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## Technical Advisory Committee

### MEETING AGENDA

**October 22, 2015 1:30 PM**

Sonoma County Transportation Authority  
SCTA Large Conference Room  
490 Mendocino Avenue, Suite 206  
Santa Rosa, California 95401

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#### ITEM

1. Introductions
2. Public Comment
3. Approval of Minutes, September 24, 2015\* – **DISCUSSION / ACTION**
4. Comprehensive Transportation Plan Performance Assessment Results\* – **DISCUSSION / ACTION**
5. TFCA/TDA3 Quarterly Report\* – **DISCUSSION / ACTION**
6. Measure M **DISCUSSION / ACTION**
  - 7.1 Measure M Invoicing / Appropriation Status\*
7. Regional Information Update – **DISCUSSION**
8. Rail Update – **DISCUSSION**
9. Draft SCTA Board Meeting Agenda: November 9, 2015
10. Other Business / Comments / Announcements - **DISCUSSION**
11. Adjourn - **ACTION**

\*Materials attached.  
\*\*Handout at meeting

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The next **SCTA** meeting will be held November 9, 2015  
The next **TAC** meeting will be held on December 3, 2015?

Copies of the full Agenda Packet are available at [www.sctainfo.org](http://www.sctainfo.org)

**DISABLED ACCOMMODATION:** If you have a disability that requires the agenda materials to be in an alternate format or that requires an interpreter or other person to assist you while attending this meeting, please contact SCTA at least 72 hours prior to the meeting to ensure arrangements for accommodation.

**SB 343 DOCUMENTS RELATED TO OPEN SESSION AGENDAS:** Materials related to an item on this agenda submitted to the **Technical Advisory Committee** after distribution of the agenda packet are available for public inspection in the Sonoma County Transportation Authority office at 490 Mendocino Ave., Suite 206, during normal business hours. Pagers, cellular telephones and all other communication devices should be turned off during the committee meeting to avoid electrical interference with the sound recording system.



TAC Voting member attendance – (6 Month rolling 2015/16)

<b>Jurisdiction</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug. Special Meeting</b>	<b>Sept</b>
Cloverdale Public Works	√	√		√	√	√
Cotati Public Works						
County of Sonoma DHS		√	√		√	√
County of Sonoma PRMD						
County of Sonoma Reg. Parks	√	√	√			√
County of Sonoma TPW	√	√	√	√	√	√
Healdsburg Public Works	√		√			√
Petaluma Public Works & Transit	√	√	√	√	√	√
Rohnert Park Public Works	√	√	√	√	√	
Santa Rosa Public Works		√	√		√	√
Santa Rosa Transit						
Sebastopol Public Works	√	√	√	√		√
SMART	√					√
Sonoma County Transit					√	
Sonoma Public Works	√	√	√	√		√
Windsor Public Works	√	√	√	√	√	√

## TECHNICAL ADVISORY COMMITTEE MEETING NOTES

### Meeting Minutes of September 24, 2015

#### ITEM

##### 1. Introductions

Meeting called to order at 1:35 p.m. by Larry Zimmer of the City of Petaluma.

##### 2. Public Comment

N/A

##### 3. Approval of Minutes, July 23, 2015\* –

###### **DISCUSSION / ACTION**

Approved as submitted.

##### 4. Approval of Minutes, Special Meeting: August 25, 2015\* - **DISCUSSION / ACTION**

Approved as submitted.

##### 5. Comprehensive Transportation Plan Update – **DISCUSSION / ACTION**

Janet Spilman reported that the project list was approved by the SCTA Board as submitted, and clarified the recent understanding of what constitutes “large” projects under MTC criteria. She explained that this refers to the physical size of the project itself; not the cost, and that if a project is within the quarter-mile size criteria it does not need to be added to the list.

Ms. Spilman demonstrated how to use the website in entering project data and the required information.

##### 6. SB 743: Transportation Impacts in CEQA – **DISCUSSION**

Chris Barney reported that technical information provided by OPR on this legislation advisory in nature and has been moved into a supplemental document. He summarized main points of the legislation, including thresholds of significance, mitigation of transportation impacts, and criteria.

Mr. Barney announced that the next draft of OPR’s recommendations is due to be released some time this fall, and that the Committee will be notified. Comments will be taken for the following six weeks, to be followed by a public comment period. A two-year grace period will be granted to “opt-in” under

this legislation once the final CEQA guidance has been approved by the Natural Resource Agency.

##### 7. Measure M **DISCUSSION / ACTION**

###### 7.1 Measure M Invoicing / Appropriation Status\*

Seana Gause announced that no items require action, and that several invoices are pending because of unresolved questions.

###### 7.2 Status of Annual Reporting Letter Submittal\*

Ms. Gause reported an outstanding letter for the Local Streets (the City of Sonoma) which has been received, and that currently one reporting letter remains outstanding. This report will be presented to the CAC and then to the SCTA Board at its October 12 meeting.

###### 7.3 Updated schedule for Measure M presentations to the Citizen’s Advisory Committee\*

Ms. Gause presented a revised schedule, explaining that one jurisdiction requested to change the date of their presentation. This revised schedule will be presented to the CAC.

##### 8. Regional Information Update – **DISCUSSION / ACTION**

###### 8.1 OBAG 2 Update : Eligibility Requirements regarding the Complete Streets Act

Ms. Spilman reported that MTC requires a resolution (or CE approved after 2011 that includes CSA) from each jurisdiction that includes specific language pertaining to Complete Streets.

Ms. Gause added that this does not apply to agencies that are putting in non-infrastructure/planning types of projects.

Discussion ensued regarding the criteria and specific Santa Rosa projects that this may impact.



Ms. Spilman noted that these are due January 31, 2016, and that staff will keep the Committee updated.

#### **9. Rail Update – DISCUSSION**

Joanne Parker reported that the last section of rail to connect the Haystack Bridge is being completed and announced 18-day road closure during this period.

Work on station finishes will be starting soon. Staff is working with the vendor of the Clipper vending machines, and transit operators should be online with this at the end of the year.

The third train set has been delivered and more will be coming within the next two weeks. Testing of the trains is in progress.

Ms. Parker next reported that funding discussions for the rail to Larkspur are ongoing and that the Federal Transportation Agency (FTA) is working with staff on getting funding.

In response to Committee questions regarding when rail service is expected to extend north to Windsor, Ms. Parker explained that she did not have that information at present.

#### **10. Draft SCTA Board Meeting Agenda: October 12, 2015**

Ms. Gause reported that this is being developed, and will include a report on the status of the annual reporting letters, access to Highway 101, and possibly the status of the Measure M Bicycle and Pedestrian Program.

#### **11. Other Business / Comments / Announcements – DISCUSSION**

Ms. Gause reported on analysis that MTC is currently conducting on the statewide ATP Program, noting that the Bay Area represents approximately 19% of the population of the State but received approximately 11% of State funding for ATP. The focus of this program is on disadvantaged communities. Ms. Gause reported that staff expects to know what the regional list will be by October 7. This will go to the California Transportation Commission (CTC) for approval December 10.

Discussion followed regarding changes in performance targets, including changing from PCI (Pavement Condition Index) to the descriptor “state of good repair.” Ms. Gause explained that this is not related to, and will not affect, OBAG 2, but is for the Regional Transportation Plan (RTP).

#### **12. Adjourn – ACTION**

2:42 p.m.

## Staff Report

**To:** Technical Advisory Committee

**From:** Chris Barney, Senior Transportation Planner

**Item:** 2015 CTP Performance Assessment – Final Results

**Date:** 10/22/2015

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### Issue

Staff has evaluated how transportation projects, policies, technologies, and strategies can help SCTA meet Comprehensive Transportation Plan (CTP) goals and associated performance targets. A project level performance assessment and policy/technology performance assessment identified approaches that have the potential to help make progress in CTP goal areas. High performing projects and policy approaches have been combined into a composite future scenario to demonstrate what it will take to meet CTP performance targets and achieve CTP goals.

### Evaluating Plan Performance

The Comprehensive Transportation Plan has become progressively more goals-oriented and focused on measuring performance. Plan performance can be measured by quantifying what it will take to meet the goals identified in the plan. The 2009 CTP identified four performance targets that were loosely related to plan goals. A broad scenario based assessment was included in the 2009 plan that demonstrated how implementation of CTP projects and high level transportation policies would impact transportation metrics such as vehicle miles traveled, congestion, and greenhouse gas emissions. None of the broad scenarios tested in the 2009 CTP met all of the identified performance targets.

As part of the 2015 plan update, individual performance measures have been identified for each of the plan goals. A deeper assessment of individual transportation projects, policies, technologies, and strategies was included in this plan, which has demonstrated how different approaches help Sonoma County move closer towards meeting performance targets and improving the countywide transportation system. Information gathered as part of this assessment has been used to assemble a future scenario, or vision, which meets most of the plan's performance targets. A few of the performance targets have been difficult to meet because of limitations in the tools used to assess performance, because of inelasticities in the metric, or because the targets were too ambitious and infeasible given current and imagined travel conditions, technologies, and behavior. The SCTA will be asked to consider approving revisions to these targets.

The 2015 CTP Performance Assessment has included the following steps:

1. *Review and update plan goals and performance targets.* Are the performance targets still relevant and do they still represent SCTA priorities? Do we think the targets are achievable?
2. *Summarize current conditions.* Are we currently meeting performance targets?
3. *Estimate future conditions and set a future baseline.* What do future conditions look like if we don't construct any projects or make improvements to the transportation system? What impacts do population, housing, and employment growth have on future travel conditions?

4. *Develop a list of transportation projects, policies, strategies, and technologies that could help SCTA meet goals and targets.*
5. *Test transportation project performance.* Do projects help us achieve CTP goals and meet performance targets? If yes, which targets do they help us meet, and which projects are most effective?
6. *Test transportation policy, strategy, and technology impacts.* Do policies, strategies, and technology help us achieve CTP goals and targets?
7. *Determine how CTP goals and targets can be achieved.* Estimate what it will take to meet CTP goals and performance targets by evaluating future scenarios in which promising transportation projects, policies, strategies, and technologies would be implemented.
8. *Reevaluate Performance Targets and revise as necessary or desired.*

Steps 1-6 have been described in previous reports. This report addresses steps 7-8 of the performance assessment process.

### **Review of CTP Goals and Performance Targets**

SCTA has identified ambitious performance targets for each of the CTP goals. Performance targets are based on 2009 CTP targets or on a preliminary investigation of what progress may be possible in different subject areas. The SCTA approved these goals and targets with the understanding that they may need to be revised based on the final results of the performance assessment. The final performance assessment has indicated that most of the targets could be met by implementing projects, policies, and technologies identified in the project and policy performance assessments. Recommended revisions to the performance targets are included later in this report.

Goal 1: <u>Maintain the System</u>	Goal 2: <u>Relieve Traffic Congestion.</u>	Goal 3: <u>Reduce Greenhouse Gas Emissions</u>	Goal 4: <u>Plan for Safety and Health</u>	Goal 5: <u>Promote Economic Vitality</u>
<ul style="list-style-type: none"> <li>• <i>Performance Target: Roadway Condition – Improve countywide Pavement Condition Index (PCI) for arterial and collector streets to 80 (very good condition) by 2040. Improve countywide PCI for residential streets to 65 (good condition) by 2040.</i></li> <li>• <i>Performance Target: Transit System Condition – Reduce the average bus fleet age by 25% below 2010-2012 average fleet age by 2040 (7.5 years for 2010-2012).</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Performance Target: Congestion Reduction - Reduce Person Hours of Delay (PHD) by 20% below 2005 levels by 2040.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Performance Target: Reduce GHG emissions to 40% below 1990 levels by 2040. Climate Action 2020 targets shall be incorporated into the CTP when they are finalized.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Performance Target: Active Transportation – Reduce drive alone mode share for all trips to 33.3% by 2040 (2010 - 45%). Increase active transportation mode share (bike, walk, and transit) to 15% by 2040 (2010 – 8.38%).</i></li> <li>• <i>Performance Target: Safety – Reduce total daily accident rates by 20% by 2040.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Performance Target: Reduce transportation costs for business and residents - Reduce average peak period travel time per trip by 10% by 2040 (2010 – 11.31 minutes).</i></li> <li>• <i>Performance Target: Provide equitable access - CTP projects should serve Communities of Concern. Average monthly household transportation costs have also been calculated and summarized for different projects and transportation policies/measures.</i></li> </ul>

## **Setting the Baseline – Current Conditions (2010) and No Action (2040) Scenarios**

Transportation scenarios representing the implementation of projects, policies, and strategies identified in the CTP were compared to estimates of current conditions (2010) and a future no action (2040) scenario in order to evaluate which projects or policies help achieve the plan goals and performance measures.

### **Current Conditions - 2010**

2010 was used as the base year representing current travel and social conditions in Sonoma County because of the wealth of transportation and demographic data available for this year. The Sonoma County Travel Model has been validated to match 2010 travel conditions and is able to provide reliable estimates of travel activity and behavior for this year. Staff anticipates updating the base year for the Sonoma County Travel Model to 2015 as more current travel and demographic data become available.

Performance assessment scenarios were compared to the current conditions scenario to assess how travel conditions would be expected to change over time with selected transportation projects or policies in effect.

### **2040 Baseline/No Action Scenario – Impact of Future Growth**

2040 was used as the forecast year for the CTP performance assessment. This planning horizon is consistent with the planning horizon used for the Regional Transportation Plan and Sustainable Planning Scenario, and population, housing, and employment estimates are readily available for this year.

Some local transportation projects are fully funded and are considered committed projects. It is assumed that these projects will be completed in the near term. Committed projects were included in any analysis of 2040 baseline, or no action conditions. A list of committed projects is provided below.

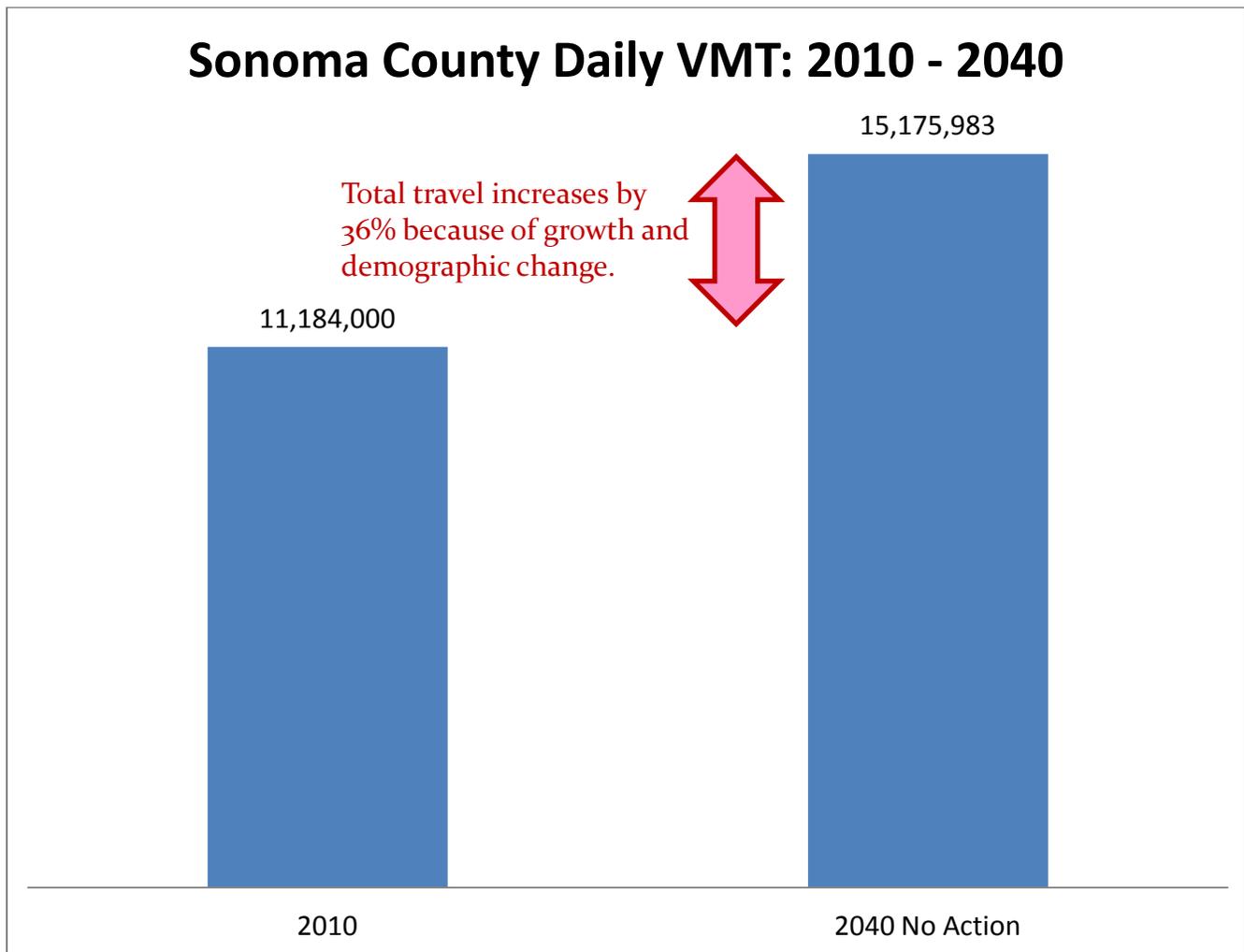
#### **Committed Projects:**

- Marin Sonoma Narrows: Phase 1 - SCTA
- Healdsburg Avenue Bridge Retrofit/Rehabilitation - Healdsburg
- River Road channelization and improvements – Sonoma County
- Bodega Highway improvements west of Sebastopol – Sonoma County
- Five-way Intersection/Roundabout – Healdsburg
- Dowdell Avenue Extension – Rohnert Park
- Bodway Parkway Extension – Rohnert Park
- Keiser Avenue Reconstruction – Rohnert Park
- SMART: San Rafael to Airport

The Association of Bay Area Governments (ABAG) forecasts future population, housing, and employment growth for Bay Area cities and counties. These forecasts are generally consistent with local general plan build-out assumptions for Sonoma County jurisdictions. Current growth estimates were developed for the Regional Transportation Plan and Sustainable Communities Strategy (SCS) and have been incorporated into the Sonoma County Travel Model and were used in this modeling exercise. Sonoma County population is predicted to grow by 24% by 2040, from 483,878 residents in 2010 to 598,460 in 2040. Employment is predicted to grow by 27% by 2040, from 202,173 in 2010 to

256,363 in 2040. Countywide Vehicle Miles Traveled (VMT), a common measure of travel activity, are expected to increase by 36% by 2040 because of increased development within the county and neighboring areas. Population and employment growth are the primary factors driving increased travel, worsening congestion, increased emissions, and degraded traffic safety in Sonoma County's future.

A 2040 No Action scenario was constructed which represents a future in which population and employment growth as described above would occur and limited "committed" or in progress transportation projects would be constructed. Scenarios representing other transportation projects, policies, or strategies were compared to the 2040 No Action scenario in order to assess their potential to improve future travel conditions and meet CTP performance measures.



## **Testing Project Impacts**

Staff tested project level impacts and presented the results of this analysis at the July 2015 SCTA meeting. This analysis indicated that projects would provide congestion reduction benefits, but would not appreciably reduce vehicle miles traveled, greenhouse gas emissions, shift travel onto non-auto modes, or improve safety and travel affordability in Sonoma County. The most significant congestion reduction improvements would be provided by large transportation system improvement projects.

## **Testing Policy Impacts**

The results of the policy performance assessment indicated that a variety of different policy approaches, advancements in technology, and changes in travel behavior will be necessary to address the goals, objectives, and performance targets that have been identified in the CTP. High performing approaches were identified for each performance target. The SCTA also provided feedback on which policies or technologies should or should not be included in the following phase of the performance assessment.

## **Meeting CTP Goals and Performance Targets - Assembling a 2040 High Performing or Composite Scenario**

High performing projects and policies from the project level and policy level analyses were included in one future scenario which was able to meet most of the performance targets. Some high performing policy levers that were analyzed in the policy level performance assessment were omitted based on feedback from the SCTA. These approaches were identified as having negative impacts or undesirable effects in other areas and were therefore not considered in the final performance assessment scenario.

The following transportation projects were shown to help reduce congestion and help provide small benefits in other CTP performance areas and were included in the final composite performance scenario:

- Hearn Avenue/Highway 101 interchange improvements
- Highway 116 widening and rehabilitation between Sebastopol and Cotati
- Marin Sonoma Narrows: Phase 2
- SMART: Airport to Cloverdale extension
- SMART pathway
- Railroad Avenue/Highway 101 interchange improvements
- Airport Boulevard Widening including Brickway and Laughlin Rd improvements
- Fulton Road/Highway 12 Interchange
- Petaluma Cross-town Connector and Rainier Interchange
- State Route 37 corridor protection and enhancement project
- Santa Rosa CityBus service expansion including rapid bus corridors
- Sonoma County Transit service expansion
- Petaluma Transit service expansion including rapid bus corridor

The following transportation policies or strategies were shown to provide the greatest performance benefits in the policy performance assessment and were included in the final composite performance scenario:

- *Focused population and employment growth:* Future population, housing and employment growth consistent with the regional Sustainable Communities Strategy. This growth distribution represents a future growth pattern focused on Sonoma County

Priority Development Areas and city-centered growth and is largely consistent with local general plans and development priorities. All future development in Sonoma County through 2040 was also assumed to be located within Urban Growth Boundaries (UGB).

- *Regional Jobs-Housing Balance:* Incoming and outgoing trips at the county gateways were balanced to represent future improvements to jobs-housing balance and the availability of affordable and appropriate housing within the county. Improved jobs-housing balance and housing affordability could reduce the need to travel into or out of the county for work or other purposes. For analysis purposes, inter-county travel was assumed to stay the same as it was in 2010.
- *Trip reduction strategies:* Tested a 2% reduction in household trip making. This equates to 1 less trip made per household per week. An average household makes approximately 40-50 trips per week. This trip making reduction was used to estimate the impact increased telecommuting, compressed work week schedules, travel demand management strategies, and increased online shopping and/or instant or digital delivery of goods and services could have on Sonoma County travel.
- *Vision transit improvements:* Implement all vision transit improvement projects as outlined in the CTP project list. Implementation of these unfunded or vision transit projects would almost double countywide transit capacity. These vision improvements would increase the capacity of the transit system by improving route headways and increasing hours of service.
- *Maximize transit ridership:* Maximize ridership of proposed “vision” transit service by 2040. Staff estimates that the countywide transit system would operate at about 26% capacity if vision transit enhancements were implemented by 2040. The unused capacity on the improved transit system would be significant, and filling vacant seats and filling transit vehicles to capacity could reduce countywide VMT by over 650,000 miles per day.
- *Shift to non-motorized travel:* Assume a shift of 3-4% of single occupant vehicle travel to walk and bike travel modes, representing approximately 120,000 trips per day (out of around 3.5 million daily trips in Sonoma County). Explicit reasons for this shift have not been identified but could include things such as build-out of the bicycle and pedestrian network as laid out in the SCTA Bicycle and Pedestrian Plan, continued implementation of complete streets projects, improvements to the built environment, and changes in attitudes and travel behaviors.
- *System Efficiency Improvements – Capacity:* Represented by a 25% increase in roadway capacity that could be attributed to intelligent transportation systems (ITS), signal timing, corridor management, incident response programs, changeable message signs, metering improvements, traffic information communication programs, smart cars,

freeway vehicle platooning, driverless vehicles, and other efficiency increasing programs or transportation technologies.

- *System Efficiency Improvements - Vehicle Fuel Economy:* Estimated California vehicle fuel economy in 2015 is approximately 23 miles per gallon<sup>1</sup>. National and State fuel economy standards are expected to increase vehicle fleet fuel economy to about 32 miles per gallon by 2035<sup>2</sup>. Staff tested increasing average vehicle fleet fuel economy to 40 miles per gallon in the policy performance assessment. Vehicle fleet fuel economy could be improved by increased rollout of electric/hybrid vehicles, improvements in vehicle fuel economy in the gasoline vehicle fleet, eco-driving training, speed limit and HOV enforcement, and other behavioral or technology improvements.

The high performing or composite scenario was assembled iteratively by adding additional high performing projects or policy approaches until the combined scenario was able to reach most CTP performance targets. A few performance targets were not reached in the composite scenario described above due to technical limitations in the tools used to conduct the analysis or aggressiveness of the target. These are discussed in greater detail below.

### **CTP GOAL 1: Maintaining the System**

The Sonoma County Travel Model and available post-processing tools do not provide a way to estimate future transportation system condition so other tools and data were used to estimate what it will take to maintain the current transportation system. Project sponsors have identified projects that are expected to improve roadway condition (PCI), transit system condition, or non-motorized facility condition. Staff has worked with local public works, planning, and transit staff and regional pavement management staff from the Metropolitan Transportation Commission to provide estimates of what it will cost to maintain the existing Sonoma County roadway, transit, and non-pavement<sup>3</sup> transportation infrastructure.

The average condition of the Sonoma County roadway network was 53 in 2014. This pavement condition index (PCI) number, rated on a scale of 0 to 100, indicates that the countywide road network falls in the “at risk” category. MTC<sup>4</sup> has estimated that it will cost \$5 billion to improve and maintain the road system at a PCI of 75, or “good” condition, through 2040.<sup>5</sup> Approximately \$2.7 billion of this maintenance cost is currently unidentified. MTC has also estimated that it will cost \$278 million through 2040 to maintain Sonoma County bridges. \$162 million of this needed maintenance is currently unfunded.

Sonoma County Transit providers have estimated that it will cost approximately \$1 billion to maintain current transit service and facilities through 2040. This cost estimate includes maintenance and operations and is based on yearly and expected operating budgets. Transit expansion projects that were included in the CTP Composite Performance Scenario analyzed in this report would incur additional costs which are not currently identified.

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<sup>1</sup> Caltrans (MVSTAFF)

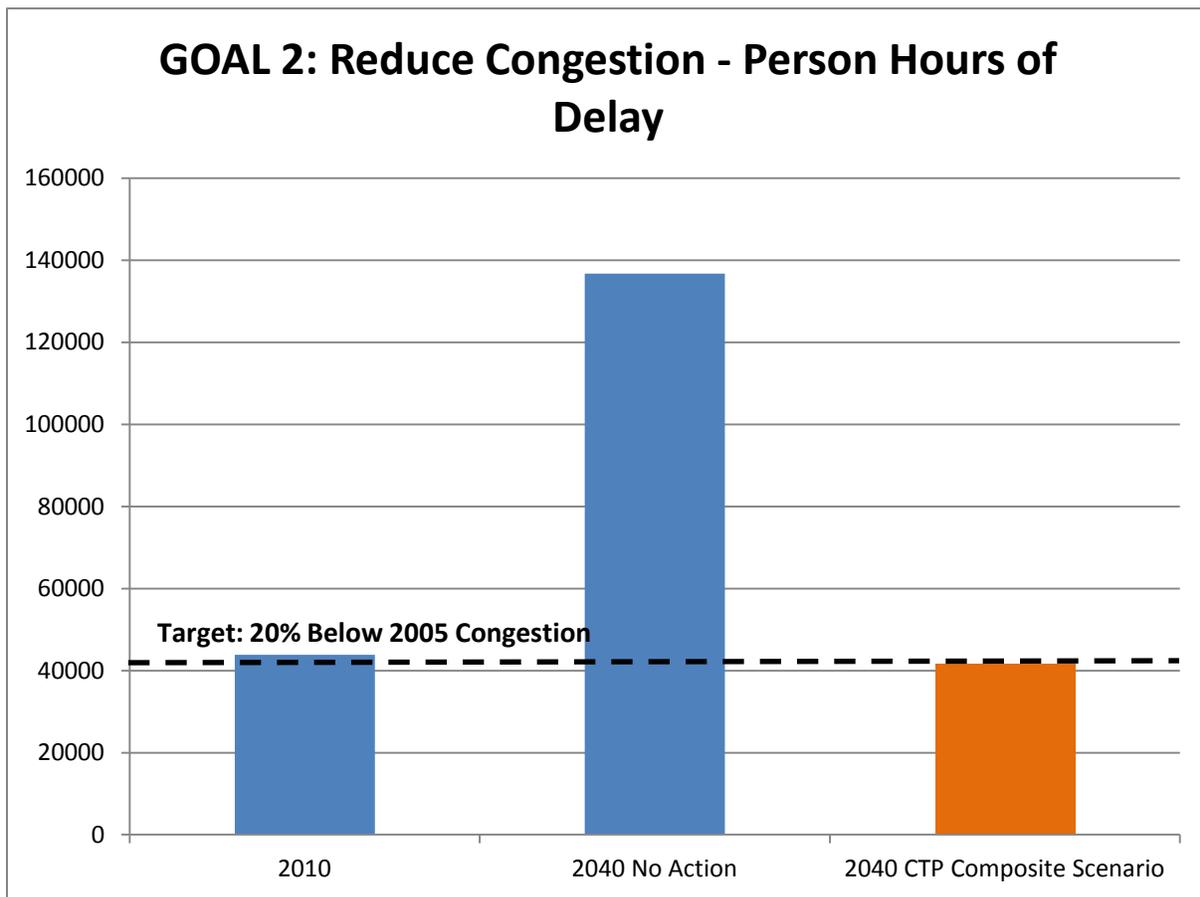
<sup>2</sup> EMFAC, California Air Resources Board

<sup>3</sup> Non-pavement transportation system improvements include curbs and gutters, sidewalks, bike lanes/paths, storm drains, traffic signs, signals and lights.

<sup>4</sup> MTC Plan Bay Area Local Street and Roads Needs and Revenue Assessment.

## **CTP GOAL 2: Relieve Traffic Congestion**

Traffic volumes continue to rise in Sonoma County as the population and economy grow. Growing traffic congestion could impact economic productivity due to increased transportation delay, increased fuel consumption and pollution, reduced accessibility, increased emergency response times, increased traffic accident rates, and degraded quality of life for Sonoma County residents. An estimated 44,000 hours were lost each day in 2013 because of traffic congestion in Sonoma County. Congestion is predicted to more than triple by 2040. Most of this increase can be attributed to increased travel because of population and employment growth. Implementing the CTP Composite Scenario would reduce daily PHD to 41,625 and meet the performance target of reducing daily PHD by 20% below 2005 levels by 2040.<sup>6</sup>



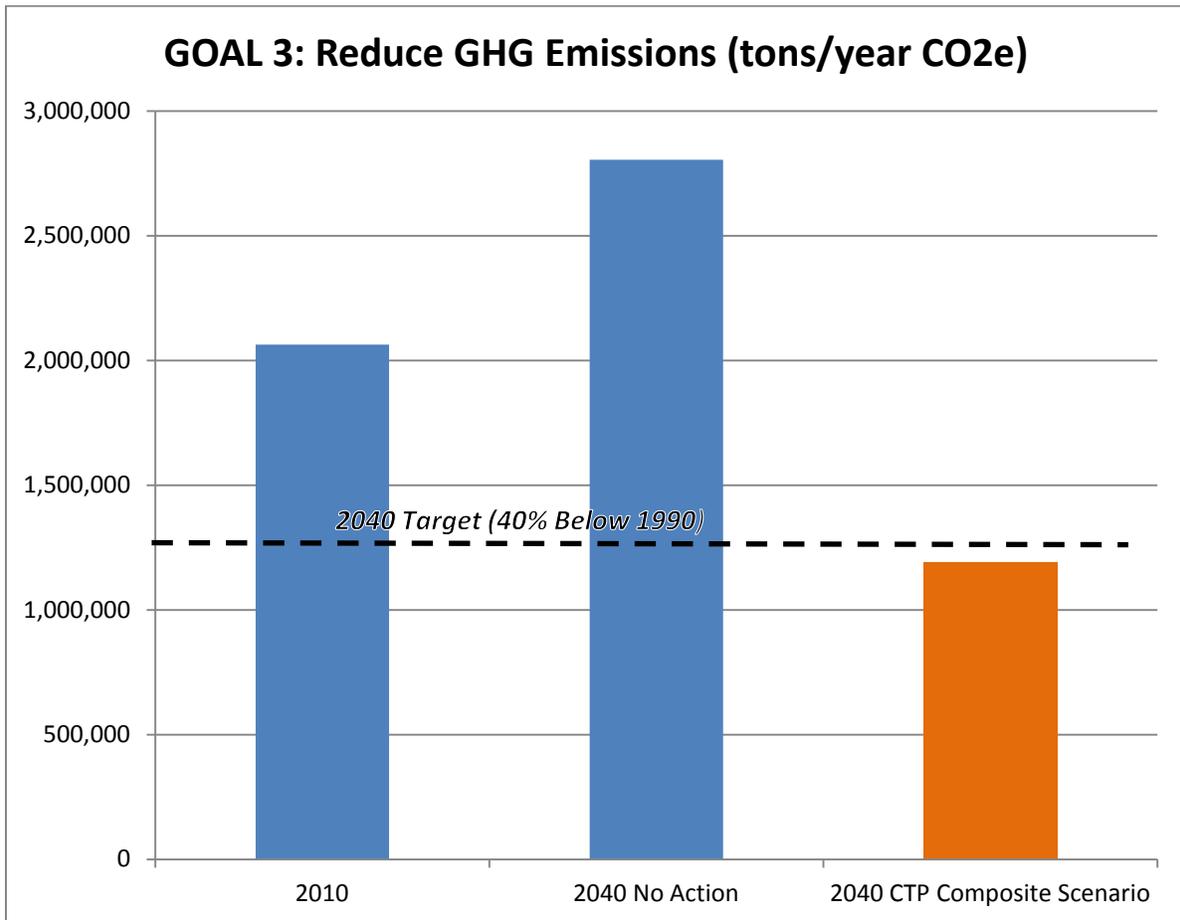
<sup>6</sup> Congestion in 2005 was higher than in 2010 (around 51,000 PHD/day). A significant portion of reduced congestion in 2010 could be attributed to the economic recession that was underway at that time.

### **CTP GOAL 3: Reduce Greenhouse Gas Emissions**

Transportation contributes over 50% of all greenhouse gas emissions in Sonoma County. Sonoma County jurisdictions have committed to reducing GHG emissions to 25% below 1990 levels by 2015, and 40% below 1990 levels by 2035. This commitment was included in the 2009 CTP as a performance target and plan objective. This target is being reevaluated as part of the Climate Action 2020 process.

Transportation greenhouse gas emissions are a function of total travel by vehicles, speed of travel, and vehicle fleet characteristics. Greenhouse gas emissions were calculated using EMFAC, a California Air Resource Board sponsored tool which is used to estimate vehicle emissions impacts.

Greenhouse gas emissions are expected to increase by roughly 36% during the period from 2010-2040 under no build conditions. This is largely a factor of increased travel due to population and employment growth. State mandated fuel economy improvements (Pavley, AB 1493, Low Carbon Fuel Standards) could provide significant emissions reductions by 2040. Implementing the CTP Composite Scenario would reduce annual GHG emissions below the 2040 target of 40% below 1990 emissions. This reduction can be attributed to improved vehicle fleet fuel economy and VMT reductions.

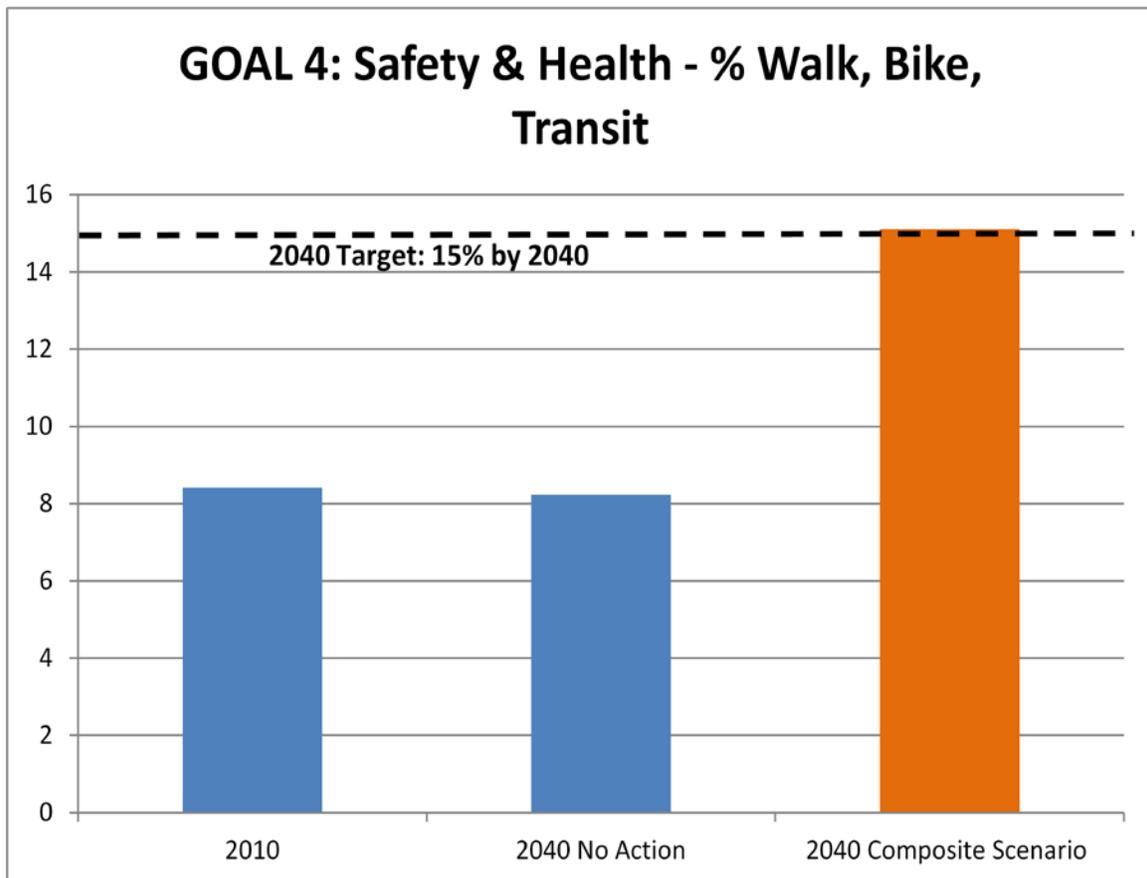


## **CTP GOAL 4: Plan for Safety and Health**

Transportation choices can have major impacts on safety and health at the local and regional level. Two performance measures and targets have been identified as part of the CTP which can help highlight progress in these areas. One measure is focused on active transportation and a second focuses on traffic safety and accidents.

### **Active Transportation:**

Land use planning, urban design, and transportation choices can have a powerful effect on improving public health. Active transportation modes such as walking, bicycling, or taking transit provide health benefits by lowering chronic disease rates, reducing obesity, and improving air quality. In 2010 approximately 8% of trips were made using active transportation modes in Sonoma County. The Sonoma County Travel Model estimates that this rate should stay in the roughly 8% range through 2040, and that project construction would have a very small impact on active transportation travel rates. Projects focused on improving pedestrian or bicycle infrastructure or which improve transit service could have a large impact on existing transit ridership or walking and biking rates at the local or neighborhood level, but increases make up a very small percentage of overall countywide or regional travel, and are small when compared to existing and forecasted automobile travel. Implementation of the high performing or composite scenario, including vision transit improvements, and shifts from automobile travel to walking and biking could increase 2040 active mode share to 15.1% in Sonoma County, which is slightly higher than the CTP performance target in this area (15% active mode share by 2040).

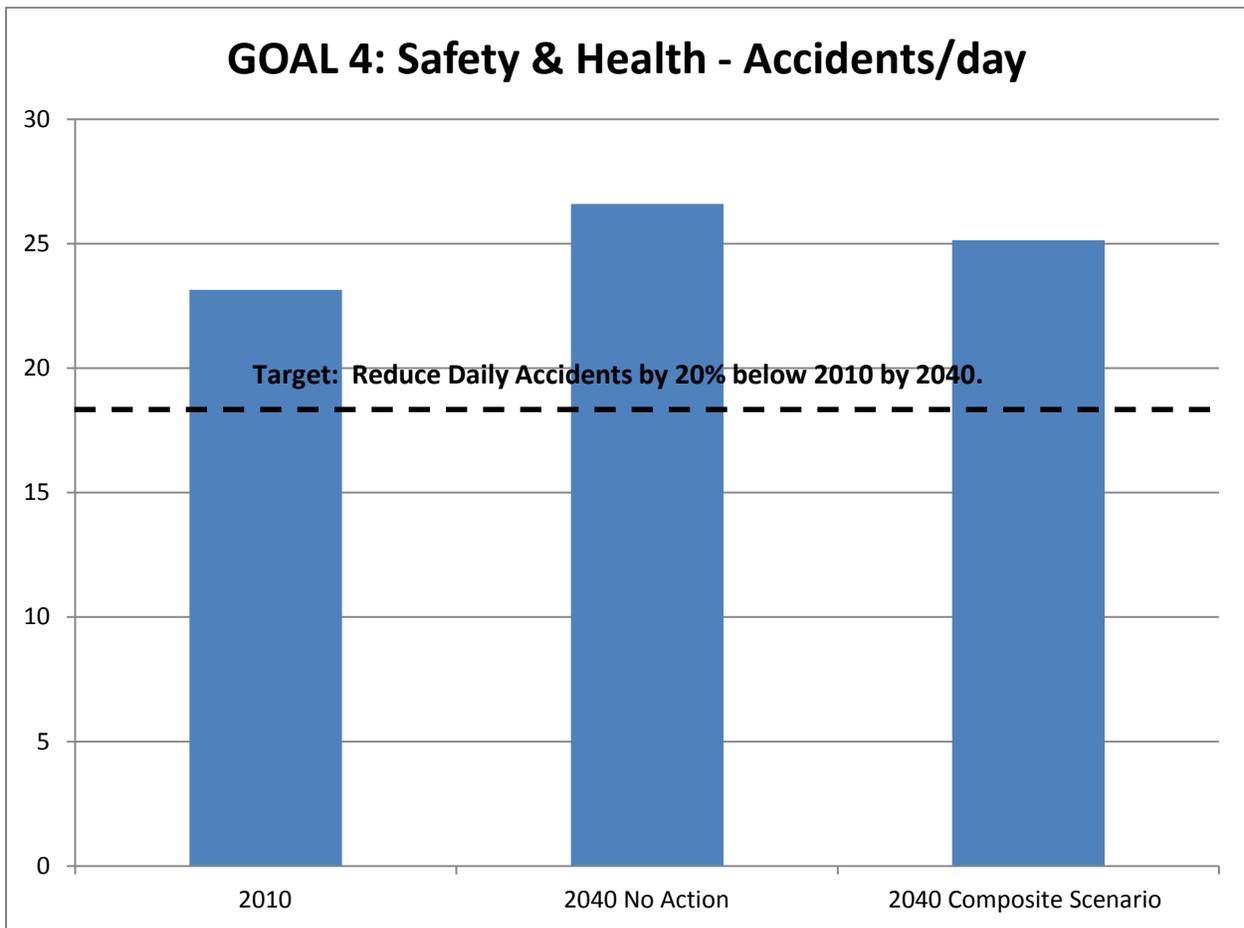


Accidents

Traffic accidents impose a significant economic and societal burden on Sonoma County residents. Costs include lost productivity, property damage, medical and rehabilitation costs, congestion costs, legal and court costs, emergency services, insurance administration costs, along with tremendous emotional and societal costs. SCTA approved adding a safety performance target to the CTP which sets a goal of reducing countywide daily traffic accidents by 20% below 2010 levels by 2040.

Safety impacts were calculated using the SmartGAP post-processing tool by factoring VMT, road lane miles, transit service (transit revenue service hours), and travel mode shares. Fatality, injury, and property damage accident rates are included in the estimates. Accident estimates are based purely on total travel activity and size of the transportation system and do not consider targeted safety improvements or localized improvements that could provide significant safety enhancements.

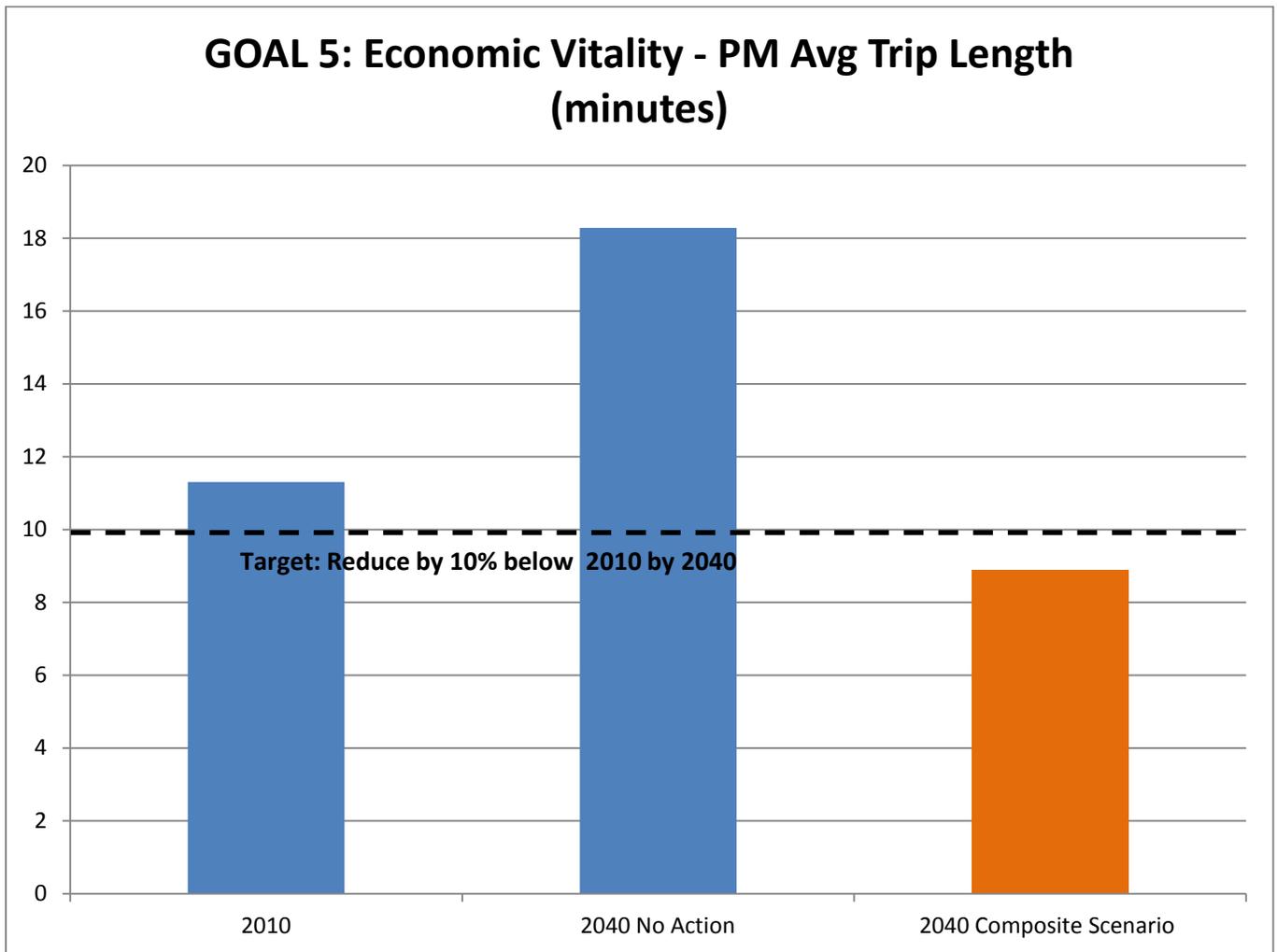
Performance assessment results indicate that projects, policies, and the composite scenario are estimated to provide only minor accident rate reductions through 2040, and highlighted the fact that the tools used to perform this analysis are not sensitive to improvements that could provide large safety improvements at the countywide and local level. Per capita accident rates show greater reductions since accident rate increases from population growth are controlled for in the calculations. Staff recommends that improved accident estimation tools be developed or acquired to estimate accident rates for future CTP updates, and that staff investigate switching to a per capita metric.



**CTP GOAL 5: Promote Economic Vitality**

The countywide transportation system plays an important role in the local economy. A new goal has been added to the 2015 CTP focused on promoting economic vitality. Two performance measures have been identified which can help assess transportation’s role in improving countywide economic conditions. The first performance measure, PM peak period average travel time, provides an estimate for transportation system efficiency and can indicate how easy, or difficult, it is to conduct business, move goods, and attract employees to Sonoma County. Increases in peak period congestion make doing business in the county more difficult, increase delivery and shipping costs, and make it difficult for workers to reach work sites and employment locations.

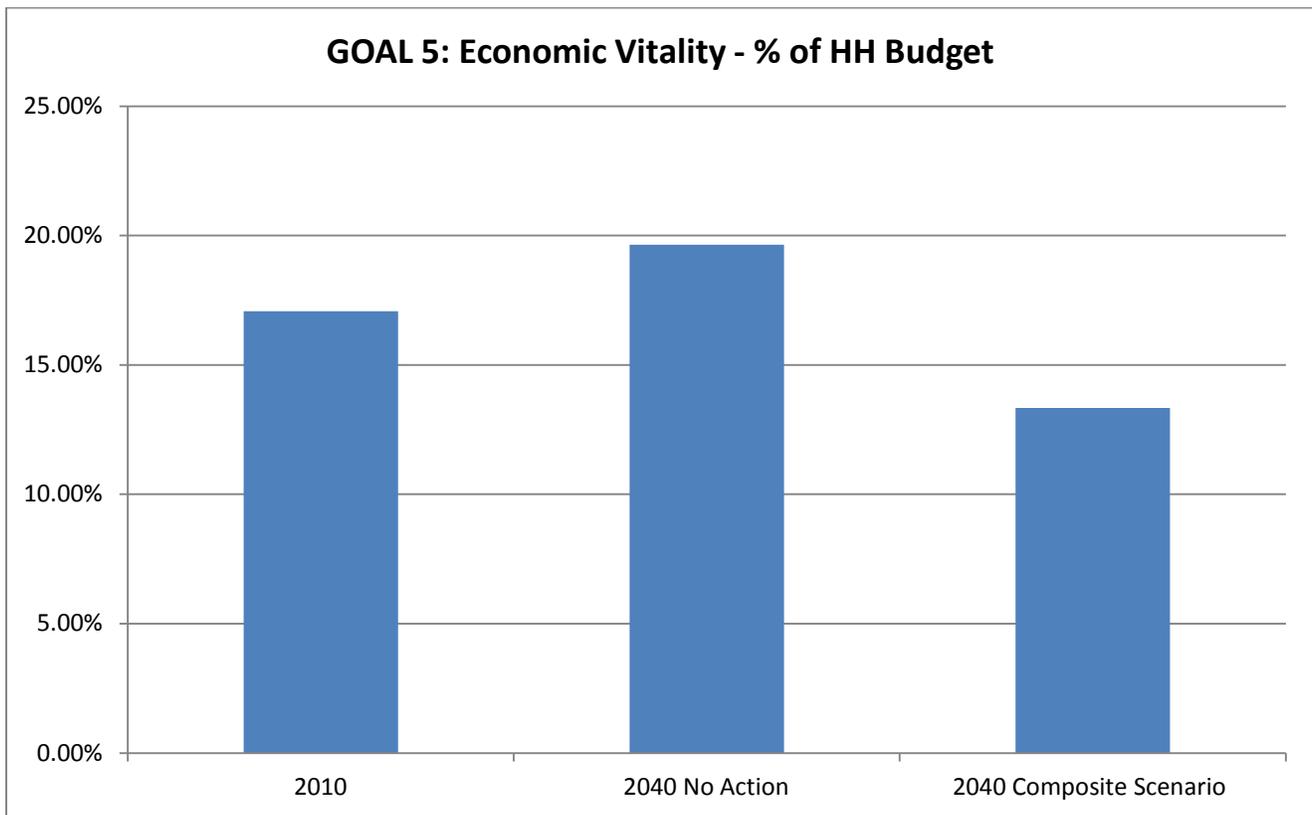
PM peak period average trip length is predicted to increase from around 11 minutes per trip in 2010 to over 18 minutes per trip in 2040. Population, housing, and employment growth are the primary causes of this increase in congestion and travel time, but CTP projects are expected to provide some congestion relief and peak period travel time benefit in the future. Implementing the high performing or composite scenario would reduce average evening peak period travel time to under 9 minutes, which is shorter than the performance target of just over 10 minutes.



### Average Household Travel Costs

SCTA has indicated that transportation should be affordable and efficient for all households and county residents. Transportation affordability is an important part of promoting economic vitality. The transportation system allows people to access employment, goods and services, recreational opportunities, education, and other destinations. As transportation costs rise, accessibility and quality of life suffer as larger and larger portions of household budgets must be spent on transportation. Low and moderate income households are hit the hardest by rising transportation costs. Future monthly household travel costs are estimated to increase from roughly \$900 per month to over \$1000<sup>7</sup> per month in 2040 because of increased congestion, increases in in-commuting, and longer average travel times. An average household spends roughly 17% of the household budget on transportation costs currently (Bay Area average 16%), with this percentage estimated to increase to 20% by 2040 under no build conditions<sup>8</sup>. Implementing the high performing/composite scenario would reduce average household travel expenses to around \$700/month or 13.3% of an average household budget.

SCTA has not identified a performance target for this metric and it has been provided for informational purposes only. Staff will be recommending that a performance target be identified for this metric for the 2015 CTP or in a future CTP update and is seeking feedback on what an appropriate 2040 target would be.



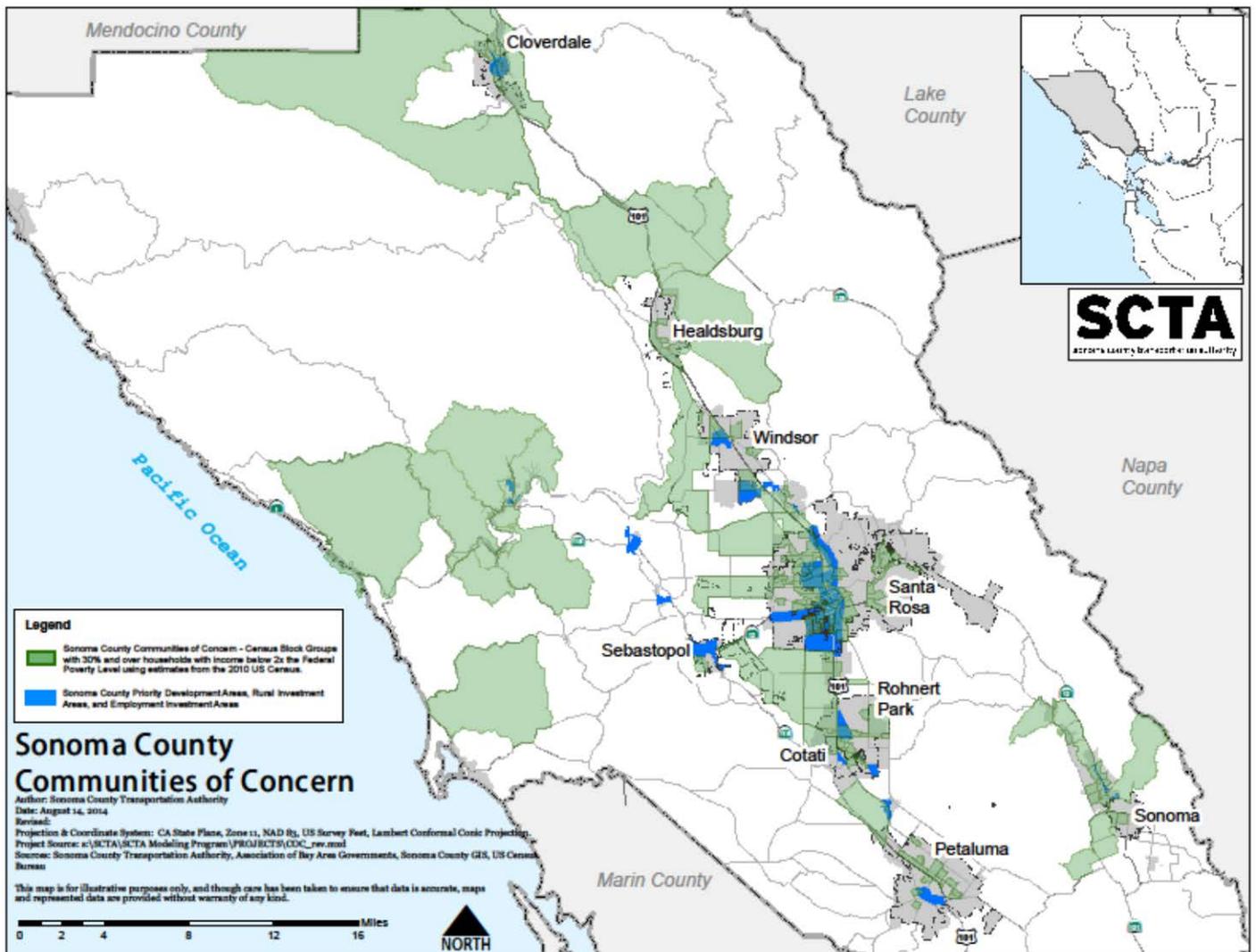
<sup>7</sup> Monthly household travel costs include estimates travel costs including fuel, fees (parking/tolls), insurance, maintenance, and vehicle depreciation. Sources: SmartGAP data post processing (Strategic Highway Research Program), and AAA driving cost estimates. AAA estimates national average household driving costs at \$750/month in 2015.

<sup>8</sup> Monthly household transportation costs were compared to 2010 Sonoma County Median Household income (\$63,356) to estimate percentage of household budget that would be spent on transportation.

## Equitable Access

The SCTA has indicated that countywide transportation projects should also help provide equitable access to all Sonoma County residents and CTP projects should serve Communities of Concern if possible. Communities of Concern (CoCs) have been identified as areas with low-income or otherwise disadvantaged communities. In Sonoma County these areas are currently defined as census tracts in which 30% or more of families have incomes between 0 – 200% of the federal poverty level (\$21,660 - \$74,020 total household income depending on family size).

The projects, policies, and strategies, and approaches contained in the high performing or composite scenario should serve Sonoma County Communities of Concern and improve travel options and conditions within these areas.



### **What do we need to do to reach the CTP goals?**

The CTP performance assessment and high performing/composite scenario analysis have indicated that the following approaches could be taken in order to achieve CTP goals and meet CTP performance targets:

- Road, highway, and transit maintenance funding shortfalls will need to be filled in order to repair and maintain the existing road and pavement system and transit service. Additional transit funding will need to be identified to pay for the transit expansion identified in the plan and that was included in the high performing/composite scenario.
- Construct selected transportation projects that demonstrate the ability to reduce congestion, emissions, improve health and safety, and improve the economy. The projects tested in the composite scenario could be a starting point.
- Implement transit vision improvements
- Continue current emphasis on PDA focused and city oriented development and limit development outside of Urban Growth Boundaries.
- Implement trip reduction strategies.
- Fill vacant capacity on the transit system by making transit more convenient, less expensive, faster, and more attractive, and/or making driving less attractive, more expensive, less convenient, or slower.
- Shift 120,000 daily trips (about 3.5% of total daily trips) from single occupant vehicles to walk or bike travel. This represents 3-4 out of every 100 trips shifted from SOVs to walking and biking. This could be achieved by making walking and biking more attractive, by improving pedestrian and biking infrastructure, making non-motorized travel more safe and convenient, increasing population and employment densities, and by increasing opportunities for shorter trips which are easier to make on foot or by bike.
- Implement system efficiency improvements – Make better use of the transportation system we have (with limited expansion/improvements).
- Implement vehicle fuel economy improvements beyond those currently mandated by the State. Improve the average vehicle fleet fuel economy up to 40 MPG by 2040. This could be achieved by increase electrification of the fleet, increased use of hybrid technology, higher fuel economies in the conventional vehicle fleet, and by encouraging more efficient driving.

### **Recommended Revisions to CTP Performance Targets:**

The results of the 2015 Comprehensive Transportation Plan Performance Assessment have suggested that a few of the CTP performance targets be revised, and that the SCTA be asked to consider adding an additional goal to the CTP.

Staff recommends that the following new goal be added and changes to performance targets be made in the CTP:

- **NEW GOAL – SUPPORT LOCAL MOBILITY:** A significant proportion of projects that have been submitted by local jurisdictions and project sponsors for inclusion in the CTP are focused on improving local mobility, safety, and travel conditions. Many of these projects would provide little if any impact on countywide travel conditions. Staff recognizes the importance of improving both local and countywide travel conditions and feels it is appropriate to recognize the importance of local improvements in the CTP.

- **GOAL 1: MAINTAIN THE SYSTEM: Performance Target: Transit System Condition:** The current performance measure identified in the CTP for estimating transit system condition is average bus fleet age. Although current estimates for this metric are available, staff does not currently have a mechanism for providing good estimates for this metric in the future, and this metric also does not consider non-bus transit, or other system performance or service levels. MTC and the Federal Transit Administration are currently developing a more comprehensive metric for measuring transit system condition. Staff recommends using this metric when it is available, and changing the wording of the *Transit System Condition Performance Target* to “Maintain current service levels” as a place holder until the new metric can be adopted.
- **GOAL 4: PLAN FOR SAFETY AND HEALTH: Performance Target: Active Transportation:** The active transportation performance target includes a % reduction for single occupant vehicle mode share. The performance assessment has indicated that the performance target identified (reduce drive alone mode share to 33.3% by 2040) is not realistic. This goal should be focused on health and safety and should focus on active transportation. Staff recommends removing the single occupant vehicle portion of this performance target to increase the focus on increasing active mode share.
- **GOAL 4: PLAN FOR SAFETY AND HEALTH: Performance Target: Safety:** This target is focused on traffic safety and uses accident rates as a metric. Staff has been able to identify good sources of current accident rate data, but the current tools SCTA has tested for estimating future accident rates have been inadequate and are insensitive to safety improvement projects, policies, and approaches that have been identified in the CTP. The identified performance target (reduce total daily accident rates by 20% by 2040) also appears to be infeasible based on the performance assessment and continued growth. Additional people, jobs, and activity translates into more travel and more traffic accidents. Measuring per capita accident rates would control for population rates and potentially allow for a more targeted assessment of relative safety. Staff recommends investigating and implementing or developing improved accident estimation tools and methods for the next CTP, and that a per capita metric be considered for this performance measure and target.

### **Policy Impacts**

This analysis explores what actions may be necessary to meet CTP goals and performance targets. Approaches and projects that are shown to help SCTA achieve CTP goals and reach performance targets could be highlighted or prioritized in the CTP.

**Fiscal Impacts:** No direct impacts at this time.

### **Staff Recommendation**

Consider providing feedback on the overall performance assessment approach or results of the high performing or composite scenario analysis. Provide feedback on what it may take to implement the projects, policies, and technologies considered in the composite scenario. Provide feedback on the recommended revisions to CTP goals and performance targets.

## Staff Report

**To:** SCTA Technical Advisory Committee  
**From:** Dana Turr y, Transportation Planner  
**Item:** Quarterly Status Report of TDA3 and TFCA Projects  
**Date:** October 22, 2015

This report provides the status of TDA3 and TFCA projects not yet fully expended as of September 30, 2015. Expenditures and remaining balances are as of October 8, 2015.

Transportation Development Act, Article 3 (TDA3) Projects						
Jurisdiction	Project	ID	Programmed Amount	Funds Expended	Funds Remaining	Funds Expire
County of Sonoma	Bodega Bay Bike & Ped Trail - Coastal Prairie Trail	15-0010-01	\$260,000.00	\$0.00	\$260,000.00	6/30/2017
Petaluma	E. Washington Park Multi-Use Pathway Connection	15-0010-02	\$306,623.00	\$0.00	\$306,623.00	6/30/2017
Santa Rosa	Class III Bike Signage Program	14-0010-04	\$20,000.00	\$1,480.72	\$18,519.28	6/30/2016
Santa Rosa	Ped Enhancements Citywide	14-0010-05	\$100,000.00	\$80,271.03	\$19,728.97	6/30/2016
Santa Rosa	3rd Street Traffic Signal	14-0010-07	\$93,000.00	\$70,796.81	\$22,203.19	6/30/2016
Santa Rosa	SMART Crossing at Jennings	16-0010-01	\$503,313.00	\$0.00	\$503,313.00	6/30/2018
Sonoma	Napa Rd Class II Bike Lanes	14-0010-02	\$23,533.81*	\$0.00	\$23,533.81	6/30/2016

\*Original programmed amount was \$5,000; 14-0010-03 was completed under budget of which the remaining funds (\$18,533.18) were moved to project 14-0010-02.

Project costs must be incurred prior to the TDA3 expiration date (typically June 30). Sponsors must submit invoices no later than August 31 for any funds expiring June 30.

Transportation Fund for Clean Air (TFCA) Projects						
Jurisdiction	Project	ID	Programmed Amount	Funds Expended	Funds Remaining	Funds Expire
Petaluma Transit	Transit Marketing Program	15-SON-03	\$58,474.00	\$58,474.00	\$0	12/19/2016
Petaluma Transit	Youth Bus Pass Subsidy Program	16-SON-03	\$16,000.00	\$0.00	\$ 16,000.00	2017
Petaluma Transit	Transit Marketing program	16-SON-04	\$64,006.00	\$0.00	\$ 64,006.00	2017
Petaluma	Traffic Signal Coordination Timing Project	16-SON-05	\$100,000.00	\$0.00	\$ 100,000.00	2017
Petaluma	Electric Vehicle Charging Station Installation	16-SON-06	\$13,841.40	\$0.00	\$ 13,841.40	2017
Rohnert Park	Southwest Blvd Bike Lane Gap Closure & Traffic Calming	13-SON-02*	\$131,121.75	\$115,730.95	\$15,390.80	10/16/2015
Santa Rosa	Trip Reduction Incentive Programs	15-SON-01	\$241,452.15	\$193,534.36	\$47,917.79	12/19/2016
Santa Rosa	Free Rider Trip Reduction Incentive Program	16-SON-01	\$230,892.00	\$0.00	\$ 230,892.00	2017
Sonoma County Transit	Sonoma County Transit Passenger Info. System	11-SON-01	\$227,955.40	\$217,743.73	\$10,211.67	10/28/2015
Sonoma County Transit	Bus Stop Improvement Projects	13-SON-06*	\$82,299.00	\$61,674.68	\$20,651.32	10/16/2016
Sonoma County Transit	Transit Shelters	14-SON-04	\$77,983.00	\$0.00	\$77,983.00	10/29/2016
Sonoma County Transit (Sebastopol)	Sebastopol Bus Stop Improvements	14-SON-05	\$75,000.00	\$0.00	\$75,000.00	10/29/2016
Sonoma County Transit	Transit Marketing Program	15-SON-02	\$146,278.33	\$57,395.07	\$88,883.26	12/19/2016
Sonoma County Transit	Transit Marketing Program	16-SON-02	\$ 140,199.00	\$0.00	\$ 140,199.00	2017
Windsor	Arterial Management	15-SON-05	\$132,941.84	\$0.00	\$132,941.84	12/19/2016

\* For FY12/13, SCTA project numbers differ from BAAQMD numbers. BAAQMD files are "12-SON" and SCTA files are "13-SON"; there are no "13SONxx" project numbers at BAAQMD.

Please submit all invoices by June 24 for any expenses incurred in that fiscal year.

**Interim and Final Reports are due to SCTA by October 16, 2015.**

Sonoma County Transportation Authority  
 Measure M Appropriation/Invoice Status Report  
 FY 15/16

Project Sponsor	Project Name	Measure M Program	Prior Apprp Balance	15/16 Programmed	15/16 Amount Apprp	Appropriation Date	Last Invoice Date	Balance Remaining	Notes
Santa Rosa	Hearn Avenue (Phase 3)	LSP	\$1,150,000			4/8/15	6/29/15	\$809,351	
Santa Rosa	Fulton Road Improvements	LSP	\$0		\$500,000	9/14/15			
Santa Rosa	Access Across 101 Comm Conn	Bike/Ped	\$121,741	\$0	\$0	9/12/11	7/13/15	\$87,301	Coop Amend approved.
Sonoma County	Airport Blvd	LSP	\$0	\$2,047,000	\$0				
SoCo DHS	SRTS (DHS)	Bike/Ped	\$42,000	\$26,000		12/8/14	9/4/15	\$37,364	
SCBC	SRTS (SCBC)	Bike/Ped	\$8,553	\$19,000	\$0	2/9/15	9/14/15	\$3,647	
SCBC	BTW (SCBC)	Bike/Ped	\$3,804	\$15,000	\$0	2/9/15	7/1/15	\$3,804	
SoCo Regional Pks	Sonoma Schellville	Bike/Ped	\$42,421	\$0	\$0	10/19/09	5/11/15	\$42,421	
SMART	NWPRR	Bike/Ped	\$668,915	\$0	\$0	6/8/15	8/27/15	\$633,557	

*new balance not yet calculated*