	
	4. Air Quality	4. % reduction from no build in tons per day of regulated pollutants (EMFAC 2002)	
	5. Water Quality	5. EIR Water Quality analysis - % of population impacted	
	6. Noise	6. EIR noise analysis - % of population impacted by noise	
	7. Energy	7. % reduction from no build in trips per day and vehicle miles traveled (VMT) (traffic model)	
Equity	1. Minorities, Low-Income	1. % of minority and low-income populations potentially impacted by transportation improvements (GIS, Census)	
Economic Vitality	1. Access to employment	1. average time to highway system from major employment centers	
	centers	(over 100 employees) (traffic model)	
	2. Time (goods)	2. average truck trip time (truck model)	
Cost-Effectiveness	1. Benefit-cost ratio A	1. Weight above measures equally and divide by total regional cost.	
	2. Benefit-cost ratio B	2. Caltrans' B/C model establishes \$ values for savings in accidents, time, user costs, and public health. Also gives rate of return on investment.	

APPENDIX H

PUBLIC REVIEW

The Draft 2011 MCAG Regional Transportation Plan (RTP) was circulated for a 45-day public review period that began April 30, 2010 and concluded on June 14, 2010. A public hearing was held May 20, 2010.

This appendix includes the following:

- public notice;
- proof of publication;
- notice of availability cover letter (without attachments);
- the three comment letters received and responses to these comments; and
- a copy of the signed adopting resolution.

NOTICE OF PUBLIC HEARING ON THE DRAFT 2011 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM, THE DRAFT 2011 REGIONAL TRANSPORTATION PLAN, THE DRAFT ENVIRONMENTAL IMPACT REPORT AND CORRESPONDING DRAFT CONFORMITY ANALYSIS

NOTICE IS HEREBY GIVEN that the Merced County Association of Governments (MCAG) will hold a public hearing on May 20, 2010 at 3:00 p.m. at the City of Los Banos Council Chambers, 520 J Street, Los Banos, CA, regarding the Draft 2011 Federal Transportation Improvement Program (2011 FTIP), the Draft 2011 Regional Transportation Plan (2011 RTP), the Draft Supplemental Environmental Impact Report (EIR) and corresponding Draft Air Quality Conformity Analysis for the 2011 FTIP and 2011 RTP. The purpose of this combined public hearing is to receive public comments on these documents.

- The 2011 FTIP is a near-term listing of capital improvement and operational expenditures utilizing federal and state monies for transportation projects in Merced County during the next four years.
- The 2011 RTP is a long-term strategy to meet Merced County transportation needs out to the year 2035.
- The Supplemental EIR provides an analysis of potential environmental impacts related to the implementation of the RTP as required by the California Environmental Quality Act.
- The Conformity Analysis contains the documentation to support a finding that the 2011 FTIP and 2011 RTP meet the air quality conformity requirements for ozone and particulate matter.

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

A concurrent 45-day public review and comment period will commence on April 30, 2010 and conclude on June 14, 2010. The draft documents are available for review at the MCAG office, located at 369 West 18th St., Merced, CA and on the MCAG website at "http://www.mcagov.org".

Public comments are welcomed at the hearing, or may be submitted in writing by 5 p.m. on June 14, 2010 to Matt Fell at the address below.

After considering the comments, the documents will be considered for adoption, by resolution, by the Merced County Association of Governments at a regularly scheduled meeting to be held on July 15, 2010. The documents will then be submitted to state and federal agencies for approval.

Contact Person:	Matt Fell, Senior Planner
	369 W. 18 th St.
	209-723-3153
	matt.fell@mcagov.org

Proof of Publication

(2015.5 C.C.P)

Proof of Publication of NOTICE OF PUBLIC HEARING

STATE OF CALIFORNIA

County of Merced

) ss.

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the Merced Sun-Star, a newspaper of general circulation, printed and published in the City of Merced, County of Merced, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Merced, State of California, under the date of July 14, 1964, Case Number 33224 that the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

APRIL 30, 2010

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Signature

Date: APRIL 30, 2010

This space reserved for County Clerk's Filing Stamp

NOTICE OF PUBLIC HEARING ON THE DRAFT 2011 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM, THE DRAFT 2011 REGIONAL TRANSPORTATION PLAN,

THE DRAFT ENVIRONMENTAL IMPACT REPORT AND CORRESPONDING DRAFT CONFORMITY ANALYSIS

CORRESPONDING DRAFT Control data to the control Association of Governments (MCAG) will hold a public hearing on May 20, 2010 at 3:00 p.m. at the City of Los Banos Council Chambers, 520 J Street, Los Banos, CA, regarding the Draft 2011 Federal Transportation Improvement Program (2011 FTIP), the Draft 2011 Regional Transportation Plan (2011 RTP), the Draft Supplemental Environmental Impact Report (EIR) and corresponding Draft Air Quality Conformity Analysis for the 2011 FTIP and 2011 RTP. The purpose of this combined public hearing is to receive public comments on these documents.

 The 2011 FTIP is a near-term listing of capital improvement and operational expenditures utilizing federal and state monies for transportation projects in Merced County during the next four years.

 The 2011 RTP is a long-term strategy to meet Merced County transportation needs out to the year 2035.

 The Program EIR provides an analysis of potential environmental impacts related to the implementation of the RTP as required by the California Environmental Quality Act.

 The Conformity Analysis contains the documentation to support a finding that the 2011 FTIP and 2011 RTP meet the air quality conformity requirements for ozone and particulate matter;

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

A concurrent 45-day public review and comment period will commence on April 30, 2010 and conclude on June 14, 2010. The draft documents are available for review at the MCAG office, located at 369 West 18th St., Merced, CA and on the MCAG website at "http://www.mcagov.org".

Public comments are welcomed at the hearing, or may be submitted in writing by 5 p.m. on June 14, 2010 to Matt Fell at the address below. After considering the comments, the documents will be considered for

adoption, by resolution, by the Merced County Association of Governments at a regularly scheduled meeting to be held on July 15, 2010. The documents will then be submitted to state and federal agencies for approval.

Contact Person:

Matt Fell, Senior Planner 369 W. 18th St. 209-723-3153

SS-40093 April 30, 2010

matt.fell@mcagov.org

Proof of Publication - Merced Sun-Star, P.O. Box 739, Merced, California 95341 - Phone 722-1511 Adjudged a newspaper of general circulation by court decree No. 33224 dated July 14, 1964



- **DATE:** April 30, 2010
- **TO:** Interagency Consultation Partners and Public
- **FROM:** Matt Fell, Staff

RE: Availability of Draft 2011 FTIP, Draft 2011 RTP, Draft EIR, and Corresponding Draft Conformity Analysis for Interagency Consultation and Public Review

Merced County Association of Governments (MCAG) is proposing a Draft 2011 Federal Transportation Improvement Program (2011 FTIP) and 2011 Regional Transportation Plan (2011 RTP), including Supplemental Environmental Impact Report (EIR) and corresponding conformity analysis. Associated documentation is attached as indicated below.

- The 2011 FTIP is a near-term listing of capital improvement and operational expenditures utilizing federal and state monies for transportation projects in Merced County during the next four years. See Attachment 1
- The 2011 RTP is a long-term strategy to meet Merced County transportation needs out to the year 2035. See Attachment 2
- The Supplemental EIR provides an analysis of potential environmental impacts related to the implementation of the RTP as required by the California Environmental Quality Act. See Attachment 3
- The Conformity Analysis contains the documentation to support a finding that the 2011 FTIP and 2011 RTP meet the air quality conformity requirements for ozone and particulate matter. See Attachment 4
- Public Involvement: Attachment 5 includes the Draft Public Notice and Adoption Resolution.

The public review and comment period is open for 45 days commencing on April 30, 2010 and ending on June 14, 2010. A public hearing will be held May 20, 2010; comments are due by 5 p.m. on June 14, 2010. These documents can also be viewed on the MCAG website at "http://www.mcagov.org".

The MCAG Board of Directors will consider the adoption of the Draft 2011 FTIP, RTP, EIR, and Corresponding Conformity Analysis on July 15, 2010 at 3 pm. The meeting will be held at the City of Livingston Council Chambers, 1416 C Street.

In conclusion, the Draft 2011 FTIP, RTP, EIR and Conformity Analysis meet all applicable transportation planning requirements per 23 CFR Part 450, 40 CFR Part 93, and conform to the applicable SIPs. If you have any questions or would like to submit comments, please contact Matt Fell, 209-732-3153 or "matt.fell@mcagov.org".

Partnering for Regional Solutions

Comments Received

The Draft 2011 MCAG Regional Transportation Plan (RTP) was circulated for a 45-day public review period that began April 30, 2010 and concluded on June 14, 2010. A public hearing was held May 20, 2010.

Three comment letters were received. No comments were made at the public hearing. No additional oral or written comments were received.

Letter No.	Commenter	Agency/Organization	Date
1	Tom Dumas	California Department of	June 14, 2010
		Transportation – District 10, Office	
		of Metropolitan Planning	
2	Chris Ganson	United States Environmental	June 15, 2010 via email
		Protection Agency Region IX	
3	Sue Kiser for	Federal Highway Administration –	June 16, 2010
	Vincent Mammano	California Division	

Copies of these comment letters and responses to them follow.

Comment Letter #1 (Caltrans)

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STATE OF CALIFORNIA -BUSINESS TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Oovernor

DEPARTMENT OF TRANSPORTATION P.O. BOX 2048 STOCKTON, CA 95201 (1976 E. CHARTER WAY/1976 E. DR. MARTIN LUTHER KING JR. BLVD. 95205) TTY: Califomia Relay Service (800) 735-2929 PHONE (209) 941-1921

June 14, 2010

FAX (209) 948-7194

10-MER-Various Draft 2011 RTP

Matt Fell Merced County Association of Governments Planning 369 W. 18th Street Merced, CA 93540

Dear Mr. Fell:

The Department of Transportation (Department) appreciates the opportunity to review and comment on the Merced County Association of Governments (MCAG) Draft 2011 Regional Transportation Plan (RTP). The Department has the following comments:

Public Participation:

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- The Department would suggest including a discussion of public participation and outreach efforts associated with the development of the 2011 RTP. For example, it would be helpful to provide an explanation of how public input was gathered; which specific State and local representatives were involved; which specific private interests were involved; whether Native American Tribal Governments were involved; as well as the extent of the involvement of these stakeholders; and lastly, how these stakeholder groups were given an opportunity to provide comments.
- Please include a discussion demonstrating clearly how MCAG's public outreach and interagency coordination process meets the requirements of 23 CFR 450.316(1)(i-x), 23 CFR 450.316(3)(b), CFR 450.316(c), 23 CFR 450.322(g), and 23 CFR 450.316(i).

Consultation and Coordination:

- The Department would suggest including a discussion of interagency coordination and private sector involvement efforts.
- Please include a discussion of the Public Transit-Human Services Transportation Plan and how the RTP is coordinated with this plan.
- Please include a discussion of the consultation with state and local representatives, environmental, economic, airport, transit, and freight authorities.
- Please include a discussion of involvement with federal land management agencies during the development of the RTP.

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Mr. Matt Fell June 14, 2010 Page 2

- Please include a discussion of consultation with state and local agencies responsible for land use, natural resources, environmental protection, conservation, and historic preservation (23 CFR Part 450.322 (g).
- We encourage a discussion of coordination efforts with regional air quality planning authorities in the region.
- We recommend including a statement or reference in the RTP regarding the EIR and the comparison to the California State Wildlife Action Plan (23 CFR Part 450.322 (g)).

Financial:

- The Department is unable to determine whether the cost estimates for implementing the projects identified in the RTP reflect inflation rates. The RTP should clearly specify how inflation is considered in the estimate of future transportation costs.
- Please include a discussion or provide statements regarding consistency between the projects in the RTP and the Interregional Transportation Improvement Program (ITIP), as well as the Federal Transportation Improvement Program (FTIP). Consistency between the RTP and the ITIP, as well as the FTIP, is required per the 2006 State Transportation Improvement Program Guidelines, sections 33 and 19.

Modal:

Please include a discussion of the intermodal and connectivity issues in the region.

Environmental;

- Please include the list of projects specifically identified as TCMs..
- Please include the page or page numbers where the discussion of SIP conformity is located.
- Please include the page or page numbers where the specific mitigation activities are located. FHWA would like to see the discussion in the RTP, and not just in the environmental document. Federal regulations require MPOs to include a discussion on the 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).
- In Table X: Regionally Funded Projects, page 39, the Department questions whether or not segments 2 and 3 of the SR-152 Los Banos Bypass should be in tier 2 rather than tier 1. If the segments indeed do belong in tier 2, please remember to correct the tier 1 and 2 totals.
- Please modify the description of the SR-99 Merced Freeway 6 Lane project located in tier
 2, line four, to Merced to Atwater Freeway (Post Mile 12.8 19.3), in Table X on page 39.

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Mr. Matt Fell June 14, 2010 Page 3

- In tier 2 line five in Table X on page 39, please add "and Applegate Interchange (Post Mile 20.9-23.8)" to the project description.
- Please remove line six in the tier 2 projects listed on page 39 as the project is part of the line five project.
- In Table X on page 39, please add the Atwater Merced Expressway (AME) Phase 1A (Post Mile 19.3 20.9) to the tier one (1) project list at a cost of \$98.1 million.

If you have any questions, please contact Joshua Swearingen at (209) 948-7142 (email: Joshua_swearingen@dot.ca.gov) or me at (209) 941-1921. We look forward to continuing to work with you in a cooperative manner.

Sincerely,

TOM DUMAS, Chief Office of Metropolitan Planning

"Caltrans improves mobility across California"

Responses to Comment Letter #1 (Caltrans)

Response to Comment 1-1:

A more detailed description of public participation, outreach efforts, and interagency consultation was added to pages 3-5.

Response to Comment 1-2

A more detailed description of public participation, outreach efforts, and interagency consultation was added to pages 3-5.

Response to Comment 1-3

A more detailed description of public participation, outreach efforts, and interagency consultation was added to pages 3-5.

Response to Comment 1-4

Pages 54-55 include a discussion of the Coordinated Transit Servie Plan.

Response to Comment 1-5

A more detailed description of public participation, outreach efforts, and interagency consultation was added to pages 3-5.

Response to Comment 1-6

A more detailed description of interagency consultation was added to pages 3-5.

Response to Comment 1-7

A more detailed description of interagency consultation was added to pages 3-5.

Response to Comment 1-8

Pages 4 and 6 discuss coordination with regional air quality planning authorities.

Response to Comment 1-9

A statement about the Wildlife Action Plan was added to page 86.

Response to Comment 1-10

A discussion of inflation rates was added to page 46.

Response to Comment 1-11

A consistency statement was added to page 46.

Response to Comment 1-12

Intermodal and connectivity issues in the region are discussed throughout the Action Element, for examples pages 52, 56, 60, and 66-70.

Response to Comment 1-13

Specific TCM categories are identified on page 85. Further information on timely implementation of control measures is included in the Conformity Analysis, chapter 4 and Appendix D.

Response to Comment 1-14

SIP conformity is discussed on page 4.

Response to Comment 1-15

A detailed discussion of environmental analyses and mitigation measures was added at pages 87-95.

Response to Comment 1-16

Segment 3 of the Los Banos Bypass was placed in "Tier 2" and all totals were adjusted accordingly.

Response to Comment 1-17

The requested change was made.

Response to Comment 1-18

The requested change was made.

Response to Comment 1-19

The requested change was made.

Response to Comment 1-20

The requested change was made.

Comment Letter #2 (US EPA)



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

Matt Fell Merced County Association of Governments 369 West 18th Street Merced, CA 95340

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

Dear Mr. Fell:

The U.S. Environmental Protection Agency (EPA) appreciates the opportunity to provide comments on the Merced County Association of Governments (MCAG) 2011 Draft 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. 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. While EPA did not complete a comprehensive review of the MCAG RTP, we provide the following comments in support of compliance with these requirements. While we understand some of the provided recommendations below may not be able to be incorporated into this RTP revision, we hope that the concepts and principles identified can be incorporated into the next RTP revision.

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 health and environmental impacts for its residents and costs to its economy totaling approximately \$1600 per capita annually. The valley's geography and meteorology traps pollutants, so special attention must be given to reducing the amount of pollutants emitted. Transportation within the valley contributes a significant portion of these pollutants, and conversely reduction of vehicle travel can provide reductions for all pollutants. Reducing emissions from transportation is



necessary to improving the valley's air quality. While improvements in fuel efficiency and vehicle technology will contribute to a reduction in emissions, substantial focus on and investment in travel efficiency measures (e.g. smart growth and transportation demand management (TDM)) is also needed to further reduce emissions in the San Joaquin Valley.

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 accomplishes both and also creates opportunities for active transportation modes. Such development patterns, and the transportation patterns they help create, in turn can create environmental and livability benefits. These concepts and others are included in Caltrans' recently completed *Smart Mobility 2010: A Call to Action for the New Decade.* In particular, EPA would like to call attention to its discussion of performance measures aimed at quantifying the benefits of integrated planning:

Transportation performance measures forecast, evaluate, and monitor the degree to which the transportation system accomplishes adopted public goals and mobility objectives. Smart Mobility Performance Measures demonstrate the relationship between integrated transportation and land use decisions and the consequent effects on the full range of economic, social, and environmental conditions. (p. 50)

As detailed in the document, EPA recommends incorporation of carefully chosen performance measures to inform and guide planning efforts.

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 you to consider the principles identified through this partnership when working to integrate the regional blueprint concept into regional planning. More information on this partnership, including grant opportunities, can be found at <u>http://www.epa.gov/smartgrowth/partnership/</u>. 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 recognizes that San Joaquin Valley MPOs intend to apply the ongoing regional blueprint process to identify preferred growth scenarios for the future which will serve as the foundation for determining a Sustainable Community Strategy. EPA recommends that, from a regional perspective, the RTP identify how proposed transportation projects have been planned to (1) more efficiently use existing infrastructure, for example by incorporating intelligent transportation systems or improving transit service, rather than adding new infrastructure; (2) satisfy regional residents' need for efficient access to goods and services in the way that 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.

In the next RTP cycle, SB 375 will require the preparation of a Sustainable Communities Strategy (SCS). In a growing region, the SCS provides an excellent opportunity to consider land use and environmental implications of transportation network improvements and integrate smart growth opportunities into the RTP. In its SCS, EPA recommends that including discussions of the other goals and criteria of the regional blueprint and how each relates to and/or influences the RTP. EPA also encourages providing support and resources to local jurisdictions to make their general plans and proposed projects consistent with the RTP and the San Joaquin Valley Blueprint (<u>http://www.valleyblueprint.org/</u>).

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 MCAG to consider the principles identified through this partnership when working to integrate the blueprint concept into regional planning. As mentioned above, more information on this partnership, including grant opportunities, can be found at <u>http://www.epa.gov/smartgrowth/partnership/</u>. A summary of Sustainability Programs at HUD, DOT, and EPA is enclosed.

Plan for Smart Growth Associated with High Speed Rail Stations.

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High Speed Rail holds the potential to revitalize those communities in which it stops; it also holds the potential to cause them to become bedroom communities for thriving centers elsewhere. The former could lead to shorter trip distances, mode shift away from the single occupancy vehicle, and greatly improved livability, while the latter could exacerbate congestion, air quality, greenhouse gas emissions, and livability. Thus, planning vibrant station areas is paramount.

EPA strongly recommends that San Joaquin Valley MPOs work closely with member jurisdictions to integrate High Speed Rail into the transportation network and built environment in ways that reduce private motor vehicle travel, encourage transit, biking and walking. We in particular, we encourage prioritization of residential and commercial development over parking, and higher density infill and brownfields development, in these areas.

Discuss Greenhouse Gas Implications and Preparation for a Carbon Constrained Future Transportation Network.

Many factors influence transportation greenhouse gas emissions. While population and employment growth drive transportation activity, a number of other factors also influence travel behavior, many of which MPOs are in a position to influence directly or indirectly. A significant fraction of the built environment that will exist in the area affected by this RTP has yet to be built. Thus, significant opportunity exists 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 discussion 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).

EPA recognizes that MPOs do not have direct land use control. They can, however, facilitate local jurisdictions in the region, coordinating and building consensus through blueprint planning. A number of incentive programs are available to help fund such coordination (see attachment). Further, an MPO can use its role in transportation network planning to influence growth.

EPA recommends including discussion of both near-term transportation demand management strategies and more aggressive potential future solutions. 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 as feasible in this RTP with an eye toward the next RTP cycle. We recommend such a discussion focus primarily on opportunities and secondarily on constraints.

Discuss Impacts to Critical Habitat Areas and Connect It to a Broader Regional Mitigation Strategy in the RTP.

EPA strongly recommends avoiding biologically sensitive habitats when planning a regional transportation network. Where applicable open space plans, conservation areas, mitigation banks, conservation plans (such as Habitat Conservation Plans (HCPs) and Natural Community Conservation Planning programs), and high value resource areas should be identified and avoided at the regional transportation planning phase, rather than waiting until project implementation. Choices involving both roadway network placement and land use are decided or highly influenced by the regional transportation planning process and can have large implications for biologically sensitive areas.

The following are EPA's recommendations 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 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 ecosystembased 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:

- 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

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

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 Environmental Review Office

Enclosure: Leveraging the Partnership: DOT, HUD, and EPA Programs for Sustainable Communities

cc: Garth Hopkins, Caltrans Headquarters Christine Cox-Kovacevich, Caltrans Central Region Aimee Kratovil, Federal Highway Administration Eric Eidlin, Federal Transit Administration Roberta Gerson, US Fish and Wildlife Service

÷.,

Responses to Comment Letter #2 (US EPA)

Responses to Comments 2-1, 2-2, and 2-3:

The consideration of these issues will be incorporated into the Sustainable Communities Strategy and/or Alternative Planning Strategy in the next (2014) RTP.

Response to Comment 2-4:

Comment noted. This will be considered for the 2014 RTP, or when decisions are made that will warrant adjustments in our long-term planning to incorporate high speed rail components (such as stations).

Response to Comment 2-5:

The Supplemental Environmental Impact Report (SEIR) addresses potential impacts to greenhouse gas emissions (Chapter 17) and determined impacts would be less than significant. See SEIR for further detail.

Response to Comment 2-6:

The SEIR addresses biological resources including habitat areas, and potential impacts to them (Chapter 7) and has determined that compliance with existing regulations, in combination with careful site planning and development of specific mitigation measures on a case-by-case basis, would reduce impacts from transportation improvement projects to a less than significant level. See SEIR for further detail.

Response to Comment 2-7:

The SEIR includes the requested discussion in Chapter 7. See SEIR for further detail.

Comment Letter #3 (FHWA)



Federal Highway Administration California Division

June 16, 2010

650 Capitol Mall, Suite 4-100 Sacramento CA 95814 (916) 498-5001 (916) 498-5008 fax

> In Reply Refer To: HDA-CA

Mr. Jesse Brown Executive Director Merced County Association of Governments 369 West 18th Street Merced, CA 95340

SUBJECT: MCAG Draft FY 2011 FTIP/RTP Comments

Dear Mr. Brown:

Thank you for submitting MCAG's Draft 2011 FTIP and RTP for our comments.

Federal Transportation Improvement Program

23 CFR 450.324 Development and content of the transportation improvement program

- The Financial Plan contains a good discussion of the financial planning process. MCAG may wish to improve the information shown for projects that are "For Information Purposes Only" (discussion on page 12, bullet 5) by including the text "For Information Purposes Only" in the blanked funding columns for FY 10-11 to FY 13-14.
- The Year of Expenditure discussion on page 13 does not document what inflation factor(s) were used in developing the financial plan.
- In Operations and Maintenance Costs on page 14: the draft 2011 RTP is referenced for further information. However, there is no page number or section reference of which part of the RTP the discussion is located in. Please provide the correct reference in the final FTIP submitted for approval by FHWA and FTA.
- The graphic on page 19 is very effective in clearly explaining how to interpret the information in the individual project description listings. In addition, adoption of a common, "Valley-wide" format for project information listings in the FTIP is, from a public information standpoint, a good practice in improving the understandability and consistency of the project information that is provided to the public in the FTIP.



23 CFR 450.316 Interested parties, participation and consultation

MCAG does provide documentation of its Public Participation Plan (PPP) in Appendix B
of the Draft 2011 RTP and also could reference the PPP's location by adding additional
language to the paragraph on Page 8 of the draft FTIP. Alternatively, MCAG could also
include the entire PPP in Appendix H along with the other public involvement
information from development of the FTIP. The graphic on Page 8 is a good example of
the use of visualization techniques in the transportation planning process and would be
even more effective by referencing the PPP.

Regional Transportation Plan

450.322 Development and content of the metropolitan transportation plan

- The discussion on pages 11-19 is a good description of the funding sources and funding challenges facing MCAG through 2035. Also commendable are the discussions on Pavement Management and Operations and Maintenance costs on pages 32-35. The graphics, including the vivid use of color, are good practice in the use of visualization techniques to illustrate planning information in an easily understandable manner.
- Similar to the FTP, it is not clear what inflation factor(s) were used to develop the estimates. FHWA realizes that MCAG may be compiling information from several sources in developing its costs and revenue estimates
- We recommend the header "Recommended Regional Project Improvement Priorities" should be changed to refer to this section as "Recommended Regional Highway Project Improvement Priorities", as it concerns highway projects only. Other facilities and modes beyond highways are being recommended for improvement in the RTP, and have been described in great detail following this section in the RTP and in the Valley Wide Chapter.
- Appendix E, SAFETEA-LU Planning Areas, contains an excellent set of transportation planning Performance Measures following a listing of the SAFETEA-LU planning factors, but no explanation of how they were used – or if they were used – in the development of the MCAG draft FY 2011 RTP (see 23 CFR 450.306). The graphic of Performance Measures also is unclear on how these Performance Measures are linked to the SAFETEA-LU planning factors.

23 CFR 450.316 Interested parties, participation and consultation

 Appendix B contains the 2008 PPP revision but does not contain any other narrative or information of the parties, agencies and governments that were consulted as part of the 2011 RTP development. A narrative documenting how MCAG followed its 2008 PPP revision would be very helpful.









Other RTP Comments

- The consistency in the way in which the constrained and unconstrained project listings are shown in the document could be improved. As the information is currently shown, it is cumbersome to cross reference the projects shown in the FTIP with the projects shown in the RTP. Has MCAG developed (or is considering developing) a unitary project listing format across all modes that could be used in both the FTIP and the RTP?
- Appendix G, San Joaquin Valley Regional Transportation Overview is an extremely well-written, comprehensive, in-depth review analysis of the human, environmental and transportation issues facing the San Joaquin Valley. For the 2014 RTP update, MCAG may wish to consider using the format and style of this chapter as the organizing principle for the 2014 RTP document.
- Detailed information on analyses that were completed for Title VI/Environmental Justice, environmental mitigation, and state required work such as GHG are found in various sections of the California-required Environmental Impact Report for transportation plans. References to this work were missing from the RTP. Ideally, the EIR work that satisfies the federal planning requirements should be included in its entirety and properly identified in the RTP. At a minimum, EIR work that satisfies a given federal planning requirement should be correctly referenced in the RTP.
- Although they contain similar language, the Scope of the RTP update as described in the RTP and the Supplemental EIR (SEIR) are different. The SEIR description is more accurate as to the scope of the performed update. As noted above, there should be consistency between the RTP and EIR/SEIR if EIR material is referenced as part of the RTP.
- While MCAG considers the 2014 RTP a minor update the main changes are plan timeframe, new socio-economic projections and other work completed to satisfy California state law requirements in the SEIR, it is still a new plan, requiring a new conformity determination and financial plan. The MCAG 2008 PPP Update does not cover the issue of a minor update – the document contains procedures for public involvement in RTP Updates and RTP Amendments.

Our staff is available to discuss our comments on the FTIP and RTP with your staff in the coming months and to provide technical assistance on the core products of the transportation planning process.

FHWA wishes to commend MCAG and the other 7 San Joaquin Valley (SJV) MPOs on the hard work and efforts that you have put in collectively in improving the entire transportation planning process across the Valley since adoption of the last FTIP and RTP. The Interagency Consultation (IAC) email process for project-level conformity, and periodical SJV IAC conference calls, as well as other formal and informal coordination meetings and opportunities are examples of good practice.









We are also looking forward to the use of improved travel forecasting modeling tools (currently under development) for the 2014 RTP update. This enhanced modeling process may provide an opportunity for technology transfer of new modeling methods that can more accurately access the benefits of greater integration of the land-use and transportation planning processes.

If you have any questions about our comments, please call Scott Carson at 916-498-5029 or scott.carson@dot.gov.

Sincerely Suer For

Vincent Mammano Acting Division Administrator

Responses to Comment Letter #3 (FHWA)

Response to Comment 3-1:

Comment noted.

Response to Comment 3-2:

A discussion of inflation rates was added to page 46.

Response to Comment 3-3:

The suggested change was made.

Response to Comment 3-4:

A discussion of how the plan-level performance measures was used in the 2004 RTP was added at pages 31-36.

Response to Comment 3-5:

A more detailed description of public participation, outreach efforts, and interagency consultation was added to pages 3-5.

Response to Comment 3-6:

MCAG does not currently have a unitary project listing format but will endeavor to create one for future documents.

Response to Comment 3-7:

Comment noted.

Response to Comment 3-8:

A detailed discussion of environmental analyses and mitigation measures was added at pages 87-95.

Response to Comment 3-9:

The page 1 description of the scope of this RTP update has been modified to be more precise and consistent with the Supplemental EIR (SEIR).

Response to Comment 3-10:

A more detailed description of public participation, outreach efforts, and interagency consultation was added to pages 3-5.

BEFORE THE MERCED COUNTY ASSOCIATION OF GOVERNMENTS RESOLUTION NO. 2010/07-15-01

In the Matter of:

2011 RTP, 2011 FTIP CORRESPONDING AIR QUALITY CONFORMITY ANALYSIS

RESOLUTION ADOPTING THE MCAG 2011 RTP, 2011 FTIP AND AND CORRESPONDING CONFORMITY ANALYSIS

WHEREAS, the Merced County Association of Governments (MCAG) is a Regional Transportation Planning Agency and a Metropolitan Planning Organization, pursuant to State and Federal designation; and

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

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

WHEREAS, Section 65080 of the California Government Code requires each regional transportation planning agency to prepare a regional transportation plan and update it for submission to the governing Policy Board for adoption; and

and

WHEREAS, a 2011 Regional Transportation Plan has been prepared in full compliance with federal guidance;

WHEREAS, a 2011 Regional Transportation Plan has been prepared in accordance with state guidelines adopted by the California Transportation Commission; and

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

WHEREAS, the 2011 Federal Transportation Improvement Program (2011 FTIP) has been prepared to comply with Federal and State requirements for local projects and through a cooperative process between the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the State Department of Transportation (Caltrans), principal elected officials of general purpose local governments and their staffs, and public owner operators of mass transportation services acting through the MCAG forum and general public involvement; and

WHEREAS, the 2011 FTIP program listing is consistent with: 1) the 2011 Regional Transportation Plan; 2) the 2010 State Transportation Improvement Program; and 3) the Corresponding Conformity Analysis; and

WHEREAS, the 2011 FTIP contains the MPO's certification of the transportation planning process assuring that all federal requirements have been fulfilled; and

WHEREAS, the 2001 FTIP meets all applicable transportation planning requirements per 23 CFR Part 450.

WHEREAS, projects submitted in the 2011 FTIP must be financially constrained and the financial plan affirms that funding is available; and

WHEREAS, the 2011 RTP and 2011 FTIP includes a new Conformity Analysis; and

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

WHEREAS, the 2011 RTP and 2011 FTIP do not interfere with the timely implementation of the Transportation Control Measures; and

WHEREAS, the 2011 RTP and 2011 FTIP conforms to the applicable SIPs; and

WHEREAS, the documents have been widely circulated and reviewed by MCAG advisory committees representing the technical and management staffs of the member agencies; representatives of other governmental agencies, including State and Federal; representatives of special interest groups; representatives of the private business sector; and residents of Merced County consistent with public participation process adopted by MCAG; and

WHEREAS, a public hearing was conducted on May 20, 2010 to hear and consider comments on the 2011 RTP, 2011 FTIP, and Corresponding Conformity Analysis; and

NOW, THEREFORE, BE IT RESOLVED, that Merced County Association of Governments adopts the 2011 RTP, 2011 FTIP, and Corresponding Conformity Analysis.

BE IT FURTHER RESOLVED, that the Merced County Association of Governments finds that the 2011 RTP and 2011 FTIP are in conformity with the requirements of the Federal Clean Air Act Amendments and applicable State Implementation Plans for air quality.

THE FOREGOING RESOLUTION was passed and adopted by Merced County Association of Governments this 15th day of July 2010.

AYES: Directors Walsh, Pedrozo, Kelsey, Varela, Jones, Faul, Spriggs, Mays

NOES: None

ABSTAIN:

ABSENT: Directors Nelson, O'Banion, Oliveira

Signed: Chairman

ATTEST:

I hereby certify that the foregoing is a true copy of a resolution of the Merced County Association of Governments duly adopted at a regular meeting thereof held on the 15th day of July 2010.

Signed:

Executive Director