

7.15 TRAFFIC AND TRANSPORTATION

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7.15.1 INTRODUCTION

7.15.1.1 Content

This section describes the impacts of the Monterey Amendment and the Settlement Agreement on transportation resources (traffic and circulation). Only some elements of the proposed project have the potential to directly affect transportation resources (see Table 7.15-1).

TABLE 7.15-1		
IMPACTS OF PROPOSED PROJECT ELEMENTS ON TRAFFIC AND TRANSPORTATION		
Proposed Project Element	Potentially Affected Environmental Resources	Impact Number
Monterey Amendment		
Reallocation of water supplies in droughts	Changes in traffic patterns associated with changes in agricultural practices	7.15-1
Permanent transfers of water	Changes in traffic patterns associated with changes in agricultural practices	7.15-1
Transfer of Kern Fan Element lands	Changes in traffic patterns associated with construction and operation of groundwater storage facilities in Kern Fan Element	7.15-3
Water supply management practices	Changes in traffic patterns associated with construction and operation of groundwater storage facilities/ Changes in recreational use due to fluctuations in reservoir levels	7.15-2, 7.15-4
Restructured financial arrangements	NA	NA
Settlement Agreement		
Substitute Table A amount for entitlement	NA	NA
Disclosure of SWP delivery capabilities	NA	NA
Guidelines on permanent transfers	NA	NA
Guideline for public participation	NA	NA
Restrictions on Kern Fan Element lands	Changes in traffic patterns associated with development of 490 acres of land in Kern Fan Element	7.15-3
Watershed forum in Plumas	Noise associated with development of watershed improvement projects	7.15-5
Amendment of Plumas SWP contract	NA	NA
Funding for plaintiffs	NA	NA
Note: NA – Not Applicable.		

During public review of the NOP for this EIR, interested parties submitted no comments on transportation resources.

7.15.1.2 Analytical Method

The assessment of impacts to transportation resources was conducted in accordance with standard professional practices. Factors considered in the analysis include:

- changes in traffic and circulation patterns in the southern San Joaquin Valley portion of Kern County as a result of the proposed project; and
- changes in traffic and circulation patterns in Plumas County as a result of watershed improvement projects.

7.15.1.3 Standards of Significance

The following standards of significance are based on Appendix G of CEQA guidelines. For the purposes of this EIR, impacts to traffic and circulation patterns would be considered potentially significant if the proposed project would:

- cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system; or
- exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

7.15.2 ENVIRONMENTAL SETTING

7.15.2.1 Physical Setting in 1995

Southern San Joaquin Valley Portion of Kern County

Kern County is comprised of the communities of Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. Interstate 5 (I-5) is the major highway bisecting the County, trending southeast to northwest. State Routes (SR) 14, 33, 41, 43, 46, 58, 65, 99, 119, 155, 166, 178, 184, 202, and 223 traverse the County. The majority of Kern County is rural, and the southern San Joaquin Valley portion of Kern County is largely devoted to agriculture. One- and two-lane rural roads access agricultural areas, while two- and four-lane roads travel through the more urbanized areas. Kern County residents enjoy the benefits of short commute times and little roadway congestion in their cities. According to the Texas Transportation Institute's 2002 Urban Mobility Study, the nation's longest-running study of traffic congestion, Bakersfield has the least roadway congestion of any of California's urban areas with an average commute time of 15 minutes.¹

Kern Fan Element

The Kern Fan Element consists of 19,900 acres of land located in Kern County southwest of Bakersfield. The Kern Fan Element was farmed for many years until the mid-1980s. After the California Department of Water Resources (Department) purchased the land in 1986, the agricultural fields were gradually taken out of production. By 1994, agriculture had ceased on the property and introduced annual grasses and forbs had colonized the land. The area is traversed by I-5, SRs 99, 119, 166, and 223 and paved and unpaved rural roads.

San Luis Reservoir

San Luis Reservoir is in Merced County and primary access to the reservoir and surrounding recreation area is SR 152 off of I-5.

Castaic Lake

Castaic Lake is in Los Angeles County. Primary access to the lake and the Castaic Lake Recreation Area is I-5 and SR 126.

Lake Perris

Lake Perris is in Riverside County and primary access to the lake and surrounding recreation area is I-215, SR 60 and SR 91.

Lake Oroville

Lake Oroville is in Butte County, northeast of the City of Oroville. Lake Oroville State Recreation Area surrounds much of the lake. SRs 70, 149, 99, 191, and 162 provide access to Lake Oroville.

7.15.2.2 Changes in Physical Setting between 1996 – 2003

Highway construction and improvements are ongoing in Kern, Riverside, Los Angeles, Merced and Butte counties. In fact, there are approximately 500 projects a day planned for California highways.² Between 1996 and 2003, a significant number of transportation improvement projects were completed throughout the State. Various major improvement projects have been completed on highways that provide access to project facilities. These improvements have consisted primarily of widening and interchange improvements. Further improvements to these State routes are funded as part of the federal Transportation Improvement Plan (TIP).

Between 1996 and 2003, and as a result of the proposed project, some minor access roads associated with groundwater storage facilities were built in Kern County.

Plumas County

Plumas County is a rural county with no large cities. With an area of 2,554 square miles and a population of about 21,000, it has a population density of about eight people per square mile. Much of the county is within the Plumas and Lassen National Forests. Principal economic activities in the county are recreation, services and forest products. Plumas County is accessed primarily via U.S. Highway 395 and SR 36, 49, 70, and 89.

7.15.2.3 Regulatory Setting in 1995

Various federal, state and local agencies are responsible for transportation in the areas affected by the proposed project. The most relevant agencies and laws and regulations are described below.

Federal

Federal Highway Administration

The Federal Highway Administration coordinates highway transportation programs in cooperation with states and other partners to enhance the country's safety, economic vitality, quality of life, and the environment. Major program areas include the Federal-Aid Highway Program, which provides federal financial assistance to states for construction and improvement of the National Highway System, urban and rural roads, and bridges. This program provides funds for general improvements and development of safe highways and roads.

State

California Department of Transportation (Caltrans)

The California Department of Transportation (Caltrans) and its predecessors are responsible for planning, designing, building, operating and maintaining California's 15,000-mile State Highway System.

California Transportation Commission (CTC)

The California Transportation Commission (CTC) is responsible for programming and allocating funds for the construction of highway, passenger rail and transit improvements throughout California. The Commission also advises and assists the Secretary of Business, Transportation, and Housing Agency and the Legislature in formulating and evaluating State policies and plans for California's transportation programs. The Commission is also an active participant in the initiation and development of State and federal legislation that seeks to secure financial stability for the State's transportation needs.

State Transportation Improvement Program (State TIP)

The State TIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources. The fund estimate serves to identify the amount of new funds available for the programming of transportation projects. Once the fund estimate is adopted, Caltrans and the regional planning agencies prepare TIPs for submittal by December 15th. Caltrans prepares the Interregional Transportation Improvement Plan and regional agencies prepare Regional Transportation Improvement Plans. Public hearings are held in January (even years) in both northern and southern California. The State TIP is adopted by the CTC by April (even years).

State Highway Operations and Protection Program (SHOPP)

The State Highway Operations and Protection Program (SHOPP) is a funding program for Caltrans-initiated projects that meet certain guidelines in accordance with Government Code Section 14526.5, Streets and Highways Code Section 164.6. These projects must be approved by the CTC, a separate governmental body from Caltrans. SHOPP is a four-year program of projects that address traffic safety, roadway rehabilitation, roadside rehabilitation, and operations related to the State Highway System.

Local

Kern Council of Governments (KCOG)

Kern Council of Governments (KCOG) is an association of city and county governments created to address regional transportation issues while protecting the integrity and autonomy of each jurisdiction. Its member agencies include the County of Kern and the eleven incorporated cities within Kern County, including Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco.

The Kern County 2000 Regional Transportation Plan is comprised of the Action Element, which establishes a plan for addressing identified needs and issues in accordance with the goals, objectives, and policies of the Regional Transit Plan, Intelligent Transportation Systems, Congestion Management Program, Air Quality Conformity, and a Financial Element. In addition, Kern County utilizes Transportation System Management (TSM) in its transportation planning, a system-wide approach to maximize use of existing facilities and available resources. KCOG, in cooperation with the City of Bakersfield, Kern County, and Caltrans, has developed TSM strategies to reduce traffic congestion.

Butte County Association of Governments (BCAG)³

Butte County Association of Governments (BCAG) is an association of the cities of Biggs, Chico, Gridley, Oroville, the Town of Paradise and the County Butte.

BCAG is responsible for the preparation of all federal and state transportation plans that secure funding for the region's highways, transit, streets and roads, pedestrian and other transportation system improvements. BCAG provides a forum for study and resolution of regional transportation issues and is the administrative and policymaking body for the region's public transit services.

BCAG also serves as the lead agency for development of several state highway project improvements within Butte County in cooperation with Caltrans and the Federal Highway Administration. BCAG works in cooperation with local government, state and federal agencies and the public to improve transportation in Butte County.

Butte County

Butte County oversees development within unincorporated areas of the county. Butte County's jurisdictional boundaries are defined by the Sacramento River, Butte Creek, and Glenn and Colusa counties to the west; Tehama County to the north; Plumas County to the east; and Sutter and Yuba counties to the south. South Honcut Creek and Wilson Creek are the southeast boundary with Yuba County. The county encompasses approximately 1,670 square miles (1,068,000 acres) and can be divided into three general topographical areas: a valley area, a foothill region east of the valley area, and a mountain region east of the foothills. The county includes five incorporated communities (Chico, Oroville, Paradise, Gridley, and Biggs) and several small unincorporated rural communities. The Butte County General Plan sets forth goals and policies regarding a variety of issue areas including traffic and transportation. The County is currently going through a General Plan Update process to plan for growth through 2030.

Los Angeles County Metropolitan Transportation Authority (Metro)

The Los Angeles County Metropolitan Transportation Authority (Metro) is the regional transportation planner for all of Los Angeles County. Metro develops and oversees transportation plans, policies, funding programs, and both short-term and long-range solutions that address the County's increasing mobility, accessibility and environmental needs. Metro implements a variety of projects, programs and plans in support of these goals.⁴

Metro implements the statewide Congestion Management Program (CMP) for Los Angeles County. The CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system. A total of 164 intersections are identified for monitoring on the system in Los Angeles County.

Riverside County Transportation Commission (RCTC)

The Riverside County Transportation Commission (RCTC) is responsible for administering the Measure A program in Riverside County. The RCTC has also been designated as the Congestion Management Agency (CMA) for Riverside County. As the CMA, the Commission has developed a CMP that more effectively utilizes transportation funds by linking land use, transportation and air quality efforts. The focus of the CMP is the development of an Enhanced Traffic Monitoring System in which real-time traffic count data can be accessed by RCTC to evaluate the condition of the Congestion Management System as well as meet other monitoring requirements at the State and federal levels.

Merced County Association of Governments (MCAG)

Merced County Association of Governments (MCAG) is an association of the cities of Merced, Atwater, Livingston, Los Banos, Dos Palos, and Gustine and the County of Merced. MCAG acts as the Regional Transportation Planning Agency, the Local Transportation Authority, and as the CMA for the County.

As Regional Transportation Planning Agency and Metropolitan Planning Organization, MCAG is the primary transportation facilitator in Merced County. Responsibilities are many, from acquiring priority projects to assuring money accepted for improving transportation has been properly utilized. MCAG must also be in the forefront of coordinated regional transportation planning activities, and to do so effectively requires the correct tools and program support. Work elements of the Transportation Planning Work Program seek to maintain a quality improvement program and provide additional means to successfully accomplish the goals and objectives established by the MCAG Governing Board.

General Plans

General Plans of the various counties and cities of the State of California contain a mandatory transportation and circulation element that includes policies to facilitate the respective Counties' Congestion Management Plans as well as local and regional transportation planning. All individual projects under the proposed project would be expected to comply with the policies of the transportation element of the applicable General Plan.

7.15.2.4 Changes in Regulatory Setting between 1996 – 2003

Local

Plumas County

Plumas County is not a member of any regional council of government as it relates to transportation and circulation networks.

7.15.3 IMPACTS AND MITIGATION MEASURES

7.15-1 **Changes in the amount of agricultural land disturbance resulting from reallocation of water supplies and/or permanent transfers could potentially affect traffic and circulation in the southern San Joaquin Valley portion of Kern County.**

1996 — 2003

The Monterey Amendment enables various changes in the way the Department allocates water among contractors during times of shortage and surplus and enables agricultural contractors to retire and transfer a portion of their Table A amounts. The effect of these changes was to increase the reliability of water supplies but decrease the total amount of Table A water available to farmers in Kern County. The reliability and availability of agricultural water supplies is one factor that may contribute to the amount and types of crops and associated land disturbance activities.

It is possible that some land was converted to permanent crops as a result of the proposed project, and that these changes in agricultural practices could have altered the traffic volumes in affected areas. The number of vehicular trips to fields with permanent crops would have likely been the same or slightly less than the number of trips to fields with annual crops and would have been unlikely to affect traffic volumes on affected rural roads. Therefore, increased vehicle volumes associated with the proposed project would have resulted in a ***less-than-significant impact***.

Mitigation Measures

None required.

Future Impacts

As discussed in Section 7.6, Agricultural Resources, the proposed project would have little or no impact on the acreage of irrigated land in the southern San Joaquin Valley in the future. Assuming that any land is taken out of irrigated production as a result of the proposed project, it would remain in agricultural use as dry farmed or fallow land. In addition, the trend of replacing irrigated annual crops with permanent crops is expected to continue in the future with or without the proposed project. While it is possible that additional land could be converted to permanent crops as a result of the proposed project, no clear trend can be attributable to the proposed project that can be discerned for the historical analysis period.

It is possible that additional land could be converted to permanent crops as a result of the proposed project, and that changes in agricultural practices could alter the traffic volumes in

affected areas. The number of vehicular trips to fields with permanent crops would likely be the same or slightly less than the number of trips to fields with annual crops and would be unlikely to affect traffic volumes on affected rural roads. Therefore, increased noise levels associated with the proposed project would result in a ***less-than-significant impact***.

Mitigation Measures

None required.

7.15-2 Implementation of the proposed project could potentially affect traffic and circulation in the southern San Joaquin Valley portion of Kern County (excluding the Kern Fan Element) as a result of construction and operation of new groundwater banks.

1996 — 2003

The Monterey Amendment enabled SWP contractors to store water outside their service areas for later use within their service areas. To take advantage of this, several contractors entered into agreements with water agencies in the southern San Joaquin Valley to temporarily store SWP water in groundwater banks. Between 1995 and 2003, Semitropic WSD, and Arvin-Edison WSD developed water banks and constructed about 500 acres of percolation ponds. The water bank developed by the Kern Water Bank Authority (KWBA) is discussed separately under Impact 7.15-3, below.

Traffic volumes on some rural roads temporarily increased during construction of the ponds, but the amount of traffic would not have been substantial and would have been for the duration of construction only. Vehicular movements associated with routine maintenance of the new facilities were probably the same or less than those associated with pre-1995 use of the land for agriculture. The proposed project is considered to have a ***less-than-significant impact*** because level of service standards would not be exceeded.

Mitigation Measures

None required.

Future Impacts

It is also anticipated that an additional 500 acres of ponds would be developed as part of other groundwater storage facilities in Kern County. The impacts of future conversion of lands for use as percolation basins would affect traffic and circulation in the same way as past land conversion for the same purpose, as discussed above. The small increases in vehicular movements attributable to construction and operation of the percolation ponds would have little effect on traffic flow on the affected rural roads. The proposed project would have a ***less-than-significant impact***.

Mitigation Measures

None required.

7.15-3 Traffic and circulation in the Kern Fan Element could potentially be affected by construction and operation of percolation ponds.

1996 — 2003

In 1995, the Kern Water Bank Authority (KWBA) constructed 3,034 acres of recharge ponds. From 1998 through 2003, an additional 4,080 acres were converted to shallow percolation ponds, for a total of 7,114 acres in 2003 in the Kern Fan Element. KWBA also constructed the Kern Water Bank Canal, and a six-mile long earthen canal extending from the Kern River to the California Aqueduct.⁵ Unpaved roads were constructed to provide access to the new facilities. Traffic volumes on some rural roads temporarily increased during the construction period. In addition, routine maintenance of the new facilities resulted in a permanent increase in vehicular traffic. Prior to 1995, the land now occupied by the ponds lay fallow and generated little or no traffic. The small increases in vehicular movements attributable to construction and operation of the proposed project had little adverse effect on traffic flow on the affected rural roads. Consequently, the proposed project is considered to have a ***less-than-significant impact***.

Mitigation Measures

None required.

Future Impacts

Approximately 490 acres are designated for possible commercial use. Between 1995 and 2003, no development occurred on the 490-acre parcel. The Settlement Agreement prohibits development of this parcel, and so under the proposed project the parcel would remain undeveloped.

Under the proposed project, it is expected that the KWBA would construct an additional 1,200 acres of percolation ponds in the Kern Fan Element. The impacts of future conversion of lands for use as percolation basins would affect traffic and circulation in the same way as past land conversion for the same purpose, as discussed above. The small increases in vehicular movements attributable to construction and operation of the percolation ponds would have little effect on traffic flow on the affected rural roads. The proposed project would have a ***less-than-significant impact*** on traffic and circulation.

Mitigation Measures

None required.

7.15-4 Fluctuation in water levels at Castaic Lake, Lake Perris, San Luis Reservoir, and Lake Oroville could potentially alter the amount of recreational use at the reservoirs, which could affect traffic volumes on state and local roadways.

1996 — 2003

The amount of recreational boat use usually increases with increasing water levels at reservoirs where people normally participate in these types of recreational activities. Conversely, boating decreases when water levels are lower.

As described in Section 7.1, Surface Water Hydrology, Water Quality, and Water Supply, average water surface elevations at Castaic Lake and Lake Perris were higher between 1996

and 2003 than in the pre-Monterey Amendment period before 1995. At San Luis Reservoir water levels lower during winter months (see Impact 7.1-4 in Section 7.1).

Recreational activities would not have changed as a result of project implementation at San Luis Reservoir. Recreational activities could have been enhanced in Castaic Lake and Lake Perris as a result of increased water levels during the boating season. However, the range of water surface fluctuations would have been within the range of operating conditions prior to project implementation.

Higher water surface elevations could have created more opportunities for recreational activities and this could have increased the number of vehicle trips to and from the reservoirs on a seasonal basis. However, in relation to existing traffic loads and roadway capacity, it is unlikely that level of service standards would have been exceeded on a permanent basis. Therefore, this would have been a ***less-than-significant impact***.

Mitigation Measures

None required.

Future Impacts

As discussed in Section 7.9 Recreation, higher water surface elevations could create more opportunities for recreational activities. Likewise, this could increase the number of vehicle trips to and from the reservoirs on a seasonal basis. However, the lakes have specific carrying capacity for recreational vehicles (i.e., boats) and parking, and it is unlikely that the number of vehicles would have substantially increased to levels that exceed roadway capacity or violate level of service standards. Article 56 of the Monterey Amendment allows SWP contractors to store water in San Luis Reservoir when storage space in excess of that needed for SWP operations is available. At San Luis Reservoir water levels would be lower during winter months and water levels at Lake Oroville would not change compared to baseline conditions. Because the difference in water storage would be small in Lake Oroville and San Luis Reservoir (see Impact 7.1-4 in Section 7.1), there would be little, if any, effect on water surface elevations and recreation-related vehicle traffic would not be substantially affected.

The effects of borrowing of water on water surface elevations in the two reservoirs in the future will depend on the extent to which the contractors that can borrow from the reservoir make use of Article 54 and future hydrologic conditions. Table 6-27 in Chapter 6 shows MWDSC's expected future use of flexible storage in Castaic Lake and Lake Perris. It is quite possible that future borrowing would draw down the reservoirs to a greater extent than occurred between 1996 and 2003, a relatively wet period.

If the contractors borrowed the maximum amounts of water provided for under Article 54 and the water was not replaced for the maximum permitted duration of five years, 160,000 AF would be borrowed from Castaic Lake, about half its maximum capacity of 323,700 AF, and 65,000 AF would be borrowed from Lake Perris, about half its maximum capacity of 131,500 AF. The reservoirs would remain drawn down for five years. Although this worst-case condition could occur, it would be unlikely (see Section 6.4.3.1 in Chapter 6).

In general, future operation of Castaic Lake and Lake Perris would result in similar fluctuations as those recorded for the period between 1996 and 2003 and are expected to be within the range of more recent (post-Monterey) historical fluctuations. Because it is likely that future

water surface elevation changes would not differ substantially from 2003 conditions, the amount of traffic from recreational visits would be similar. However, as discussed in Chapter 6, the proposed project could result in drawdown of water levels in Castaic Lake and Lake Perris greater than what would have occurred in the absence of the project and for potentially longer periods of time than recorded in the past.

Recreational visits would likely be the same as baseline conditions or if the worst-condition were to occur, could decrease due to drawdown conditions at Castaic Lake and Lake Perris in the future. Therefore, impacts to traffic would be ***less than significant***.

Mitigation Measures

None required.

7.15-5 Construction and operation of watershed improvement projects in Plumas County could potentially affect traffic and circulation.

1996 — 2003

Because the Settlement Agreement was not completed in this period, there were no watershed improvement project as a result of the proposed project and there was ***no impact***.

Mitigation Measures

None required.

Future Impacts

The Settlement Agreement provides funds to Plumas County to establish a watershed forum and implement watershed improvement projects. The watershed forum would identify opportunities for watershed improvements and would oversee the implementation of individual projects. Watershed improvement projects take many forms but most involve actions to prevent erosion and restore wildlife habitat along streams and rivers.

The number and size of watershed improvement projects that would result from the proposed project are relatively small. The projects would be expected to improve conditions along a few miles of stream bank in a county with thousands of miles of stream channels. These activities could result in temporary increases in construction vehicles at the site of the improvements, which would cause a temporary increase in local traffic. No operational increase in traffic would be expected. The potential impact from construction vehicles would be short-term and is considered a ***less-than-significant impact***.

Mitigation Measures

None required.

ENDNOTES

1. Kern Economic Development Corporation, 2003.
2. CalTrans website, FAQ regarding Highway Condition Information <http://www.dot.ca.gov/hq/roadinfo/faq.htm>.
3. Butte County Association of Governments website, <http://www.bcag.org/>, accessed May 18, 2006.
4. Los Angeles County Metropolitan Transportation Authority (Metro) website, http://www.mta.net/projects_plans/default.htm, accessed May 18, 2006.
5. Jonathon Parker, Kern Water Bank Authority, personal communication with John Davis, EIP team, October 2003.