

C/CAG

CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

*Atherton • Belmont • Brisbane • Burlingame • Colma • Daly City • East Palo Alto • Foster City • Half Moon Bay • Hillsborough • Menlo Park
Millbrae • Pacifica • Portola Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside*

AGENDA

Congestion Management & Environmental Quality (CMEQ) Committee

Date: Monday, January 28, 2008 3:00 p.m. to 5:00 p.m.
Place: San Mateo City Hall
330 West 20th Avenue, San Mateo, California
Conference Room C (across from Council Chambers)

PLEASE CALL SANDY WONG (599-1409) IF YOU ARE UNABLE TO ATTEND.

- | | | | | |
|-----|---|-------------------------------------|--------------|-----------------------|
| 1. | Public Comment On Items Not On The Agenda | Presentations are limited to 3 mins | | 3:00 p.m.
10 mins. |
| 2. | Minutes of October 29, 2007 meeting. | Action
(O'Connell) | Pages 1-3 | 3:10 p.m.
5 mins. |
| 3. | Nomination/Election of Chair and Vice Chair. | Action
(O'Connell) | Pages 4 | 3:15 p.m.
10 mins. |
| 4. | Government Energy Baseline Incentive Program. | Information
(Wong) | Pages 5-20 | 3:25 p.m.
10 mins. |
| 5. | Recommendation on a list of projects for initial submittal to MTC for consideration in the Regional Transportation Plan (RTP) update. | Action
(Wong) | Pages 21-26 | 3:35 p.m.
10 mins |
| 6. | Update on the Traffic Incident Management – Alternative Routes Plan and San Mateo County Smart Corridors projects. | Information
(Hoang) | Pages 27-35 | 3:45 p.m.
15 mins |
| 7. | Review of shuttle ridership statistics for the first quarter of FY 2007/08. | Information
(Madalena) | Pages 36 | 4:00 p.m.
10 mins |
| 8. | Report on Partnerships for Water Reuse Workshop October 29, 2007. | Potential Action
(Pierce) | Pages 37-46 | 4:10 p.m.
20 mins |
| 9. | MTC “Bay Area On The Move” Summit PowerPoint. | Potential Action
(Lempert) | Presentation | 4:30 p.m.
20 mins |
| 10. | Member comments and announcements. | Information
(O'Connell) | | 4:50 p.m.
10 mins. |

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11. Adjournment and establishment of next meeting Action 5:00 p.m.
date (February 25, 2008). (O'Connell)

NOTE: **All items appearing on the agenda are subject to action by the Committee.
Actions recommended by staff are subject to change by the Committee.**

NOTE: ***Persons with disabilities who require auxiliary aids or services in attending and
participating in this meeting should contact Nancy Blair at 650 599-1406, five
working days prior to the meeting date.***

Other enclosures/Correspondence - None

**CITY/COUNTY ASSOCIATION OF GOVERNMENTS COMMITTEE ON CONGESTION
MANAGEMENT AND ENVIRONMENTAL QUALITY (CMEQ)**

**MINUTES
MEETING OF AUGUST 27, 2007**

At 3:01 p.m., the meeting was called to order by Chair Irene O'Connell in Conference Room C of San Mateo City Hall.

Members Attending: Jim Bigelow, Judith Christensen, William Dickenson, Linda Koelling, Linda Larson, Sue Lempert, Arthur Lloyd, Karyl Matsumoto, Naomi Patridge, Vice-Chair Sepi Richardson, Lennie Roberts, Onnolee Trapp, and Zoe Kersteen-Tucker.

Staff/Guests Attending: Richard Napier, Sandy Wong, John Hoang, (C/CAG Staff), Richard Cook and Erik Soriano (SamTrans), Pat Dixon (SMCTA CAC), and Pat Giorni.

1. Public comment on items not on the agenda.

None.

2. Minutes of August 27, 2007 meeting.

Motion: To approve the Minutes of the August 27, 2007 meeting. Bigelow/Christensen, approved, unanimous.

3. Recommend approval of the AB1545 Countywide Traffic Congestion Management Program – ITS Project List.

John Hoang presented this item by stating that as a result of a C/CAG call for projects, a total of 65 requests were received for signal controller upgrades and 20 for video detection system. The total amount of funds requested is \$1,406,110 while the total available is \$1,250,000. All requests received within the deadline were ranked based on the C/CAG approved scoring criteria. Based on scoring and ranking, 62 signal controller projects totaling \$744,150 and 16 video detection projects totaling \$499,960 were recommended for funding.

The question was asked as to whether the economy of scale factor was considered from a cross-jurisdictional standpoint for the signal controllers and video detection units. The answer was, unfortunately, no due to time constraint.

Motion: Recommend approval of the AB1546 Countywide Traffic Congestion Management Program ITS project list for funding. Bigelow/Christensen, Unanimous

4. Recommend approval of the 2008 State Transportation Improvement Program (STIP) for San Mateo County.

Sandy Wong presented the proposed 2008 San Mateo County State Transportation Improvement Program (STIP). The 2008 STIP is a 5-year program covering from fiscal year 2008/2009 through fiscal year 2012/2013. There is a total of \$26,874,000 available for programming in the last two years of the 5-year period. The proposed new projects as well as proposed changes to those projects that were previously programmed in the adopted 2006 STIP were based on recommendations from staff of C/CAG, SMCTA, and Caltrans. One of the new projects is Smart

Corridor. Sandy explained that the Smart Corridor is a generic term being used to describe a project such as the Traffic Incident Management project in the technical transportation industry. It provides arterial traffic management tools such as traffic signal controllers, cameras, message signs, and communication devices to manage local arterial traffic in coordination with adjacent freeway traffic.

The discussion quickly turned to the focus of Smart Corridor. Member Larson stated that Millbrae has many non-signalized intersections along the El Camino Real and that pedestrian crossing safety must be considered and addressed. Some CMEQ members suggested using a different name instead of "Smart Corridor" as it may be confused with "Smart Growth". However, John Hoang stated that the "Smart Corridor" project name was suggested by Caltrans since there are other similar projects in other counties that already have the brand name recognition. Member Lempert asked if the equipment installed as part of the incident management project will be used for other purpose besides incident management. John replied affirmatively.

Motion: Recommend approval the 2008 STIP for San Mateo County, Bigelow/Larson, Unanimous

5. Recommend approval of a call for projects for the fourth cycle of the Transit Oriented Development (TOD) Housing Incentive program.

Sandy Wong presented the recommendation for the 4th cycle Transit Oriented Development (TOD) Housing Incentive call for projects. C/CAG has completed the first three TOD cycles and a quick summary of this program was included. The proposed 4th cycle will follow the same requirements as those used in the 3rd cycle with one addition. That is, housing projects on a frontage parcel of the El Camino Real/Mission Street will be eligible. The recommendation of not providing bonus to affordable units as written in the staff report was recommended for removal.

Motion: Recommend approval of a call for projects for the fourth cycle of the Transit Oriented Development (TOD) Housing Incentive program as presented by staff with the removal of language regarding no bonus to affordable units, Richardson/Lempert, Unanimous.

6. Recommend approval of an amendment to the Kimley-Horn Incident Management – Alternate Route Plan contract in an amount of \$155,300 for the development of a Project Study Report (PSR) for a Smart Corridor project.

Issues about Smart Corridor was discussed in item 4 above. The request for \$155,300 to prepare a Project Study Report (PSR) is to get a project ready for funding in the State Transportation Improvement Program (STIP) as well as to compete for upcoming available funding from the Transportation Bond – Traffic Light Synchronization Program (TLSP). Member Roberts asked if the proposal will be integrated with traffic announcements such as those provided by KCBS radio. She also stated that proposed ITS and traffic incident management improvements will actually address some of the concerns raised during the Measure A reauthorization with regard to the lack of ITS improvements.

Chair O'Connell suggested that a presentation on Traffic Incident Management project be given at a future meeting to provide updates to CMEQ members.

Motion: Recommend approval of an amendment to the Kimley-Horn Incident Management – Alternate Route Plan contract in an amount of \$155,300 for the development of a Project Study Report (PSR) for a Smart Corridor project, Larson/Koelling, Unanimous

7. Response to comments on the Draft 2007 Congestion Management Program (CMP) and recommendation to adopt the Final 2007 CMP for San Mateo County.

John Hoang reported that the Draft 2007 CMP was released for public comments on September 6, 2007 for 30 days. The only comments received were from C/CAG committees and changes have been incorporated. It is recommended that the Final CMP be adopted by C/CAG and be forwarded to MTC for consistency check.

Member Larson congratulated the County and C/CAG on helping local jurisdictions in meeting the mandates on deficiency plans. However, the traffic monitoring results are indications that traffic congestions in the county are prevalent. In addition, she pointed out that the hyphens on page 3-2 of the CMP were in the wrong place.

Member Kersteen-Tucker stated that on page 6-6, updated information on TOD and El Camino Real is missing.

Motion: recommendation to adopt the Final 2007 Congestion Management Program (CMP) for San Mateo County, Bigelow/Dickenson, Unanimous.

8. Approval of 2008 CMEQ meeting calendar.

Motion: Approval of the 2008 CMEQ meeting calendar as presented with the modification to move the November meeting to the 17th and the December meeting to the 15th, Larson/Patridge, Unanimous.

9. Member comments and announcements.

Member Bigelow congratulated member Roberts on her effort to save the California clapper whale and salt marsh harvest mouse.

Richard Napier announced that AB613 was vetoed by the Governor. However, he will likely approve it with the revision to 4 years instead of 10 years. AB 468 (Abandon Vehicles) was passed.

Member Lempert suggested to show the MTC powerpoint that was presented at the Joint MTC ABAG "Bay Area On The Move" conference at the next CMEQ meeting as well as the eastern span of the San Francisco Bay Bridge "fast-forwarded" construction simulation.

Chair O'Connell stated that traditionally, CMEQ elects its chair and vice chair in June of each year. However, the 2007 election was inadvertently omitted. The committee directed staff to put this item on the December or January agenda.

10. Adjournment and establishment of next meeting date.

At 4:00 p.m., the meeting was adjourned.

C/CAG AGENDA REPORT

Date: January 28, 2008
To: Congestion Management and Environmental Quality Committee
From: Sandy Wong
Subject: NOMINATION/ELECTION OF CHAIR AND VICE CHAIR
(For further information or questions contact Sandy Wong at 599-1409)

RECOMMENDATION

That the CMEQ Committee elect a Chair and a Vice Chair to serve for the next year.

FISCAL IMPACT

None.

SOURCE OF FUNDS

Not applicable.

BACKGROUND/DISCUSSION

Each year the CMEQ Committee selects a chair and a Vice Chair to lead the Committee for the next year. Irene O'Connell currently serves as the Chair and Sepi Richardson serves as the Vice Chair. Both are eligible to continue in the respective capacity for another year if elected by the Committee.

ATTACHMENTS

None.

C/CAG AGENDA REPORT

Date: December 13, 2007
To: City/County Association of Governments Board of Directors
From: Richard Napier, C/CAG Executive Director
Subject: Review and approval of Resolution 07-61 to establish a Government Energy Baseline Incentive Program for a not to exceed of \$273,000.

(For further information or questions, contact Richard Napier at 650-599-1420)

RECOMMENDATION:

Review and approval of Resolution 07-61 to establish a Government Energy Baseline Incentive Program for a not to exceed of \$273,000 in accordance with the staff recommendation.

FISCAL IMPACT:

\$273,000.

SOURCE OF FUNDS:

Congestion Relief Program funds. These funds come from the Cities and the County.

BACKGROUND/DISCUSSION:

With the passage of AB 32 the issue of greenhouse gas emissions and climate change has become a priority for public policy. C/CAG through the Congestion Management and Environmental Quality Committee (CMEQ) created a Utilities and Sustainability Task Force (USTF) to establish an Energy Strategy. The Energy Strategy is in the final stages of development and a draft should be presented to C/CAG 1Q08. The cornerstone of the strategy is energy and water conservation. Using less energy will result in less greenhouse gas emissions that will benefit the climate. Toward that end Joint Venture Silicon Valley Network has worked with ICLEI Local Governments for Sustainability to establish a group cost for doing a government energy inventory that will help identify opportunities to save energy. The cost for the program is \$13,000 per city/ County. This is likely the most cost effective manner to get an energy baseline for the cities and the County.

GOVERNMENT ENERGY BASELINE INCENTIVE PROGRAM:

Given the importance of establishing an energy baseline for each city and the County it is recommended that C/CAG adopt an incentive program to facilitate getting all 21 energy baselines for the cities and County within the next 18 months. The definition of the program is as follows.

- 1- C/CAG will match on a cost reimbursement basis up to \$6,500 of the cost to do the Joint Venture Silicon Valley Network/ ICLEI government energy inventory (\$13,000).
- 2- Upon request on a case-by-case basis approved by the C/CAG Chair, the limit for cost reimbursement can be increase to cover the total \$13,000 cost.
- 3- The total cost committed to the program is not to exceed \$273,000.

The objective of the program is to get all the cities and the County energy inventory completed within the next 18 months. This will also help educate the respective staffs on the opportunities for conservation programs that help to reduce the climate change impact.

It is proposed that the funds come from the Congestion Relief Program that is funded by the cities and the County. This is adding a new one-time project to the Program. It will be funded by the carryover funds not spent in prior years. The 6/30/07 carryover was \$604,427. This will leave \$331,427 in carryover for the other projects. This will only be on a one-time basis of \$273,000 and may be spread over more than one year.

ATTACHMENTS:

Resolution 07-61
Joint Venture Silicon Valley Network letter dated 10/12/07

ALTERNATIVES:

- 1- Review and approval of Resolution 07-61 to establish a Government Energy Baseline Incentive Program for a not to exceed of \$273,000 in accordance with the staff recommendation.
- 2- Review and approval of Resolution 07-61 to establish a Government Energy Baseline Incentive Program for a not to exceed of \$273,000 in accordance with the staff recommendation with modifications.
- 3- No action.

RESOLUTION 07-61

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY TO ESTABLISH A GOVERNMENT ENERGY BASELINE INCENTIVE PROGRAM FOR A NOT TO EXCEED OF \$273,000

WHEREAS, the Board of Directors of the City/County Association of Governments (C/CAG) has representatives from all twenty cities and the County in San Mateo County; and,

WHEREAS, C/CAG created the Utility and Sustainability Task Force to develop an Energy Strategy; and,

WHEREAS, Energy and water conservation will be the cornerstone of the Energy Strategy; and,

WHEREAS, energy savings will reduce greenhouse gas emissions and climate change; and,

WHEREAS, Joint Venture Silicon Valley Network has negotiated a cost effective rate with ICLEI Local Governments for Sustainability; and,

WHEREAS, it is critical to do an energy baseline for all the cities and the County within the next 18 month,

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the City/County Association of Governments of San Mateo County that the Board will adopt a Government Energy Baseline Incentive Program. The objective of the Program is to facilitate the energy baseline for all the cities and the County within the next 18 month. The definition of the program is as follows.

- 1- C/CAG will match on a cost reimbursement basis up to \$6,500 of the cost to do the Joint Venture Silicon Valley Network/ ICLEI government energy inventory (\$13,000).
- 2- Upon request on a case-by-case basis approved by the C/CAG Chair, the limit for cost reimbursement can be increase to cover the total \$13,000 cost.
- 3- The total cost committed to the program is not to exceed \$273,000.

PASSED, APPROVED, AND ADOPTED THIS 13th DAY OF DECEMBER 2007.

Deborah C. Gordon, C/CAG Chair

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 Hon. Liz Kirk, Co-Chair
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 TGA Group
 Colleen Miller
 Santa Clara County Office of Education
 Linda Pittman
 Habitat Partnership for Women
 Daniel Yost
 Oracle, Hewlett-Packard & Sybase, LLP

12 October, 2007

Name
 Title
 Address
 City State Zip

Dear (Climate Protection Taskforce Member),

The first step in developing Climate Protection Action Plans is to inventory greenhouse gas (GHG) emissions. Thanks to a partnership of Joint Venture: Silicon Valley Network (JVSVN), the Bay Area Air Quality Management District (BAAQMD) and the International Council for Local Environmental Initiatives (ICLEI), many of the members of the Joint Venture Climate Protection Task Force participated in the first regional community-wide GHG inventory workshop in the Bay Area. But there is still the need for an agency specific GHG inventory before developing agency-specific Climate Protection Action Plans.

We are pleased to announce that at the last meeting of the Task Force, the members voted to accept a proposal from ICLEI and Sustainable Silicon Valley (SSV) to provide consulting services for conducting inventories of greenhouse gas emissions from city, county and special district operations.

In the proposal, ICLEI agrees to provide their services for a fee of \$13,000 per city/county/district if 20 or more agencies sign up for the program. This volume purchasing agreement allows ICLEI to achieve economies of scale and substantially reduce their normal fee of \$20,000 to \$25,000 per client. Sustainable Silicon Valley will provide additional services to help cities analyze the results of their inventory and develop their action plans.

To participate in this program, agencies that are not already members of ICLEI or Sustainable Silicon Valley will need to become members of those organizations. This will raise the total cost of the program somewhat. See Appendix B in the enclosed proposal document for the schedule of membership fees.

To qualify for this special program we need to sign up at least 20 agencies by **December 14, 2007**. If your organization is interested in participating,

please sign and return the attached form. We will follow up with an invoice as quickly as possible.

The terms of the agreement are summarized in an attachment to this letter.

We are very excited by the strong response from the members of the task force. Silicon Valley is again demonstrating the power of collaboration to address major challenges and leading the way for communities across the nation.

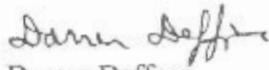
Yours sincerely,



Susan Loftus
Deputy City Manager, City of San Mateo



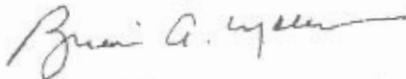
Larry Owens
Silicon Valley Power, City of Santa Clara



Darren Deffner
Pacific Gas & Electric Company



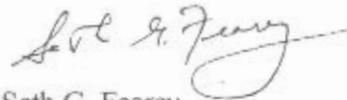
Bobby Ram
SunPower Corporation



Brian Moura
Assistant City Manager, City of San Carlos
Smart Valley Board Champion



Margaret Bruce
Environmental Services
City of San Jose



Seth G. Fearey
VP & COO
Joint Venture: Silicon Valley Network

Attachments:

- Summary of ICLEI/SSV Proposal
- Statement of Interest Form

Enclosure

- Silicon Valley Climate Protection Partnership Proposal; Government Operations Emissions Inventory Assistance

Summary of ICLEI/SSV GHG Emissions from Operations Inventory Proposal

October 10, 2007

The following are the highlights of the attached proposal. Please read the proposal in full before signing the attached Statement of Interest.

ICLEI Scope of Work

- Kickoff meeting for all participants to explain the program
- Data specification
- Data collection
- Data conditioning
- Data input and analysis
- Preparation of a draft report
- Provision of a backup of the source and output data
- Debrief meeting for all participants to present results, and provide training on the software and methodology

Data Sources (for 2005)

- facilities use of electricity and gas
- traffic signals and street lights use of electricity
- waste and wastewater operations
- vehicle fleet use of fuel
- solid waste
- existing landfills
- employee commute (optional)
- methane emissions from wastewater treatment and solids disposal

Sustainable Silicon Valley will provide

- monthly meetings and quarterly forums customized to meet local government needs
- access to technical and cost information for prioritizing GHG reduction projects

Project Schedule

Work can begin by the end of 2007 assuming twenty organizations provide Statements of Interest. Inventories will be completed on a rolling basis with the first reports being completed approximately three months after initiation.

Expectations of Each Participant

- identify two liaisons for ICLEI and SSV (one primary, the other as backup)
- become a member of ICLEI and SSV if not already
- provide staff support related to the collection of data, estimated at 20 to 40 hours
- management letter to staff indicating that the inventory is an important priority

Please note that there have been two clarifications to the proposal:

- ICLEI asks for each city/county/agency to provide two contacts. It is NOT necessary that one of them be an elected official.
- ICLEI is waiving their normal requirement that a city/county/agency's elected officials pass a motion approving membership in ICLEI and making a commitment to reducing greenhouse gas emissions.

STATEMENT OF INTEREST

_____ (agency) agrees to participate in the ICLEI/SSV program to inventory greenhouse gas emissions from our operations.

We understand that we will be invoiced by Joint Venture: Silicon Valley Network for \$13,000.

Joint Venture will transfer the funds to ICLEI as they arrive, once Joint Venture has received Statements of Interest from at least twenty organizations.

We understand that if we are not already a member of ICLEI or Sustainable Silicon Valley that it is our responsibility to become a member by contacting those organizations directly.

We are already a member of,

- ICLEI
 Sustainable Silicon Valley
 Neither

Signature, Date

Printed Name, Title

Mailing Address

Phone Number, E-Mail Address

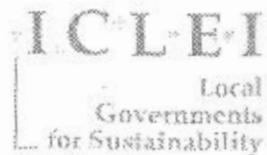
Contact information for second project liaison, if available:

Printed Name, Title

Phone Number, E-Mail

Please return signed copy by fax or mail to:

Joint Venture: Silicon Valley Network
Attn: Lisa Bruner
84 West Santa Clara St, Suite 440, San José, CA 95113
Phone: 408-938-1508 Fax 408-271-7214



Silicon Valley Climate Protection Partnership Proposal Government Operations Emissions Inventory Assistance

In response to interest expressed by Silicon Valley area local governments over the past several months, ICLEI – Local Governments for Sustainability (ICLEI) and Sustainable Silicon Valley (SSV) hereby propose to provide assistance toward the development of greenhouse gas emissions inventories of government operations for Silicon Valley local governments.

Developing a government operations emissions inventory requires data gathering, analysis and report development. Some government operations data needs may be filled by data currently being pre-gathered by ICLEI and the Bay Area Air Quality Management District. Other data will require internal coordination with various departments (e.g., fleet fuel consumption).

By developing government operations emissions inventories for a large number of local governments simultaneously using a shared data analysis year and emissions factor set, it is possible for ICLEI and SSV to achieve an economy of scale and reduce associated costs significantly. ICLEI and SSV estimate a total project cost of approximately \$260,000 to develop 20 local government operations emissions inventories, plus individual membership/partnership fees associated with ICLEI and SSV from each participating local government.

ICLEI and SSV are open to executing one contract with the group of participating local governments organized by the Joint Venture Silicon Valley Network (JVSVN), or a series of contracts with individual participants executed in coordinated fashion. The partners look to JVSVN to coordinate initial participation of the local governments in order to maximize service delivery efficiency and reduce costs.

ICLEI and SSV encourage local governments with the capacity to perform some or all of this work in-house to do so. Local governments who desire more individual services, such as analyzing additional years of data, quantifying the emissions benefits of implemented actions, or developing emissions reduction plans, for example, would each have the option of doing so under separate cover.

Many Silicon Valley area local governments have recently made progress on community-scale emissions inventories via training provided by the Bay Area Air Quality Management District and ICLEI, through the partnerships of some reporting emissions results to Sustainable Silicon Valley, and/or through separate activities. For each participating local government, completing a government operations emissions inventory, as well, would represent achieving the first Milestone of ICLEI's 5 Milestone methodology – a simple, standardized way to effectively reduce, measure, and verify greenhouse gas emissions. ICLEI has developed software tools that help cities comply with the Cities for Climate Protection (CCP) methodology. The Five Milestones are:

- Milestone 1 – Conduct a baseline emissions inventory and forecast
- Milestone 2 – Adopt an emissions reduction target
- Milestone 3 – Develop a local Climate Action Plan
- Milestone 4 – Implement policies and measures
- Milestone 5 – Monitor and verify results

This proposal by ICLEI and SSV offers to help participating local governments begin the Milestone process, working towards the regional SSV CO₂ emissions reduction target while building capacity and momentum toward additional climate protection activities. This systematic process will enable local governments to achieve their greenhouse gas emission reduction targets in the most cost-effective manner possible and achieve the greatest return on their investment.

Project Objective

Generate a government operations emissions analysis report for each local government for a common analysis year (2005).

Scope of Work

Coordinated with all Participating Local Governments

- Kickoff meeting to explain project concept, data requirements, deliverables, responsibilities
- Debrief meeting to present results, train all participants on methodology, software functionality

Per Participating Local Government

- Data specification
- Data collection (including employee commute/travel survey)
- Data conditioning
- Data input and analysis using Clean Air and Climate Protection (CACP) software
- Analysis of data results
- Report development
- Provision of backup source data and CACP software data
- ICLEI and SSV membership services (see Appendix A)

Not Included in This Proposal

- Pre-certification or full certification of local government emissions data with California Climate Action Registry (third party certification would be required)
- Project recruitment, update, or results presentations at city council meetings or similar
- More than one data analysis year
- Data analysis for a year other than 2005
- Community-scale emissions analysis
- Analysis of minor (de minimis) emissions sources where data gathering is prohibitive

Local Government Operations Emissions Sources

Data needs and expected sources for this project are presented in the table below. In cases where primary data sources are incomplete, secondary sources may be used to augment or completely substitute for primary data sources. Potential estimation methods are indicated for cases where neither primary nor secondary sources are readily available. In addition to the essential data included in the table below, a variety of indicator data will also be collected for benchmarking purposes where local government staff are able to provide it. This will include square footage of facilities, number of employees in each building, hours of operation, amount of water or wastewater processed, etc., enabling additional levels of data analysis and future comparability.

Table 1. Local Government Operations Emissions Sources

Emissions Sector	Data Needed	Sources of Data		
		Primary	Secondary	Options for Filling Gaps
Facilities All facilities owned or operated by the local government	Electricity use (kWh and cost)	Utility provider records	Government maintained payment records	Usage may be estimated based on known expenditures or from size of facility compared to other similar facilities.
	Natural gas and other fuel used (therms/gallons and cost)	Utility provider records	Government maintained payment records	Usage may be estimated based on known expenditures or from size of facility compared to other similar facilities.
Traffic Signals and Streetlights	Electricity use (kWh and cost)	Utility provider records	Government maintained payment records	Usage may be estimated based on known expenditures or from know wattage of bulbs and expected period of use
Water and Wastewater Operations Treatment, collection and distribution (where applicable)	Electricity use (kWh and cost)	Utility provider records	Government maintained payment records	Usage may be estimated based on known expenditures or from size of facility compared to other similar facilities.
	Natural gas and other fuel used (therms/gallons and cost)	Utility provider records	Government maintained payment records	Usage may be estimated based on known expenditures or from size of facility compared to other similar facilities.
Vehicle Fleet Government owned and operated vehicles	Fuel used (gallons by type and cost)	Vehicle fueling records	Vehicle odometer records	Usage estimated based on known expenditures and estimated fuel efficiency of vehicles.
Solid Waste Waste generated as a result of government operations	Solid waste hauled (tons and cost)	Collection records	None	Estimates of per-capita employee waste generation by employee type (From California Waste Management Board)
	Makeup of waste stream (percentage of waste by type of waste)	Existing analysis of local waste stream	Existing analysis of waste streams in nearby jurisdictions	California averages (From California Waste Management Board)
Existing Landfills Methane emissions from existing landfills operated by the local government (if applicable)	Amount of waste in place	Operations records	n/a	Engineer's estimates of capacity
	Amount of waste added each year	Operations forecasts	n/a	Historical trends
	Composition of waste	Existing analysis of local waste stream	Existing analysis of waste streams in nearby jurisdictions	National averages (From Tellus Institute)
	Amount of methane recovery	Metered recovery	Engineer's estimates	National average recovery factors (from EPA)
Employee commute (optional)	Number of miles traveled by employees in daily commute	Existing employee survey or study	Conduct employee survey	U.S. Census Journey-to-work study
	Distribution of transportation modes	Existing employee survey or study	Conduct employee survey	U.S. Census Journey-to-work study
Methane emissions from wastewater treatment and solids disposal (optional; where applicable)	Amount of methane escaping from sewage waste treatment and disposal process	Metered recovery and flaring	Modeled output based on quantity of waste treated and disposal methods (from IPCC)	Engineer's estimates

Methane emissions from wastewater treatment and solids disposal (optional; where applicable)	Amount of methane escaping from sewage waste treatment and disposal process	Metered recovery and flaring	Modeled output based on quantity of waste treated and disposal methods (from IPCC)	Engineer's estimates
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Project Costs

- Becoming a partner of SSV and member of ICLEI separately is required of each participating local government. Annual SSV partnership dues for any pledging government agency are currently \$1,000 per year per local government. ICLEI annual membership dues are based on population and start at \$600 per year for communities of up to 50,000 people (see Appendix B for further information).
- Average additional project-related costs of \$13,000 per local government, pending discussion of contracting method.

This cost proposal is contingent on the following criteria:

- Minimum of 20 local governments participating to initiate the contract.
- Shared data analysis year (2005 is recommended) for all participating local governments.
- Project anticipated to begin late 2007, with the bulk of project labor to occur in 2008.
- Written agreement before project execution by all data providers (e.g., electric and gas utilities, regional transportation planning agencies, waste management boards, local governments) to the project partners facilitated by ICLEI, SSV and JVSVN to make all needed consumption data and coefficients available in a timely manner.
- JVSVN responsible for all recruitment of local governments into this project.
- JVSVN responsible for non-labor costs associated with the two included in-person project meetings (e.g., space, refreshments).
- Each participating local government must become a member of both ICLEI and SSV at standard membership rates.
- Each participating local government must assign two representatives to be liaisons to ICLEI and SSV, one staff and one elected leader.
- Each participating local government must provide adequate staff support related to the collection of data (estimated at average of 20-40 hours per local government).
- The mayor or other high level official must distribute a letter indicating to appropriate department staff that assistance in this project is an important priority. (ICLEI and SSV will provide a template for this letter.)

Project Deliverables

Shared Deliverables for all Participating Local Governments

- Project kickoff meeting
- Project debrief meeting, including training on government operations emissions inventory development¹
- Monthly Meetings and Quarterly Forums customized to meet local government needs
- Access to relevant technical and cost information through SSV, useful for prioritizing specific CO₂ reduction projects on a cost-effective basis

Deliverables Per Local Government

- Government operations emissions inventory report
- CACP software data backup
- Data analysis input files
- Description of emissions analysis methodology
- Standard SSV member benefits and standard ICLEI membership benefits (see Appendix A)
- Public recognition for participation by each local government in this project via the SSV Annual Report, SSV Annual Report Release Event, and related media coverage

¹ This training may be augmented by the Bay Area Air Quality Management District

Optional Deliverable Not Included in This Cost Proposal

- Second government operations data analysis year

Project Schedule

The project start date will be negotiated by the parties upon confirmation of participation by each local government, most likely to occur in late 2007. ICLEI and SSV, in coordination with JVSVN, will solicit input from all project participants to best prioritize the tasks associated with completing all emissions inventories. Emissions inventories for each participating local government will be completed on a rolling basis, with the first inventories being completed within approximately three months of project execution and the process continuing from there. Project completion timeline will be significantly influenced by the provision of data by the local governments and external data providers.

Project Team

The project team will consist of staff from ICLEI, under the management of Director of Programs Garrett Fitzgerald, and SSV, under the management of Executive Director Rick Row. Details on how the work will be divided between the two organizations will be provided pending further discussion of the content of this proposal. Below is additional information on these two organizations.

ICLEI

Since 1993, ICLEI U.S.A., a non-profit 501(c) 3 corporation, has been working with local governments to improve global environmental conditions through cumulative local leadership and action. Through performance-based campaigns and initiatives, ICLEI's U.S. office provides local governments with technical expertise and policy assistance as well as access to a valuable national peer network. In the United States, ICLEI is a growing association of local governments (over 40% growth in 2006) dedicated to climate protection and sustainable development with a strong national presence. ICLEI works with these local governments to push the boundaries of traditional leadership in the US and achieve stronger, accelerated movement toward sustainability goals through measured performance and tangible results.

In addition to providing base levels of technical assistance to all of its local government members for over 14 years, ICLEI has also provided enhanced technical assistance toward the completion of inventories and action plans for a significant number of local governments in the style of this proposed project.

ICLEI has recently completed a project with Alameda County, California, working with 11 municipal governments as well as the County government to develop greenhouse gas emissions inventories for each participant, as well as a local climate action plan template. ICLEI worked with each municipality to identify emissions reduction strategies that were appropriate for the region and facilitated three regional workshops to enhance the regional focus of the initiative. In addition, ICLEI assisted in the development of outreach and public relations materials to increase community awareness of the climate protection initiatives.

ICLEI is currently engaged in several similar projects, providing enhanced technical services for Menlo Park, CA; Haverford, PA; and Bellevue, WA. In each of these cases ICLEI staff is working closely with local staff to develop an inventory of greenhouse gas emissions that meets the needs of the local government.

Sustainable Silicon Valley

Sustainable Silicon Valley (SSV), begun in 2001 and an independent non-profit 501(c)3 corporation since 2004, is a collaboration of businesses, governments, and non-governmental organizations that are

identifying and addressing environmental and resource pressures in the Valley. Its mission is to work with the Silicon Valley community to create a more sustainable future using an environmental management system (EMS), which provides a systematic approach to achieve desired environmental targets, such as CO₂ emissions reductions.

As its first initiative, SSV engages prominent Valley organizations to work towards a goal of reducing regional carbon dioxide (CO₂) emissions 20% below 1990 levels by 2010. SSV facilitates strategies to reduce CO₂ emissions through increased energy and fuel efficiency and through the use of renewable sources of energy. SSV partners pledge to help meet SSV's regional target, set their own individual targets, report their progress, share information and mentor one another in quarterly educational forums and monthly meetings. SSV recognizes results in its Annual CO₂ Report and at its Annual Report Release Event.

SSV municipal partners include the Cities of Morgan Hill, Palo Alto, San Mateo, San Jose, Santa Clara, and Sunnyvale, the Towns of Los Altos Hills and Portola Valley, and San Mateo and Santa Clara Counties. SSV works with these municipalities to mentor and educate new partners, providing tools and resources to support these organizations. Quarterly educational forums have provided proven CO₂ reduction strategies from experts since 2004.

Organizational Membership/Partnership Benefits

ICLEI – Local Governments for Sustainability

- Personalized orientation to the CCP Campaign, including an overview of the process for establishing an emissions baseline and developing a local climate action plan;
- Hands-on training in the use of ICLEI's Clean Air and Climate Protection Software;
- Basic ongoing technical support (estimated at 2 hours/month) in the use of the software and protocols for emissions quantification;
- Access to case studies, local government network participants, sample resolutions, and policy documents;
- Opportunities to participate in ICLEI's series of virtual training sessions on best practices and new tools in sustainability planning and climate protection;
- Notice of funding opportunities and assistance in matching with appropriate sources of funds;
- Membership in the network of worldwide local government representatives who are tackling similar environmental and management issues and who meet at workshops, seminars, and conferences around the world, and through electronic conferences on the website; and,
- Invitation and travel to national and international events, supported by ICLEI as funding is available.
- Media support as requested to foster promotion of local climate action efforts.

Sustainable Silicon Valley

- Quarterly Educational Forums on topics of concern to organizations working to reduce energy use and CO₂ emissions.
- Access to Energy Efficiency Incentive Funds through an agreement with PG&E that makes energy efficiency incentive funds available to qualifying SSV Partners and Silicon Valley Leadership Group (SVLG) members.
- The ongoing exchange of Energy and CO₂ Best Practices, at monthly meetings and through direct contacts within Sustainable Silicon Valley
- Public recognition, as bestowed this past year on SSV and SSV Partners by the U.S. Environmental Protection Agency, and by the California Climate Action Team in its report to the governor.
- Inclusion in the annual CO₂ Report, which highlights Partner achievements in the context of Silicon Valley trends.
- Media attention has included front page Business section coverage in the San Jose Mercury News, KGO/ABC7 television evening news and other programming, and interviews on various radio stations.
- Nomination by SSV for honors and recognition.
- Affiliation with other prominent Silicon Valley organizations in an internationally recognized, regional effort to address the environmental concerns of your organization and its community.

For further information about ICLEI and Sustainable Silicon Valley, consult the ICLEI web site at <http://www.iclei.org/usa>, and the SSV web site at <http://www.sustainablevalley.org>.

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Nomination by SSV for honors and recognition.

- Affiliation with other prominent Silicon Valley organizations in an internationally recognized, regional effort to address the environmental concerns of your organization and its community.

For further information about ICLEI and Sustainable Silicon Valley, consult the ICLEI web site at <http://www.iclei.org/usa>, and the SSV web site at <http://www.sustainablevalley.org>.

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Appendix B.

Organizational Membership/Partnership Dues

ICLEI – Local Governments for Sustainability

Community Population	Annual Dues
1 to 50,000	\$600
50,001 to 100,000	\$1,200
100,001 to 200,000	\$1,750
200,001 to 300,000	\$2,250
300,001 to 500,000	\$2,750
500,001 to 750,000	\$3,500
750,001 to 1,000,000	\$4,500
1,000,001 to 2,000,000	\$5,750
2,000,001 to 4,000,000	\$7,000
Over 4,000,001	\$8,000

Sustainable Silicon Valley

Annual SSV partnership dues for any pledging government agency are currently \$1,000 per year per local government.

C/CAG AGENDA REPORT

Date: January 28, 2008
To: CMEQ
From: CMP Technical Advisory Committee
Subject: Recommendation on list of projects for initial submittal to the Metropolitan Transportation Commission (MTC) for consideration in the Regional Transportation Plan (RTP) update (*Transportation 2035*)

(For further information contact Sandy Wong at 599-1409)

RECOMMENDATION

That the TAC recommend approval of the list of projects for initial submittal to the Metropolitan Transportation Commission (MTC) for consideration in the Regional Transportation Plan (RTP) update (*Transportation 2035*).

FISCAL IMPACT

None.

SOURCE OF FUNDS

NA

BACKGROUND/DISCUSSION

The Metropolitan Transportation Commission (MTC) has initiated the update of its long-range Regional Transportation Plan (RTP), the *Transportation 2035*, to be adopted in February 2009. The RTP will detail how the San Francisco Bay Area's transportation system will be maintained, improved and expanded over the next 25 years. The RTP is updated every four (4) years and typically with no mid term amendment. MTC issued a "call for projects" on December 26, 2007 and requested that project sponsors to submit project through their respective Congestion Management Agencies (CMAs) for each county.

In anticipation of the RTP update, at the June 14, 2007 C/CAG meeting, the Board approved staff to work with local jurisdictions and transportation agencies to update the list of projects. A letter was sent on August 23, 2007 to all project sponsors in San Mateo County requesting for updates, using the list of projects from the adopted 2005 RTP. The attached draft list included changes provided by project sponsors.

This is an iterative process as MTC will conduct performance evaluation on selected projects in April 2008 and then provide feedback on how those projects compare in terms of meeting the regional goals of clean air, safety, reliability, access, livable communities, etc. By June 2008, a financially constrained list of projects will be developed.

ATTACHMENTS

1. Draft San Mateo County RTP projects (not include multi-county projects).

San Mateo County Regional Transportation Plan (RTP) Projects
 (Costs are shown in \$ millions)
 For January 28, 2008 CMEQ Discussion

#	RTP ID	Sponsor	Project Title	Total Cost (in 2005 RTP)	Updated Total Cost ¹ (in 2007 \$)	Project Notes
114	22223	San Mateo	US 101/Peninsula Avenue southbound ramps-	\$32.00		(City does not support the project)
124	21893	SMCTA	Route 92 between Half Moon Bay city limits and Pilarcitos Creek alignment and shoulder improvements	\$30.00	\$40.00	
129	22751	HMB	Route 1 operational and safety improvements in Half Moon Bay area	\$30.00	\$36.00	2004 Measure A sales tax project
201	94643	HMB	Widen Route 92 between Route 1 and Half Moon Bay city limits (under construction)	\$13.90	\$20.00	Project under construction schedule to be completed summer 2008
203	21605	SSF	US 101/Oyster Point Boulevard interchange improvements (Phases 2 and 3)	\$40.00	\$40.00	Project complete
209	21609	San Bruno	I-280/I-380 local access improvements from Sneath Lane and San Bruno Avenue to I-380	\$13.50	\$20.00	
210	21892	RWC	Widen Route 84 from 4 lanes to 6 lanes from El Camino Real to Broadway	\$11.00	\$19.95	
215	22271	SMCTA	Widen Skyline Boulevard (Route 35) to 4-lane roadway from I-280 to Sneath Lane	\$40.00	\$47.00	2004 Measure A Sales Tax project
7	21876	BART	BART (San Mateo County share) - transit operating and capital improvement program (including replacement, rehabilitation and minor enhancements, equipment, fixed facilities and other capital assets; does not include expansion except BART to SFO extension)	\$1,283.80	TBD	
120	22424	BART	BART Advanced Automatic Train Control (AATC) Phase V - Daly City to Millbrae/SFO	\$53.00	TBD	
	22534	BART	BART (San Mateo County share) operating and capital program shortfall	\$100.30	TBD	
121	22756	Brisbane	US 101/Candlestick interchange reconstruction	\$47.70	\$60.00	PSR initiated with Caltrans 5/30/07.
126	22229	Brisbane	US 101/Sierra Point Parkway interchange replacement and Lagoon Way.	\$14.00	\$39.00	Expect 25% of the project to be funded through developer fees. 2004 Measure A Sales Tax project.
212	22227	Brisbane	Extend Geneva Avenue from Bayshore Boulevard to US 101/Harney ramps from 4 lanes to 6 lanes (includes grade separation with Caltrain tracks and Tunnel Avenue)	\$64.80	\$78.00	Expect 50% of the project to be funded through developer fees PSR initiated with Caltrans 5/30/07. Although Geneva Avenue will be a local facility when completed, Caltrans acknowledged that the project is intimately associated with Candlestick Interchange and on 8/30/07 approved the concept of a combined PSR for 22756 and 22227.

Footnotes:

1. Total \$ = Support \$ + Capital \$.

San Mateo County Regional Transportation Plan (RTP) Projects
 (Costs are shown in \$ millions)
 For January 28, 2008 CMEQ Discussion

#	RTP ID	Sponsor	Project Title	Total Cost (in 2005 RTP)	Updated Total Cost ¹ (in 2007 \$)	Project Notes
243	22228	Brisbane	Extend Lagoon Way to connect to US-101, Bayshore-Boulevard and Guadalupe Canyon Parkway	\$46.60	NA	Combined w/ ID22229 (Sierra Pt Pkwy).
221	22226	Brisbane	Infermodal transit improvements at Caltrain Bayshore station, includes cross platform transfers with 3rd Street LRT and improved bus connections	\$36.80	TBD	
105	21602	Burlingame	US 101/Broadway interchange reconstruction	\$56.00	\$51.00	
112	21624	C/CAG	Transit-Oriented Development Incentives Program	\$30.00	\$30.00	
119	22274	C/CAG	Intelligent Transportation System (ITS) improvements in San Mateo County (Smart Corridor)	\$20.00	\$20.00	2004 Measure A sales tax project
218	21612	C/CAG	Improvement of Dumbarton Bridge access to US 101 (incl flyover at Willow & Univ)	\$85.00	\$93.70	
207	22268	C/CAG & SMCTA	Countywide shuttle service programs	\$38.00	\$60.00	2004 Measure A sales tax project (4% of Meas. A)
5	94664	CalTrain	Caltrain (San Mateo County share) transit operating and capital improvement program (including replacement, rehabilitation and system enhancements for rolling stock, equipment, fixed facilities and other capital assets). Station improvements (e.g., platforms) are included.	\$1,076.70	TBD	
111	21623	CalTrain	Caltrain local station improvements in San Mateo County	\$37.86	TBD	1988 and 2004 Measure A sales tax project
113	21626	CalTrain	Caltrain grade separation program (San Mateo County)	\$190.00	TBD	1988 and 2004 Measure A sales tax project
125	22224	CalTrain	Caltrain and California High Speed Rail grade separations and station in Atherton	\$66.10	TBD	
214	22267	CalTrain	Union Pacific Railroad right-of-way acquisition for transit, bicycle and pedestrian use	\$8.00	TBD	
	21617	CalTrain	Caltrain Express service between San Francisco and San Jose; includes passing tracks and rolling stock (Phase 1)	\$128.10	TBD	2000 Traffic Congestion Relief Program (TCRP) project. Resolution 3434 Regional Transit Expansion Program (Baby Bullet?)
	22486	CalTrain	Caltrain (San Mateo County share) operating and capital program shortfall	\$178.00	TBD	
	22720	CalTrain	Caltrain grade separation program (San Mateo County)	\$107.00	TBD	
	22741	CalTrain	Caltrain express tracks (Phase 2) (San Mateo County share)	\$198.67	TBD	Resolution 3434 Regional Transit Expansion Program
	22900	CalTrain	Caltrain local station capital improvements	\$29.15	TBD	

Footnotes:

1. Total \$ = Support \$ + Capital \$.

San Mateo County Regional Transportation Plan (RTP) Projects
 (Costs are shown in \$ millions)
 For January 28, 2008 CMEQ Discussion

#	RTP ID	Sponsor	Project Title	Total Cost (in 2005 RTP)	Updated Total Cost' (in 2007 \$)	Project Notes
116	22262	Caltrans	US 101 and Route 92 ramp metering, Traffic Operations System (TOS) and fiber communications project	\$12.00	TBD	
117	22264	Caltrans	I-280 North and I-380 ramp metering, Traffic Operations System (TOS), fiber communications project	\$2.00	TBD	
118	22265	Caltrans	I-280 South and Route 92 ramp metering, Traffic Operations System (TOS) and fiber communications project	\$2.00	TBD	
	22735	Caltrans	I-280 North and I-380 ramp metering/Traffic Operating System (TOS)/fiber communications project	\$7.35	TBD	
	22736	Caltrans	I-280 South and Route 92 ramp metering/Traffic Operating System (TOS)/fiber communications project	\$4.10	TBD	
	22901	Caltrans	US 101 North and Route 92 ramp metering/Traffic Operations System (TOS)/fiber communications project	\$7.60	TBD	
208	22282	Caltrans /SMCTA	US 101 operational improvements near Route 92	\$10.00	\$40.00	2004 Measure A sales tax project
110	21615	Daly City/SMCTA	I-280/Route 1 interchange safety improvements	\$54.00	\$84.00	1988 and 2004 Measure A sales tax project
127	22231	Daly City	Widen north side of John Daly Boulevard/I-280 overcrossing for additional westbound traffic lane and dedicated right-turn lane for southbound I-280 off-ramp	\$9.00	\$13.30	2004 Measure A sales tax project
128	22232	Daly City	Construct streetscape improvements on Mission Street from San Pedro Road to John Daly Boulevard	\$13.00	\$13.00	Partial funds from CMAQ, HIP, TLC, TOD
115	22230	Daly City /SMCTA	I-280 auxiliary lanes from I-380 to Hickey Boulevard	\$100.00	\$125.00	2004 Measure A sales tax project
108	21607	East Palo Alto	US 101/University Avenue interchange reconstruction	\$4.90		
1	94662	Local Program	Local streets and roads pavement and non-pavement maintenance	\$1,354.60	TBD	
3	22408	Local Program	Non-Metropolitan Transportation Systems (MTS) streets and roads pavement and non-pavement rehabilitation shortfall	\$178.00	TBD	
9	21867	Local Program	Local bridge maintenance	\$31.30	TBD	
107	21606	Menlo Park /SMCTA	US 101/ Willow Road interchange reconstruction	\$49.50	\$49.50	\$3M Measure A
10	22261	Pacifica	Route 1/San Pedro Creek Bridge replacement project (Initial Phase)	\$6.20	\$8.00	2004 Measure A sales tax project. \$2.5M Fed Earmark.
206	22239	Pacifica	Manor Drive/Route 1 overcrossing widening and improvement project	\$12.00	\$14.00	2004 Measure A sales tax project.
106	21603	Redwood City	US 101/Woodside Road interchange improvements	\$50.00	\$70.27	

Footnotes:

1. Total \$ = Support \$ + Capital \$.

Footnotes:

1. Total \$ = Support \$ + Capital \$.

San Mateo County Regional Transportation Plan (RTP) Projects
 (Costs are shown in \$ millions)
 For January 28, 2008 CMEQ Discussion

#	RTP ID	Sponsor	Project Title	Total Cost (in 2005 RTP)	Updated Total Cost ¹ (in 2007 \$)	Project Notes
6	94666	SamTrans	SamTrans - transit operating and capital improvement program (including replacement, rehabilitation and minor enhancements for rolling stock, equipment, fixed facilities and other capital assets; does not include system expansion)	\$3,021.60	TBD	
8	21630	SamTrans	Continuation of SamTrans express service	\$3.00		Regional Measure 2 Toll Bridge Program
11	94667	SamTrans	SamTrans Americans With Disabilities Act (ADA) services	\$60.00		2004 Measure A sales tax project
	22980	SamTrans	SamTrans operating and capital replacement program shortfall	\$60.00	TBD	
New		San Carlos	US 101/Holly Street interchange modification (eliminate NB off loop to WB Holly, widen EB Holly to NB 101 loop to 2 lanes)		\$3.00	Locally funded
205	22236	San Mateo	Study of Hillsdale Transit Center relocation	\$3.00		
219	21613	San Mateo	Route 92 improvements from San Mateo Bridge to I-280, includes uphill passing lane from US 101 to I-280	\$100.00	\$82.00	
222	22732	San Mateo	Hillsdale Transit Center relocation	\$34.00		
New		San Mateo	Hillsdale/US 101 Bicycle/Pedestrian Bridge		\$9.00	2004 Measure A sales tax project
New		San Mateo	Route 92/EI Camino Real ramp improvements		\$2.60	Federal Demo funds.
102	94644	SMCTA	Route 92 westbound slow vehicle lane between Route 35 and I-280	\$58.00	\$82.00	\$9.3M budgeted Measure A.
103	98176	SMCTA	US 101 auxiliary lanes from 3rd Avenue to Millbrae and US 101/Peninsula Avenue interchange reconstruction (under construction)	\$81.70	\$156.00	Under construction scheduled to be completed in 2010.
109	21608	SMCTA	US 101 northbound and southbound auxiliary lanes from Marsh Road to Embarcadero	\$91.20	\$111.39	CMIA project. \$9M budgeted in Measure A.
122	21604	SMCTA	US 101 auxiliary lanes from Sierra Point to San Francisco County line	\$6.00	\$6.00	
123	21610	SMCTA	US 101 auxiliary lanes from San Bruno Avenue to Grand Avenue	\$26.30	\$46.00	
202	98204	SMCTA	Construct Route 1 northbound and southbound lanes from Fassler Avenue to Westport Drive (Calera Pkwy) in Pacifica	\$15.50	\$38.60	
217	22615	SMCTA	Dumbarton Rail Corridor and station improvements	\$30.00	\$30.00	2004 Measure A sales tax project

Footnotes:

1. Total \$ = Support \$ + Capital \$.

San Mateo County Regional Transportation Plan (RTP) Projects
 (Costs are shown in \$ millions)
 For January 28, 2008 CMEQ Discussion

#	RTP ID	Sponsor	Project Title	Total Cost (in 2005 RTP)	Updated Total Cost ¹ (in 2007 \$)	Project Notes
	21618	SMCTA	Dumbarton rail corridor (Phase 1)	\$300.00	\$300.00	Resolution 3434 Regional Transit Expansion Program Regional Measure 2 Toll Bridge Program; assumes \$39 million in Intercity Rail (TIP); includes \$14.3 million of Alameda County's Track 1 funds. See project #22719 for Phase 2.
	22719	SMCTA	Dumbarton rail corridor (Phase 2)	\$15.60		
216	22279	SSF	US 101/Produce Avenue interchange project	\$77.30	\$101.00	2004 Measure A sales tax project
204	22125	WTA	Ferry service from South San Francisco to San Francisco	\$30.00		Resolution 3434 Regional Transit Expansion Program Regional Measure 2 Toll Bridge Program
211	22120	WTA	Ferry service from Redwood City to San Francisco to Alameda (capital reserve only; full project not included in Financially Constrained Element)	\$23.00		Resolution 3434 Regional Transit Expansion Program No operating funds identified
220	22726	WTA	South San Francisco to Oakland ferry service	\$5.00		Resolution 3434 Regional Transit Expansion Program
2	94093		Metropolitan Transportation System (MTS) streets and roads pavement and non-pavement rehabilitation shortfall	\$29.00		
4	94666	Caltrans	Devil's Slide bypass (under construction)	\$280.00	\$280.00	
	New		Bayfront Expwy Extension from Marsh to Woodside Rd.		\$106.00	
	New	Foster City	Widening of Pilgrim and Trident Drive		\$0.80	
	New	Redwood City	Bloomquist Street Extension			
401	94100		US 101 auxiliary lanes from Marsh Road to Route 92 (Completed)	\$59.00		1998 Measure A sales tax project
404	21349		US 101/Ralston Avenue interchange improvement (completed)	\$14.40		
				\$10,407.92	\$2,426.11	

Footnotes:

1. Total \$ = Support \$ + Capital \$.

C/CAG AGENDA REPORT

Date: January 28, 2008
To: Congestion Management and Environmental Quality (CMEQ) Committee
From: Richard Napier
Subject: Update on the Traffic Incident Management – Alternative Route Plan and San Mateo County Smart Corridors projects
(For further information contact John Hoang at 363-4105)

RECOMMENDATION

That the CMEQ Committee receives an update on the Traffic Incident Management – Alternative Route Plan and San Mateo County Smart Corridors projects

FISCAL IMPACT

Discussion of the projects will have no impacts on the C/CAG budget.

SOURCE OF FUNDS

N/A

BACKGROUND/DISCUSSION

Staff will provide progress updates on the following two projects:

- The Incident Management – Alternative Route Plan project addresses effects of non-recurring traffic congestion caused by major freeway incidents. The current on-going development of the Plan involves establishing pre-planned alternate detour routes, facilitating interagency coordination and communication, and developing traffic control strategies to minimize the congestion and improve safety on local streets.
- The San Mateo County Smart Corridors project will implement traffic incident management strategies by deploying Intelligent Transportation System (ITS) elements along state routes and local streets to proactively manage traffic congestion and improve mobility. C/CAG plans to submit this project for the upcoming Traffic Light Synchronization Program (TLSP), which is a funding opportunity intended to fund traffic light synchronization projects or other technology-based improvements to improve safety, operations and the effective capacity of local streets and roads.

ATTACHMENT

- Incident Management – Alternate Route Plan Project Update
- San Mateo County Smart Corridors – Project Fact Sheet

Incident Management – Alternate Route Plan Project Update

CMEQ Committee

January 28, 2008

Project Background

The development and implementation of the Incident Management – Alternate Route Plan was one of many recommendations resulting from the San Mateo County Intelligent Transportation System (ITS) Strategic Plan.

Purpose

The purpose of the Incident Management – Alternate Route Plan project is to address effects of non-recurring traffic congestion caused by major freeway incidents. The project involves establishing pre-planned alternate detour routes, facilitating interagency coordination and communication, and developing traffic control strategies to minimize the congestion and improve safety on local streets.

Goals/Objectives

- Minimize congestion and improve traveler and public safety on local streets during
- Enable cities to quickly respond to major traffic fluctuations
- Improve coordination/communication, and emergency responses between agencies
- Establish pre-planned alternate (detour) routes
- Implement traffic control strategies with ITS element including traffic signal improvements, CCTV, signage

Project Limits

The project is located along the vicinity of US 101 from County line to County line; portions of I-280 from the San Francisco County line to SR 92; I-380 from US 101 to I-280; and SR 92 from I-280 to the San Mateo Bridge

Stakeholders

An Incident Management Committee was formed to provide technical guidance to the project. The participants include City Public Works, Fire, and Police Departments, Caltrans, CHP, County OES, SFO, MTC. (Representation from the fire departments includes City of San Mateo, Central County Fire, and RWC.)

Project Update

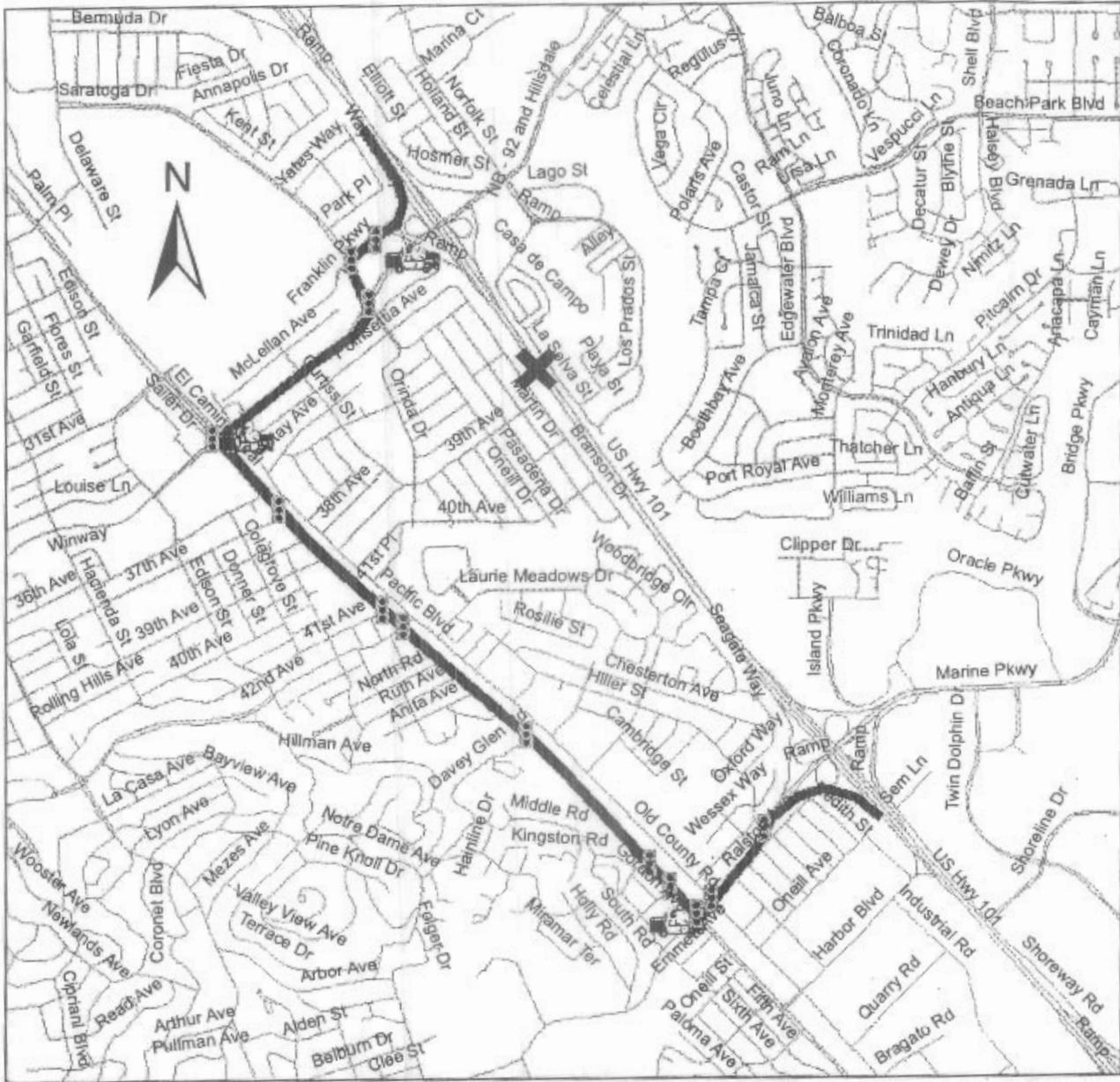
- 1st meeting held in July 2006; 10 meetings to date (last in Oct. 2007)
- Accomplishments includes establishment of alternate routes; development of the Draft Alternative Route Plan, Draft Memorandum of Understanding, and Draft Infrastructure Improvement Plan
- Next steps include completion of implementation strategies, providing table-top & train-the-trainer training, and performing outreach to agencies. Other work related to this project includes performing an assessment of current emergency evacuation strategies.

Related Projects

Work on the Incident Management – Alternative Route Plan has enabled C/CAG to develop the San Mateo County Smart Corridors Project.

Attachment

1. Sample alternate route layout
2. Traffic Management Communication Diagram (draft)

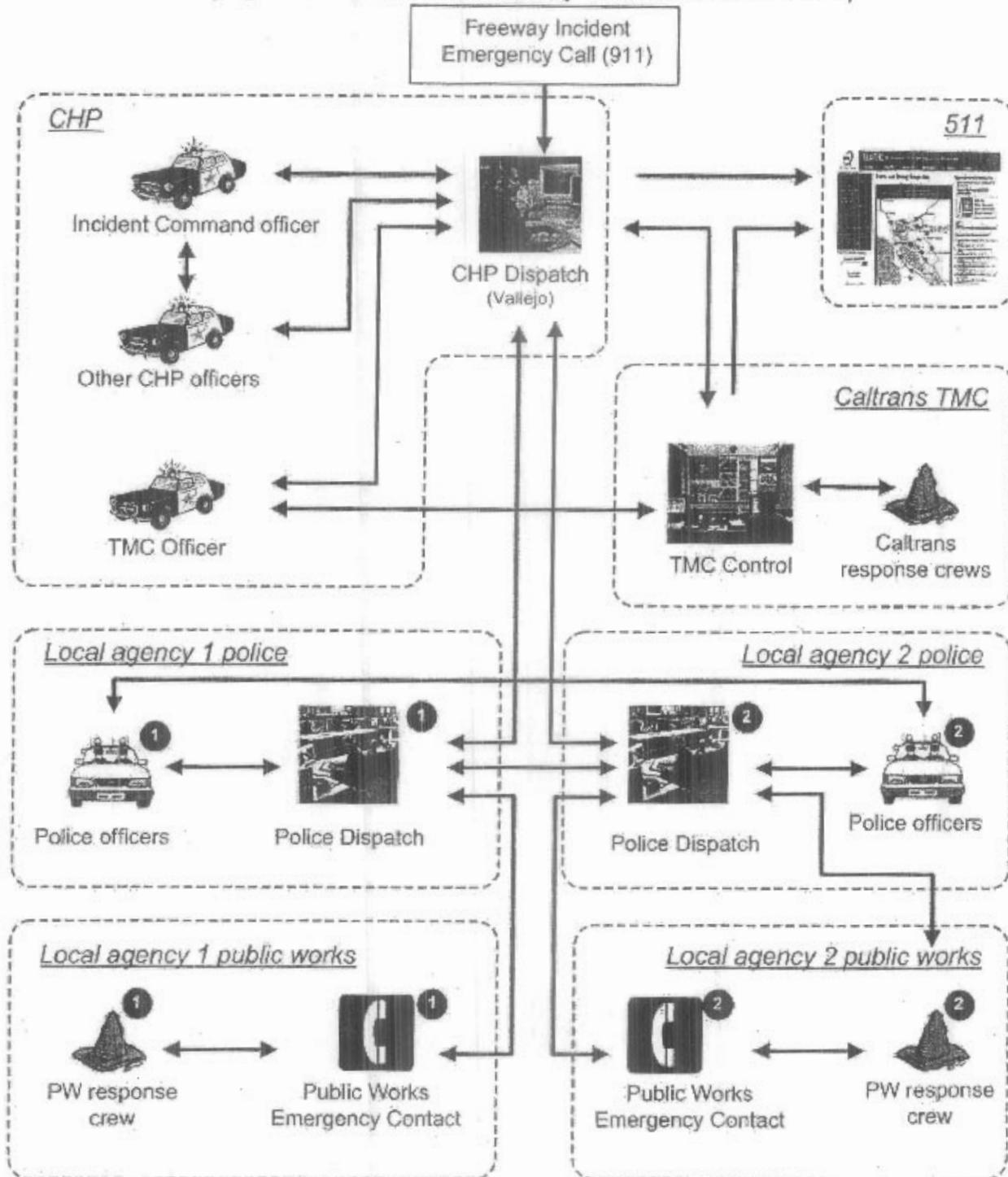


FREEWAY: 101 SOUTHBOUND	INCIDENT LOCATION: Hillsdale Blvd and Ralston Ave
ALTERNATIVE ROUTE #1: Exit Hillsdale Blvd (to Franklin Pkwy); LT on Saratoga Dr; RT on E. Hillsdale Blvd.; LT on El Camino Real; LT on Ralston Ave to SB On-ramp.	
Legend Incident Alternate Route Fixed Camera PTZ Camera Ramp Meter Signal Trailblazer Police Deployment	ALTERNATIVE ROUTE JURISDICTIONS: SAN MATEO BELMONT
	CHANGEABLE MESSAGE SIGN (CMS) DEPLOYMENT: CM011-SM101 S/B N/O/SIERRA PT RAMP OC CM013-SM101 S/B N/O/SIERRA PT RAMP OC CM040-SM 92 E/B E/O/W. HILLSDALE BLVD CM083-ALA92 W/B SAN MATEO BRG T/PLAZA
	Nearest EOC location (Address to be inserted)
PLAN 101-S-414A-1	

REVISION DATE 10/03/07

Traffic Management Communication Diagram

(Managing diverted traffic from freeway incident on local streets)



January 2008

San Mateo County Smart Corridors Project

PROJECT FACT SHEET

Revised 01/17/08

Project Description

The San Mateo County Smart Corridors Project will implement traffic incident management strategies by deploying ITS elements along state routes and major local streets such that these designated routes will have the tools to manage traffic congestion and improve mobility. The initial phase of the San Mateo County Smart Corridor Project includes the following corridors (see Vicinity Map):

Segment	Location	Limits	Total Cost (estimated)
1	SFO Vicinity	US 101 and SR 82 (El Camino Real) between I-380 and Peninsula Avenue	\$10.8M
2	US 101/SR 92 I/C	US 101 and SR 82 (El Camino Real) between SR 92 and Holly Street and SR 92 between Edgewater Boulevard and SR 82 (El Camino Real)	\$10.2M
3	US101/SR 84 I/C	US 101 and local streets between Redwood Shores Parkway and SC County Line	\$9.M

The San Mateo County Smart Corridors Project will integrate:

- Traffic signal improvements (controller upgrades, transit signal priority/emergency preemption, signal coordination, flush plans);
- On-ramp metering (existing);
- Freeway changeable message signs (CMS);
- Arterial travel time data using a vehicle detection system;
- Arterial electronic trailblazer signs;
- Fixed and pan-tilt-zoom CCTV cameras;
- Caltrain at-grade rail crossing advanced warning equipment; and
- Communications network.

Project Purpose/Goal

The San Mateo County Smart Corridors Project is a cooperative effort by the San Mateo City/County Association of Governments (C/CAG) and twenty-one local agencies. The purpose of this project is to implement Intelligent Transportation System (ITS) elements along state and local routes in San Mateo County to manage incident traffic congestion and improve mobility. The primary initial focus of the project will be to integrate technology-based improvements along portions of the following routes:

- US 101 from San Francisco county border to Santa Clara County border;
- State Route 92 (SR 92) between I-280 and the San Mateo Bridge;
- State Route 84 (SR 84) between US 101 and I-280;
- State Route 82 (SR 82, El Camino Real) between I-380 and SR 84; and
- Local connector streets between El Camino Real and US 101.

Providing traffic management tools along these corridors will enable Caltrans and the local agencies to:

- Proactively coordinate traffic management during incidents;
- Define clear alternative routes for drivers during incidents and special events;
- Promote the use of Caltrain and SamTrans as an alternative mode;
- Proactively manage traffic signals along major surface streets; and
- Achieve a balanced traffic flow.

The ultimate goal of the Smart Corridors program is to allow the participating agencies to better manage incidents and congestion along regional and local routes through ITS implementation. Providing these traffic management tools along these corridors will enable Caltrans and the local agencies to proactively coordinate traffic management during incidents; define clear alternative routes for drivers during incidents and special events; promote use of Caltrain and SamTrans as alternative modes of transportation; proactively manage traffic signals along major surface streets; and achieve a balanced traffic flow.

Project Benefits

San Mateo County currently has limited deployment of ITS tools to proactively manage traffic congestion, confined only to freeway Traffic Operations System (TOS) elements along US 101 and SR 92. By implementing the Smart Corridors Project, the following benefits could be expected:

- Minimize the impact of freeway incident traffic on local streets through proactive traffic management;
- Ability to collect and disseminate arterial travel times;
- Ability to implement traffic responsive and time-of-day signal timing to improve traffic signal coordination and reduce delays along major corridors and freeway connectors;
- A responsive plan to effectively manage freeway traffic that utilizes local streets during freeway incidents;
- Ability to share traffic information between Caltrans and local agencies to improve coordination and management activities;
- Ability to collect and disseminate transit information to encourage alternative mode choices and create a multi-modal/multi-user system;
- Ability to provide accurate and timely information about the corridors to agency transportation managers and to public;
- Improved response to and clearing of incidents on freeways and surface streets

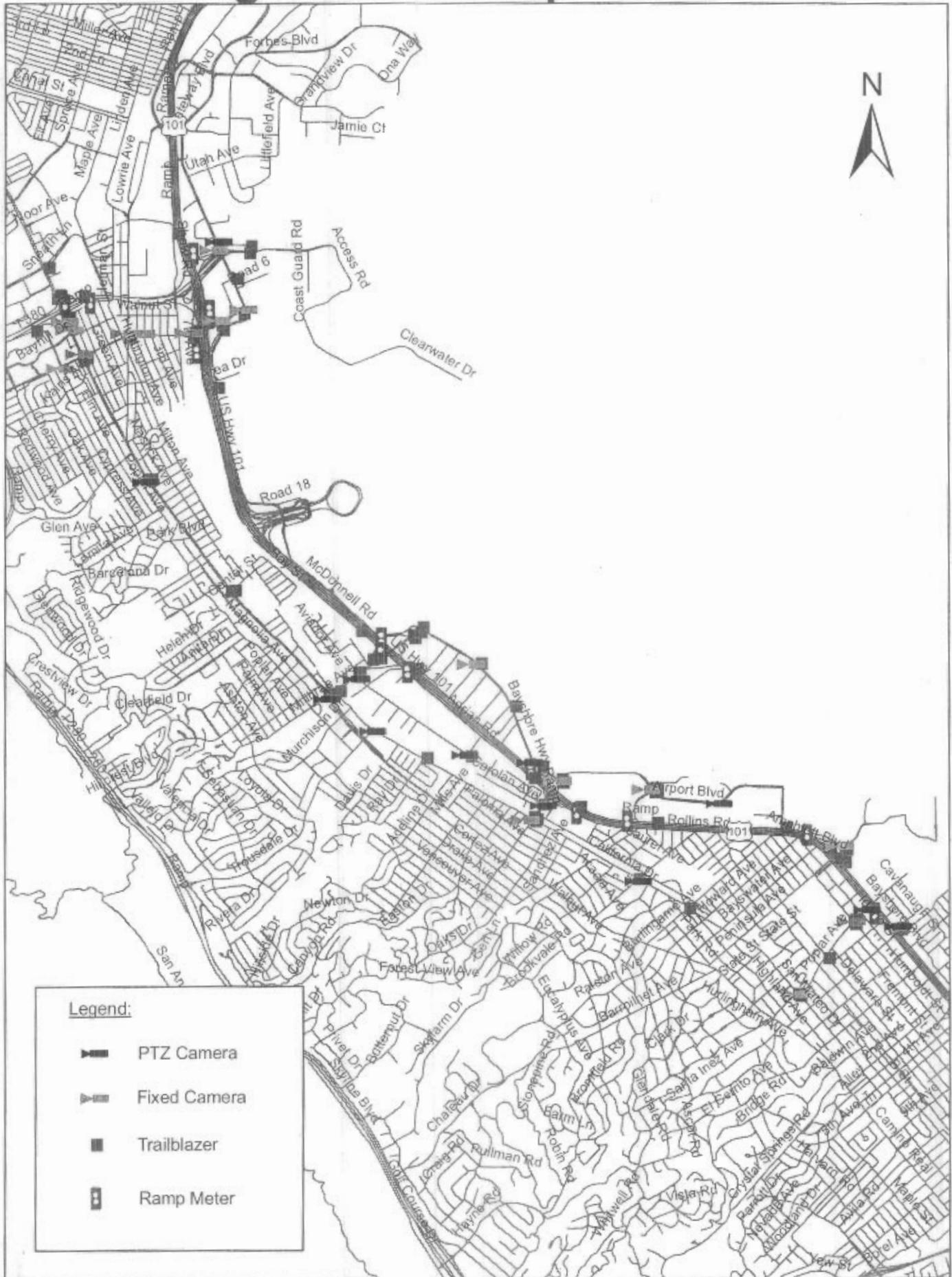
Project Participants

City of San Mateo	City of Menlo Park	City of Atherton
City of Millbrae	City of Foster City	City of East Palo Alto
City of San Bruno	City of San Carlos	City of Belmont
City of South San Francisco	City of Redwood City	California Highway Patrol (CHP)
City of Burlingame	Caltrans	San Francisco International Airport
MTC	San Mateo County TA	C/CAG
San Mateo County OES		

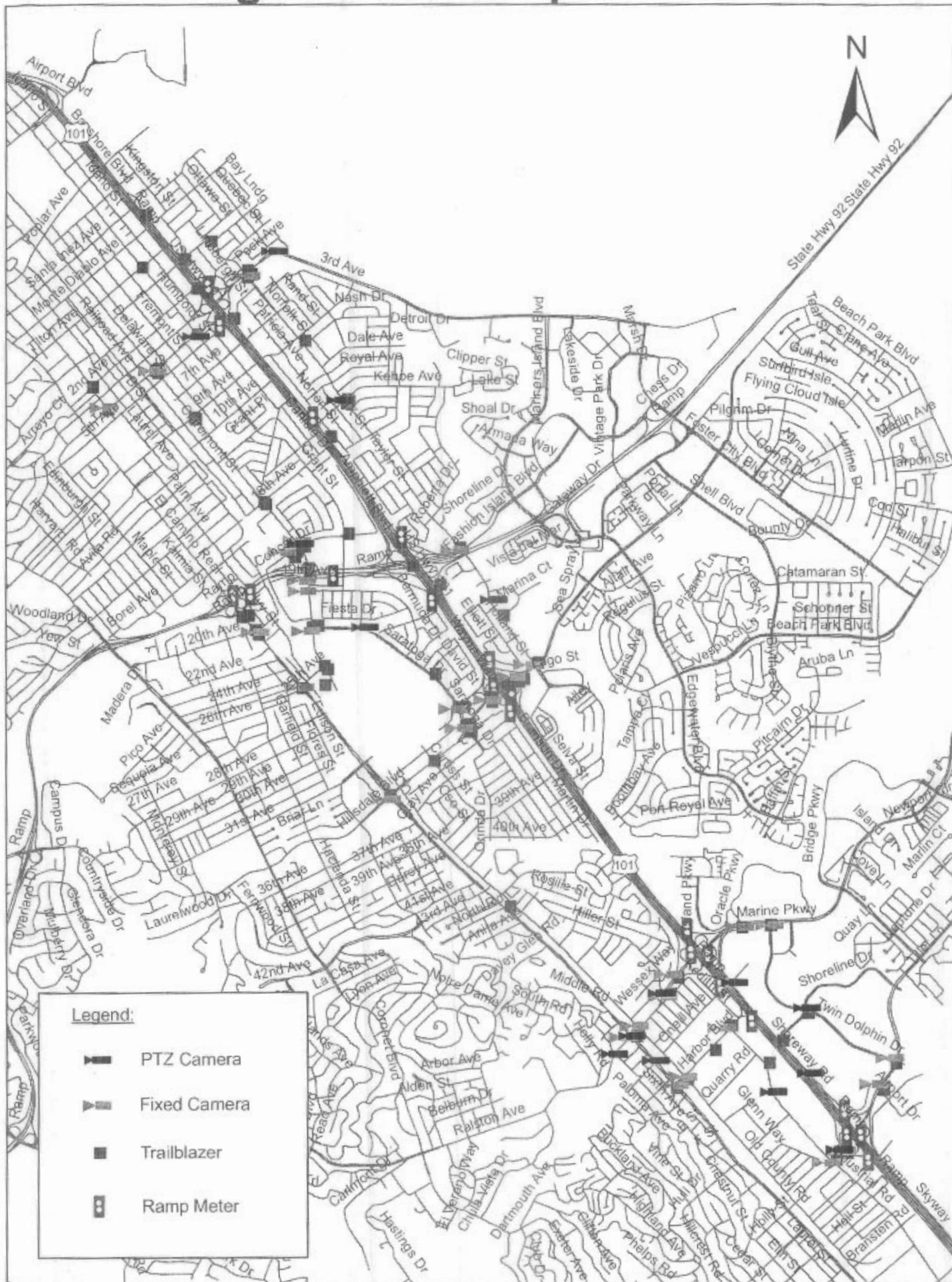
Project Contact

John Hoang, C/CAG
jhoang@co.sanmateo.ca.us
 650-363-4105

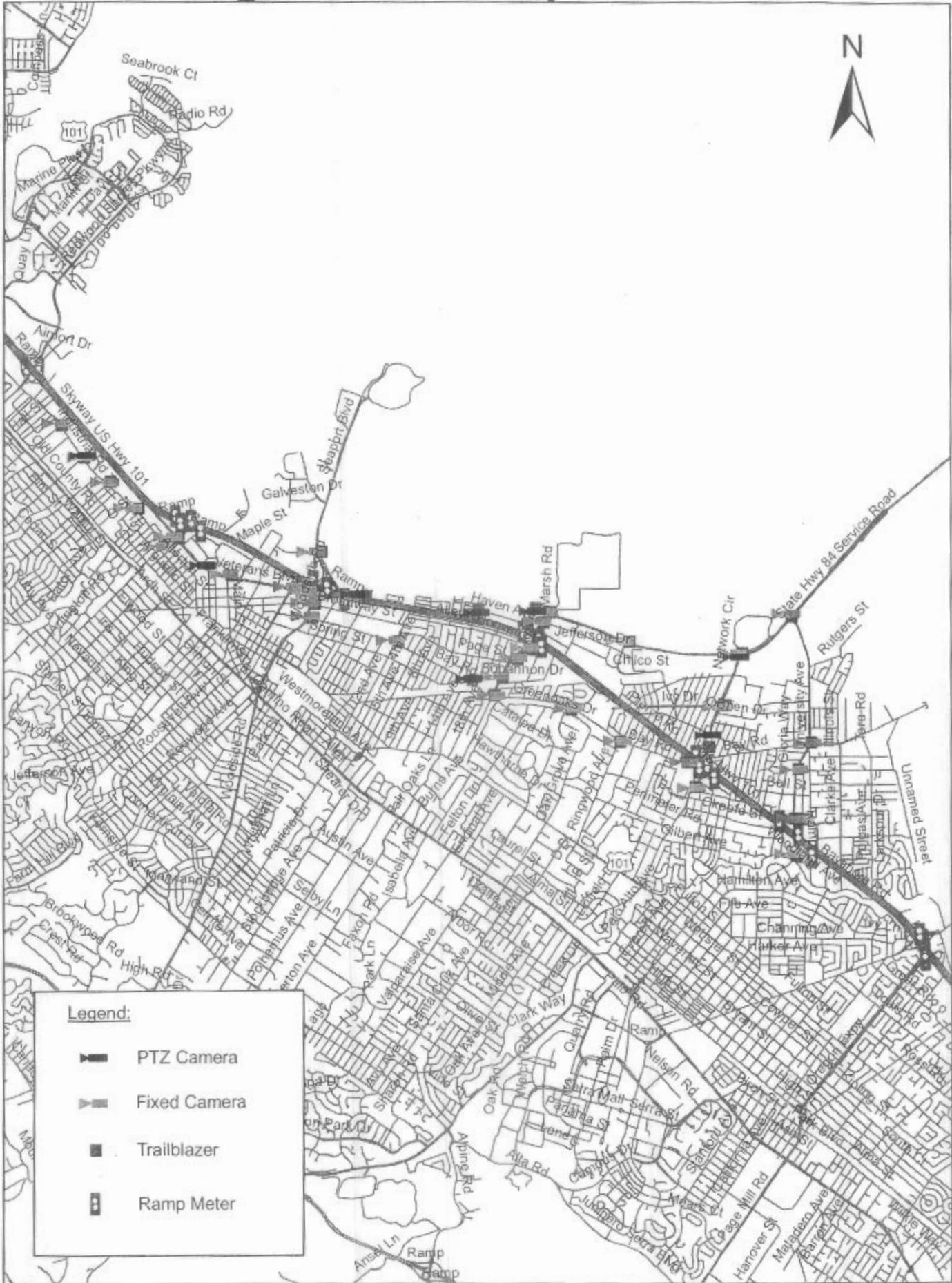
Segment 1 - Proposed ITS



Segment 2 - Proposed ITS



Segment 3 - Proposed ITS



C/CAG AGENDA REPORT

Date: January 28, 2008
To: Congestion Management & Environmental Quality (CMEQ) Committee
From: Tom Madalena
Subject: Review of the shuttle ridership statistics for the first quarter of FY 2007/2008.
(For further information or questions contact Tom Madalena at 599-1460)

RECOMMENDATION

That the Congestion Management & Environmental Quality (CMEQ) Committee review the shuttle ridership statistics for the first quarter of FY 2007/2008.

FISCAL IMPACT

None

SOURCE OF FUNDS

Funding to support the shuttle programs is derived from the Congestion Relief Plan adopted by C/CAG and included in the Fiscal Year 07/08 budget. The Transportation Authority is providing matching funds for those shuttles that take riders to Caltrain stations.

BACKGROUND/DISCUSSION

Please see the table below to view the shuttle ridership statistics for the first quarter of fiscal year 2007/2008. The C/CAG benchmark for the operating cost per passenger as a performance standard is \$6.00 per passenger for fixed route shuttles and \$15.00 per passenger for door-to-door shuttles.

C/CAG Shuttle Monitoring for Quarter 1 of FY 07/08			
Shuttle	Passengers	Q1 Shuttle Cost	Average Cost/Rider
Burlingame	2931	\$23,271.04	\$7.94
East Palo Alto Weekend	2180	\$14,760.00	\$6.77
East Palo Alto Senior/Shopper (door-to-door)	992	\$23,547.00	\$23.74
Foster City	19788	\$36,777.05	\$1.86
Menlo Park	18130	\$43,065.35	\$2.38
Millbrae (door-to-door)	1038	\$8,013.88	\$7.72
Brisbane/Daly City (door-to-door)	8013	\$40,845.42	\$5.10
Redwood City	1683	\$21,958.15	\$13.05
South San Francisco	27674	\$144,656.69	\$5.23

ATTACHMENTS

None

C/CAG AGENDA REPORT

Date: January 28, 2008
To: Congestion Management and Environmental Quality (CMEQ) Committee
From: Barbara Pierce, Member
Subject: Report on Partnerships for Water Reuse Workshop October 29, 2007

This workshop, co-sponsored by Bay Area Clean Water Agencies, Bay Area Water Forum, the US Bureau of Reclamation and the Water Reuse Foundation provided an opportunity to selected participants to discuss securing an adequate supply of water for all uses at the most affordable price.

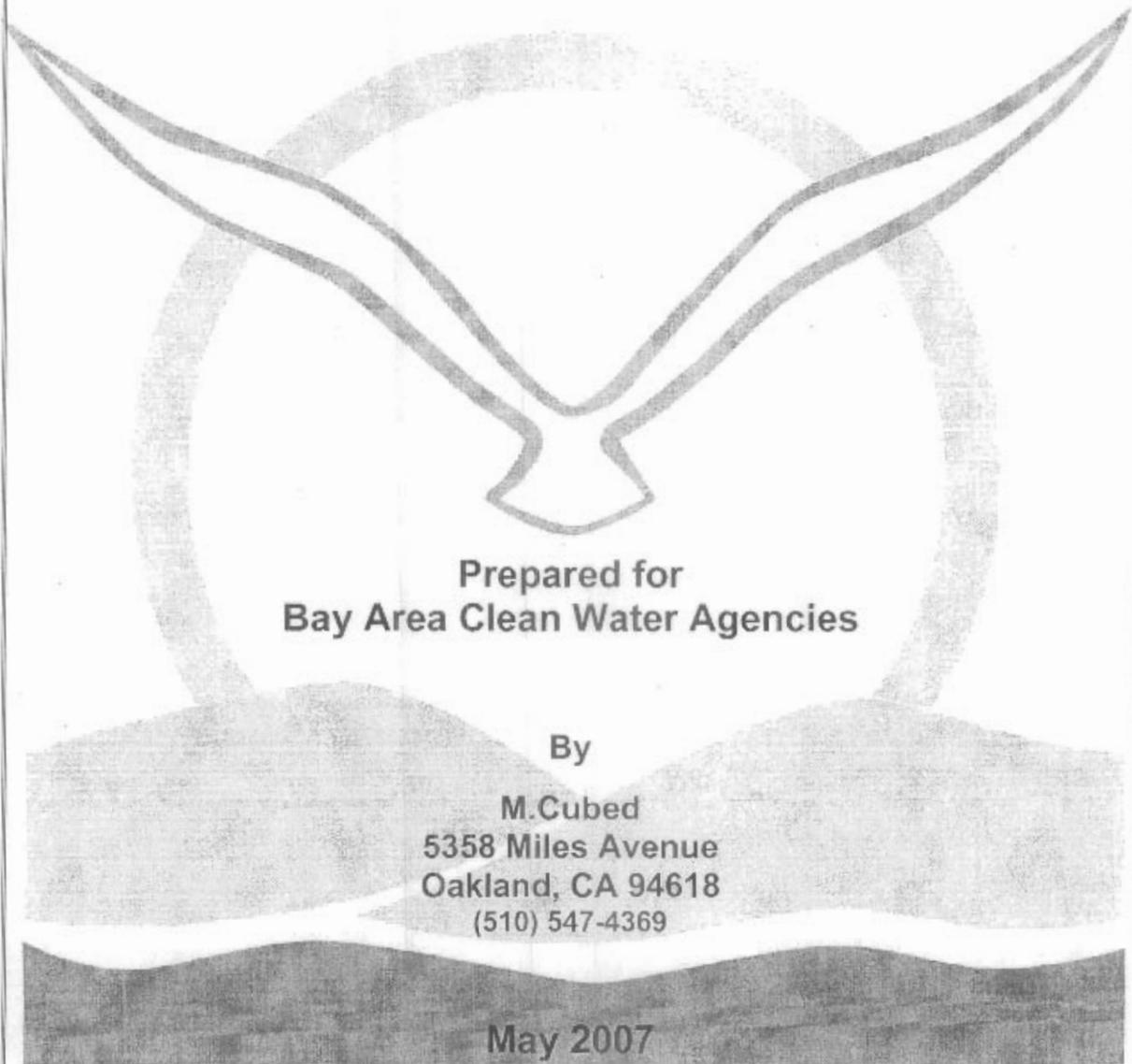
In view of diminishing water supplies, "regulatory drought" resulting from Delta pump closures and the growing crisis of climate change, this workshop presented the opportunity for water suppliers, land use decision-makers and clean water agencies to discuss how to begin working together to provide water to Bay area residents, now and in the future. One element of the new water future is an expanded use of recycled water for a range of uses. The workshop provided a unique opportunity to discuss common goals, develop strategies, and identify barriers that we must overcome to make sustainable water use a reality in the Bay area.

Local, state and federal officials (including Grace Napolitano, Chair of the House Water and Power Subcommittee and Lester Snow, Director of the California Department of Water Resources) discussed the need for water recycling and the status of our regional programs. Participants joined in small group discussions on critical issues, with the results of these discussions forming the basis for further research on developing strong interagency partnerships.

One of the important documents provided that day is entitled Importance of Recycled Water to the San Francisco Bay Area by David Mitchell, M Cubed, May 2007. See Executive Summary attached.

As part of CMEQ's environmental purview this might be an area that is reviewed and forwarded to CCAG to encourage working with water agencies and clean water agencies regarding our mutual interests.

Importance of Recycled Water to the San Francisco Bay Area



Prepared for
Bay Area Clean Water Agencies

By

M.Cubed
5358 Miles Avenue
Oakland, CA 94618
(510) 547-4369

May 2007

Full document can be found at:

<http://www.bacwa.org/LinkClick.aspx?fileticket=3A7XYG3Bwyo%3d&tabid=105&mid=463>

Executive Summary

Population growth and climate change are predicted to reduce the reliability and sustainability of the water supply that many of people in the Bay Area take for granted. The recently completed *San Francisco Bay Area Integrated Regional Water Management Plan* (Bay Area IRWMP) both highlights the growing imbalance between regional water supplies and demands and provides a blue print for improving the region's water supply reliability and meeting other water management objectives. This plan emphasizes the need for a multi-faceted approach to addressing regional water problems. A core strategy of the plan is increasing the amount of water recycling in the region.

Communicating the growing importance of recycled water to the Bay Area, its role in regional water management objectives, the regional economic benefits of recycled water, and ways to ensure its safety and allay public concern is an important task for managers of Bay Area water and wastewater agencies. This paper, commissioned by Bay Area Clean Water Agencies, provides a digest of factual information about the importance of water recycling in the Bay Area that water managers can utilize when participating in forums where recycled water is under discussion.

The paper is organized into three main topic areas: (1) the importance of recycled water to regional water management; (2) economic considerations of recycled water; and (3) recycled water implementation opportunities and challenges. The paper concludes with six key messages about recycled water in the Bay Area. This Executive Summary provides highlights and key findings from each of the paper's topic areas.

Putting Recycled Water into Context

Water recycling has been a part of California's water management picture for more than 100 years. California farmers are reported to have used recycled water as early as 1890 and by 1910 at least 35 communities were using recycled water for farm irrigation.¹ Today, recycled water use, estimated to be within a range of 450 and 580 thousand acre-feet per year, is becoming widespread in California.² Recycled water is primarily used for crop and landscape irrigation and industrial processes and cooling. But it is also being used for groundwater aquifer protection, environmental restoration, wastewater management, and indirect reuse.

¹ Recycled Water Task Force (2003). "Water Recycling 2030: Recommendations of California's Recycled Water Task Force." June 2003.

² Ibid.

Recycled water use can be planned or unplanned. Most indirect reuse of recycled water is unplanned and results from the upstream discharge of treated wastewater, which becomes part of river flows that are diverted downstream by farms and municipalities. For example, downstream diverters reuse about 90 percent of municipal wastewater discharged into the San Joaquin River.³

Direct uses of recycled water are generally planned, and involve delivering recycled water through pipes to the users of the water. Recycled water projects are designed to meet particular water management objectives and the intended uses of the recycled water determine the types and levels of wastewater treatment. Typical water management objectives that have led to the use of recycled water in California include:⁴

- A water supply to displace the need for other sources of water
- A cost effective means of environmentally sound treatment and disposal of wastewater
- A water supply for environmental enhancement
- Protection of groundwater resources threatened by seawater intrusion

Recycled water projects are not the only way to achieve these objectives, and typically proposed recycled water projects are evaluated alongside other water management alternatives to determine the most cost-effective approach. Water recycling can make the greatest impact on augmenting the State's water supply in regions like the Bay Area where treated wastewater has no opportunity to be reused downstream because it is discharged directly to bays or the ocean.

Importance of Recycled Water to Bay Area Water Management

Recycled Water Helps Address Growing Water Demands

Regional water supply reliability may be the toughest water management challenge confronting the Bay Area. Two-thirds of the Bay Area's water supply is imported into the region. While still capable of meeting regional demands during years of normal rainfall, imported water supplies are increasingly inadequate when rainfall is below normal. This problem will continue to worsen as more people and businesses move into the region and demand for water increases.

³ Ibid.

⁴ Ibid.

*Importance of Recycled Water to San Francisco Bay Area
White Paper Prepared for Bay Area Clean Water Agencies*

The Association of Bay Area Governments (ABAG) predicts Bay Area population will increase by 1.7 million people by 2030. Regional water suppliers are forecasting water demands will increase by approximately 200,000 acre-feet by this time. The projected increase in demand is similar in magnitude to current demands for the entire service area of the East Bay Municipal Utility District (EBMUD), which serves 20 incorporated cities and 15 unincorporated communities, covers approximately 325 square miles, and serves 1.35 million people.

According to the Bay Area IRWMP, approximately 30 percent of the projected increase in 2030 regional water demands could be met with recycled water projects.

Recycled Water Reduces Dependence on Vulnerable Imported Water Supplies

The Bay Area's dependence on imported surface water makes it highly vulnerable to cyclical drought. On a cumulative basis, Bay Area imported water deliveries could decline by an average of 39 percent during a period of sustained drought down to 548,000 acre-feet, or about 61 percent of normal. A key regional benefit of recycled water is its imperviousness to drought. From the standpoint of the region's hydrologic cycle, it is 100 percent reliable. As a result, a "drought-proof" Bay Area supply of 60,000 acre-feet of recycled water is worth at least 100,000 acre feet of entitlements to imported water susceptible to drought reduction. To ensure the same level of drought supply through surface storage may require storage capacities that are three to five times the expected dry year yield.

Recycled Water Helps Mitigate Risks of Long-term Climate Change

Long-term climate change poses substantial water supply risks to the Bay Area. While there is uncertainty and controversy surrounding climate change models and forecasts, the preponderance of available evidence strongly suggests the Bay Area's climate will get hotter and its primary source of water storage, the Sierra Nevada snow pack, will get smaller.

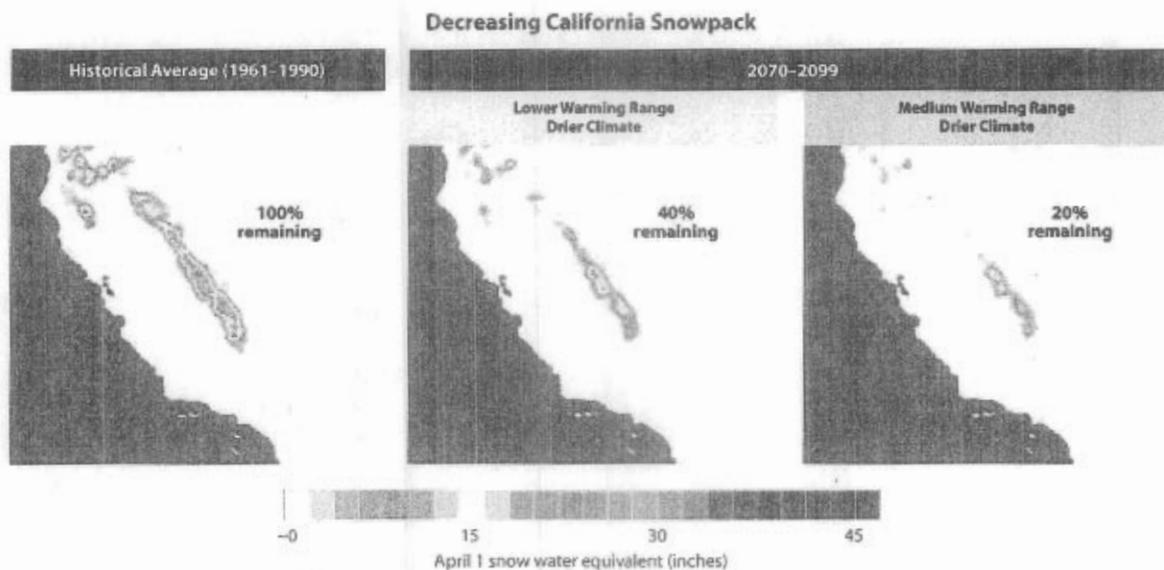
Absent the natural water storage provided by the Sierra Nevada snow pack, the imported water systems the Bay Area depend on for most of its water supply would be grossly inadequate. Figure E-1 shows predicted changes in snow pack for two climate change scenarios. Under these two scenarios the Sierra Nevada snow pack diminished by 60 to 80 percent within the next hundred years.

Climate change research also suggests an increased likelihood of critically dry years: up to 1.5 times more critically dry years under the lower warming scenario shown in Figure E-1; and 2-2.5 times more critically dry years under the medium warming scenario. Additionally, higher

average temperatures and increased frequency of heat waves are expected to increase average water demands.

Even in the absence of climate change, the region will need to develop new water supplies to meet growing demands. With climate change, the need will be even greater. Water recycling provides an economically feasible and proven technology that can be deployed on a large scale within the region. Most importantly, however, the water supply it provides does not depend on weather or climate.

Figure E-1: Sierra Nevada Snow Pack for Two Climate Change Scenarios



Source: California Climate Change Center (2006), "Our Changing Climate – Assessing the Risks to California." July 2006.

Recycled Water has a Smaller Energy Footprint than Most Other Water Supply Options

All water supply options require significant amounts of energy and result in the release of greenhouse gases. The question is how does recycled water compare to other water supply options available to the region? According to the Natural Resources Defense Council, which described recycled water as a highly energy efficient water source, recycled water is less energy intensive than any physical source of water other than local surface water. Recycled water requires about an eighth of the energy required for seawater desalination; less than half the energy used by the SWP to bring water to the Bay Area; and half to three-quarters the energy required to pump groundwater.

The Bay Area is Geographically Well Situated for Water Recycling

The Bay Area discharges over half a million acre-feet of water each year into the Bay and Pacific Ocean. This discharge represents a potential new source of fresh water supply to the region and to the State. Unlike recycling in inland regions, which often does not result in new supply because water discharged back into upstream water bodies is indirectly reused by downstream diverters, recycling in the Bay Area creates "new" fresh water supply. The Bay Area IRWMP recognized the potential of recycled to provide new water for the region. Of the 52 projects in the plan ranked highly for water supply reliability that could be permitted by 2010, 50 percent were recycled water projects. All of the projects ranked highly for water supply reliability in the plan that could be permitted by 2014 were recycled water projects.

Recycled Water Can Be Used to Simultaneously Address Multiple Regional Water Management Objectives

Few other water management options provide the diversity of possible uses and applications as recycled water. Bay Area water agencies are using water recycling to augment water supplies, reduce the impacts and costs of wastewater disposal, and restore and improve sensitive natural environments. Recycling by itself cannot solve the region's looming water crisis, but used in conjunction with other water supply and management options it can help the Bay Area continue to enjoy a safe and reliable water supply.

Economic Considerations of Recycled Water

Recycled water is often perceived to be an expensive water supply option. However, when the full range of benefits derived from recycled water projects are properly taken into account, most Bay Area projects turn out to be both affordable and cost competitive with other water management options.

Recycled Water is Cost Competitive with Other Supply Options

The State's Recycled Water Task Force convened in 2001 estimated that capital costs for recycled water averaged about \$683 per acre-foot and O&M costs about \$342 per acre-foot for a total unit cost of about \$1,025 per acre-foot (updated to today's dollars). The Task Force report noted this cost was comparable to costs of other water supply options, including new dams and reservoirs or desalination. The Task Force's average unit cost estimate is very close to the average unit cost of 26 Bay Area recycled water projects evaluated in 2005. Collectively, the Bay Area projects had an average unit cost between \$1,000 and \$1,200 per acre-foot.

Perceptions about the relative cost of recycled water are frequently based on unequal comparisons. The cost of recycled water at the customer tap is frequently compared to the cost of other water supplies at their source, without taking into account the transmission, treatment, and distribution cost associated with moving water from a source to the customer tap.

Cost comparisons with other supply options commonly ignore differences in delivery reliability, which is of critical importance to the Bay Area. They also frequently ignore avoided costs of wastewater disposal and environmental impact.

Most Recycled Water Projects Proposed in the Bay Area Make Economic Sense

Bay Area recycled water projects make economic sense in most cases. Contrary to assertions that most recycled water projects are economic losers, regional studies involving detailed economic analyses of specific project proposals have concluded that the economic benefits would exceed costs of construction and operation over a broad range of implementation levels. Cost comparisons with other supply alternatives are generally favorable. This is not to say that all recycled water projects are sound economic investments. Each project must be able to stand on its own bottom line in terms of the benefits it produces for the Bay Area. Agencies must utilize rigorous benefit-cost tests as a part of project screening and prioritizing.

Recycled Water Implementation Opportunities and Challenges

While the Bay Area IRWP and BARWRP studies have shown tremendous potential for recycled water in the Bay Area, there are a number of implementation challenges the region must address in order to realize this potential. These challenges include securing state and federal participation in regional recycled water projects; coordinating local recycled water plans and projects for regional benefits; resolving jurisdictional constraints; improving public knowledge and understanding of recycled water; and addressing public health risk perceptions.

State and Federal Participation is Essential to Implementation of a Large-Scale Regional Recycling Program

Single-entity financing is often unsuited to financing large-scale recycled water programs in the Bay Area because of jurisdictional boundary issues. Economically beneficial recycled water projects are at risk of not getting implemented without state and federal participation. State and federal participation were instrumental in developing the Bay Area's water recycling regional master plan and State funding was instrumental in developing the Bay Area IRWMP. The State Recycled Water Task Force concluded there is a State and federal interest in regional recycling.

As noted by Congressman George Miller, "[i]t only takes a small federal investment in the Bay Area Water Recycling Program to yield massive dividends to [the] region over time."

Regional Implementation of Recycling Requires a Regional Recycling Program

BARWRP and the Bay Area IRWMP both stress the need for a regional recycled water program to address water agency jurisdictional boundary issues, inter-agency agreements, utility service duplication, and cost and revenue sharing agreements. Such a program would provide essential coordination functions, including:

- Prioritizing recycled water projects and activities;
- Identifying when, where, and how to interconnect the local recycled water projects to support the long-term interests of the region;
- Providing a forum to assist in balancing differences that may exist between local water or wastewater jurisdictions;
- Providing guidelines for recycled water project cost-sharing agreements;
- Developing and administering a regional program to facilitate transfers and exchanges of water among water entities and water recycling producers; and
- Developing and administering a regional water banking or wastewater discharge credit system.

Expanding Recycled Water Use in the Bay Area Requires Resources Devoted to the Public Understanding of Water Reuse

Public understanding of recycled water can be as complex as the engineering required to produce it and likewise requires a regional investment in public information. Public resistance to recycled water projects often derives from fundamental misunderstandings about the water cycle, upstream and downstream water reuse, and intended uses of recycled water. Regional recycling cannot move forward without public understanding of and confidence in the resource. Public confidence in the safe application of recycled water varies by type of use. When discussing the safety of recycled water, it is important to emphasize matching appropriate technology to intended use. There is a large body of research showing that recycled water can be made safe for all intended uses when paired with the appropriate treatment technologies.

Improving public understanding of water reuse will require informational programs designed to provide the public with: