



TECHNICAL ADVISORY COMMITTEE MEETING NOTICE & AGENDA

DATE & TIME: Thursday, April 12, 2018 • 9:00 AM – 11:10 AM
LOCATION: WCCTAC Office • 6333 Potrero Ave. at San Pablo Avenue, El Cerrito, CA 94530
TRANSIT OPTIONS: Accessible by AC Transit #72, #72R, #72M & Del Norte BART Station

1. CALL TO ORDER and SELF-INTRODUCTIONS

Estimated Time:* 9:00 am (5 minutes)

2. PUBLIC COMMENT

Estimated Time:* 9:05 am (5 minutes)

The public is welcome to address the TAC on any item that is not listed on the agenda. Please fill out a speaker card and hand it to staff. Please limit your comments to 3 minutes. Pursuant to provisions of the Brown Act, no action may be taken on a matter unless it is listed on the agenda, or unless certain emergency or special circumstances exist. The WCCTAC TAC may direct staff to investigate and/or schedule certain matters for consideration at a future TAC meeting.

3. CONSENT CALENDAR

Estimated Time:* 9:10 am (5 minutes)

A. Minutes & Sign in Sheet from February 8, 2018

Recommendation: Approve as presented.

Attachment: Yes

4. REGULAR AGENDA ITEMS

A. West County’s Program for Arterial System Synchronization (PASS) Application

Description: Staff prepared a draft application for the TAC’s review for a signal timing study of the San Pablo Avenue corridor. A substantial amount of data is required to be submitted with the application. Caltrans is providing some of this data, but the meeting discussion will be the opportunity to identify any needed missing data or other information. The grant is due on May 1, 2018 and needed data from member jurisdictions must be submitted by April 23, 2018

Recommendation: Provide feedback on the draft PASS application and get commitments from TAC members to provide needed data and additional information to WCCTAC by April 23, 2018.

Attachment: To be provided via email and website.

* Estimated time for consideration is given as a service to the public. Please be advised that an item on the agenda may be considered earlier or later than the estimated

Presenter/Lead Staff: Leah Greenblat - WCCTAC

Estimated Time:* 9:15 am (30 minutes)

B. Review of the Draft 2018 Countywide Bicycle and Pedestrian Plan

Description: The Contra Costa Transportation Authority has released the Public Review Draft of the 2018 Countywide Bicycle and Pedestrian Plan (CBPP). The CBPP outlines the Authority's proposed strategies, priorities, and actions needed to support and encourage walking and bicycling in Contra Costa. It refines the Pedestrian Priority Areas and the Countywide Bikeway Network, focusing the latter using the Level of Traffic Stress (LTS) approach. The draft CBPP identifies a number of actions to implement the plan, including new complete street corridor studies that would identify the best approaches for supporting and encouraging walking and bicycling. The appendices also reflect the evolution of bicycle and pedestrian "best practices" since the adoption of the 2009 CBPP.

Recommendation: Identify whether or not there are items of substance which the WCCTAC Board should weigh in upon.

Attachment: Yes: <http://keepcontracostamoving.net/documents/>

Presenter/Lead Staff: Brad Beck - CCTA

Estimated Time:* 9:45 am (30 minutes)

C. Community-Based Transportation Planning (CBTP) Program Guidelines

Description: MTC issued proposed guidelines for its CBTP Program. CCTA staff requests that the TAC review and comment on the program guidelines.

Recommendation: Information Only

Attachment: Yes

Presenter/Lead Staff: Matt Kelly - CCTA

Estimated Time:* 10:15 am (10 minutes)

D. Draft 2017 Multi-modal Transportation Service Objectives (MTSOs) Monitoring Report

Description: The CCTA completed its draft MTSO monitoring report which presents a snapshot of West County transportation conditions. CCTA staff will present West County highlights.

Recommendation: Review and provide CCTA staff with comments.

Attachment: Yes

Presenter/Lead Staff: Matt Kelly, CCTA

Estimated Time:* 10:25 am (15 minutes)

* Estimated time for consideration is given as a service to the public. Please be advised that an item on the agenda may be considered earlier or later than the estimated

E. FY 2018-2019 WCCTAC Work Program

Description: Each year, staff provides the TAC with a draft of the work program for the upcoming fiscal year and solicits feedback. The draft work program, along with the draft budget and proposed dues, will be presented to the WCCTAC Board at the April meeting. Following the Board's review, these will all be provided to each member agency for review and comment. The work program, budget and dues will be brought back to the WCCTAC Board in June for final approval

Recommendation: Provide feedback on the draft WCCTAC work program for FY18-19.

Attachment: Yes

Presenter/Lead Staff: Leah Greenblat, WCCTAC Project Manager

Estimated Time:* **10:40 am** (10 minutes)

F. West Contra Costa Express Bus Implementation Plan: RFP Release

Description: WCCTAC received a \$639,000 Caltrans grant funds to conduct an express bus implementation plan based on the recommendations from the West County High Capacity Transit Study. WCCTAC released a request for proposals for consultant services to develop the plan. The RFP is posted on WCCTAC's website. RFP's are due on May 1, 2018 and we anticipate bringing a consultant recommendation to the Board in May.

Recommendation: Information Only

Attachment: No

Presenter/Lead Staff: Leah Greenblat, WCCTAC Project Manager

Estimated Time:* **10:50 am** (5 minutes)

G. May 10, 2018 Bike to Work Day Preparations

Description: WCCTAC is planning, coordinating, and providing supplies for Bike to Work Day with the other RTPCs and Bike East Bay. This year West County will have 15 energizer station and a block party happy hour in downtown Richmond. More information at <https://511contracosta.org/btwd2018/>

Recommendation: Information Only

Attachment: No

Presenter/Lead Staff: Coire Reilly, WCCTAC TDM Program Manager

Estimated Time:* **10:55 am** (5 minutes)

5. STANDING ITEMS

A. Technical Coordinating Committee (TCC) Report

Description: The March 2018 TCC meeting was cancelled so no report from the meeting will be provided.

Recommendation: None.

Attachment: No

Presenter/Lead Staff: WCCTAC's TCC Representatives & WCCTAC Staff

* Estimated time for consideration is given as a service to the public. Please be advised that an item on the agenda may be considered earlier or later than the estimated

*Estimated Time**: **11:00 am** (0 minutes)

B. Staff and TAC Member Announcements

Recommendation: Receive update.

Attachment: No

Presenter/Lead Staff: WCCTAC's TCC Representatives & WCCTAC Staff

*Estimated Time**: **11:05 am** (5 minutes)

6. ADJOURNMENT

Description / Recommendation: Adjourn to the next regularly scheduled meeting of the TAC on Thursday, May 10, 2018. (The next regular meeting of the WCCTAC Board is Friday, April 27, 2018.)

*Estimated Time**: **11:05 am**

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- In compliance with the Americans with Disabilities Act of 1990, if you need special assistance to participate in the WCCTAC TAC meeting, or if you need a copy of the agenda and/or agenda packet materials in an alternative format, please contact Valerie Jenkins at 510.210.5930 prior to the meeting.
 - If you have special transportation requirements and would like to attend the meeting, please call the phone number above at least 48 hours in advance to make arrangements.
 - Handouts provided at the meeting are available upon request and may also be viewed at WCCTAC's office.
 - Please refrain from wearing scented products to the meeting, as there may be attendees susceptible to environmental illnesses. Please also put cellular phones on silent mode during the meeting.
 - A meeting sign-in sheet will be circulated at the meeting. Sign-in is optional.
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El Cerrito

WCCTAC TAC Meeting Minutes

Hercules

MEETING DATE: February 8, 2018

Pinole

MEMBERS PRESENT: Lori Reese Brown, John Cunningham, Nathan Landau, Tamara Miller, Yvetteh Ortiz, Aileen Hernandez.

GUESTS: Chris Segur, Seth Leidy, Julie Morgan and Francisco Martin

Richmond

STAFF PRESENT: John Nemeth, Leah Greenblat, Joanna Pallock, and Coire Reilly

ACTIONS LISTED BY: WCCTAC Staff

San Pablo

Contra Costa
County

AC Transit

BART

WestCAT

ITEM	ITEM/DISCUSSION	ACTION/SUMMARY
1.	Called to Order	The meeting was called to order at 9:06 a.m.
2.	Public Comment	None.
3.	Consent Calendar: a. Action Minutes and Sign-in Sheet from January 11, 2018	Moved by Ortiz, seconded by Reese-Brown.
4.	STMP Nexus Study Update: Draft Project List	Francisco Martin and Julie Morgan, from Fehr and Peers, continued an item that was discussed at previous TAC meetings. They presented a new draft of the STMP project list based on TAC feedback and information. The TAC reviewed the list, provided comments, and agreed to forward the list to the WCCTAC Board.
5.	Program for Arterial System Synchronization (PASS) application	Leah Greenblat of WCCTAC staff discussed the prospects for WCCTAC applying for a PASS grant from MTC to do signal timing planning on San Pablo Avenue, particularly during non-peak and weekend times. She also noted the need to obtain information from jurisdictions to complete the application. The TAC was supportive of moving forward with the application.

6.	Update on Accessible Transportation Study	Joanna Pallock, of WCCTAC staff, provided the TAC with information about the draft Study and staff's plan to bring the report to the Board.
7.	Overview on the International Blvd. Bus Rapid Transit (BRT) project	Chris Segur and Seth Leidy, of Parsons, gave a presentation on the Bus Rapid Transit (BART) Project on International Boulevard. This item was for information only. The TAC lost its quorum during the question and answer part of the presentation at the end
8.	Adjournment	The meeting adjourned at 11:36 a.m.

Sign in Sheet for the WCCTAC Technical Advisory Committee Meeting

WCCTAC TAC	INITIALS	AGENCY	EMAIL	PHONE
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Aileen Hernandez	AH	BART	ahernandez@bart.gov	510.464.6564
WCCTAC STAFF				
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GUEST				
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Bill Pinkham		CBPAC Rep	Bpinkham3@gmail.com	510.734.8532
Rita Xavier		San Pablo Res.		
CHRIS SEBUR		PARSONS	Chris.segura@parsons.com	(916)340-5167

MEMORANDUM

Date April 4, 2018

To RTPC Managers

From Brad Beck

RE Public Review Draft of the 2018 Countywide Bicycle and Pedestrian Plan

The Contra Costa Transportation Authority has released the draft 2018 Countywide Bicycle and Pedestrian Plan (CBPP) for public and agency review. The CBPP outlines the Authority's proposed strategies, priorities and actions needed to support and encourage walking and bicycling in Contra Costa. The Authority has long supported alternatives to driving alone as an important goal, and encouraged walking and bicycling as a way to support our communities and our environment. The vision for the Authority's first Countywide Transportation Plan (CTP) included "enhanced pedestrian and bicycle facilities" and the 2000 CTP established a goal to "expand safe, convenient and affordable alternatives to the single-occupant vehicle."

The Draft 2018 CBPP reflects the many changes that have occurred since the last plan in 2009. Over those last nine years, new best practices for supporting walking and bicycling have been developed, local agencies have implemented new active transportation plans, and new funding sources for active transportation have been created. CCTA also recently adopted the 2017 Countywide Transportation Plan, which refined the Authority's overall policies and implementation program. Most importantly, public support for and understanding of the importance of walking and bicycling has continued to grow.

The Draft 2018 CBPP also reflects what we heard from the public and our agency partners in Contra Costa and the region. The Authority engaged the public through online surveys and interactive mapping, an online "town hall", and "pop-up" events throughout

the county. Authority staff also met with local staff to discuss options for updating the plan.

Respondents identified several approaches as most important, including:

- Developing a “low-stress” backbone bicycle network, that is, one that increases bicycling safety and comfort by closing gaps in the bicycle network, eliminating barriers to direct travel, and connecting key destinations;
- Conducting corridor studies that recommend appropriate, low-stress bicycle and pedestrian facilities and incorporate new best practice design guidelines (e.g., protected bikeways, bicycle and pedestrian accommodations at interchanges);
- Improving pedestrian facilities by closing gaps in sidewalks, and addressing crossing and accessibility barriers; and
- Assisting local jurisdictions with new best practice designs, funding strategies, and bicycle and pedestrian planning in the context of new Senate Bill 743 requirements.

The Draft 2018 CBPP reflects these and other approaches. It retools the Countywide Bikeway Network to focus on and support the creation of a connected backbone network of low-stress facilities. The concept of Level of Traffic Stress (LTS), which is being used more often throughout the U.S., was key in that retooling of the network. (This approach, which was developed by the Mineta Transportation Institute at San Jose State University, analyzes roads and trails to determine how stressful they are for bicyclists; each is given a rating from 1 to 4, depending on the facility scores on a number of criteria.) When fully implemented, a low-stress Countywide Bikeway Network would greatly increase comfortable access to jobs, shopping, schools, parks and transit for bicyclists. Completing this network; however, would be expensive. The CBPP, using planning-level costs, estimates that building the future facilities could take around \$1 billion (2018 dollars). Expanding the network beyond the backbone would add to that cost.

The Draft CBPP defines the Pedestrian Priority Areas using more clearly identified criteria, including density of housing or jobs, the proximity of housing and retail uses and existing street patterns.

The Draft CBPP would also add several new implementation actions, including:

- Implementing Vision Zero and systematic safety approaches
- Ensuring equity in bicycle and pedestrian investments
- Establishing project priorities
- Supporting “quick build” projects
- Considering curbside management
- Considering bicycle and pedestrian improvements as CEQA mitigation measures
- Streamlining calls for projects

The appendices reflect the evolution of bicycle and pedestrian “best practices”. They include, for example, new approaches like Class IV separated bike lanes and cycle tracks. The appendices also include more recommendations on which intersection, crosswalk and bicycle facility approaches are appropriate in which contexts.

BICYCLE AND PEDESTRIAN PROJECT COSTS

The Authority’s Comprehensive Transportation Project List (CTPL) contains 328 bicycle-pedestrian or Safe Routes to School projects with a total cost of over \$1.4 billion. These projects were identified by local jurisdictions and other agencies. The 2017 CTP; however, identified only about \$172 million available in the future for bicycle, pedestrian and safe routes to school projects and an additional \$790 million if new sources become available. This leaves a deficit of about \$433 million. We expect that, as new bicycle and pedestrian plans and corridor studies are completed, more projects will be added to the CTPL and consequently this deficit could grow.

KEY QUESTIONS

Authority staff would like to review the Draft 2018 CBPP with the RTPCs to hear their comments and suggestions. While we want to hear comments on any part of the plan, we have identified several key questions we would like your thoughts on.

- **Pedestrian Priority Areas.** The draft CBPP identifies pedestrian priority areas more precisely than the 2009 CBPP. The proposed areas were designated using several factors: forecast growth and mix of uses, local Priority Development Areas (PDAs), and an existing walkable character. Areas around schools and near high-frequency transit are also included within the PPAs (although not mapped). Are

these the areas where the Authority should give priority to funding for pedestrian improvements.

- **Low-stress Backbone Bicycle Network:** The draft CBPP identifies a network of bikeways — the Countywide Bikeway Network, or CBN — that will provide a “backbone” for the broader system of bikeways throughout Contra Costa. This network is built from the network in the 2009 plan with a few changes. The major change, however, is that the 2018 CBPP proposes that the CBN be built as a “low stress” network, that is, that all parts of the CBN are rated as LTS 1 or LTS 2, using the Mineta Institute’s “level-of-traffic-stress” methodology. Are the bikeways proposed as part of the CBN the best routes to create the backbone network? The 2018 CBPP does foresee some realignments as agencies develop the corridor plans encouraged in the plan (see below).
- **Implementing the CBPP:** The draft 2018 CBPP identifies 23 actions for the Authority to take to carry out the plan as well as actions that the Authority hopes that local, regional and State agencies will undertake. Are any actions missing? Which should the Authority carry out first? We would especially like feedback on the following proposed actions:
 - **Establish Project Priorities** – The draft CBPP identifies the completion of a safe, complete pedestrian network with PPAs and a low-stress backbone bikeway network as priorities. Should the Authority work with its partners to set more detailed priorities for use in funding decisions?
 - **Complete Street Corridor Studies** – The draft CBPP supports the development of complete street corridor studies to determine the most effective and cost effective solutions to pedestrian and bicycle access issues. The Authority has funded a similar plans and studies before. Should the Authority set aside funding specifically for complete street corridor studies? Which corridors should be studied first? Should they, consistent with Measure J’s emphasis on multi-jurisdictional planning, address multi-jurisdictional corridors first?
 - **Bicycle and Pedestrian Improvements as CEQA Mitigation Measures** – The draft 2018 CBPP proposes to identify ways that bicycle and pedestrian improvements could be used as mitigation measures, especially with the shift from delay-based CEQA analyses to VMT-based measures. Would developing a defensible method for using such improvements to mitigate impacts of projects through CEQA be useful? What concerns would you have?

- **Best Practices** – The draft 2018 CBPP includes two appendices — the Best Practice Pedestrian Treatment Toolbox and the Best Practice Bicycle Design Guidelines — that update the best practices section of the 2009 CBPP. What is the best way to get this information out to agency staff?

The draft CBPP contains other policies and strategies that we would also like your comments on.

The draft CBPP and appendices can be downloaded from the plan website:

<http://keepcontracostamoving.net/documents/>

We would like formal comments by May 25 so that the Authority can adopt the 2018 CBPP in July. Staff will also collect any comments made during our meetings with the RTPCs.

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Planning Committee **STAFF REPORT**

Meeting Date: January 3, 2018

Subject	Review and Discussion of MTC’s Proposed Community-Based Transportation Planning (CBTP) Program Guidelines.
Summary of Issues	Under the second One Bay Area Grant Program (OBAG2), MTC allocated \$1.5 million for a new cycle of transportation plans intended to address mobility and accessibility issues for low-income communities. Using a distribution formula based on the number of low-income households in each county, Contra Costa would receive \$215,000, or 14 percent of the regional total. As the designated Congestion Management Agency (CMA) for Contra Costa, CCTA is responsible for implementing the study effort in accordance with MTC’s Program Guidelines. At this time, MTC is seeking feedback from the CMAs on the proposed guidelines. Staff recommends that CCTA review and comment on the proposed guidelines as appropriate.
Recommendations	Review and comment on MTC’s proposed CBTP Program Guidelines.
Financial Implications	Contra Costa is eligible to receive \$215,000 in federal funds for preparation of the next round of CBTPs.
Options	Decline to comment
Attachments	A. Memorandum from MTC’s Executive Director to the MTC Planning Committee regarding proposed MTC CBTP Program Guidelines
Changes from Committee	

Background

MTC’s Community-Based Transportation Planning (CBTP) Program, which began in 2002, followed the completion of two regional studies – one on the Lifeline Transportation Network (LTN), and the other on Environmental Justice (EJ). The LTN study identified a core network of transit service intended to service low-income communities. The EJ

study identified the need for MTC to support local planning efforts in low-income communities. Both of these studies helped shape the CBTP Program concept, which aims at identifying the travel needs and challenges of people residing in low-income communities and supports local planning efforts to help these communities.

To date, four CBTPs have been prepared for Contra Costa, as listed below:

- Bay Point, January 2007
- Concord Monument Corridor, June 2006
- Downtown Martinez, January 2009
- Richmond Area, February 2004

At a cost of \$60,000 each, these studies were developed with an emphasis on resident participation in the plan development process, with collaboration from Non-Governmental Organizations (NGOs), local jurisdictions, transit operators, and the CMA (CCTA). The resulting plans included locally-identified transportation needs, solutions, and priorities.

Implementation of the plans, which were completed in the 2004 to 2009 timeframe, was complicated by the challenges introduced as the economy lost strength and the so-called “great recession” took hold, leading to significant budget cut backs and reductions in transit services. Furthermore, most of the proposed strategies in the adopted CBTPs did not consider recent changes in technology, especially with regard to ride-hailing services (Uber and Lyft), and flexible-route transit operations through mobile communications technologies.

New CBTP Funding Cycle

With that as a backdrop, MTC now proposes to initiate a new round of CBTPs for the Bay Region. In December 2017, the MTC Planning Committee proposed CBTP Program Guidelines for \$1.5 million in funding from the State Transit Assistance (STA) program through the second round of the One Bay Area Grant (OBAG) Program. Of the \$1.5 million, Contra Costa would receive \$215,000 based on a formula that considers each county’s low-income population, along with an assigned minimum (\$75,000) and maximum (\$300,000) amount per county. The Draft Guidelines for the 2017-2021 cycle are included as part of MTC Resolution 4316 in Attachment A.

Highlights from the Draft Guidelines:

- Use it or lose it: CMAs must initiate the CBTP Program within nine months of the grant agreement date, and adopt the plan within three years.
- Local Match: ten percent, with in-kind staff time eligible.
- Plan Prioritization: MTC encourages preparation of CBTPs for areas that do not have a plan, or where the plan is more than five years old.

Other requirements, such as overall goals, coordination, eligible uses, and key deliverables are set forth in the attachment.

Staff recommends acceptance of the proposed CBTP Program Guidelines.

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METROPOLITAN
TRANSPORTATION
COMMISSION

Agenda Item 5a
Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Planning Committee

DATE: December 6, 2017

FR: Executive Director

W.I. 1311

RE: MTC Resolution No. 4316: Community-Based Transportation Planning (CBTP) Program Guidelines

Background

Launched in 2002, the CBTP Program evolved out of two regional studies completed in 2001: one on the Lifeline Transportation Network (LTN), and the other on Environmental Justice (EJ). The LTN study identified travel needs and challenges in low-income communities, and recommended establishing a regional program to fund community-based planning in disadvantaged communities. Similarly, the EJ study identified the need for MTC to support local planning efforts in low-income communities.

Since 2002, the CBTP Program has provided roughly \$2.6 million in funding for over 40 collaborative planning processes in low-income communities¹ across the region. These processes have:

- Meaningfully engaged residents and other stakeholders, including community and faith-based organizations, local jurisdictions, transit operators, county Congestion Management Agencies (CMAs) and MTC; and
- Resulted in plans that include locally-identified transportation needs, solutions and priorities.

Each plan reflects the following three goals and objectives of the regional program:

- Emphasize resident participation in the plan development process;
- Foster collaboration between residents, community organizations, local jurisdictions, transit operators, CMAs and MTC; and
- Build local capacity by engaging community-based organizations throughout the process.

Planning Grants

MTC has funded multiple cycles of CBTP grants. Starting in the 2002-2003 cycle, MTC funded five CBTPs,² as a pilot. CMAs received \$60,000 in State Transit Assistance (STA) funds for each CBTP for resident engagement, needs assessment, and developing a priority list of projects within the planning area. Projects identified in CBTPs were eligible to compete for funding through MTC's Lifeline Transportation Program.³ Over two more cycles, MTC funded 35 CBTPs at \$60,000 each⁴.

¹ MTC defined low-income communities as Communities of Concern even though the CoCs are identified using many other factors such as race/ethnicity, age (over 65 years), disability, rent burden, linguistic isolation, and vehicle ownership.

² The 2001 Regional Transportation Plan (RTP) designated forty one CoCs.

³ For more information on MTC's Lifeline Transportation Program, see: <https://mtc.ca.gov/our-work/fund-invest/investment-strategies-commitments/transit-21st-century/lifeline-transportation>

⁴ TAM funded the CBTP in Novato, as it is not an MTC-designated CoC.

In November 2015, the MTC Commission set aside \$1.5 million from the second round of the One Bay Area Grant (OBAG) Program for a fourth cycle of CBTPs.

Draft guidelines for the 2017-2021 cycle of the CBTP Program are included as Attachment A of MTC Resolution No. 4316 for review and comment. A summary of the key elements and revisions to the guidelines include:

- Funding distributed by low-income population to each county with a minimum of \$75,000 and a maximum of \$300,000;
- More flexibility to coordinate with other planning efforts, and develop CBTPs more multiple CoCs;
- New use it or lose it provisions to ensure plans are delivered in a timely manner;
- New requirements for local match and set asides for community engagement;
- More flexibility for CMAs to designate additional disadvantaged communities to reflect local conditions; and
- New requirements for CMAs to update the needs assessment components of CBTPs every five years and to track and report progress on implementation of projects and programs identified in CBTPs.

A map of CoCs from PBA 2040 is included in Attachment A of MTC Resolution No. 4316. A list of CBTPs funded through the previous three cycles is included as an attachment to this memo.

Next Steps

Staff is requesting the Planning Committee refer MTC Resolution No. 4316 – the draft guidelines, for the 2017-2021 cycle of the CBTP Program, included in Attachment A of MTC Resolution No. 4316 – to the Commission for approval.



Steve Heminger

Attachments:

- Attachment A: List of Funded and Completed CBTPs (2002 to 2017)
- MTC Resolution No. 4316, 2017-2021 CBTP Program Guidelines

SH:kk/vs

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Attachment: List of Funded and Completed CBTPs

	<i>Community of Concern</i>	<i>County CMA</i>	<i>Year Funded</i>	<i>Amount</i>	<i>Year Completed</i>
1	Ashland/Cherryland	ACTC	2002-01	\$60,000	2004
2	Richmond/San Pablo	CCTA	2002-01	\$60,000	2004
3	Napa	NVTA	2002-01	\$60,000	2004
4	East Palo Alto	C/CAG	2002-01	\$60,000	2004
5	Dixon	STA	2002-01	\$60,000	2004
6	West Oakland	ACTC	2004-05	\$60,000	2007
7	Monument Corridor Concord	CCTA	2004-05	\$60,000	2007
8	Canal District/San Rafael	TAM	2004-05	\$60,000	2007
9	Gilroy	VTA	2004-05	\$60,000	2007
10	South/West Berkeley	ACTC	2004-05	\$60,000	2007
11	East Oakland	ACTC	2004-05	\$60,000	2007
12	Pittsburg/Bay Point	CCTA	2004-05	\$60,000	2007
13	Tenderloin/Little Saigon	SFCTA	2004-05	\$60,000	2007
14	Mission/Geneva	SFCTA	2004-05	\$60,000	2007
15	Roseland-Santa Rosa	SCTA	2004-05	\$60,000	2007
16	Daly City/Bayshore	C/CAG	2004-05	\$60,000	2008
17	Cordelia	STA	2004-05	\$60,000	2008
18	Vallejo	STA	2004-05	\$60,000	2008
19	Downtown Martinez	CCTA	2004-05	\$60,000	2009
20	Marin City	TAM	2004-05	\$60,000	2009
21	Milpitas	VTA	2004-05	\$60,000	2009
22	East San Jose	VTA	2004-05	\$60,000	2009
23	Bayview/Hunters Point	SFCTA	2004-05	\$60,000	2010
24	Alameda	ACTC	2008-09	\$60,000	2009
25	Southwest Healdsburg	SCTA	2008-09	\$60,000	2009
26	Guerneville/Monte Rio	SCTA	2008-09	\$60,000	2009
27	North Vacaville	STA	2008-09	\$60,000	2010
28	Central Sonoma Valley	SCTA	2008-09	\$60,000	2010
29	North Central San Mateo	C/CAG	2008-09	\$60,000	2011
30	South of Market	SFCTA	2008-09	\$60,000	2012
31	S. San Francisco/San Bruno	C/CAG	2008-09	\$60,000	2012
32	Central/East Fairfield	STA	2008-09	\$60,000	2012
33	Alviso/Shoreline/Sunnyvale	VTA	2008-09	\$60,000	2013
34	Potrero Hill/Inner Mission	SFCTA	2008-09	\$60,000	2015
35	Chinatown/North Beach/Treasure Island	SFCTA	2008-09	\$60,000	2015
36	Novato ¹	TAM	-	\$0	2015
37	Rodeo/Crockett/Hercules	CCTA	2008-09	\$60,000	2017
38	Western Addition/Fillmore	SFCTA	2008-09	\$60,000	2017
39	East Santa Clara	VTA	2008-09	\$60,000	2019
40	East Brentwood	CCTA	2008-09	\$60,000	Not started
41	Mountain View	VTA	2008-09	\$60,000	Not started
42	South San Jose/Morgan Hill	VTA	2008-09	\$60,000	Not started
			Total	\$2.6 M	

¹ Funded by TAM through OBAG. Not an MTC-designated CoC.

Date: December 20, 2017
W.I.: 1311
Referred by: Planning

ABSTRACT

Resolution No. 4316

This Resolution adopts program guidelines for the 2017-2021 cycle of the Community-based Transportation Planning Program.

Date: December 20, 2017
W.I.: 1311
Referred by: Planning

RE: Community-based Transportation Planning Program Guidelines - 2017-2021 Cycle

METROPOLITAN TRANSPORTATION COMMISSION
RESOLUTION NO. 4316

WHEREAS, the Metropolitan Transportation Commission (MTC) is the regional transportation agency for the San Francisco Bay Area pursuant to Government Code Section 66500 *et seq.*; and

WHEREAS, the Lifeline Transportation Network and the Environmental Justice Reports as components of the 2001 Regional Transportation Plan, identify transit needs in economically disadvantaged communities throughout the San Francisco Bay Area and recommend the initiation of community-based transportation planning as a first step to address them; and

WHEREAS, MTC established guidelines to launch and implement the Community-based Transportation Planning (CBTP) Program in 2002 in response to the recommendations outlined in the Lifeline Transportation Network and the Environmental Justice Report; and

WHEREAS, the CBTP Program has provided roughly \$2.5 million in funding for over 40 collaborative planning processes in low-income communities¹ across the region since 2002; and

WHEREAS, lessons learned through the CBTP Program since the guidelines were first established in 2002 warrant updating the guidelines in advance of a new CBTP funding cycle; now therefore be it

RESOLVED, that MTC approves the guidelines for the 2017-2021 cycle of the CBTP Program, as set forth in Attachment A of this Resolution; and be it further

RESOLVED, that Attachment A of this Resolution may be amended from time to time.

¹ MTC defined low-income communities as Communities of Concern even though the CoCs are identified using many other factors such as race/ethnicity, age (over 65 years), disability, rent burden, linguistic isolation, and vehicle ownership.

METROPOLITAN TRANSPORTATION COMMISSION

Jake Mackenzie, Chair

The above resolution was adopted by the
Metropolitan Transportation Commission
at a regular meeting of the Commission held
in San Francisco, California, on December 20, 2017.

Date: December 20, 2017
W.I.: 1311
Referred by: Planning

Attachment A
MTC Resolution No. 4316
Page 1 of 4

Community-Based Transportation Planning Program Guidelines - 2017-2021 Cycle

The following guidelines shall apply to the 2017-2021 Community-Based Transportation Planning (CBTP) Program:

1. **Program Goals** – in developing the CBTPs, the County Congestion Management Agencies (CMAs) must address the following two goals of the regional program:
 - Improve access and mobility for low-income communities, for commute as well as non-commute trips; and
 - Engage residents and community organizations in conducting the analysis and shaping the recommendations.

In addition, CMAs are encouraged to consider non-traditional solutions to meet travel needs of low-income communities. Non-traditional solutions may include car share, bike share, ride-sharing, van- and/or car-pooling, and on-demand, flex-route transit, among others.

2. **Funding allocation** – each county shall receive a CBTP planning grant based on its share of the region’s low-income population² (U.S. Census American Community Survey, 2015). The grants shall be limited to a maximum funding amount equal to 20 percent of the total funds, or \$300,000, and a minimum of \$75,000. The total funding available for the CBTP program is \$1.5 million through the second round of the One Bay Area Grant Program (OBAG 2.0). Of this total, \$35,000 shall be set aside by MTC for conducting a program evaluation in 2021. County allocations are laid out in the table below.

Table 1: Proposed CBTP Funding Allocation

County	Population – Low-Income Share	Low-Income – Share in Region	Low-Income Population	Funding Proportional to Low-Income Population	Adjusted CBTP Grants (max. \$300,000 and min. \$75,000 per county)	
Alameda	27%	23%	426,642	\$337,987	\$300,000	20%
Contra Costa	25%	15%	272,721	\$216,051	\$215,000	14%
Marin	20%	3%	49,052	\$38,859	\$75,000	5%
Napa	28%	2%	38,553	\$30,542	\$75,000	5%
San Francisco	27%	12%	225,756	\$178,845	\$175,000	12%
San Mateo	21%	8%	155,274	\$123,009	\$120,000	8%
Santa Clara	23%	22%	415,848	\$329,436	\$300,000	20%
Solano	30%	7%	122,735	\$97,231	\$95,000	6%
Sonoma	29%	8%	142,693	\$113,042	\$110,000	7%
Bay Area	25%	100%	1,849,272	\$1,465,000	\$1,465,000	100%

Source: U.S. Census American Community Survey, 2011-2015, 5-year average, MTC analysis

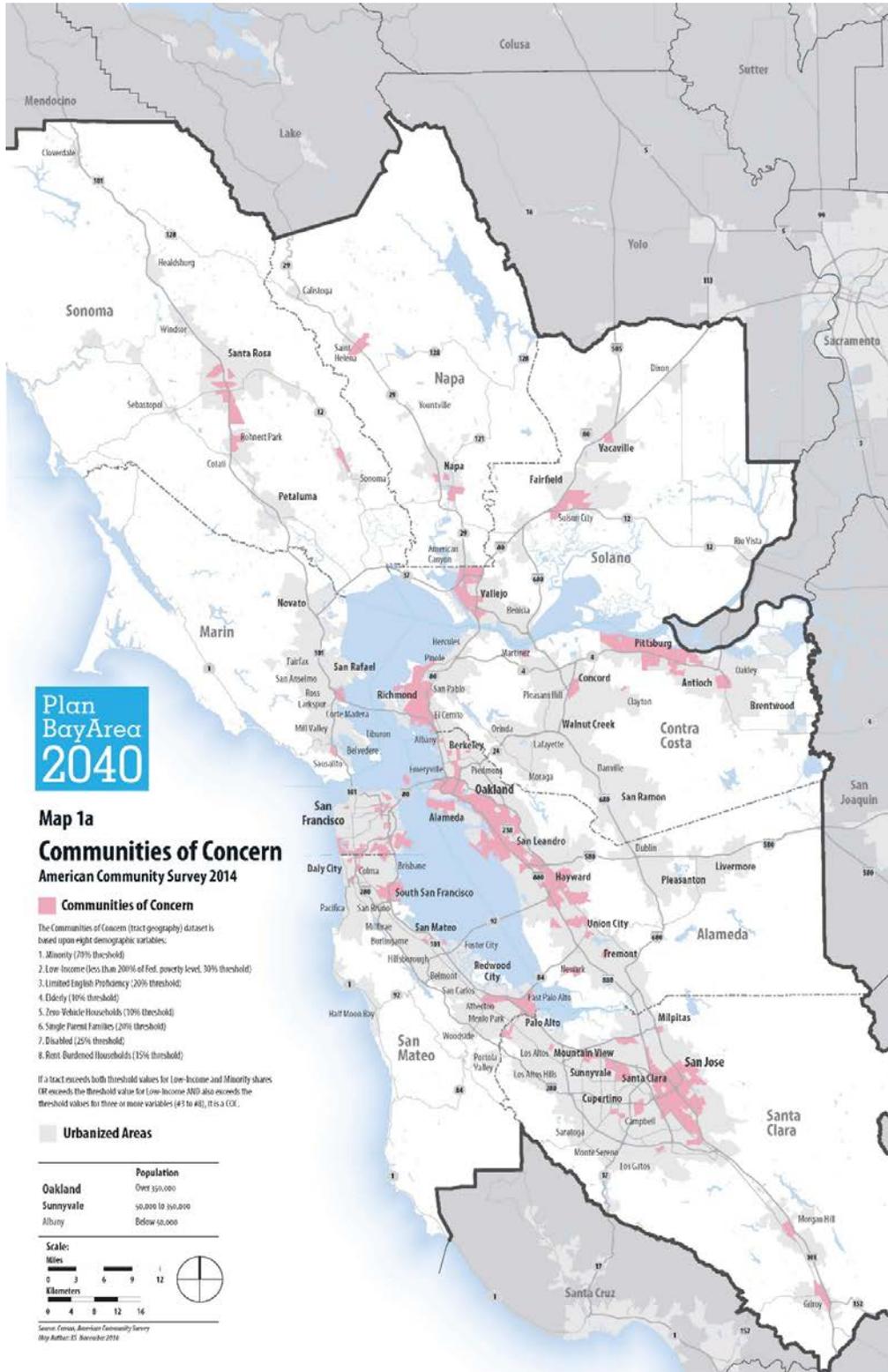
² Population in households earning less than 200 percent of the federal poverty level in 2015.

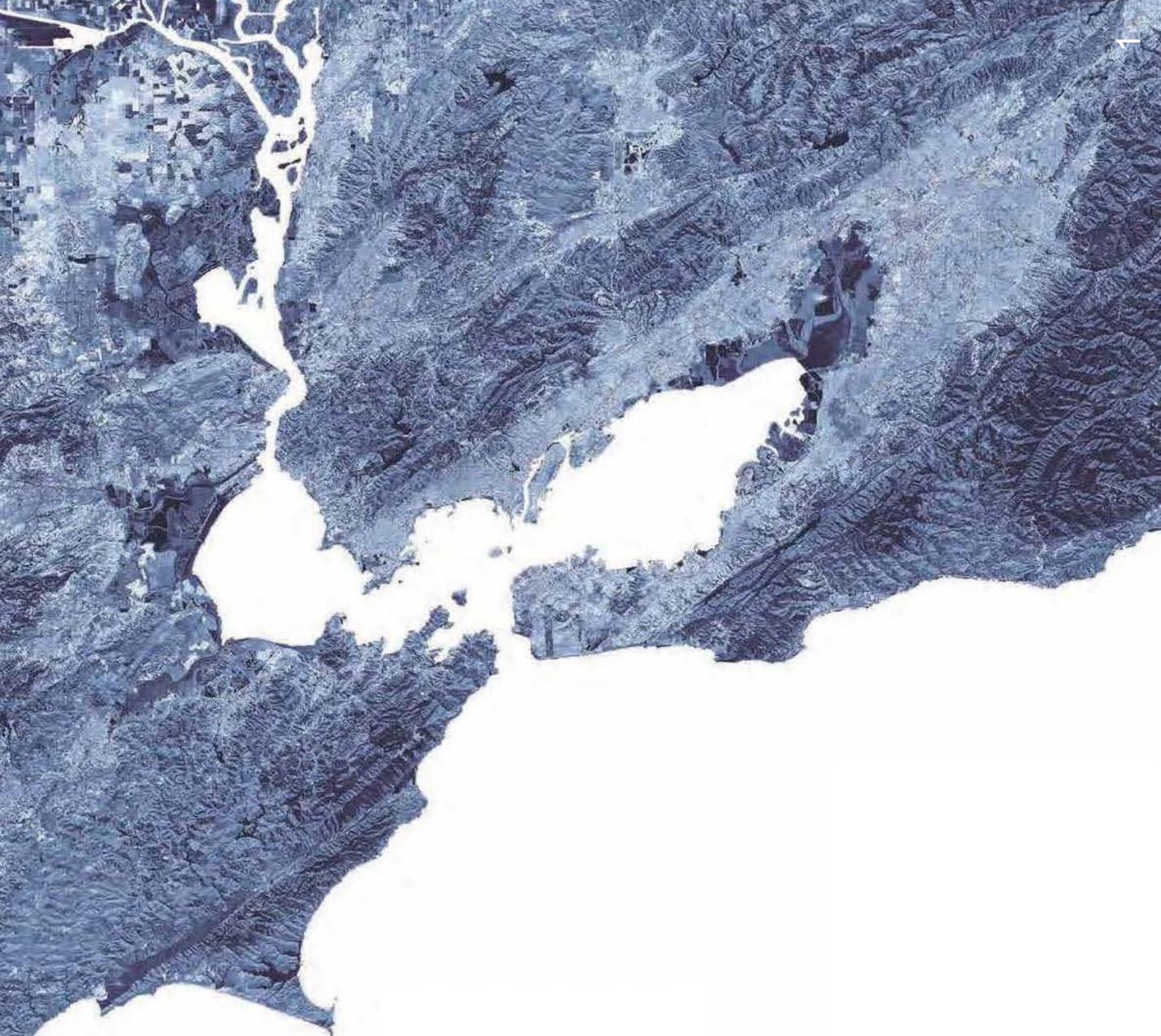
3. ***Coordination with other planning efforts*** – CMAs may combine CBTPs for more than one CoC, or develop a countywide plan for all CoCs. CBTPs may be developed as part of an existing planning effort (for e.g., planning for Priority Development Areas, county-wide investment and growth strategy, county-wide transportation program, or local jurisdiction general or specific plan). All program guidelines for the 2017-2021 CBTP Program shall still apply to the CBTP component of these planning efforts. If developing standalone CBTPs per CoC, CMAs may spend no more than \$100,000 of the planning grant on each plan.
4. ***Use it or lose it provision*** – CMAs shall administer the CBTP program and must initiate the planning process for each plan within nine months of executing a grant agreement (or MoU amendment) with MTC, and adopt the plan within three years of initiating the planning process. Any funds not used within this time period shall be repurposed by MTC at its discretion for other CBTPs.
5. ***Local match*** – CMAs must provide a ten percent match for the CBTP planning grants, which may be in the form of in-kind staff time (source of CBTP funding is the State Transit Assistance program).
6. ***Incentives for community engagement*** – CMAs are highly encouraged to set aside up to 10 percent of the planning grant towards direct financial support to local community-based organizations (CBOs). This funding may be used by the CBO(s) to provide services (for e.g., translation, outreach or meeting coordination) and/or to participate in the planning process (for e.g., as stipends).
7. ***Eligible uses*** – eligible uses for CBTP planning grants include, consultant services, direct costs or stipends associated with plan development and adoption, stakeholders engagement, and, if applicable, an implementation plan. The individual plans must be developed for MTC-designated CoCs (see map of CoCs below). CMAs may designate additional transportation disadvantaged areas (TDAs), which would also be eligible for CBTP planning grants. The criteria for identifying additional TDAs must include at least one of the following three demographic characteristic: income, age (youth or seniors) and disability. In the North Bay, CMAs may designate areas affected by recent wildfires as a TDA. CMAs must designate TDAs before executing a grant agreement (or MoU amendment) with MTC.
8. ***Prioritizing planning areas*** – CMAs are encouraged to prioritize CBTPs for areas that do not currently have a plan, areas where the plan is more than 5 years old, and areas that have the highest concentration of low-income populations.
9. ***Key components and deliverables*** – CBTPs must include key components and deliverables identified in Table 2 below. Some components may be rolled into a broader effort (for e.g., outreach and engagement for a general plan update could count towards component A.). All components may or may not be completed at the same scale (for e.g., a countywide baseline conditions analysis and needs assessment for all CoCs may be followed by separate recommendations for each CoC).

Table 2: Key Components and Deliverables for CBTP Plans

<i>Plan Components</i>	<i>Guidance and Description</i>
<i>A. Outreach and Engagement</i>	Identify key stakeholders (for e.g., partner agencies, CBOs and disadvantaged/ under-represented populations), describe outreach activities (for e.g., interviews, workshops, forums, focus groups, surveys, and polls), develop multi-lingual collateral materials (for e.g., newsletters, flyers, and website), and document residents and community feedback.
<i>B. Baseline Conditions</i>	Create a map of the planning area (showing community facilities and amenities, major transportation infrastructure, regional context, CoCs, and if applicable TDAs), summarize demographic characteristics (current conditions and recent trends, if relevant), document existing transportation services (by mode, spatial distribution and temporal characteristics), etc.
<i>C. Needs Assessment</i>	Identify key local, sub-regional and regional destinations for residents and workers in CoCs and TDAs (for e.g., job centers, medical and community facilities, grocery stores, etc.), gaps in existing transportation services and infrastructure to access these destinations, and barriers to filling these gaps, etc.
<i>D. Recommendations</i>	Identify potential solutions, innovative approaches, or best practices from other regions; address the role of emerging technologies; and develop a prioritized list of initiatives, projects and/or programs, etc.
<i>E. Implementation</i>	Develop an implementation plan for key recommendations, as needed.
<i>F. Monitoring and Evaluation</i>	Develop a process and institute a mechanism to track progress (for each initiative, project and/or program), establish monitoring protocols, etc.

Plan Bay Area 2040 Communities of Concern Map





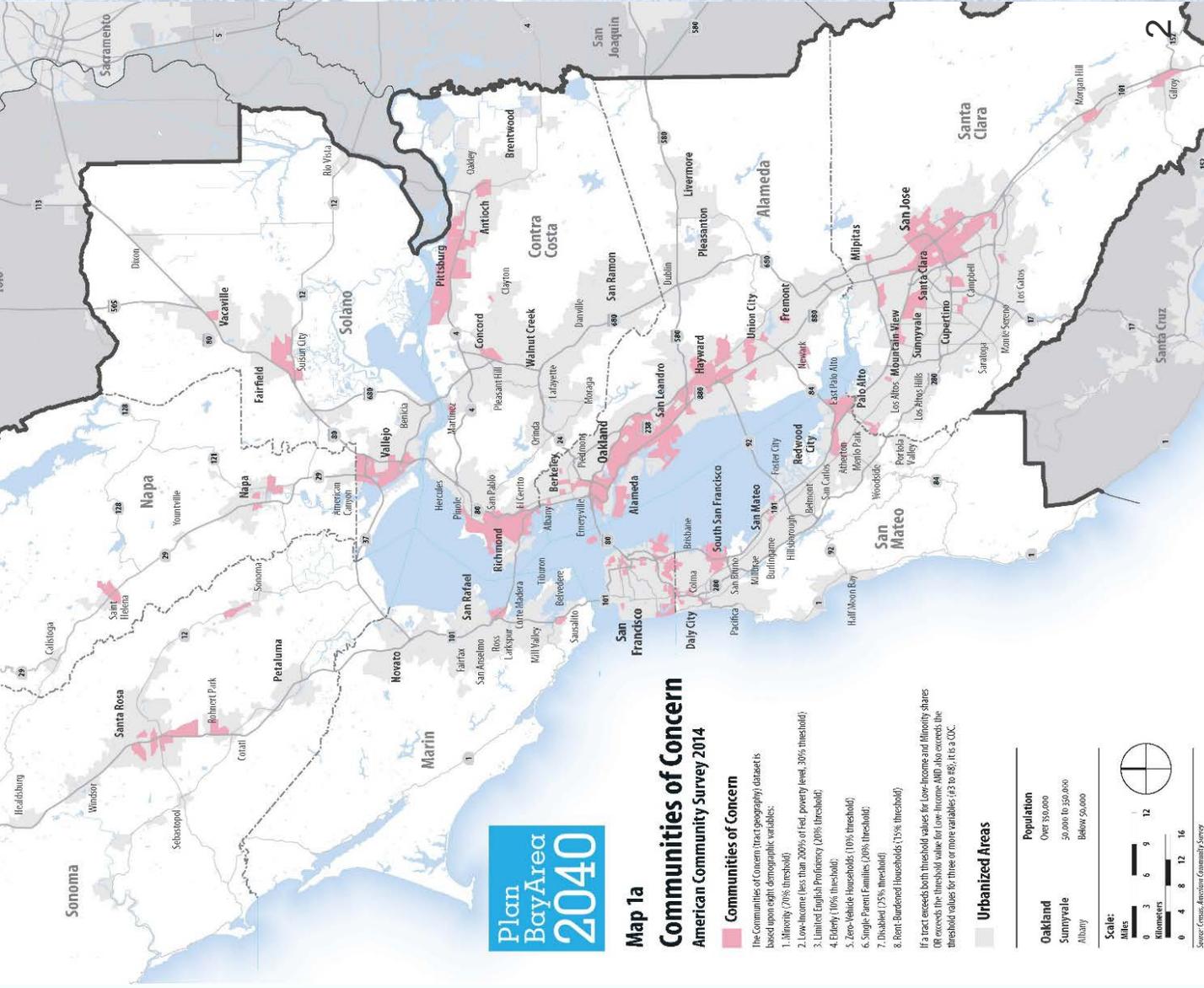
Community-Based Transportation Planning Program

Planning Committee

December 8, 2017

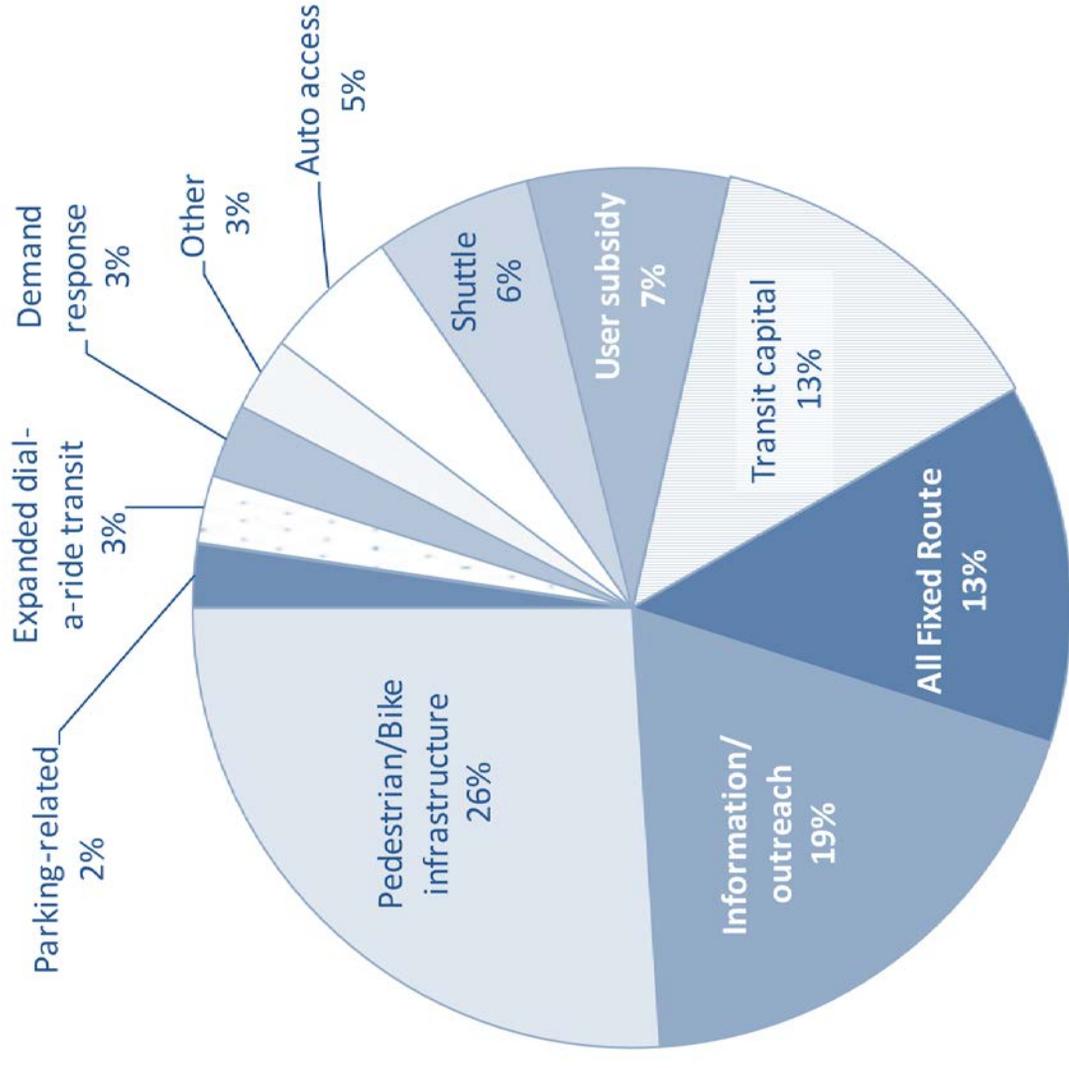
Background

- Established in 2002 along with the Lifeline Transportation Program.
- Funds planning in MTC-designated Communities of Concern.
- Emphasizes meaningful community outreach and engagement.
- Identifies projects/programs that improve access and mobility for low-income residents.
- Administered by CMAAs.



Accomplishments

- Funded plans in over 40 communities, with approximately \$2.6 million in grants.
- Improved understanding of access and mobility needs of low-income residents.
- Built capacity among partners to plan for and deliver improved services.
- Informed funding allocation for the Lifeline Transportation Program.



Areas for Improvement

- *Funding* – the program provided \$60,000 per plan though most cost more than \$75,000.
- *Flexibility* – CMAs/cities were not able to integrate CBTPs into local planning initiatives such as PDA plans.
- *Resident Engagement* – community-based organizations could have played a stronger role in outreach activities.
- *Defining CoCs* – CMAs were not able to designate additional disadvantaged communities to reflect local conditions.
- *Understanding Needs* – some CBTPs did not tackle the broader access and mobility needs of low-income residents.
- *Timeline* – six plans took more than five years to complete while three have not yet started.
- *Tracking Implementation* – county plans only reference CBTPs.

- Clearer and simpler program goals;
- Flexibility to coordinate with other planning efforts;
- Flexibility to combine CBTPs across multiple CoCs;
- Use it or lose it provision;
- 10 percent local match requirement;
- 10 percent set aside for community engagement;
- Ability to designate additional disadvantaged areas (including fire-affected areas in the North Bay);
- Commitment to regularly update the needs assessment component; and
- Commitment to track project/program implementation.



Source: East Bay Times



Source: Safe Routes to School, Marin

Funding Allocation

County	Population – Low-Income Share	Low-Income – Share in Region	Low-Income Population	Funding Proportional to Low-Income Population	Adjusted Grants (max. \$300,000 and min. \$75,000)
Alameda	27%	23%	426,642	\$337,987	\$300,000 20%
Contra Costa	25%	15%	272,721	\$216,051	\$215,000 14%
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San Mateo	21%	8%	155,274	\$123,009	\$120,000 8%
Santa Clara	23%	22%	415,848	\$329,436	\$300,000 20%
Solano	30%	7%	122,735	\$97,231	\$95,000 6%
Sonoma	29%	8%	142,693	\$113,042	\$110,000 7%
Bay Area	25%	100%	1,849,272	\$1,465,000	\$1,465,000 100%

Source: U.S. Census American Community Survey, 2011-2015, 5-year average, MTC analysis

Next Steps

<i>Milestones</i>	<i>Timeline</i>
Planning Committee (review)	December 2017
MTC Commission (approval)	December 2017
Funding Available (per OBAG 2)	October 2018
Anticipated Start Date	January 2019
Anticipated Completion Date	December 2020



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Planning Committee **STAFF REPORT**

Meeting Date: March 7, 2018

Subject	Review Draft 2017 Multimodal Transportation Service Objective (MTSO) Monitoring Report
Summary of Issues	As part of the 2017 transportation system monitoring, which includes monitoring of the Congestion Management Program (CMP) network, the MTSOs are monitored every four years in coordination with the Action Plan updates. The Authority’s on-call transportation monitoring consultant, Iteris Inc. (Iteris) has prepared a draft report, which shows the 2017 monitoring results and describes the methodologies used. The draft report will be circulated to the Regional Transportation Planning Committees (RTPCs) for local review and comment. Following Authority Board approval, the final monitoring reports will be published.
Recommendations	Staff seeks approval to release the Draft 2017 MTSO Monitoring Report to the RTPCs for review and comment.
Financial Implications	N/A
Options	Revise the report.
Attachments	<p>A. Preliminary Draft 2017 MTSO Monitoring Report Executive Summary</p> <p>B. Preliminary Draft 2017 MTSO Monitoring Report (available at www.ccta.net)</p>
Changes from Committee	

Background

In March 2017, Iteris began the MTSO monitoring effort. Vehicular traffic was monitored at a total of 229 intersections, 20 arterial segments, and 24 freeway segments. Transit data was obtained from transit providers, and walking and bicycle user counts were conducted on the Iron Horse Trail.

The 2017 MTSO Monitoring Report describes the MTSOs adopted in the various sub-county Action Plans for Routes of Regional Significance and reports on their performance.

The following MTSOs are being used across the five subregions:

- Intersection Level of Service
- Delay Index: State Route 4 (SR4), SR24, SR84, SR242, Interstate 80 (I-80), I-580, I-680, Pleasant Hill Road, San Pablo Dam Road/Camino Pablo
- Average Side Street Signal Cycle Delay: Treat Boulevard, Ygnacio Valley/Kirker Pass Road, Pleasant Hill Road, San Pablo Dam Road/Camino Pablo
- Peak Loading Factor: BART (Lamorinda)
- Average Speed: Alhambra Boulevard, Clayton Road, Contra Costa Boulevard, Pacheco Boulevard, Pleasant Hill Road, Taylor Boulevard
- High Occupancy Vehicle (HOV) Lane Usage: SR-4 (East County), I-80
- Average Vehicle Occupancy: I-580 and I-680 (Tri-Valley), Camino Pablo/San Pablo Dam Road, Pleasant Hill Road (Lamorinda)
- Duration of Congestion: I-680 (Tri-Valley)
- Volume-to-Capacity (V/C) Ratio: Most arterials in Central County and Tri-Valley
- Transit Boardings: Tri-Delta Service Area, Bay Area Rapid Transit (BART) (East County), BART (Tri-Valley)
- Collision Frequency: Pleasant Hill Road, San Pablo Dam Road (Lamorinda) and Iron Horse Trail (Tri-Valley)
- Pedestrian and Bicycle Volumes: Iron Horse Trail Arterial Crossings (5 locations in Tri-Valley)
- Pavement Condition: Major Arterials, Iron Horse Trail (Tri-Valley)
- Average Trail User Delay at Major Road Crossings: Iron Horse Trail (Tri-Valley)

Monitoring Procedures

Data collection at sites was primarily conducted from late February through May 2017, in parallel with the CMP biennial monitoring. Collection was performed only on days which met the following criteria, as defined in Appendix B of Technical Procedures:

- Non-Holiday Week
- Day of Week: Tuesday to Thursday
- School in session
- Dry weather
- No major traffic incidents

Level-of-Service (LOS) is one of the most traditional measures of the performance of transportation systems and, as required by CMP legislation, is currently the primary measure used in the Action Plans. Staff expects changes in CMP legislation due to the passage of Senate

Bill 743 (SB 743), which removes vehicle delay as a finding of significance in the California Environmental Quality Act of 1970 (CEQA), to be replaced by Vehicle Miles Travelled (VMT). This change would not preclude the Action Plans from continuing to use LOS, but will encourage use of non-vehicle delay-based measures, some of which the RTPCs have already begun considering or have added as part of the 2017 Action Plans update.

The LOS methodology is described below. Methodologies for all other MTSOs are described in the Draft 2017 MTSO Monitoring Report (Attachment A).

Intersection LOS: Under LOS, traffic conditions, as perceived by the driver, are assigned a letter value – A thru F, wherein “A” corresponds to excellent (no delay) conditions and “F” corresponds to poor (excessive delay) conditions. The LOS was calculated at MTSO monitoring intersections using the LOS methodology for automobiles as described in the Authority’s Technical Procedures document, and found in the latest Highway Capacity Manual. Table 1 below describes the conditions found at each LOS, and its relationship to the corresponding volume-over-capacity (V/C) ratio.

Table 1: Description of Level of Service

Level-of-Service	Type of Flow	Delay	Maneuverability	V/C Ratio
A	Stable Flow	Very slight or no delay. If signalized, conditions are such that no approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.	Turning movements are easily made, and nearly all drivers find freedom of operation.	0.00 – 0.60
B	Stable Flow	Slight delay. If signalized, an occasional approach phase is fully utilized.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	0.61 – 0.70
C	Stable Flow	Acceptable delay. If signalized, a few drivers arriving at the end of a queue may occasionally have to wait through one signal cycle.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.	0.71 – 0.80
D	Approaching Unstable Flow	Tolerable delay. Delays may be substantial during short periods, but excessive back-	Maneuverability is severely limited during short periods due to	0.81 – 0.90

		ups do not occur.	temporary back-ups.	
E	Unstable Flow	Intolerable delay. Delay may be great – up to several signal cycles.	There are typically long queues of vehicles waiting upstream of the intersection.	0.91 – 1.00
F	Forced Flow	Excessive delay.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	Varies ¹
<p>(1) In general, volume-to-capacity ratios cannot be greater than 1.00, unless the lane capacity assumptions are too low. Also, if future demand projections are considered for analytical purposes, a ratio greater than 1.00 might be obtained, indicating that the projected demand would exceed the capacity.</p>				

MTSO Monitoring Results

Complete results for all of the MTSOs can be found in Attachment A. Additional “information only” results are available for MTSOs for which standards have not yet been developed by the RTPCs. Authority staff will present the monitoring data to each of the RTPCs in February and March.

Staff Recommendation

Staff recommends the release of the Draft 2017 MTSO Monitoring Report for review by local staff through the RTPCs. Any comments received will be incorporated into the final reports. Monitoring data, including detailed intersection count and LOS analysis count sheets will be included in the full appendices, which will be available for local staff and consultants to use in traffic studies or other traffic-related analyses.

This report documents the 2017 monitoring results of Contra Costa County's multi-modal traffic service objectives (MTSOs). The MTSOs are applied to the roads of significance as designated by each Regional Transportation Planning Committee (RTPC) within the County. The MTSO monitoring efforts evaluate whether the transportation system achieves the MTSO standards adopted in the RTPC's 2014 Action Plan. The majority of MTSOs were monitored using the combination of (INRIX Analytics or Caltrans PeMS) commercial speed data, the manual turning movement counts, and in-field observations.

The 2017 MTSO monitoring results are summarized below:

- **Intersection Level of Service:** A total of 231 intersections were monitored in 2017. 6% (15) locations operated at LOS lower than MTSO standards during the AM or PM peak period
- **Roadway Segment Level of Service:** A total of 20 roadway segments in the East County were analyzed. Ten segments (in the AM peak) and eleven segments (in the PM peak) didn't achieve the MTSO standards
- **Average Speed:** All 16 monitored roadway segment in the Central County met the MTSO standards
- **Delay Index:** A total of 34 roadway segment were monitored using delay index. 1% (5) segments didn't achieve the MTSO standards
- **Duration of Congestion:** One roadway segment was analyzed; it met the MTSO standard
- **HOV Lane Utilization:** A total of four roadway segments were monitored; all met the MTSO standards, except for the I-80 WB segment in the West County during the AM peak period
- **Vehicle Ridership:** A total of three roadway segments were monitored; none met the MTSO standards
- **Vehicle Occupancy:** A total of two roadway segments were monitored; neither met their MTSO standard

- **Transit Ridership:** BART loading factors were monitored in Lamorinda; all monitored loading factors met the MTSO standard
- **Maximum Side Street Wait Time:** three out of the total of 13 roadway segments exceeded MTSO standards

Several additional measures were monitored and reported this MTSO report at CCTA's request. Since no specific MTSO standards are defined in the Action Plans for these MTSOs, they are reported as informational only MTSOs:

- vehicle volumes,
- pedestrian or bicycle volumes,
- frequency of collision,
- bus ridership,
- pedestrian delay at the signalized intersection, and
- pavement condition.

As part of Contra Costa County's transportation planning and growth management responsibilities, Contra Costa County Transportation Authority (CCTA) regularly monitors the performance of the transportation system in Contra Costa. Two of the main components of this transportation performance monitoring effort are the Countywide Comprehensive Transportation Plan (CTP), and the monitoring of the Multimodal Transportation Service Objectives (MTSOs) as part of updates of the Action Plan for Routes of Regional Significance.

The CCTA Action Plan designates and defines the County's transportation performance measures (for performance monitoring purposes) and the service objective for each of the designated intersections and roadway segments.

On a quadrennial basis (i.e., once every four years) through the CCTA's Multi-Modal Monitoring program, CCTA evaluates the performance of the County's transportation system and identifies those monitored locations which operated below the predetermined MTSO standards (which were last updated in 2014) and highlights long-term transportation utilization, growth and congestion trends.

CCTA has monitored the achievement of the level-of-service standards established in the County's Congestion Management Program since the first CMP in 1991; and CCTA has regularly maintained and updated this MTSO monitoring report since 2009.

This 2017 MTSO monitoring report is divided into four chapters:

- **Chapter 1 – Introduction:** provides an introduction and describes the background for the 2017 MTSO monitoring efforts
- **Chapter 2 – Methodology:** documents the performance evaluation (analytical) methodologies and describes the underlying data sources
- **Chapter 3 – Results:** presents the MTSO results—the study's findings, divided into three parts including intersection analysis, roadway segment analysis and other MTSO reporting elements (e.g., pedestrian, bicycle and transit)
- **Chapter 4 – Summary of Findings:** summarizes the monitoring results and highlights the locations that failed to meet the designated 2014 MTSO standards

1.1 Changes to Transportation System

Since the last MTSO monitoring in 2013, there were some significant changes made to the County's transportation system, including:

- State Route 4 / State Route 160 Connector Ramps
- State Route 4 East Widening: Loveridge Road to Somersville Road
- Interstate 680 Express Lane Conversion(s)
- Interstate 80 / San Pablo Dam Road Interchange Improvements

1.2 Additional MTSO Measures

The following MTSO measurements are new in this MTSO monitoring, which are subject to the MTSOs identified in each Action Plan.

- Duration of congestion
- Average trail user delay
- Frequency of collision
- Pavement condition

This chapter describes the methodology and underlying assumptions used to quantify the performance on the MTSO intersections, roadway segments and transportation elements. This chapter of the MTSO report is divided into three sections by the type of monitored locations (roadway intersections, roadway segments and other transportation elements or facilities).

2.1 Intersection Analysis

This section summarizes the two-step methodology of calculating the MTSO measures for the designated MTSO reported roadway intersections. The first step in the reporting process is to collect intersection turning movement count data, in accordance with CCTA's Technical Procedures. For reporting side street wait times, the number of signal cycles required for "back of queue" vehicles to clear the intersection was recorded during the AM and PM peak hours for 60 minutes (7:00 AM to 8:00 AM and 5:00 PM to 6:00 PM) at each intersection.

The second step in the evaluation process is to evaluate the performance of the roadway intersection and report the mandated MTSO measures – and compare the current performance of the roadway intersections to the performance thresholds in the CCTA Action Plan.

2.1.1 Data Collection

The project team selected the data collection days to ensure that all count data were collected on Tuesdays, Wednesdays and Thursdays during AM and PM peak hours in April 2017. The days in the following categories were removed or excluded from the data collection period:

- Public Holidays and School Vacations (including Spring Breaks);
- Special Events (no special events were observed to impact traffic conditions during the 2017 monitoring period); and
- Road Closures and Construction Activities.

2.1.2 Intersection Level of Service, V/C and Average Stopped Delay

The intersection Level of Service (LOS) measures were estimated using the Transportation Research Board's Highway Capacity Manual (HCM) 2000 and HCM 2010 methodologies. The

MTSO analyses were performed using the Synchro intersection analysis software. The evaluation input data prepared by the project team included the turning movement volume (i.e., count) data, intersection geometry and roadway network data, and intersection signal-timing plans. The team consulted with CCTA staff to resolve conflicts when inconsistencies were identified between current timing plans and the Contra Costa member agency provided signal timing information. The Synchro intersection analysis software generated the vehicular delays (in seconds) and LOS for the AM and PM peak hours of operation.

The HCM’s LOS thresholds were established as a function of the intersection’s vehicular delay values, as shown in Table 1. A LOS value of “A” describes a state of very low traffic volumes and no significant traffic delays. This means that most of vehicles arrive during the signal’s green time. On the other hand, a LOS of “F” represents an intersection with high levels of congestion, over saturated traffic conditions, and long queues upstream of the intersection. For MTSO reporting, the average stopped delays were expressed in units of signal cycles – the number of signal cycles needed to clear the intersection. The MTSO reported delays (in units of signal cycles) was estimated by dividing the average stopped delay (in seconds) by the signal’s cycle length (in seconds per cycle).

The previously described MTSO evaluation was performed for:

- 82 locations in the Tri Valley sub area (LOS);
- 56 locations in the West County (LOS);
- 41 locations in the East County (LOS);
- 50 locations in the Central County (LOS, V/C and Average Stopped Delay).

Table 1: HCM 2010 & 2000 Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	General Description
A	0 - 10	Free Flow
B	>10 - 20	Stable Flow (slight delays)
C	>20 - 35	Stable flow (acceptable delays)
D	>35 - 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 - 80	Unstable flow (intolerable delay)
F	> 80	Forced flow (congested and queues fail to clear)

2.1.3 Maximum Side Street Wait Time

The Lamorinda Action Plan contains a MTSO for “Side Street Wait Time”. The maximum side street wait time is reported directly from field observations at each of the designated roadway intersections. The locations where side street wait time analyses were performed are:

- Pleasant Hill Road - Maintain a maximum wait time for drivers on side streets wishing to access Pleasant Hill Road or Taylor Boulevard of one signal cycle or less; and
- Camino Pablo/ San Pablo Dam Road- The maximum wait time for drivers on side streets wishing to access San Pablo Dam Road or Camino Pablo should be no greater than one signal cycle.

2.2 Roadway Segment Analysis

This section summarizes the methods for data collection and data analyses for freeway and arterial roadway segment MTSO reporting. The vast majority of the roadway segment evaluations were performed using commercially available vehicular speed data (i.e., INRIX Analytics speed data). Roadway travel time data were collected via floating car runs (sometimes called probe vehicles or tach runs) for roadway segments where the commercial speed data were unavailable or deemed insufficient because of sample size limitations.

2.2.1 Speed, LOS, Delay Index

The average vehicular speeds, Level of Service (LOS), and delay index estimation use similar inputs and data processing and evaluation techniques. Peak hour average vehicular speeds is the most influential variable (input) in the roadway segment LOS estimation process. Further, the LOS estimation and reporting processes are consistent with previous reporting periods.

2.2.1.1 Data Collection

The roadway segment travel time data were collected (i.e., downloaded) from the INRIX Analytics website, or were obtained via floating car runs for segments where the INRIX data were not available.

A) INRIX Data

The downloaded segment-based INRIX data were filtered to remove:

- Holidays during the monitoring period;

- Times outside the morning and afternoon peak periods (times outside the 6:00 - 10:00 A.M. and 3:00 -7:00 P.M. windows);
- Days other than Tuesdays – Thursdays;
- Data points impacted by construction and special events, as applicable; and
- Data points with low INRIX quality scores (INRIX data quality scores of 10 and 20)¹.

Similar to CMP Monitoring, roadways undergoing short-term construction and/or with ongoing incidents were reviewed for anomalies in the reported vehicular speeds. To be conservative, the data collected on the MTSO segments which might have been impacted on those identified construction/incident days were excluded. This filtration process insures that the speeds data used in the MTSO monitoring is reflective of the traffic conditions experienced on an average workday by commuters. Additionally, data collected on days with significant weather events were removed. While there were some public holidays during the spring of 2017, none occurred on Tuesdays, Wednesdays or Thursdays. Local schools were also in session during the data collection period.

B) Floating Car Data

The speed data for the Pleasant Hill Road MTSO segment between Geary Road and Taylor Boulevard was supplemented with floating car runs, due to the insufficient sample size from INRIX data. In accordance with Technical Procedures², the floating data were collected on Tuesday, September 26, 2017.

2.2.1.2 Data Processing

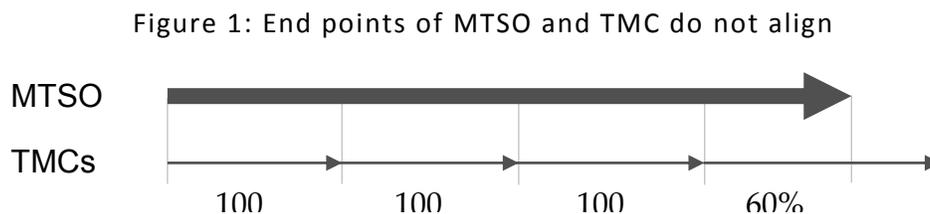
The (MTSO) performance measure computation is a four-step process that entails: 1) spatial conflation; 2) spatial coverage check; 3) temporal aggregation; and 4) computation of required performance measure. The following sections provide additional detail. Note that the floating car data were collected on the designated MTSO segment during the peak periods. Therefore, the steps one through three do not apply to the floating car data.

¹ INRIX includes a data quality score that accompanies every INRIX data point. A score of 30 indicates data are exclusively generated from real-time sources; a mix of historical and real-time sources are used (indicated by a score of 20); and data are exclusively generated from historical data (indicated by a score of 10).

² Technical Procedures, CCTA, January 16 2013

1) Spatial Conflation

Raw INRIX data provides travel time data along each Traffic Message Channels (TMC) in one-minute intervals. A TMC is a relatively short section of a roadway, generally in the range of a half-mile or so. The first step of analysis includes mapping the INRIX TMCs (and the raw speed data to the County's MTSO segments. The INRIX-TMC→CCTA-Segment mapping file completed for the County's CMP efforts was used as a starting point for MTSO Monitoring spatial conflation efforts. A thorough review of TMC links over each MTSO segment was performed. Figure 1 shows a schematic example of mapping or combining four TMC links to one MTSO reporting segment. Note that the end of the last TMC link does not align with the end of the MTSO Segment. In these instances, only the overlapping portion of the TMC is used in subsequent steps in the evaluation process.



2) Coverage Check

Prior to the temporal aggregation, a reality check was performed to assure that small sample estimation errors did not negatively impact the reliability of the reported MTSOs. The project team performed a check to ensure that time-periods with excess TMCs removals were not included in the further analysis. To do this, the team removed all one-minute time periods where the total mapped TMC data available was less than 99%. Using the 99% threshold, only a small minority of the time periods were flagged as having inadequate sample size. In these cases, the threshold was lowered to 70% to ensure adequate sample size. The number of one-minute data points for MTSO segment varies as a result of removing data points during this filtering process. The team selected a minimum sample size threshold for sample sizes of 100 observations (i.e., data points). Locally collected floating car surveys were performed where the MTSO segment failed the minimum sample size criteria. In the 2017 MTSO monitoring, this occurred at only one location - Pleasant Hill Road between Geary Road and Taylor Boulevard.

3) Temporal Aggregation

In this step, the one-minute intervals for each MTSO segment were aggregated to peak periods. The peak hour speeds were estimated in 15-minute moving average time-periods, e.g., from 6:00 to 7:00 A.M., then from 6:15 to 7:15 A.M., etc. Next, the lowest peak hour speed (during the peak period) was used as an input to the LOS and delay estimation process, which is described in the next section.

4) Compute Required Performance Measure (Speed, LOS, and Delay Index)

The procedure of calculating LOS and delay index is in conformance with CCTA's Technical Procedures.

- For floating car runs, the speeds were averaged to estimate the peak hour speed.
- The LOS assignment process is consistent with previous MTSO reporting efforts and consistent with legislative requirements from the California Government Code – as shown in Table 2 for freeway segments, and Table 3 for arterial street segments.

Table 2: Freeway Level of Service Standards (HCM 1985)

Level of Service	Traffic Speed (miles/hour)
A	≥ 60
B	≥ 57
C	≥ 54
D	≥ 46
E	≥ 30
F	< 30

Table 3: Arterial Level of Service Standards (HCM 1985)

Level of Service	Traffic Speed (miles/hour)
A	≥ 55
B	≥ 50
C	≥ 45
D	≥ 40
E	< 40

- The Delay Index is an expression of the amount of time required to travel between two points during the peak hour as compared to a baseline. The numerator of the delay index formula, the free flow travel time is defined as “the time it takes to traverse a roadway segment at the posted speed limit”. The denominator of the delay index formula measured or actual peak hour travel time experienced by motorists, which was the peak hour speed identified in the third step as mentioned above.

2.2.2 Duration of Congestion, HOV Lane Utilization

The Tri-valley Action Plan includes MTSOs for duration of congestion for the mixed-flow or general-purpose lanes on I-680 south of SR-84. The duration of congestion captures or measures the number of congested hours per average workday.

MTSO standards for HOV lane utilization (in vehicles per hour) were established in the East County and West County.

2.2.2.1 Data Collection

Vehicular speed data were downloaded from the Caltrans PeMS website for the vehicle detector station (VDS) locations along the freeway’s MTSO segments during non-holiday Tuesdays, Wednesdays and Thursdays for the months of February, March, and April of 2017.

2.2.2.2 Data Processing

Duration of congestion is defined as the number of congested hours during a normal or average non-holiday workday. The MTSO standard of no more than five (5.0) hours was established for I-680 south of SR-84 in the Tri-valley. First, the five-minute speeds were aggregated to each half-hour periods for each PeMS detector location. Second, a congested half-hour period was flagged if it performed at a speed below 35 miles per hour. Finally, the number of congested half-hour periods were summed and reported as total (daily) hours of congestion.

HOV lane usage is measured by the number of vehicles using the HOV lane at the highest HOV volume along the MTSO reporting section. The East County established MTSO standard for freeways with HOV lane utilization exceeding 600 vehicles per lane in the peak direction during the peak hour. The maximum volume was identified by aggregating five-minute traffic volumes (obtained from the Caltrans PeMS website) to peak hour volume.

2.2.3 Average Vehicle Ridership

The Tri-valley Action Plan contains a MTSO for I-580 and I-680 that specifies the ratio of total person commute trips to vehicles used for commuting on I-580 and I-680 increased by 10% from 1.1 to 1.2.

2.2.3.1 Data Collection

Average vehicle ridership was estimated using data from the Bay Area Manage Lane Report published by Caltrans in 2013 and 2015.

2.2.4 Average Vehicle Occupancy

The MTSO standard for average vehicle occupancy is included in the Lamorinda Action Plan. It is a measure of the average number of passengers (including the driver) per vehicle on Pleasant Hill Road and Camino Pablo/ San Pablo Dam Road. The MTSO standards include:

- Increase the average vehicle occupancy on Pleasant Hill Road/Taylor Boulevard to at least 1.3 during the peak commute hours by 2018; and
- Increase the average vehicle occupancy on Camino Pablo/San Pablo Dam Road to at least 1.3 during the peak commute hours by 2018.

2.2.4.1 Data Collection

Vehicle occupancy data were collected from a stationary position along Pleasant Hill Road and Camino Pablo/ San Pablo Dam Road. Video data captured traffic flow during AM and PM peak periods on May 23rd and May 25th, 2017. In accordance with the Technical Procedures, the data were collected on mid-week workdays (i.e., Tuesdays, Wednesdays and Thursdays) on non-holiday days while local area schools were in session.

2.2.4.2 Data Processing

The field data were reported in 15-minute intervals during AM and PM peak periods. The occupancy counts were then aggregated to estimate the average per peak period vehicle occupancy.

2.3 Transit Ridership

The usage of public transit was monitored in the East County and the Lamorinda. There is no specified goal in the East County Action Plan.

- Lamorinda
 - Maintain an hourly average transit load factor (ratio of passengers to seats) of 1.5 or less when approaching Lafayette Station westbound and Orinda Station eastbound during each and every hour of service.
- East County
 - A measure of the average number of riders boarding a fixed-route bus during an hour of scheduled bus service when persons may board with a fare or pass.
 - A measure of the average number of weekday riders on all BART trains between the Bay Point and North Concord Stations.

2.3.1 Data Collection

The transit ridership data were obtained directly from Tri Delta Transit, LAVTA and BART.

2.3.2 Description and Method of Calculation

For East County, the average ridership per service hour was derived from the ridership for Tri Delta Transit fixed-route buses in a sample month (May 2017); BART passenger counts between the Bay Point and North Concord Stations (April 2017) were averaged to obtain the average number of weekday riders. For Lamorinda, BART ridership approaching the Lafayette Station westbound and Orinda Station eastbound was tallied and then averaged per service hour.

2.4 Additional Performance Measures

The Tri-valley and Lamorinda Action Plans now contains MTSOs not reported in the previous monitoring cycles.

- **Pedestrian and Bicycle Volumes:** The Tri-valley Action Plans includes a MTSO for pedestrian and bicycle volumes using Iron Horse Trail (directly measured from field observations).

- **Crash frequency:** The Tri-valley and Lamorinda Action Plan includes MTSOs for vehicle crash frequency and/or pedestrian or bicycle injury crash frequency. The collision data were obtained from the Caltrans Statewide Integrated Traffic Records System (SWITRS) for the calendar year 2013-2016.
- **Average Trail User Delay at Major Road Crossings:** The Tri-valley Action Plans includes a MTSO for pedestrian delay at the signaled intersection. The delays (in units of seconds) were determined by the cycle length and the green times for vehicles when pedestrians are prohibited to enter crosswalk with an assumption of uniform pedestrian arrival rate.
- **Pavement Condition:** The Tri-valley Action Plans includes a MTSO for Iron Horse Trail that measures the relative comfort of the trail for its users using the pavement condition. This MTSO was reported using Pavement Condition Index.
- **Frequency of Lane Closure:** The Lamorinda Action Plan includes a MTSO for the frequency of lane closure.
- **Inventory of pedestrian and bicycle facilities:** The Lamorinda Action Plan includes a MTSO for the inventory of pedestrian and bicycle facilities.

This chapter summarizes the results from the 2017 MTSO monitoring at the designated MTSO roadway intersections and segments.

3.1 Intersection Analysis

This section on roadway intersection analysis is divided into two sub-sections:

- 1) Intersection Level of Service (LOS) and Volume-to-Capacity ratio (V/C), and
- 2) Average Stopped Delay and Maximum Side Street Wait Time.

The intersection analysis MTSO monitoring results are summarized in Table 4 for Tri-valley County, Table 5 for the East County, Table 6 for the West County and in Table 7 for the Central County sub-region.

3.1.1 Intersection LOS and V/C

The LOS and/or V/C ratios were analyzed for 231 MTSO locations: 82 locations in the Tri Valley sub area, 56 locations in the West County, 41 locations in the East County, and 50 locations in the Central County. Of these 231 locations, 13 locations currently exceed the standard threshold either in the AM and/or PM peak periods.

The following MTSO locations are reported for each sub-region:

Tri Valley: two (2) locations operate at a lower LOS:

- T9: San Ramon Valley Boulevard/Alcosta Boulevard; (HCM 2010 AM Peak); and
- T60: Stanley Boulevard/Murrieta Boulevard. (HCM 2000 AM and PM Peak)

West County: five (5) locations operate at a lower LOS:

- W1: San Pablo Avenue/John Muir Parkway; (HCM 2010 AM and PM Peak, HCM 2000 PM Peak)
- W5: San Pablo Avenue/Rumrill Boulevard; (HCM 2010 and 2000 PM Peak)
- W30: San Pablo Avenue/Richmond Parkway; (HCM 2010 and 2000 PM Peak)
- W49: Richmond Parkway/Westbound I-80 Ramps/Blume Drive; (HCM 2010 AM and PM Peak) and
- W55: Richmond Parkway/Pittsburgh Avenue. (HCM 2010 and 2000 PM Peak)

East County: four (4) locations operate at a lower LOS:

- E12: Main Street/Delta Road; (HCM 2010 and 2000 AM and PM Peak) Stop Control
- E23: Bailey Road/Leland Road; (HCM 2010 AM Peak)
- E24: Railroad Avenue/Leland Road; (HCM 2010 AM Peak) and
- E31: Lone Tree Way/West Tregallas Road. (HCM 2010 PM Peak)

Central County: all locations operate at an acceptable level for LOS and/or V/C standards.

- The V/C standard threshold of 1.5 for Central County intersections on Pacheco Blvd, Pleasant Hill Rd, Taylor Blvd, Treat Blvd, and Ygnacio Valley Blvd reflect the level of congestion on a given roadway.
- All intersections analyzed with V/C are at an acceptable level.

Table 5: 2017 MTSO Intersection Draft LOS Results – West County Sub Area

Intersection			MTSO	HCM Method	AM			PM		
ID	Facility	Cross Street			Delay (sec)	2017 LOS	2013 LOS	Delay (sec)	2017 LOS	2013 LOS
W1	San Pablo Avenue	John Muir Parkway	E	2010	185.8	F	D	239.0	F	E
W2	San Pablo Avenue	Pinole Valley Road	E	2010	4.9	A	B	13.8	B	B
W3	San Pablo Avenue	Appian Way	E	2010	21.6	C	C	39.6	D	D
W4	San Pablo Avenue	Hilltop Drive	E	2010	42.5	D	C	57.7	E	E
W5	San Pablo Avenue	Rumrill Boulevard	E	2010	37.8	D	C	98.3	F	D
W6	San Pablo Avenue	El Portal Drive	E	2010	33.2	C	C	33.5	C	C
W7	San Pablo Avenue	Road 20	E	2000	42.2	D	D	47.4	D	D
W8	San Pablo Avenue	San Pablo Dam Road	E	2000	32.5	C	C	37.2	D	D
W9	San Pablo Avenue	McBryde Avenue	E	2000	24.0	C	C	27.4	C	C
W10	San Pablo Avenue	Westbound I-80 Ramps	E	2000	38.4	D	B	22.9	C	D
W11	San Pablo Avenue	Eastbound I-80 Ramps / Roosevelt Avenue	E	2000	16.8	B	C	30.7	C	D
W12	San Pablo Avenue	Barrett Avenue	E	2010	33.8	C	C	34.2	C	C
W13	San Pablo Avenue	Cutting Boulevard	E	2010	29.3	C	C	27.5	C	C
W14	San Pablo Avenue	Central Avenue	E	2000	41.4	D	C	47.2	D	C
W15	San Pablo Dam Road	Westbound I-80 Ramps	E	2000	24.2	C	C	35.9	D	C
W16	San Pablo Dam Road	Eastbound I-80 Ramps /Amador Street	E	2000	51.4	D	C	49.7	D	E
W17	San Pablo Dam Road	El Portal Drive	E	2000	45.2	D	D	32.0	C	D

Intersection			MTSO	HCM Method	AM			PM		
ID	Facility	Cross Street			Delay (sec)	2017 LOS	2013 LOS	Delay (sec)	2017 LOS	2013 LOS
W18	San Pablo Dam Road	Appian Way	E	2010	62.4	E	C	50.4	D	D
W19	San Pablo Dam Road	Castro Ranch Road	E	2010	25.2	C	C	27.5	C	C
W20	San Pablo Dam Road	Bear Creek Road	E	2000	44.1	D		63.6	E	
W26	Cutting Boulevard	Carlson Boulevard	D	2010	26.2	C		24.1	C	
W27	San Pablo Avenue /Parker Avenue	Willow Avenue	E	2000	9.7	A		9.4	A	
W28	San Pablo Avenue	Sycamore Avenue	E	2000	10.8	B	C	13.3	B	C
W29	San Pablo Avenue	Tennant Avenue	E	2000	13.7	B	B	74.3	E	A
W30	San Pablo Avenue	Richmond Parkway	E	2010	63.6	E	C	98.7	F	C
W31	San Pablo Avenue	Robert H Miller Drive	E	2000	23.3	C	B	26.1	C	B
W32	San Pablo Avenue	Church Lane	E	2010	32.4	C	B	35.9	D	C
W33	San Pablo Avenue	Potrero Avenue	E	2010	27.8	C	C	27.5	C	B
W34	San Pablo Avenue	Schmidt Lane	E	2000	11.2	B	B	13.8	B	B
W35	San Pablo Avenue	Carlson Boulevard	E	2010	57.4	E	C	45.9	D	C
W36	23rd Street	Rheem Avenue	D	2010	10.7	B	C	12.6	B	C
W37	23rd Street	Barrett Avenue	D	2010	15.7	B	B	19.2	B	B
W38	23rd Street	Macdonald Avenue	D	2010	9.7	A	A	12.4	B	A
W39	23rd Street	Cutting Boulevard	D	2010	34.4	C	B	31.9	C	C
W40	Appian Way	Tara Hills Drive-Canyon Drive	D	2000	47.5	D	C	40.9	D	C
W41	Appian Way	Westbound I-80 Ramps	D	2000	23.4	C	D	22.9	C	D

Intersection			MTSO	HCM Method	AM			PM		
ID	Facility	Cross Street			Delay (sec)	2017 LOS	2013 LOS	Delay (sec)	2017 LOS	2013 LOS
W42	Appian Way	Eastbound I-80 Ramps	D	2000	8.6	A	A	11.3	B	B
W43	Appian Way	Fitzgerald Drive-Sarah Drive	D	2000	23.8	C	C	34.3	C	D
W44	Carlson Boulevard	Bayview Avenue	D	2000	38.2	D	D	25.3	C	C
W45	Carlson Boulevard	Central Avenue	D	2010	21.6	C	B	20.5	C	B
W46	Central Avenue	Pierce Street	D	2010	10.5	B	B	12.6	B	B
W47	Central Avenue	Westbound I-80 Ramps	D	2000	11.4	B	B	14.2	B	C
W48	Central Avenue	Eastbound I-80 Ramps	D	2000	16.1	B	B	25.7	C	C
W49	Richmond Parkway	Westbound I-80 Ramps /Blume Drive	D	2010	95.1	F	B	64.4	E	B
W50	Castro Street	Eastbound I-580 Ramps	D	2000	14.9	B		21.2	C	
W51	Castro Street	Westbound I-580 Ramps	D	2000	25.5	C		35.9	D	
W52	Castro Street	Hensley Street	D	2010	27.4	C		48.9	D	
W53	Castro Street	Mills Street	D	2000	4.2	A		6.5	A	
W54	Richmond Parkway	Gertrude Avenue	D	2000	16.0	B	C	31.2	C	D
W55	Richmond Parkway	Pittsburgh Avenue	D	2010	35.9	D	F	59.4	E	F
W56	Richmond Parkway	Parr Boulevard	D	2010	42.4	D	F	40.6	D	C
W57	Richmond Parkway	Hensley Street	D	2010	20.1	C	C	19.1	B	C
W58	Richmond Parkway	Barrett Avenue	D	2010	17.1	B	B	18.5	B	C
W59	Richmond Parkway	McDonald	D	2010	13.5	B	C	18.5	B	C
W60	Richmond Parkway	Eastbound I-580 Ramps	D	2000	30.3	C	C	34.6	C	B
W61	Richmond	Westbound	D	2000	21.0	C	B	29.7	C	B

Intersection			MTSO	HCM Method	AM			PM		
ID	Facility	Cross Street			Delay (sec)	2017 LOS	2013 LOS	Delay (sec)	2017 LOS	2013 LOS
	Parkway	I-580 Ramps								

3.2.2 Duration of Congestion and HOV Lane Utilization

The duration of congestion and HOV lane utilization are determined from Caltrans PeMS peak hour speed and volume data. One location in the West County that did not meet the MTSO standard.

The results of 2017 MTSO monitoring are shown in Table 16 through Table 18.

~~Table 16: HOV Utilization – East County~~

Route	MTSO	Dir	Peak Hour	2017 Observed (Max Volume)
SR-4	600 vehicles per lane	WB	AM (7:00-8:00)	1,755
		EB	PM (5:45-6:54)	1,810

~~Table 17: Duration of congestion – Tri-valley County~~

Route	Limits	Dir	MTSO (hour)	2017 Observed
I-680	SR-84 to County Line	SB	5.0	4.5

Table 18: HOV Lane Utilization – West County

[MTSO = 10%]

Route	Dir	Peak Hour	2013 Observed	2017 Observed	2017 Observed	2013 Observed
			Max Volume	Max Volume	% Change	% Change
I-80	EB	6:00 - 7:00 AM	945	1,399	48%	43% [±]
		5:00 - 6:00 PM	1,169	1,349	15%	
	WB	7:30 - 8:30 AM	1,401	1,430	2%	
		3:00 - 4:00 PM	1,130	1,511	34%	

± Change in directional HOV lane usage was unavailable, in 2013 MTSO report

4

Summary of Findings/Recommendations

A summary of results of the 2017 MTSO analysis for the five sub-areas within the Contra Costa County is shown in Table 33. The table lists the number of locations that do not meet the designated MTSO standards.

Table 33: Summary of Monitoring Results

Sub Area	MTSO Measure	Locations	AM Peak		PM Peak	
			Not Achieving MTSOs		Not Achieving MTSOs	
			No	%	No	%
East	Delay Index	4	0	0.0%	0	0.0%
	Intersection LOS	41	3	7.3%	2	4.9%
	Roadway Segment LOS	20	10	50.0%	11	55.0%
	HOV Lane Usage	2	0	0.0%	0	0.0%
Central	Delay Index	6	0	0.0%	1	16.7%
	Average Speed	12	0	0.0%	0	0.0%
	Average Stopped Delay	8	0	0.0%	0	0.0%
	Intersection LOS V/C	50	0	0.0%	0	0.0%
Lamorinda	Delay Index	12	3	25.0%	3	25.0%
	Side Street Wait Time	13	3	23.1%	0	0.0%
	Average Vehicle Occupancy	2	2	100.0%	2	100.0%
Tri-valley	Delay Index	6	0	0.0%	0	0.0%
	Intersection LOS	82	2	2.4%	1	1.2%
	Average Speed	4	0	0.0%	0	0.0%
	Duration of Congestion	1	0	0.0%	0	0.0%
	Average Vehicle Ridership	3	0	0.0%	3	100.0%
West	Delay Index	6	1	16.7%	0	0.0%
	Intersection LOS	56	2	3.6%	5	8.9%
	HOV Lane Usage	2	1	50.0%	0	0.0%
Total - Countywide		330	27	8.2%	28	8.5%

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WCCTAC FISCAL YEAR 2019 WORK PROGRAM

WCCTAC's activities may be grouped into the following five major areas: Planning and Programming (General Operations), Transportation Demand Management (TDM), Sub-regional Transportation Mitigation Fee Program (STMP), Other Reimbursable Projects, and Office Administration.

Planning and Programming (General Operations)

This program area relates to WCCTAC's function as the Regional Transportation Planning Committee (RTPC) for West Contra Costa County under Measure J. It also includes transportation planning efforts resulting from the agency's Joint Powers Agency function. Staff work in this program area is mainly funded with annual member agency contributions and, to a lesser extent, Measure J dollars.

1. Program and administer West County's Measure J project and programs, including but not limited to:
 - a. Low Income Student Bus Pass Program (Measure J 21b)
 - b. Transportation for Seniors and People with Disabilities (Measure J 15b, 20b)
 - c. Sub-regional needs (Measure J 28b)

2. Participate in regional, countywide, sub-regional, and local planning efforts as appropriate. Some efforts include but are not limited to:
 - a. Coordination of local senior and disabled transportation, including management and implementation of the West County Measure J Mobility Study.
 - b. The San Pablo Avenue Multimodal Corridor Study, in partnership with the Alameda County Transportation Commission (ACTC), CCTA, Caltrans and local jurisdictions.
 - c. I-80 Smart Corridor (Integrated Corridor Mobility) follow-up, evaluation, and ongoing special TAC meetings.
 - d. I-80 Ad Hoc Subcommittee work on HOV lane performance and the Smart Corridor Project.
 - e. Safe Routes to School Program and Contra Costa County's Accountable Healthy Communities Coordination.
 - f. Development of AC Transit Multi-modal Corridor Guidelines
 - g. Hercules Regional Intermodal Transit Center implementation.
 - h. Richmond and Hercules ferry planning, implementation and funding identification
 - i. I-80 Interchange planning and implementation for San Pablo Dam Rd, Central Ave. etc.
 - j. City of Richmond's 23rd Street Streetscape Improvement Plan
 - k. Complete Streets efforts, such as Rumrill Blvd. and 13th Street in Richmond.
 - l. Bay Trail and other bike path/trail planning and development.
 - m. General Plan Updates and local specific plans

3. Monitor grant opportunities, inform members about these opportunities, assist with grant applications, and facilitate prioritization of West County candidate projects for grants. Some examples of grant opportunities in the upcoming fiscal year include: Active Transportation Program (ATP) grants, federal 5310 grants.
4. Submit an application to MTC's Program for Arterial System Synchronization (PASS) grant for funds to develop corridor-wide signal timing coordination plans for San Pablo Avenue.
5. Monitor Action Plan compliance by reviewing any local General Plans or General Plan Amendments. Lastly, WCCTAC will work to advance goals, objectives and actions within the Action Plan.
6. As part of its routine operations, manage or participate in meetings of the: WCCTAC Board, WCCTAC TAC, I-80 Smart Corridor TAC, CCTA Board, CCTA Countywide Bicycle and Pedestrian Advisory Committee (CBPAC), CCTA Administration and Projects Committee (APC), CCTA Paratransit Coordinating Committee (PCC), CCTA Technical Coordinating Committee (TCC), and the Caltrans District 4 Pedestrian Advisory Committee.

Transportation Demand Management (TDM)

This program promotes transportation alternatives to the single occupant vehicle by encouraging walking, bicycling, transit, carpooling, and vanpooling, and is coordinated with the larger countywide 511 Contra Costa Program. This program is funded on a reimbursement basis by Measure J, Congestion Management and Air Quality (CMAQ) funds, and grants from the Air District. In the upcoming fiscal year, the TDM program will:

1. Manage the Countywide Guaranteed Ride Home Program.
2. Manage the Commute Incentives Program, which includes: employer outreach and programs, transit incentives, funding for bike racks and lockers, funding for EV charging stations, the "Pass 2 Class" student transit ticket program, and a Guaranteed Ride Home pilot program for Contra Costa College students.
3. Coordinate with the Regional 511 Rideshare and 511 Contra Costa.
4. Support Local Agency Climate Action plans and other plans and efforts that aim to improve access to bicycling, pedestrian facilities, transit, and emerging mobility technology such as a shared autonomous vehicles – particularly those that have regional significance.
5. Work with community groups and employers to explore the feasibility of providing bicycle repair education classes and bicycle safety awareness to increase bicycling as a viable mode of transportation.
6. Participate in the development of a Countywide TDM Strategic Plan.

Sub-regional Transportation Mitigation Fee Program (STMP)

WCCTAC acts as the trustee for the developer impact fees collected by the West County cities and the unincorporated areas of the County. Under the current program, these funds are to be used for work on eleven pre-identified, regionally-benefitting capital projects. In the upcoming fiscal year, WCCTAC will:

1. Continued advancement to completion of the STMP Nexus Study Update.
2. Collect, administer and track funds and reporting forms; oversee contractual agreements; and disburse funds to Board-approved programmed projects.
3. Bring to the Board for its consideration an updated fee schedule.
4. Issue a final call for projects for the current STMP program based on fund balance and Board direction.
5. Transition WCCTAC and its member agencies from the current STMP program to an updated STMP program.
6. Respond to inquiries from local agencies.

Other Reimbursable Projects

As a Joint Powers Agency, WCCTAC is able to apply for and receive various grants that advance the transportation goals of West Contra Costa. WCCTAC can also serve as a lead for certain studies or projects using other agency contributions.

1. Initiate the West Contra Costa County Express Bus Implementation Plan, a Caltrans/SB1 funded endeavor with study partners AC Transit and WestCAT. Work will include advertising and selecting a consultant team then beginning the analysis and outreach phases of the plan's development.

Office Administration

WCCTAC's administration is funded through member dues, a portion of TDM funds, as well as other sources. In the upcoming fiscal year the priorities in this category include, but are not limited to:

1. Completing Annual Work Program, Budget and Audit on time.
2. Developing and implementing internal organization planning tools, e.g. .
3. Considering alternative financial services options.
4. Providing staff development and training opportunities in
5. Maintaining and expanding content on the WCCTAC website by....
6. Developing a Procurement Policy for equipment and services purchased by WCCTAC
7. Formalizing WCCTAC's Conflict of Interest Code for staff and Directors
8. Conduct an update to WCCTAC's 2009??? Compensation Study