



TDM Action Plan

This section describes the levels of effort needed for TDM implementation in San Joaquin County. Definitions of each level of effort [are provided, including examples for how individual TDM measures can be structured.](#)

TDM measures provide a framework for good planning and sustainable communities. When implemented, they can result in numerous benefits [including: 1\) greater transportation efficiency by promoting more transportation choices for travelers; 2\) more livable communities that encourage non-motorized forms of transportation; and, 3\) employee benefits by providing greater commute choices and commuting flexibility.](#) For the local agencies, documented TDM efforts will allow them to better comply with [federal and state congestion management mandates as well as](#) the state's SB375 provisions. The latter allows a streamlined CEQA process for agencies with projects that promote more efficient use of existing transportation infrastructure and services.

TDM Action Plan Objectives

There are seven primary objectives for preparing the TDM Action Plan:

- 1) Develop an equitable framework for the countywide coordination and implementation of TDM actions and strategies to formally address deficiencies on the Regional CMP system of roadways;
- 2) To integrate the countywide coordination and implementation of TDM actions and strategies with the Regional CMP process – based on development status and level of congestion on CMP roadways within each jurisdiction;
- 3) To better integrate the Regional CMP process with the other regional transportation planning and programming functions performed by SJCOG in partnership with its member agencies;
- 4) Facilitate enhanced TDM efforts on Category 5 CMP roadways as well as Category 4 and 6 CMP roadways otherwise exempt from CMP deficiency planning;
- 5) Assist in the development of CIP improvements that provide system-wide improvements to circulation or air quality;
- 6) To examine the likely level of congestion relief on CMP deficient roadways that can be reasonably anticipated from travel demand reduction and operational management strategies; and,
- 7) To establish a direct institutional and quantifiable link between the TDM Action Plan, the CMP and the regional transportation planning and programming process in San Joaquin County.

How the above objectives will be met must be done in a manner consistent with the following legislative requirements:

- 1) the federal mandated CMS congestion management process; and,
- 2) the state mandated CMP deficiency planning mandates.

Based on the stated objectives and legislative requirements above, implementation of the TDM Action Plan [begins](#) with the adoption a TDM Resolution of Commitment by each local agency. A description of what the TDM Resolution of Commitment is and what it entails is described [in the following section.](#)

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TDM Resolution of Commitment

The TDM Resolution of Commitment establishes the appropriate level of local agency resources/effort for implementation of demand management strategies. The level of effort is based on the level of congestion on a given jurisdiction's CMP roadways with particular focus placed on Category 4 and 6 CMP designated roadways. The TDM Action Plan consists of expected Levels of Effort (Level 1 and 2), which are cumulative.

Level 1 is a required minimum effort to be implemented by SJCOG and each of its member agencies. The purpose of the Level 1 Effort is to formalize the existing working relationship SJCOG currently has with its partner agencies and further refine existing TDM related activities currently being implemented countywide.

In response to measured levels of congestion on the CMP network within the boundaries of a given jurisdiction, additional TDM efforts described under Level 2 may be triggered. Level 2 TDM Efforts require the development of a sub-regional TDM Action Plan that can draw from a wide range of example TDM strategies presented herein. This "menu" approach allows a given local agency to customize its sub-regional TDM Action Plan to a given local situation (e.g., design guidelines for site access, roadways, transit stops, off-street vehicle parking, bicycling support, transportation pricing) for the purpose of reducing and minimizing congestion.

Integrating TDM planning efforts relative to CMP roadway network performance provides:

- a sub-regional barometer for CMP system performance;
- a congestion trigger point and defines a level of effort that addresses the critical situation; and,
- an equitable nexus between degree of TDM responsibility and fair share contribution of local traffic.

For the purpose of integration, a CMP congestion threshold performance measure was developed. The congestion threshold is comprised of the following two checks: 1) when over 30% of the Category 4 and 6 CMP lane miles in a jurisdiction operate at LOS E or worse during peak commute hours; and, 2) if over 30% of the traffic on these segments is determined to be generated within the jurisdiction. If both these conditions are met, a sub-regional TDM Action Plan (i.e., TDM Level 2 effort) will be required. It should be noted that the state CMP interregional trip exemption for the development of deficiency plans is not applied when evaluating this performance measure. Programming status is considered however given the exclusion of Category 1 and 2 deficient segments. For example, if a Category 4 or 6 roadway segment becomes a programmed improvement, it will be reclassified to a Category 1 or 2 and its deficient lanes miles will not be applied towards the congestion threshold calculation.

The congestion threshold will be analyzed every two years as part of the SJCOG's CMP biennial review.

Development of CMP performance measures is required by state statute. The 30/30 percent congestion threshold performance measure was developed to comply with this requirement and to integrate the CMP with the TDM Action Plan. It will also be used to track CMP system congestion levels with a more CMP specific and holistic metric (percent of deficient CMP lane miles). It is a performance measure that indicates when a given jurisdiction would be responsible to pursue TDM actions or planning as defined in the TDM Resolution of Commitment. It does not constitute a standard nor does it trigger the need for developing a CMP deficiency plan or require other non-TDM implementation responsibilities under the CMP/CMS programs. Level of Effort criteria is summarized below.

TDM Level of Effort	Applies to:
Level 1 - Universal	Applies to all county jurisdictions and SJCOG
Level 2 - Triggered	Applies to jurisdictions that trigger the Congestion Threshold Performance Measure

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Implementation timeline for formal local agency adoption of the TDM Resolution of Commitment is July 2011. At that time, SJCOG will be determining local agency compliance as part the CMP biennial review.

The TDM Action Plan Levels of Effort are described on the following pages. It should be noted that SJCOG or its member agencies can and are encouraged to implement any of the various Level 2 actions even if the above criteria is not met for implementation. If a local agency is implementing TDM actions above and beyond the TDM Action Plan's requirements, it would receive credit for doing so as part of SJCOG's CMP biennial review.

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Level 1 Effort: Universal

The purpose of the Level 1 Effort is to formalize TDM efforts that are currently being performed throughout the County. Other than further defining the existing working relationship SJCOG currently has with its partner agencies and establishing clear lines of communication and coordination between local and regional TDM activities, implementation of the Level 1 Effort is not anticipated to result in additional workload beyond existing levels. A more formal countywide framework for TDM planning and implementation will ostensibly lead to:

- Greater consideration for TDM strategies as part of local and regional planning processes;
- Greater access to TDM resources at the local and regional levels;
- Greater accountability for TDM implementation; and,
- Better reporting and documentation of TDM activities for disclosure purposes to state and federal agencies as well as for satisfying state and federal reviews.

The standardized TDM measures proposed for all jurisdictions include:

1) Designation of a TDM Liaison (Existing staff person)

The TDM Liaison will act as the direct point of contact between the jurisdiction and SJCOG regarding the following:

- Conduit between local agency, jurisdiction's new large employers (100+ employees) and/or owners/managers of developments supporting multiple businesses with SJCOG's Commute Connection program.
- To further build the data base and promote Commute Connection services to the existing businesses, and if available, forward information to SJCOG on existing large employers consisting of 100+ employees. (e.g., location, type of business, contact person).
- Attend quarterly SJCOG TDM Committee Meetings (Note: topic will be built into the existing committee structure).
- Familiar with and collaborates with SJCOG in developing and implementing TDM/Operations System Management measures for their portions of the CMP roadway network operating at LOS D.
- Supplied by SJCOG, assist in TDM information dissemination to existing employers (e.g., printed materials, link on website, participate in events such as bike-to-work week).
- Ensure that new land uses comply with the TDM measures stipulated in the conditions of development approval.
- Notified when SJCOG's CMP program provides comments on, for example, new development projects, Specific Plans, General Plan updates.

2) Ensure that new development complies with CEQA guidelines: 1) Conform to both CMP LOS standards and CMP TDM measures identified in the TDM Action Plan; 2) Application of accepted travel demand mitigation measures to reduce impact on the CMP network; and, 3) Incorporate "Complete Streets" concepts per Government Code 65040.2, 65302.

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- 3) On a quarterly basis, forward all new residential (dwelling units) and other new non-residential building permit information to SJCOG. (Note: will be achieved through the Regional Transportation Impact Fee program).
- 4) Use measures from regionally adopted plans to promote alternate modes of transportation associated with new development (e.g., Park-and-Ride Lot Master and Implementation Plans, TDM elements of the Regional Expressway Plan, Regional Transit Systems).
- 5) Participate in future regional planning efforts and furthering other TDM related programs (e.g., Regional Bike Network Plan, MK Bike/Pedestrian/Safe Routes to Schools Program, update of ITS Strategic Deployment Plan).

A more detailed description of the Level 1 TDM activities for both SJCOG and its member agencies is provided below.

Local Agencies' Level 1 Effort

All jurisdictions in San Joaquin County (Cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, Tracy, as well as San Joaquin County) will be required to implement the following TDM measures detailed below.

1) Designation of a TDM Liaison (Existing Staff Person)

The TDM Liaison will oversee implementation of the jurisdiction's TDM efforts and TDM efforts throughout the jurisdiction. This individual also will be the point of contact between the jurisdiction and the TDM services/activities and outreach efforts provided by SJCOG's Commute Connections to large employers within the jurisdiction. The TDM Liaison responsibilities will entail the following:

- a) In coordination with SJCOG's Commute Connection Office – openly share locally generated or collected TDM data with SJCOG as well as receive SJCOG's Commute Connection's data base consisting of all large employers (with 100+ employees) located within the jurisdiction. The latter data base will include contact information to the employers TDM liaison or the employers Human Resources contact. Access to this data base will allow local agencies to share for planning purposes the following information with SJCOG's Commute Connection Office:

- i) Number of Large Employers registered with SJVAPCD within Jurisdiction
- ii) Number of Registered SJVAPCD Tier 1 Worksites (100-249)
- iii) Number of Registered SJVAPCD Tier 2 Worksites (250+)
- iv) Number of Registered SJVAPCD Employers with ETRIPS
- v) Average ETRIP Points of Registered SJVAPCD Employer
- vi) If applicable – local agency ETRIP points
- vii) Documentation of other non-SJVUPACD TDM Plans being implemented within the jurisdiction.

- b) SJCOG will provide the TDM Liaison a list of all Category 3 and Category 5 CMP roadways within the jurisdiction. Local agencies are encouraged to assist SJCOG in developing and implementing an enhanced TDM and system management strategy to reduce single occupant vehicle congestion on the Category 3 and Category 5 segment/s during peak commute hours.
- c) The TDM Liaison will attend SJCOG's TDM Advisory Committee meetings. These meeting will be held on an as-needed basis (anticipated 2-4 times per year) and will use the existing Regional CMP Committee as its forum.
- d) The TDM Liaison will participate in a TDM information dissemination program to its large employers (including the home agency). Assisted by SJCOG's Commute Connections program, the information campaign will include each local agency establishing an SJCOG Commute Connection link on the agency's website; provision of a TDM packet to existing and new employers; and, promoting the benefits of transit, rideshare, and non-motorized commute alternatives by supporting SJCOG Commute Connection TDM annual events that include but are not limited to, the following activities:

- i) San Joaquin County Carpool Month
- ii) San Joaquin County Bike Month
- iii) San Joaquin County Telecommute Month

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- iv) San Joaquin County Walking Month
- v) San Joaquin County Transit Month
- vi) San Joaquin County Vanpool Month
- vii) San Joaquin County Rideshare Month

e) The TDM Liaison will be responsible for monitoring and reporting TDM compliance for developments who receive or have received conditions of approval based on TDM measures

2) Submittal of residential and non-residential land use permit data to SJCOG (Achieved through RTIF)

Given the importance of accurate computer modeling, local agencies will participate in the sharing of new residential dwelling units and new square-footage for non-residential building permit data geo-referenced by SJCOG model traffic analysis zone. Permit data will be limited to new single or multi-family dwelling units or new square footage of non-residential uses. Permits associated with dwelling unit additions, decks, and other improvements that do not result in additional units are not applicable. Change of use of major commercial developments or demolitions could be included is desired by SJCOG. By making SJCOG a clearinghouse for development permit data, SJCOG can more easily update its baseline land use inputs, track its future land use allocation assumptions, and more readily perform model baseline year updates. Although each local agency will make arrangements with SJCOG to determine the most efficient means of providing this information, it is anticipated that this task can be addressed by SJCOG geo-processing the local agency RTIF Quarterly Summaries. The primary outcome is a permit tracking system by development type and TAZ number.

3) Park-and-Ride Lots

As defined in the 2007 Park-and-Ride Lot Master Plan and Implementation Plan, where appropriate local agencies will require as a condition of development new park-and-ride lots as identified in the 2007 Park-and-Ride Lot Master Plan.

4) CEQA Review

Whereas, Level 1 TDM efforts and SJVAPCD Rule 9410 focus on existing development, new development is to be addressed as part of the CMP consistency with CEQA. Consistent with the revised CEQA Guidelines, local land use development projects are to conform to both the CMP LOS standards and CMP TDM measures identified in the TDM Action Plan. As part of the typical CMP CEQA review process, local agencies will review and apply appropriate and accepted travel demand mitigation measures known to reduce single occupant vehicle use in order to off-set a development project's traffic impact on the Congestion Management (CMP) system of roadways. Local land use development projects that trigger the need for a CEQA CMP impact assessment will be reviewed relative to the following existing and future planning documents:

- Regional Expressway System Plan (System Management and TDM components)
- Park-and-Ride Master Plan
- Regional Bikeway Plan
- Infill Development Zone Plan
- Regional Transit Systems Plan

These resource documents will be reviewed and cited by local agencies as appropriate when identifying TDM mitigation measures under CEQA to address identified CMP system impacts.

In addition, as the provisions of AB-1358 (Government Code 65040.2, 65302) to address multi-modal "complete streets" concepts in city/county general plan circulation elements gains traction through local agency circulation updates, consistency with local agency multi-modal streetscape design policies will also be required.

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5) Local Agency Participation and Representation in Regional Planning Studies

As stated in sub-section 4 above, several regional planning resource documents will serve to facilitate and guide CEQA lead agency selection of appropriate TDM mitigation measures to address CMP CEQA impacts. These existing and future planning documents include, but are not limited to, the following:

- Regional Expressway System Plan (System Management and TDM components) (Existing)
- San Joaquin Valley ITS Strategic Deployment Plan (Existing)
- Park-and-Ride Master Plan (Existing)
- Regional Bikeway Plan (Under Development)
- Infill Development Zone Plan (Under Development)
- Regional Transit Systems Plan (Existing)

Given the need for greater local level planning representation and implementation of these regional planning efforts, local agency participation is anticipated during the development and/or future updates of these CMP TDM resource documents.

SJCOG Level 1 Effort

In concert with Level 1 effort by local agencies, the SJCOG will continue to implement the following TDM related activities, as detailed below.

1) Assist with Local Adoption of TDM Resolutions of Commitment

SJCOG will develop boiler plate – ready to adopt – TDM Resolutions of Commitment and provide to each local agency to assist local agency adoption.

2) Performance Measure Tracking

Track the number of Category 1, 2, 4, 5, 6 CMP lane miles and report during CMP biennial review. Present the results of the congestion threshold performance measure. Also track four major Commute Connections programs and report during biennial updates of the CMP program by SJCOG. These may include: the carpool match-list database; the vanpool program; regional transit ridership placement and the passenger rail ridership placement.

3) Local Agency Assistance

Provide assistance to local agencies for implementing an enhanced alternate modes program and TDM measures to specifically reduce peak hour demand on Category 3 and Category 5 roadways.

4) Form a TDM Committee

The TDM Committee will be made up of TDM Liaisons from all the local jurisdiction and SJCOG. It will meet on an as-needed basis – anticipated to be quarterly as part of the regular CMP meetings. The TDM Committee will discuss strategies, track progress, and review submittals by local agencies of TDM plans and monitoring.

5) Develop and Implement a Van Pool Marketing and Incentives Program

The Commute Connections Office of SJCOG will implement a vanpool marketing and incentives program to promote vanpool formation and ridership to both existing and new employers.

6) Coordinate with the SJVAPCD to Implement Rule 9410

With the adoption of Rule 9410 by the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD), large employers (those which employ 100+ full time non-seasonal employees) located in San Joaquin County must implement employer based trip reduction programs at their worksites. SJCOG Commute Connections Office will coordinate with the SJVAPCD to assist in the implementation of Rule 9410. This will include maintaining a large employer data base with the following information:

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- i) Number of Large Employers registered with SJVAPCD within Jurisdiction
- ii) Number of Registered SJVAPCD Tier 1 Worksites (100-249)
- iii) Number of Registered SJVAPCD Tier 2 Worksites (250+)
- iv) Number of Registered SJVAPCD Employers with ETRIPS
- v) Average ETRIP Points of Registered SJVAPCD Employer
- vi) If applicable – local agency ETRIP points
- vii) Documentation of other non-SJVUPACD TDM Plans being implemented within the jurisdiction.

SJCOG's Commute Connections Office will share this data base with each local agency's TDM Liaison (See Local Agencies' Level 1 Effort) to facilitate local TDM planning efforts.

7) Provide each Local Agency Commute Connection Information Packet

The Commute Connections Office of SJCOG will continue to provide each local agency its Commute Connection Information Packet which describes the various TDM incentives and strategies for reducing single occupant vehicle peak hour travel demand.

8) Update of the Intelligent Transportation System (ITS) Strategic Deployment Plan for the San Joaquin Valley

SJCOG will be performing periodic updates of the San Joaquin Valley ITS Strategic Deployment Plan. ITS applications in the San Joaquin County portion of the Valley typically will continue to focus on the following ITS market packages: 1) Safety; 2) Traveler Information Systems; 3) Incident Management Systems; 4) Advanced Public Transit Systems; and 5) Freeway (e.g., vehicle detection, HOV/HOT lanes) and Arterial Management Systems (e.g., signal synchronization, signal preemption). An enhanced Traveler Information System market package will continue to be a key focus. The latter includes implementation of a 511 Program as well as other advanced traveler information systems that promote alternative modes of travel e.g., electronic traveler information (e.g., websites, kiosks, HAR), real time transit system communication systems (bus GPS units and time of arrival information boards at bus shelters), automatic vehicle location and demand responsive dispatching.

9) Inter-agency coordination by SJCOG

- a) Develop memorandums of understanding with the neighboring counties of Alameda, Stanislaus, Sacramento, Merced, and Contra Costa to strategize on reducing inter-regional vehicle trips
 - i) Ensure schedule concurrence and stop coordination over multiple transit agencies
 - ii) Develop a single-card that allows payment for various transportation related activities (travel over multiple transit agencies, vehicle parking, bicycle locker parking, roadway tolls, etc.)
 - iii) Develop park-and-ride lot locations and strategies to encourage usage
 - iv) Research and implement real-time traveler information on CMP roadways
 - v) Coordinate road and transit projects
 - vi) Review land-use policies that affect inter-regional trips
- b) Research the possibility of implementing a interregional car-sharing program
 - i) Contact City Car Share <http://www.citycarshare.org/> and Zip Car <http://www.zipcar.com/> for information on successful car sharing strategies
 - ii) Research Spride Share <http://spride.com/>, which could formalize car-sharing capabilities for personally-owned vehicles. The ability to institute this program depends on the passage of California's AB1871 (Jones) "Motor vehicle insurance coverage: Carsharing", which removes existing vehicle insurance barriers to car-sharing of individually owned vehicles. The bill unanimously passed the Assembly on June 3, 2010 and has moved onto the Senate for consideration.
 - iii) Identify possible locations for car-sharing vehicles
 - iv) Develop a position paper on the feasibility of car-sharing in San Joaquin County

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- c) Transportation card and passes
 - i) Pursue developing a single-card system that allows payment for various transportation related activities (travel over multiple transit agencies, vehicle parking, bicycle locker parking, roadway tolls, etc.)
 - ii) Work with transit agencies to secure eco-passes or discount passes for unlimited use for select populations (e.g., senior housing; K-12 students; university students, faculty, and staff; major employers)
- d) Bicycling
 - i) Identification of a Regional Bikeway Network (existing and future/proposed network) and the development of a Regional Bikeway Plan. This plan will serve as a regional guidance document for both SJCOG and its member agencies to facilitate future programming and selection bikeway improvements (see also item iii)
 - ii) Work with transit agencies to ensure the convenience and availability of allowing bicycles on transit
 - iii) Research and develop a bike sharing program for employees, residents, and tourists
 - iv) SJCOG will work with local agencies to develop a county-wide bicycling map showing existing and proposed bikeways as well as bike parking
 - v) Pursue developing a plan for the identification, removal, and recycling of abandoned bicycles on public rights-of-way and in government-owned facilities

10) Preferred Development Zones

SJCOG will develop a collaborative Regional Plan to identify Smart Growth Opportunity Zones. The final product will provide a greater focus for implementation of the Measure K Smart Growth Program through enhance opportunities for sustainable development, connectivity, and emission reductions.

11) Local Agency Support

SJCOG will continue to provide technical support to - and identify any opportunities to combine efforts with - local agencies to apply for grants and other funding that support Smart Growth efforts including:

- i) Improve streetscapes
- ii) Develop and fund projects that will encourage ancillary (e.g., landscaping, crosswalks, bike paths, development
- iii) Meet infrastructure needs

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12) Regional Blueprint Implementation

SJCOG will continue to work with its member agencies on implementing the Regional Blueprint to:

- i) Identify institutional barriers towards meeting the Blueprint vision
- ii) Develop alternatives and recommendations
- iii) Finalize "tool box" of transportation/land use strategies that can be used by existing and new development

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Level 2 Effort: Triggered

As part of the overall coordination between the TDM Action Plan and the CMP, the number of deficient CMP system lane miles by jurisdiction will be biennially determined by SJCOG. Based on established thresholds for percent of deficient CMP lane miles and a given local jurisdiction's AM/PM peak hour traffic contribution to the deficient lane miles, Level 2 TDM responsibility defined in the each agency's adopted TDM Resolutions of Commitment may be triggered.

Jurisdictions that trigger a Level 2 TDM effort will collaborate with SJCOG to develop a sub-regional TDM Action Plan. A sub-regional TDM Action Plan may contain some or all of the measures presented in this section. It should be noted that the TDM Toolbox of measures is not an exhaustive list. Local agencies may consider other TDM measures not listed in this section if it can be demonstrated that they are effective at reducing peak hour single occupant vehicle demand.

SJCOG's "toolbox" of proactive strategies is considered a suitable "starting point" for development of a sub-regional TDM Action Plan. Each measure can be customized for a given local situation (e.g., design guidelines for site access, roadways, transit stops, off-street vehicle parking, bicycling support, transportation pricing) for the purpose of reducing peak hour congestion and contributing air quality or system-wide circulation improvements. These toolbox strategies are also linked to the CMP given that they are a resource for identifying potential improvements as part of CMP deficiency plans as well as a principal source for implementing the Level 2 TDM requirements when triggered by monitored congestion levels.

Level 2 Efforts will be implemented in addition to Level 1 Efforts. As described previously, Level 2 is triggered when:

1. 30 percent or more of a local jurisdiction's CMP roadway lane miles are determined to be deficient (i.e., operating at LOS E or worse) without programming status within the 7-year CMP CIP; and
2. 30 percent or more of the congestion is attributable to that jurisdiction.

Other jurisdictions may also be involved in the sub-regional TDM Action Plan if they too are shown to contribute significantly to the congestion problem.

Development and approval of a local agency TDM Action Plan must occur within one year of the finding by the SJCOG board that a Level 2 TDM effort is triggered. Local approval of the local agency TDM Action Plan must first occur at a publicly noticed meeting. After local agency approval, the SJCOG board must also approve the local agency TDM Action Plan at a publically noticed meeting. The local agency TDM Action Plan must be approved by the SJCOG Board to satisfy the requirements of the CMP and the TDM Resolution of Commitment.

As described in SJCOG's Regional Deficiency Analysis and based on monitored CMP roadway congestion levels, no San Joaquin County jurisdictions currently trigger the TDM Level 2 threshold. If CMP congestion levels are maintained, Level 2 TDM responsibilities may not be triggered in perpetuity. However, if future congestion levels do trigger the need for a local agency to implement TDM Level 2 responsibility and develop a sub-regional TDM Action Plan, this TDM Plan provides a pro-active guide to assist the local agency in developing such a plan.

Assessing the condition of the CMP roadway network in this manner provides:

- a sub-regional barometer for CMP system performance;
- a congestion trigger point and defines a level of effort that addresses the critical situation; and,
- an equitable nexus between degree of TDM responsibility and fair share contribution of local traffic

Example, TDM Level 2 strategies are described on the following pages.

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 <#>Sub-regional barometer for CMP system performance:¶
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 However, SJCOG's "toolbox" of proactive strategies is considered a suitable "starting point" for development of a sub-regional TDM Action Plan. Each strategy can measurably improve multimodal performance and contribute to significant improvements in air quality directly or on a system-wide level. These toolbox strategies are also linked to the CMP given that they are a resource for identifying potential improvements as part of CMP deficiency plans as well as a principal source for implementing the Level 2 TDM requirements when triggered by monitored congestion levels. ¶
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1) Design Guidelines for Site Access, Roadways, and Transit Stops

Local agencies may develop design guidelines for site access and roadways that will be applied in the urbanized areas. The design guidelines should prioritize access to developments and on the roadway by transit, walking, and biking. New developments and the local agencies will use the design guidelines. Examples of design guidelines for site access, roadways, and transit stops are as follows:

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- a) Site access management
 - i) Minimize the number of access driveways to parking areas
 - ii) Provide main entrance access to buildings directly from sidewalk or street
 - iii) Ensure transit stops are located to minimize travel distances for pedestrians to main entrances
- b) Roadways
 - i) Design walkways for shortest path
 - ii) Cul-de-sac and curvilinear roadway systems should provide straight line access for non-motorized travel through the development to the arterial and collector roads and transit stops
- c) Transit stops
 - i) Locate in close proximity to intersections and other pedestrian roadway crossings
 - ii) Locate preferably on the far side of intersections, wherever possible and practicable
 - iii) Major transit stops should be designed with room for shelters and benches

2) Off-Street Vehicle Parking

Local agencies have a strong influence over off-street vehicle parking in their municipal codes, the requirements of which are typically set to accommodate peak-hour demand or at times seasonal demand for parking. This measure calls for a review of off-street parking requirements and identification of shared-use parking opportunities. Example efforts for addressing off-street vehicle parking are as follows:

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- a) Review off-street vehicle parking requirements
 - i) Design a survey of building vacancy rates, and vehicle parking availability and occupancies
 - ii) Distribute survey to residential and commercial property owners and management companies with instructions for times and methods of conducting the counts of parking
 - iii) Administer survey as part of the requirement for business license renewals
 - iv) Reduce off-street requirements for new development, if applicable
 - v) Develop locally appropriate off-street vehicle parking requirements for mixed-use developments
- b) Identify shared-use parking opportunities
 - i) Encourage residential and commercial property owners to share off-street parking resources in exchange for the ability to develop on more of their land area
 - ii) Identify areas for new multi-use development and provide information and assistance for reducing off-street parking requirements
- c) Survey municipally-owned or operated off-street parking facilities annually
 - i) Conduct count of vehicle parking availability and occupancies for at least 3 different time periods
 - ii) Consider zoning parts of under-used lots for redevelopment

3) Bicycling Support

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Providing infrastructure and support systems for bicycling can motivate motorists to switch to using bikes for transportation purposes. Bicycling is an environmentally friendly, efficient, reliable, economical, and healthy way of getting around. Local agencies can encourage bicycling by implementing the following [example measures](#):

- a) Bicycle parking
 - i) Require new residential developments to provide secure bicycle parking on the ground floor that shelters at least two bicycles per unit from inclement weather. Attached or detached garages for single family homes suffice for bicycle parking.
 - ii) Identify locations of commercial and retail activity and provide short-term bicycle parking for customers, per Caltrans' guidelines for location and placement
 - iii) Install bike parking in public parking garages and lots. Locate in a visible location or include wayfinding signage.
- b) Bicycle mapping
 - i) Local agencies will provide a GIS-ready map, compatible with the SJCOG's GIS projection, showing the following components:
 - (1) Existing and future bikeways and type (Class 1 multi-use trails, Class 2 bike lanes, and Class 3 bike routes)
 - (2) Bike parking and type (long-term lockers and garages, and short term racks)

4) HOV and Express Lanes

Local agencies can come out in support of roadway operations that encourage carpooling, increase transit reliability, and provide opportunities for single-occupant vehicles to pay for using carpool lanes. [The following are examples of supportive actions](#):

- a) Support and study High-Occupancy Vehicle (HOV) lanes on CMP roadways
 - i) Consider roadway expansions only for HOV lanes
 - ii) Consider conversion of existing multi-purpose lanes into HOV lanes
- b) Express Lanes
 - i) Consider roadway expansions only for High Occupancy Toll (HOT) or Express lanes
 - ii) Consider conversion of existing multi-purpose lanes into Express lanes

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5) Facility-based measures for new development

Local jurisdictions [can consider requiring](#) sizeable new residential and commercial development to include provisions for travel by bicyclists, pedestrians, transit passengers, and carpools. These provisions cover on-site construction, designs of buildings, off-street parking areas, and roadways; programs and information; monitoring and appointment of transportation coordinator. [Examples of applicable sizeable new development guidelines](#) are indicated in [Table 1](#).

Table 1: Developmental Guidelines for Facility based TDM Measures

Development type	Transit-rich area ¹	Other areas
Residential	100 or more dwelling units	50 or more dwelling units
Commercial (including office buildings with multiple tenants) or government	100 full-time equivalent employees	50 full-time equivalent employees
Multi-use	100 or more combined dwelling units and full time equivalent	50 or more combined dwelling units and full time equivalent

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	employees	employees
Office or industrial park	All	All
Event center or stadium	All	All
School	150 students	100 students

¹ Transit-rich area is where at least 50% of the project's employees, residents, students, or attendees are within 1/3 mile walking distance of existing or future transit stations or stops.

Facility-based measures could include the following example components:

- a) Construction and operations
 - i) Site construction should not impede normal pedestrian and bicycle circulation. If necessary, temporary sidewalk and bike lane closures will be accompanied by safe accommodation as close as possible to the site on the adjacent roadway.
 - ii) Freight loading and unloading should not impede walkways or bicycle circulation
 - iii) Refuse and recycling containers should be stored so that they are not impeding the public right-of-way
- b) Minimize travel distances for pedestrians and bicyclists on public rights-of-way
 - i) Walkways should be designed for shortest path
 - ii) Cul-de-sac and curvilinear roadway systems should provide straight line access for non-motorized travel through the development to the arterial and collector roads and transit stops
- c) Orient buildings towards pedestrians, bicyclists, and transit passengers
 - i) Provide main entrance access to buildings directly from sidewalk or street
 - ii) Ensure transit stops are located to minimize travel distances for pedestrians to main entrances
 - iii) Minimize the number of access driveways to parking areas
- d) Off-street parking facilities
 - i) Prohibit surface parking lots that border more than 100 continuous feet of sidewalks
 - ii) Ensure covered parking lots and garages are accessible by vanpools
 - iii) Assign priority parking to carpools and vanpools
 - iv) Dedicate premium parking spaces, if requested, to car-share vehicles
- e) Bicycle storage facilities
 - i) Require 1 short-term bicycle parking space for every 5 vehicle parking spaces (residential and commercial)
 - ii) All housing developments will include one storage space per unit on the ground floor adequately-sized to store at least two bicycles per unit (residential)
 - iii) Require 1 long-term secure bicycle parking space protected from inclement weather for every 10 parking spaces (commercial) or students (schools)
 - iv) Develop plan for identification and removal of abandoned bicycles on the public right-of-way
- f) Changing facilities
 - i) Provide shower, if possible
 - ii) Provide locker and changing room access to employees who bike or walk to work (commercial)
- g) Transportation information
 - i) Provide a kiosk, bulletin board, or website for posting and disseminating transportation-related information
 - ii) Include the ability for residents and employees to post content or questions, e.g., carpooling

Deleted: Bus stops must be served by at least 2 major routes with scheduled headways of 15 minutes or less for at least 5 hours per day. Alternatively, the development can be within 300 feet of an existing or future bus rapid transit corridor.

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- iii) Monitor and post transportation information related to bicycling, walking, transit, and ridesharing
- h) Encourage employees, residents, event attendees, and adults driving students to school to reduce vehicle miles traveled
 - i) Offer free or discounted transit passes to employees, residents, event attendees, and students
 - ii) Offer parking cash-outs for employees or residents who give up their parking spaces
 - iii) Conduct contests and promotions with rewards for walking, biking, taking transit, or using carpools in place of driving solo
 - iv) Reimburse employees who commute by walking or biking
 - v) Require multi-family carpools for students accessing schools, with matching assistance from school's administrative staff
- i) Appoint a transportation coordinator
 - i) The transportation coordinator will monitor and post transportation information on kiosk, bulletin board, or website
 - ii) Distribute transit passes
 - iii) Develop promotional program to encourage walking, biking, transit use, and carpooling
 - iv) Conduct monitoring program
- j) Monitoring program
 - i) Conduct annual survey of residents or employees regarding transportation habits
 - ii) Conduct annual counts of motorists, bicyclists, and pedestrians accessing or exiting the site in the AM and PM peak hours
 - iii) Develop and implement ideas for reducing vehicle miles traveled based on survey results
 - iv) Submit summary of survey and counts to local jurisdiction

6) Prepare system-wide deficiency plans

When isolated analysis and direct fixes of deficient CMP roadways are not locally desired, CMP statutes allow local agencies to develop system-wide deficiency plans. System-wide deficiency plans are a good option when meeting CMP LOS standards are not possible (e.g., due to insufficient right-of-way or cost) or undesirable (e.g., avoiding expansive intersections that increase pedestrian crossing times). Jurisdictions can develop comprehensive and locally-appropriate transportation strategies for improving system-wide circulation or air quality rather than adhering to vehicle CMP LOS standards. System-wide deficiency plans also allow local jurisdictions to indirectly address specific vehicle operation issues by pursuing system-wide improvements to walking, biking, transit, and TDM programs, as well as land-use changes that aim to reduce vehicle miles traveled.

The system-wide deficiency plan should contain the following:

- a) Deficiency analysis of CMP roadway
 - i) Identification of CMP designated facility that exceeds the CMP LOS standard
 - ii) Planning-level cost estimates of the physical improvements needed to maintain the CMP LOS standard at the deficient location
 - iii) Discussion of issues precluding the feasibility for a "direct fix" improvement to allow the deficient location to operate with the CMP LOS standard
- b) System-wide improvements
 - i) Discussion of possible system-wide improvements, including physical changes to non-CMP locations, TDM programs, bicycle, pedestrian, and transit improvements

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- ii) Analysis of system-wide improvements to circulation and air quality improvement.
- iii) List of feasible and appropriate system-wide improvements
- c) Action plan
 - i) How deficiency plan actions will be implemented
 - ii) Identifies lead agency responsibility for implementation and identification of other stakeholder agencies
 - iii) Source of funding for each identified action
 - iv) Timing of each action's implementation
- d) Monitoring program
 - i) Develops measures of effectiveness
 - ii) Describes how the local jurisdiction will evaluate the implementation of deficiency plan actions
 - iii) Reconciles CEQA requirements with deficiency plan

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7) Financial Incentives

Motorists and developers can be encouraged to make more socially beneficial changes through the implementation of user and permitting fees. Imposing additional fees on developers hoping to locate projects in areas of little transportation choice would make projects in infill areas more appealing. Charging motorists for roadway use and parking is probably the most effective way to reduce vehicle miles, increase carpooling, encourage multi-purpose vehicle trips (trip-chaining), and encourage access by other modes of travel. Congestion relief can be permanently achieved if tolls and parking charges rise or fall according to demand, much the way airline ticket prices differ based on demand for flying on certain days and at certain times. On the surface, such measures appear to penalize motorists. However, all transportation system users, including motorists, could benefit from pricing. These benefits include creating revenue for better quality roads, transit, pedestrian, and bicycle facilities; eliminating roadway congestion for more reliable trip durations; ensuring the availability of parking in commercial areas; developing higher livability standards for communities; creating safer streets; and providing multi-modal opportunities for travel. ITS technology has evolved to the point that toll collection and parking charges are no longer onerous to the agency or inconvenient to the user due to the availability of transponders and other devices.

Examples of financial incentives include the following measures:

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- a) Charge additional permitting fees for new or reuse development in areas with poor transit access. ¹
- b) Analyze the system-wide effects of instituting roadway congestion pricing and/or High-Occupancy Toll (HOT or Express) lanes as a feasible alternative on CMP roadways
- c) Parking
 - i) Determine areas of high parking demand (less than 15% availability during peak demand times) for on-street and municipally-owned parking lots/ garages
 - ii) Form neighborhood improvement districts
 - iii) Develop a parking plan that encourages long-term parking in off-street facilities, short-term parking on-street, and provides real-time parking information to motorists
 - iv) Institute parking charges with rates that ensure at least 15% availability of parking spaces in commercial areas
 - v) Use revenue generated from parking charges to make streetscape improvements to the neighborhood improvement district

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¹ Examples of how areas can be defined as transit-poor areas include: failure to meet certain conditions. Example conditions include: (1) At least 50% of the project's employees, residents, students, or attendees are within 1/3 mile walking distance of existing or future transit stations or stops (2) Bus stops and transit stations are served by at least 2 major routes with scheduled headways of 15 minutes or less for at least 5 hours per day. Alternatively, the development can be within 300 feet of an existing or future bus rapid transit corridor.



- (3) Summarize annual surveys in a report to SJCOG
- ii) Require district offices to assist individual schools in developing Transportation Management Plans that:
 - (1) Develop measurable goals for reducing the number of vehicles accessing schools and creating an orderly roadway environment
 - (2) Conduct counts and observations of school-related vehicles and bicycles in the AM peak-hour before and after implementation of measures detailed in transportation management plans
 - (3) Establish pick-up and drop-off areas at each school that are monitored by school staff who assist students entering and exiting vehicles. Locate the pick-up and drop off areas away from the main school entrances to create a safer environment for students accessing the school by foot or bike.
 - (4) Develop a safe driving and parking guidance manual that is conveyed to parents and other adult care-givers. Establish a vehicle circulation pattern for student drop-off and pick-ups for each school and enforce rules and laws to maintain an orderly roadway environment.
 - (5) Encourage multi-family carpools for students accessing schools, with rideshare matching assistance from school's administrative staff
 - (6) Require 1 long-term secure bicycle parking space protected from inclement weather for every 10 students
 - (7) Develop contests and promotions to encourage student access to school by walking, biking, transit, and carpooling
 - (8) Conduct annual counts and observations of school-related vehicles and bicycles in the AM peak-hour
 - (9) Report results to TDM coordinator at local jurisdiction

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