

# CHAPTER 12: TRANSPORTATION SYSTEMS MANAGEMENT

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## GOAL 7: TRANSPORTATION SYSTEMS MANAGEMENT

**Develop and support an integrated transportation system that incorporates multi-modal corridor management solutions and public awareness of mobility options to limit vehicle miles traveled and maximize throughput.**

### TRANSPORTATION SYSTEMS MANAGEMENT (TSM) - DEFINITION AND OBJECTIVES

Transportation Systems Management (TSM) encompasses a variety of strategies designed to increase the efficiency of the transportation system without major new infrastructure investments. Key objectives include improving traffic flow and travel time reliability, enhancing safety for all road users, maximizing the use of existing road capacity, and integrating data and monitoring systems for better management.

### EXISTING TSM APPLICATIONS

Key TSM elements in place include Advanced Traveler Information Systems (ATIS), Traffic Monitoring and Management, and Signal System Enhancements. These include Changeable Message Sign (CMS) boards, highway advisory radio, Closed-Circuit Television (CCTV), Transportation Management System (TMS), Road Weather Information System (RWIS), and adaptive signal systems.

### TSM STRATEGIES BY AREA

Urban Areas (e.g., City of Placerville): Adaptive signal control, intersection and corridor signal optimization, and smart parking management.

Rural Areas: Runway Weather Information System. (RWIS) for mountainous corridors, incident detection and real-time alerts, and dynamic message signs.

### TRANSPORTATION DEMAND MANAGEMENT (TDM) - DEFINITION AND OBJECTIVES

Transportation Demand Management (TDM) focuses on reducing the number and length of vehicle trips and encourages the use of more sustainable modes. It supports reduced vehicle miles traveled (VMT), increased use of transit, biking, walking, and smarter land use.

### POTENTIAL TDM STRATEGIES

Strategies include carpool and vanpool programs, telecommuting, active transportation programs, transit subsidies, and land-use planning.

### URBAN VS. RURAL APPLICATIONS

Urban: Stronger employer partnerships, local transit expansion, first/last mile services.

Rural: Demand-responsive transit, long-distance carpooling, and targeted education campaigns.

### INTEGRATION OF TSM AND TDM

TSM and TDM are complementary. TSM improves operational efficiency, while TDM addresses behavioral and systemic travel demand. Their integration enables smarter, more adaptive transportation planning and investment.

## INTELLIGENT TRANSPORTATION SYSTEMS (ITS) - DEFINITION AND PURPOSE

Intelligent Transportation Systems (ITS) use advanced technologies to improve safety, efficiency, and mobility by applying telecommunications, sensors, and computing to transportation systems.

## EXISTING ITS INFRASTRUCTURE

Existing ITS elements in El Dorado County and the City of Placerville, primarily along the SR 49 and US 50 corridors, include CCTV, CMS, TMS, RWIS, and transit AVL systems. These support real-time monitoring, traveler communication, and emergency response.

## ITS OPPORTUNITIES AND STRATEGIES

Urban: Adaptive signals, smart parking, and automated enforcement systems.

Rural: Enhanced incident detection, wider CMS use, and integrated emergency communication systems.

## BENEFITS OF ITS

ITS improves safety, provides real-time information, reduces response times, and increases system efficiency by making the best use of existing infrastructure.

## FREEWAY SERVICE PATROL

EDCTC supports TDM efforts through the operation of a Freeway Service Patrol (FSP) program along a key segment of US Highway 50 from the county line to Greenstone Road. This program provides roving tow truck service during peak commute hours to assist with clearing minor traffic incidents, stalled vehicles, and debris from the travel lanes, thereby reducing non-recurring congestion and improving overall traffic flow. By quickly removing obstructions and aiding stranded motorists, the FSP reduces secondary accidents and travel delays, supporting TDM goals of maximizing the efficiency of existing infrastructure. The program, implemented in coordination with Caltrans and the California Highway Patrol, is a cost-effective tool to enhance mobility, increase roadway safety, and improve the commuting experience for travelers in western El Dorado County.

## TRANSPORTATION SYSTEMS MANAGEMENT ACTION PLAN PROJECTS AND PERFORMANCE MEASURES

Consistent with California Regional Transportation Plan Guidelines, EDCTC has developed Performance Measures for projects included in the RTP 2025-2045 Action Plan. The performance measures are tied to each goal of the Policy Element and demonstrate the connection between the Policy and Action Element, demonstrating the RTP's support in advancing advance statewide goals for transportation, sustainability and climate adaptation. Performance Measures for **Goal 7: Transportation Systems Management** are as follows:

- **Measure 7.1;** Project meets the performance measure if it is included in TDM programs
- **Measure 7.2;** Project meets the performance measure if it focuses on system enhancement related to ITS/signal upgrades
- **Measure 7.3;** Project meets the performance measure if it involves optimization of existing intersections

Table 12-1 includes a list of both road and highway and system management and operations projects that best meet the performance measures for **Goal 7: Transportation Systems Management**. The comprehensive RTP Project and Performance Measure List is included in **Appendix 6A**.

- Short-Range projects are displayed as 2025-2035.
- Long-Range projects are displayed as 2035-2045.
- Unconstrained Projects, which are not subject to the fiscal constraint of the RTP document as outlined in Chapter 13; The Financial Element, are listed as Beyond 2045.

**TABLE 12-1: Transportation Systems Management Projects**

PARTIAL LIST OF PROPOSED PROJECTS AND PERFORMANCE MEASURE CONSISTENCY (SEE APPENDIX 6A FOR COMPREHENSIVE LIST)						GOAL 7: TRANSPORTATION SYSTEMS MANAGEMENT		
						Proposed Project Performance Criteria		
						7.1 Project is Included in TDM programs.	7.2 Project focuses on system enhancement related to ITS or signal upgrades.	7.3 Optimization of existing intersections.
						Performance Reference*		
Lead Agency	Year	MapID	Project Type Category	Title	Description			
Caltrans	2035-2045	3	G- System Management, Operations, and ITS	SR 49/193 Intersection Control Improvements - Roundabout	In Cool, at intersection of SR49 and SR193, Construct Roundabout (PM 34.4)	No	No	Yes
City of Placerville	2025-2035	9	Wiltse Road Intersection Improvements	Wiltse Road Intersection Improvements/ Signalization.	Construct 400 feet of 2 lane roadway with sidewalk, curb and gutter both sides. A new bridge over Hangtown Creek.	No	No	Yes
El Dorado County	2025-2035	19	G- System Management, Operations, and ITS	El Dorado Hills ITS	ITS technology implementation along major signalized corridors in the El Dorado Hills area, including El Dorado Hills Blvd, Latrobe Rd, White Rock Rd, and Silva Valley Pkwy	No	Yes	Yes
El Dorado County	2025-2035	24	G- System Management, Operations, and ITS	Bridlewood/ Bass Lake Rd Roundabout	The project will construct a single-lane roundabout at the intersection of Bass Lake Rd and Bridlewood Dr	No	Yes	Yes

**TABLE 12-1: Transportation Systems Management Projects (cont.)**

PARTIAL LIST OF PROPOSED PROJECTS AND PERFORMANCE MEASURE CONSISTENCY (SEE APPENDIX 6A FOR COMPREHENSIVE LIST)						GOAL 7: TRANSPORTATION SYSTEMS MANAGEMENT		
						Proposed Project Performance Criteria		
						7.1 Project is Included in TDM programs.	7.2 Project focuses on system enhancement related to ITS or signal upgrades.	7.3 Optimization of existing intersections.
						Performance Reference*		
Lead Agency	Year	MapID	Project Type Category	Title	Description			
El Dorado County	2035-2045	26	G- System Management, Operations, and ITS	Silva Valley Pkwy/Golden Eagle Ln - Signalization	Signalize intersection at Silva Valley Pkwy and Golden Eagle Ln (Silva Valley Elem School).	No	Yes	Yes
City of Placerville	2025-2035	41	G- System Management, Operations, and ITS	US 50 Trip to Green Congestion Management and Resiliency Strategy	Along US 50 and at each of the three signalized intersections between Canal St and Bedford Ave, install intelligent transportation systems, barriers, and advanced warning signals to notify the motoring public when signals are held in a solid green phase.	No	Yes	Yes
City of Placerville	2025-2035	43	G- System Management, Operations, and ITS	Clay Street/Hangtown Creek Bridge and Cedar Ravine Intersection Improvements	Clay St over Hangtown Creek, 150' north of Main St: Replace 1 lane bridge with 2 lane bridge. Realign Clay St with Cedar Ravine and create a four way stop intersection.	No	No	Yes

TABLE 12-1: Transportation Systems Management Projects (cont.)

**PARTIAL LIST OF PROPOSED PROJECTS AND PERFORMANCE MEASURE CONSISTENCY (SEE APPENDIX 6A FOR COMPREHENSIVE LIST)**

**GOAL 7: TRANSPORTATION SYSTEMS MANAGEMENT**

**Proposed Project Performance Criteria**

<b>7.1 Project is Included in TDM programs.</b>	<b>7.2 Project focuses on system enhancement related to ITS or signal upgrades.</b>	<b>7.3 Optimization of existing intersections.</b>
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**Performance Reference\***

Lead Agency	Year	MapID	Project Type Category	Title	Description			
El Dorado County	2025-2035	44	G- System Management, Operations, and ITS	Roundabout at Luneman and Lotus Rds	Construct a roundabout at Luneman and Lotus Rds for safety improvement	No	No	Yes
El Dorado County	2035-2045	55	G- System Management, Operations, and ITS	Intelligent Transportation System (ITS) Improvements (Phase 1)	Identification of various ITS improvements along US 50 and regionally significant corridors in the County; projects may include upgrading all controllers, building the communications infrastructure, adding CCTVs, adding DMS, connecting all the signals.	No	No	Yes
El Dorado County	2035-2045	56	G- System Management, Operations, and ITS	Intelligent Transportation System (ITS) Improvements (Phase 2)	Minor ITS Improvement: Deployment of various ITS improvements along U.S. 50 and regionally significant corridors in the County. Includes: implementation of ITS projects listed and prioritized in El Dorado County	No	No	Yes
El Dorado County	2025-2035	114	G- System Management, Operations, and ITS	Camino Agritourism Congestion Relief Project Phase 1	Includes innovative technology-based solutions to address yearly congestion in Camino, as well as ITS, signage, planning studies, etc.	No	No	Yes

**\*Performance Reference:**  
None