



707 Randolph Street, Suite 100 • Napa, CA 94559-2912  
Tel: (707) 259-8631  
Fax: (707) 259-8638

## **Napa Valley Transportation Authority (NVTA)**

### **Board of Directors**

#### **\*\*\*\*\*SPECIAL MEETING\*\*\*\*\* AGENDA**

**Wednesday, April 4, 2012  
11:00 a.m.**

**NCTPA/NVTA Conference Room  
707 Randolph Street Suite 100  
Napa CA 94559**

***All materials relating to an agenda item for an open session of a regular meeting of the NVTA Board of Directors are posted on our website at [www.nctpa.net/m\\_a.cfm](http://www.nctpa.net/m_a.cfm) at least 72 hours prior to the meeting and will be available for public inspection, on and after at the time of such distribution, in the office of the Secretary of the NVTA Board of Directors, 707 Randolph Street, Suite 100, Napa, California 94559, Monday through Friday, between the hours of 8:00 a.m. and 5:00 p.m., except for NVTA holidays. Materials distributed to the present members of the Board at the meeting will be available for public inspection at the public meeting if prepared by the members of the NVTA Board or staff and after the public meeting if prepared by some other person. Availability of materials related to agenda items for public inspection does not include materials which are exempt from public disclosure under Government Code sections 6253.5, 6254, 6254.3, 6254.7, 6254.15, 6254.16, or 6254.22.***

***Members of the public may speak to the Board on any item at the time the Board is considering the item. Please complete a Speaker's Slip, which is located on the table near the entryway, and then present the slip to the Board Secretary. Also, members of the public are invited to address the Board on any issue not on today's agenda under Public Comment. Speakers are limited to three minutes.***

***This Agenda shall be made available upon request in alternate formats to persons with a disability. Persons requesting a disability-related modification or accommodation should contact Karrie Sanderlin, NVTA Board Secretary, at (707) 259-8631 during regular business hours, at least 48 hours prior to the time of the meeting.***

***This Agenda may also be viewed online by visiting the NCTPA website at [www.nctpa.net](http://www.nctpa.net), click on Minutes and Agendas – NVTA Board or go to [www.nctpa.net/m\\_a.cfm](http://www.nctpa.net/m_a.cfm)***

**ITEMS**

- 1. Call to Order – Chair Keith Caldwell
- 2. Pledge of Allegiance
- 3. Roll Call

Members:

Joan Bennett	City of American Canyon
Leon Garcia, Mayor	City of American Canyon
Michael Dunsford	City of Calistoga
Jack Gingles, Mayor	City of Calistoga
Jim Krider	City of Napa
Jill Techel, Mayor	City of Napa
Keith Caldwell	County of Napa
Bill Dodd, BOS Chair	County of Napa
Del Britton, Mayor	City of St. Helena
Peter White	City of St. Helena
Lewis Chilton	Town of Yountville
John F. Dunbar, Mayor	Town of Yountville

- 4. Public Comment

5. **REGULAR AGENDA ITEMS - TRANSPORTATION**

**RECOMMENDATION**

- 5.1 Transportation Sales Tax Consideration (Paul W. Price) (*Pages 3-49*)

INFORMATION/  
APPROVE

Board action will give direction to staff to circulate the Transportation Infrastructure Sales Tax Ordinance to member jurisdictions for approval and return to the NVTB Board for action at its May 16, 2012 and June 20, 2012 NVTB Board meetings.

6. **ADJOURNMENT**

**RECOMMENDATION**

- 6.1 Approval of Meeting Date of May 16, 2012 and Adjournment

APPROVE

I hereby certify that the agenda for the above stated meeting was posted at a location freely accessible to members of the public at the NCTPA offices, 707 Randolph Street Suite 100 Napa CA, by 5:00 p.m. Friday March 30, 2012.

  
\_\_\_\_\_  
Karalyn E. Sanderlin, NVTB Board Secretary



April 4, 2012  
NVTA Agenda Item 5.1  
Continued From: New

Action Requested: INFORMATION/ACTION

## NAPA VALLEY TRANSPORTATION AUTHORITY Board Agenda Letter

---

**TO:** Board of Directors  
**FROM:** Paul W. Price, Executive Director  
**REPORT BY:** Paul W. Price, Executive Director  
(707) 259-8634 / Email: [pprice@nctpa.net](mailto:pprice@nctpa.net)  
**SUBJECT:** Transportation Sales Tax Consideration

---

### **RECOMMENDATION**

That the NVTA Board:

1. Request that each member jurisdiction act by resolution to approve the proposed Sales Tax Ordinance, NVTA 12-01 (Attachment 2) and the expenditure plan set forth therein, for inclusion on the November 2012 ballot;
2. That staff bring back the final measure, should the County and a majority of the jurisdictions concur, to the June 20, 2012 NCTPA Board meeting for review and, pending Board approval, forward it to the Board of Supervisors for placement on the November 2012 ballot for a public vote;
3. That the NVTA Board, at its June 20, 2012 meeting, consider and approve the environmental finding as it pertains to NVTA Ordinance 12-01.

### **COMMITTEE RECOMMENDATIONS**

The Technical Advisory Committee (TAC) has met and made recommendations to move forward in a manner that gives the best chance for success as determined by the Board.

### **EXECUTIVE SUMMARY**

At its February Board meeting, the NCTPA staff was directed to submit the draft Transportation Sales Tax Ordinance to our member jurisdictions for their review and comment. The draft Ballot Ordinance language (Attachment 2) was developed as a result of the Board direction and review by its member agencies.

---

## **PROCEDURAL REQUIREMENTS**

1. Staff Report
2. Public Comment
3. Motion, Second, Discussion and Vote

## **FISCAL IMPACT**

Is there a Fiscal Impact? Yes. The proposed action would require an investment in information and ballot preparation. The measure, if passed, would generate approximately \$11.4 million per year in 2011 dollars.

## **CEQA REQUIREMENTS**

**Categorical Exemption Class 1:** It has been determined that this type of project does not have a significant effect on the environment and is exempt from the California Environmental Quality Act. [See Class 1 ("Existing Facilities"), Guidelines for the Implementation of the California Environmental Quality Act at 14 CCR §15301]

**General Rule:** It can be seen with certainty that there is no possibility the proposed action may have a significant effect on the environment and therefore CEQA is not applicable. [See Guidelines For the Implementation of the California Environmental Quality Act, 14 CCR 15061(b)(3)]

It is unknown whether any particular project will be undertaken and therefore particular impacts are too speculative for evaluation. [See Guidelines for the Implementation of the California Environmental Quality Act, 14 CCR 15145]

## **BACKGROUND AND DISCUSSION**

### ***Napa County: Some of the Worst Roads in the Bay Area***

In February of 2012 the Metropolitan Transportation Commission (MTC) released its annual review of the Pavement Condition Index (PCI) (Attachment 1) also known as the Report Card of existing pavement conditions. The PCI is an independent analysis of the road conditions of all the streets and roads in the nine Bay Area county regions. The scoring system is based on a 0-100 point system and measures the quality of local roads. This system also reflects on the remaining life of the existing system.

Napa County's jurisdictions received some of the worst scores in the Bay Area. The overriding need for the repairs and ongoing maintenance of local streets and roads was demonstrated yet again by this report. Our street and road conditions will continue to deteriorate in the coming years. The end result for users of our roads will be:

- higher costs in maintenance for vehicles
- exponentially higher reconstruction costs for roads as they require reconstruction

Napa County's jurisdictions received some of the worst scores in the Bay Area. The ranking system places scores in the following ranking categories:

Very good	PCI=80-89
Good	PCI=70-79
Fair	PCI=60-69
At-Risk	PCI=50-59
Poor	PCI=25-49

The jurisdictions of Napa County had the following average:

American Canyon	74
Calistoga	60
City of Napa	57
County of Napa	57
St. Helena	46
Yountville	69

These averages and demonstrate the overriding need for the repairs and ongoing maintenance of local streets and roads.

### **Insufficient State Support**

The state cannot be counted on to adequately address Napa's transportation needs. California prioritizes counties that have higher populations and greater funding sources.

Of the nine Bay Area counties only two, Napa and Solano, have no local transportation sales tax. In those counties having a transportation sales tax, those measures have covered their local jurisdiction's needs allowing them to maintain their investment by fixing and repairing local streets (i.e. potholes), high priority congestion projects and transportation demand alternatives such as bike and pedestrian system development and transit enhancement as crafted to the best interests of their constituents.

These local funds have also allowed their communities access to new funding in the form of additional matching funds from both state and federal sources. Given the ongoing, diminishing resources from the state and the increasing potential for encroachment into transportation funds as well as the growing need to improve our streets through focused and real investment in street maintenance, the concept of moving forward with a Napa region sale tax measure has gained momentum.

### **Insufficient Federal Support**

Although the federal government has the capacity to deficit spend, Washington's commitment to local transportation remains diminished. On the horizon there are no new proposals for the support and enhancement of local streets and road repair and maintenance. In fact, some congressional proposals would reduce transportation funding to match gas excise tax revenues (a reduction of about 30%). Further, given the

---

spiraling federal deficit, the expectations that there will be new federal funds that are not matched by a local component remain doubtful.

### **Past Efforts**

In 2006, the County of Napa placed before the voters a measure that sought to tackle a combination of pressure transportation problems and alleviate the pressure. This measure sought to provide funding for the widening of Jamieson Canyon, numerous other congestion projects, fund ongoing maintenance for local streets and roads as well as preserve and enhance transit. The largest single project within the 2006 Measure was for Jamieson Canyon.

Once the MTC Pothole report was released (Attachment 1) in June 2011, and it became clear that the State and Federal government would be unable or unwilling to provide stable and long term funding and may even encroach on local communities' ability to repair and maintain their streets and roads, the review of a local sales tax began.

Given the overwhelming need for additional funds that are controlled by local communities, and not under state or federal government control, it is staff's recommendation that the attached measure (Attachment 2) be forwarded to all member jurisdictions for approval.

In reviewing the surrounding communities' efforts and the specific needs of all of the communities of Napa the following is being proposed:

- At least 99% of the funds raised would be dedicated to maintaining and repairing existing streets and roads throughout the county
- Actual costs, up to 1% of funds raised by this measure would be used for the administration of the sales tax revenues generated by the measure
- The measure would be a ½-cent sales tax that would begin upon the termination of the Flood Control measure (July 1, 2018) and sunset 25 years after that date
- To ensure that all funds are spent locally and efficiently, an independent Oversight Committee, based on the most effective practices of comparable watchdog committees in California, would be formed;

At its February NCTPA Board meeting, the NCTPA Board directed NCTPA staff to circulate the draft of the Sales Tax Ordinance to our member jurisdictions for the review and comment. Additionally, staff was directed to work with our member agencies to try to reach agreement on the allocation methodology for the distribution of any Sales Taxes revenues for our member agencies and any regional projects. The City Manager/County Executive group has met on a number of occasions and has resolved the allocation question as listed in the Ordinance (Attachment 2).

Further, that each jurisdiction agendaize the matter for the soonest possible meeting in order to approved the proposed measure

The timeline for any measures placement would conclude with the Board of Supervisors placing the measure on the ballot at any of their meeting of July 10, 2012.

**SUPPORTING DOCUMENTS**

Attachments: (1) The Pothole Report June 2011, MTC  
(2) DRAFT NVTA Ordinance No. 2012-01

# The Pothole Report: Can the Bay Area Have Better Roads?

June 2011



METROPOLITAN  
TRANSPORTATION  
COMMISSION



## **MTC Commission**

**Adrienne J. Tissier, Chair**  
*San Mateo County*

**Amy Rein Worth, Vice Chair**  
*Cities of Contra Costa County*

**Tom Azumbrado**  
*U.S. Department of Housing  
and Urban Development*

**Tom Bates**  
*Cities of Alameda County*

**David Campos**  
*City and County of San Francisco*

**Dave Cortese**  
*Santa Clara County*

**Bill Dodd**  
*Napa County and Cities*

**Dorene M. Giacomini**  
*U.S. Department of Transportation*

**Federal D. Glover**  
*Contra Costa County*

**Mark Green**  
*Association of Bay Area Governments*

**Scott Haggerty**  
*Alameda County*

**Anne W. Halsted**  
*San Francisco Bay Conservation  
and Development Commission*

**Steve Kinsey**  
*Marin County and Cities*

**Sam Liccardo**  
*Cities of Santa Clara County*

**Jake Mackenzie**  
*Sonoma County and Cities*

**Kevin Mullin**  
*Cities of San Mateo County*

**Bijan Sartipi**  
*State Business, Transportation  
and Housing Agency*

**James P. Spering**  
*Solano County and Cities*

**Scott Wiener**  
*San Francisco Mayor's Appointee*

## **MTC Executive Staff**

**Steve Heminger**  
*Executive Director*

**Ann Flemer**  
*Deputy Executive Director, Policy*

**Andrew B. Fremier**  
*Deputy Executive Director, Operations*

# **The Pothole Report: Can the Bay Area Have Better Roads?**

**June 2011**

**Metropolitan Transportation Commission**

Joseph P. Bort MetroCenter

101 Eighth Street

Oakland, CA 94607-4700

510.817.5700 **tel**

510.817.5848 **fax**

510.817.5769 **tty/tdd**

[info@mtc.ca.gov](mailto:info@mtc.ca.gov) **email**

[www.mtc.ca.gov](http://www.mtc.ca.gov) **web**



# Table of Contents

Executive Summary	<b>2</b>
Pavement Preservation and Pavement Management	<b>4</b>
Regional Pavement Condition Summary	<b>8</b>
Pavement Recycling: Seeing Green in New Technology	<b>10</b>
Complete Streets: Safer, More Livable	<b>12</b>
Looking Forward: The Funding Picture	<b>14</b>
Pavement Condition Index for Bay Area Jurisdictions: 2006–2010	<b>15</b>



## Executive Summary

The condition of pavement on the Bay Area's local streets and roads is fair at best. The typical stretch of asphalt shows serious wear and will likely require rehabilitation soon. At 66 out of a possible 100 points, the region's average pavement condition index (PCI) score is now far closer to the 60-point threshold at which deterioration accelerates rapidly and the need for major rehabilitation becomes much more likely than to the 75-point score that MTC established as a target for roadway quality in its long-range *Transportation 2035 Plan* adopted in 2009. Indeed, despite efforts by the Commission and the region's local governments, overall conditions on our 42,500 lane-miles of city streets and county roads essentially are the same as they were in 2001, a decade ago.

Improved pavement quality can play a small but important role in meeting state targets for curbing greenhouse gas emissions. Not only does better pavement promote better vehicle fuel economy (and hence fewer emissions), but low-cost preventive maintenance also requires less asphalt and fewer heavy truck trips than major roadway rehabilitation projects, and new, cleaner application methods can also cut down on emissions. As the Bay Area works to achieve state targets for greenhouse gas emission reductions and to develop the Sustainable Communities Strategy mandated by state Senate Bill 375 (Steinberg, 2008), the time is right for an updated analysis of the region's local streets and roads.

### Fresh Data, New Developments

Building on the foundation established in MTC's original *Pothole Report*, published in 2000, this update includes both a primer on the cost and life cycle of pavement and a comprehensive look at the current state of the Bay Area's local streets and roads network, featuring a jurisdiction-by-jurisdiction ranking of the 2010 PCI scores of the region's nine counties and 101 cities. This report also provides a briefing on two important new developments in the pavement management field:

- **Cold In-Place Recycling:** a relatively new and highly promising technique that has been shown to cut asphalt rehabilitation costs by 20 percent to 40 percent, and to reduce greenhouse gas emissions from pavement repair projects by eliminating the need to produce new paving material or transport it to the worksite; and
- **Complete Streets:** a design approach for urban neighborhoods in which the entire streetscape, from sidewalk to sidewalk, is geared for safe access and use by pedestrians, bicyclists and transit riders as well as motorists. Common ele-

ments typically include bike lanes, sidewalk bike racks, transit stops, pedestrian signals, street trees and curb ramps. Building Complete Streets requires a somewhat larger construction investment, but the benefits of this spending are spread to a wider spectrum of road users.

### Scarce Funding Puts Premium on Prevention Practices

Funding for roadway maintenance typically comes from a range of sources, including the state gasoline tax, county sales taxes, and local sources such as city or county general funds, bonds and traffic-impact fees. But as the need for maintenance grows, the available funding from these sources has been shrinking. Not only are general fund contributions declining, but the state gas tax loses an average of 3 percent of its purchasing power each year due to inflation. County transportation sales taxes typically dedicate less than 25 percent of revenues to local street and road maintenance, and receipts from these taxes have fallen sharply in recent years due to the deep economic recession that began in 2007.

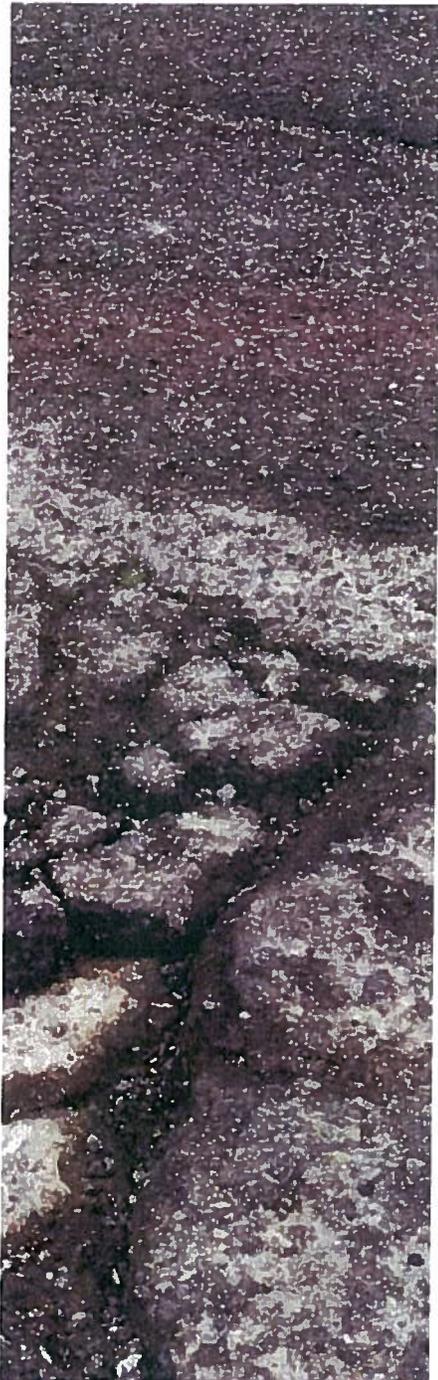
To help cities and counties get the biggest bang for their buck, MTC has long advocated pavement preservation. A municipality that spends \$1 on timely maintenance to keep a section of roadway in good condition would have to spend \$5 to restore the same road if the pavement is allowed to deteriorate to the point where major rehabilitation is necessary. All 109 Bay Area jurisdictions — and over 300 additional public agencies nationwide — now use MTC’s StreetSaver® pavement management software to inventory their street networks, determine maintenance needs and devise maintenance programs based on available revenues.

### Fixing the Fiscal Pothole

While pavement quality has rebounded slightly in recent years and now stands about where it did a decade ago, the challenge of boosting the regional average to “good” (a goal of MTC’s *Transportation 2035 Plan*) is more daunting — and more expensive — than ever.

MTC estimates that meeting the Transportation 2035 goal of a local street and road network in “good” condition (average PCI score of 75) will require \$25 billion, or \$1 billion a year through 2035. This level of investment is nearly three times higher than the current \$351 million spent annually by all sources on roadway maintenance. Fixing this fiscal pothole will be a local and regional challenge as we move toward adoption (in 2013) of *Plan Bay Area*, the comprehensive regional plan that will guide transportation investment in the nine Bay Area counties through 2040.





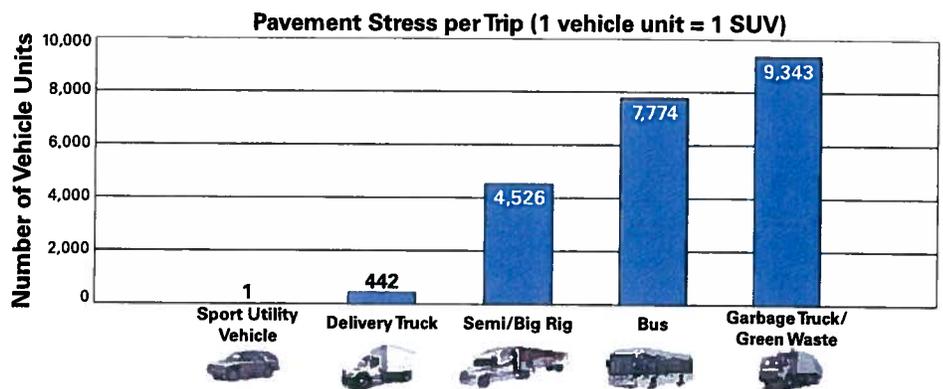
## Pavement Preservation and Pavement Management

Streets and roads take a beating under the weight of traffic. The first sign of distress on surface pavement is usually cracking. While cracks may not immediately alter the pavement’s ride quality, they expose the sub-base of the roadway to water leaking through the surface layer. In time, water erodes pavement strength and cracks begin to lengthen and multiply, forming networks of interconnected cracks referred to as “alligator cracking.”

At this point, the pavement is no longer able to sustain the weight of traffic and the cracked pavement disintegrates, forming depressions more familiarly known as potholes. Since potholes result from damage to the roadway’s sub-base, once they appear — regardless of whether or not they are patched — the roadway will continue to deteriorate until it reaches a failed state.

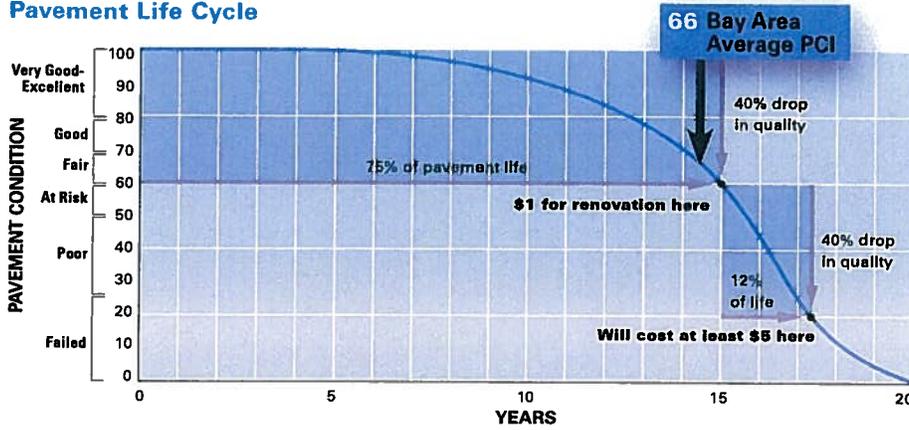
Heavy vehicles such as trucks and buses put far more stress on pavement than does a passenger car. A bus exerts more than 7,000 times the stress on pavement than does a typical sport utility vehicle. And a garbage truck exerts more than 9,000 times as much stress as an SUV. Not surprisingly, cracks appear more quickly on streets with large traffic volumes and/or heavy use by trucks and buses. And these roadways need maintenance more frequently than residential streets with comparatively light vehicle traffic.

### Relative Impact of Vehicle Types on Pavement Conditions



About 28 percent of the Bay Area’s local road mileage consists of arterial and collector roadways, which are heavily used by both trucks and buses. The pounding that pavement receives from trucks and buses can be especially problematic in more rural parts of the Bay Area, where many roadways have not been designed to accommodate heavy vehicles but which are nonetheless used by growing numbers of trucks carrying goods between farms and cities.

## Pavement Life Cycle



*Time varies depending on traffic, climate, pavement design, etc.*

The most cost-effective way to maintain a roadway is to address cracks in the pavement as soon as they surface. Just as regular oil changes are far less expensive than a complete engine rebuild, it is five to 10 times cheaper to properly maintain streets than to allow them to fail and then pay for the necessary rehabilitation (see chart above). Deteriorating pavement carries private costs as well. A 2010 report by TRIP, a nonprofit organization that researches, evaluates and distributes technical data on highway transportation issues, estimated that drivers in the San Francisco-Oakland area pay an extra \$706 in annual operating costs for each vehicle as a result of roadway conditions<sup>1</sup>.

### The Importance of Early Intervention

The Bay Area has long emphasized the importance of early intervention through the adoption of proactive maintenance strategies, better education in pavement preservation concepts, and regional policies that give cities and counties incentives to practice pavement preservation on their street and road networks. MTC's *Transportation 2035 Plan* reaffirms this overall approach by conditioning regional funds for local street and road maintenance not only on need and level of system usage but also on preventive-maintenance performance.

By contrast, cities and counties that spend almost all of their paving budgets to fix only a handful of failed roadways, instead of proactively maintaining a much larger percentage of their network that is still in good condition, are practicing what is known as a "Worst First" strategy. With this approach, the good roads for which maintenance is deferred soon fall into disrepair and require more extensive and costly treatments.

## Best and Worst Bay Area Roads

Many factors affect a city's or county's pavement condition index, or PCI score. These include pavement age, climate and precipitation, traffic loads and available maintenance funding. A municipality with new housing developments and new streets may have a high overall PCI, while an older, urbanized jurisdiction may have a much lower PCI, even though both are practicing pavement preservation. Cities and counties that practice preventive maintenance will have lower long-term pavement costs and will safeguard their investment in local streets and roads. For a full listing of Bay Area jurisdictions' pavement conditions, please go to page 15.

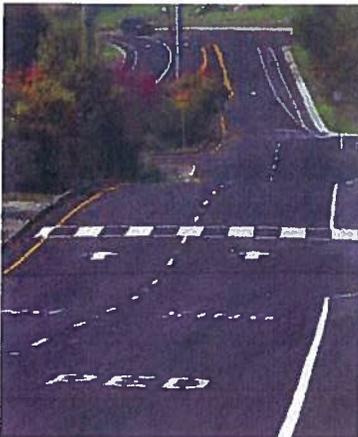
### Bay Area Jurisdictions With Best and Worst Pavement Conditions in 2010, Based on 3-Year Average PCI Scores

Best PCI Ratings	Worst PCI Ratings
Brentwood – 86	Rio Vista – 42
Belvedere – 84	Larkspur – 45
Dublin – 82	Sonoma County – 45*
Los Altos – 82	St. Helena – 46
Foster City – 81	Orinda – 49

\*Unincorporated area



- MTC pavement management software designed specifically for cities and counties.
- Over 400 users including Seattle, Portland, San Francisco, San Jose, Stanford University, US Forest Service
- Available online anytime, and anywhere with Internet access at [www.streetsaveronline.com](http://www.streetsaveronline.com)



El Cerrito streets have had a major makeover, funded in part by revenues from a voter-approved sales tax.

Bay Area governments’ support for the preventive-maintenance philosophy — and their shift away from the ineffective “Worst First” strategy — has helped cities and counties squeeze the most out of existing resources. Indeed, the quality of Bay Area pavement (on average) actually increased slightly from 2005 to 2008, despite the fact that growth in maintenance revenues failed to keep pace with increases in the cost of paving materials.

### El Cerrito: A Pavement Success Story

In 2006, the city of El Cerrito’s local street network was in poor condition (single-year PCI score of 48) and the city had a backlog of more than \$21 million in maintenance work. Four years later, the city had boosted its single-year PCI score to 85 and had trimmed its maintenance backlog to just \$500,000. How did El Cerrito improve pavement conditions so much and so quickly?

After launching a public outreach campaign that included citizens, city council members and public works staff, El Cerrito won passage of a half-cent sales tax measure in 2008 for a Street Improvement Program. With \$2.1 million in sales tax revenues, augmented by \$10.5 million in bond proceeds and \$1.8 million in grant funds, the city improved pavement conditions and created a direct, local source of revenue for future maintenance. The biggest impact of the Street Improvement Program was El Cerrito’s ability to reduce its maintenance backlog. The city also resurfaced 68 percent of its streets, built over 400 new curb ramps and replaced 50 storm drain crossings.

#### El Cerrito’s Pavement Program and Conditions, 2006 vs. 2010

	2006	2010
Single-year PCI score	48 (Poor)	85 (Very Good)
PCI: 3-year moving average	53 (At Risk)	62 (Fair)
Maintenance backlog	\$21.2 million	\$500,000
Annual budget needed to maintain PCI	\$1.3 million	\$500,000
Annual average funding level	\$250,000	\$500,000

### Pavement Management Boosts Preservation Returns

Building on pavement preservation principles established by the Federal Highway Administration<sup>2</sup>, MTC developed a pavement management software package called StreetSaver<sup>®</sup> to assist local agencies in maintaining their roadways. StreetSaver<sup>®</sup> integrates the three main pavement preservation components: preventive maintenance, minor rehabilitation (non-structural) and routine maintenance activities, as well as pavement rehabilitation and reconstruction.

Today, all 109 Bay Area jurisdictions — and more than 300 additional public agencies nationwide — use StreetSaver<sup>®</sup>. The software allows cities and counties to inventory their street networks, determine their maintenance needs and devise maintenance programs based on available revenues. The software develops a list of recommended treatments,

classified as preventive maintenance, minor rehab or major rehab, or reconstruction, and prioritizes treatments based on a weighted effectiveness ratio. Within the constraints of each jurisdiction’s budget, the software selects the most cost-effective treatments for implementation and defers the remainder.

As with any other software package, StreetSaver®’s effectiveness depends on the input of reliable data. So for StreetSaver® to work, public works staff must promptly enter updated information about maintenance treatments once the treatments have been applied.

### Reduced Greenhouse Gas Emissions

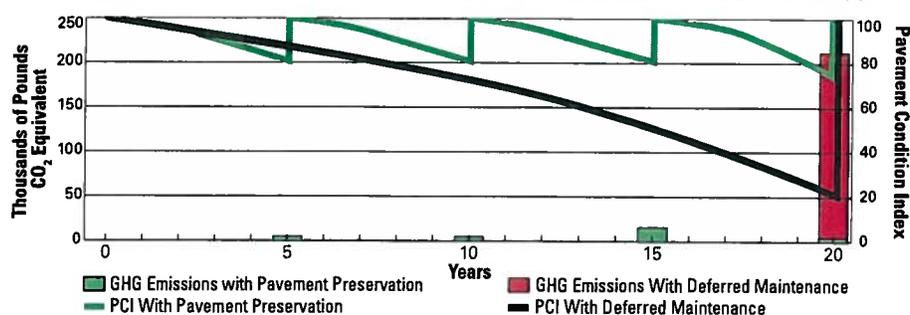
In addition to long-term cost savings, pavement preservation and pavement management strategies pay dividends by reducing the greenhouse gas emissions associated with both vehicle use and roadway construction. According to a June 2009 Caltrans report, *Prioritization of Transportation Projects for Economic Stimulus with Respect to Greenhouse Gases*, smooth pavement reduces GHG emissions by improving vehicles’ fuel economy. The report also notes that more-frequent, low-cost treatments produce fewer emissions than do major rehabilitation projects made necessary by deferred maintenance (see graph below). This is due to the need to produce less asphalt or other paving materials, and the need for fewer truck trips to transport materials to and from the worksite.

Pavement rehabilitation and reconstruction requires large amounts of energy to acquire and process raw materials, transport materials to the construction site, apply the materials, and remove, haul away and discard old materials. Over a 20-year period, these processes combined produce an estimated 212,000 pounds of GHG emissions per lane mile of roadway. Pavement preservation treatments, by contrast, would emit about 30,100 pounds of GHGs over this time, even when done more frequently. This 20-year savings of more than 180,000 pounds of GHG emissions is equivalent to taking 15 cars off the road for a year for each lane mile that is properly maintained. And because preservation treatments keep the roadway in better condition, more motorists are able to travel at steady speeds — and fewer are required to slow down to avoid potholes — thus promoting better fuel economy and even lower GHG emissions.

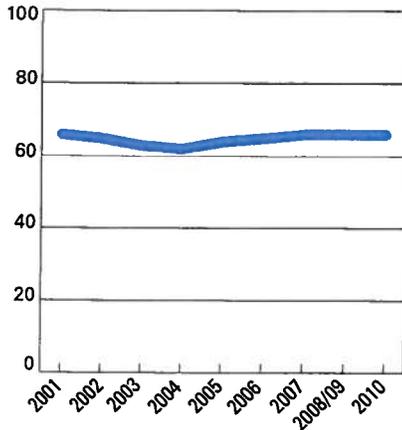
### Benefits of a Pavement Management System

- Provide a systematic way of gauging pavement conditions, and present a series of steps for using this information to identify and schedule the most appropriate treatments.
- Help cities and counties make more efficient use of public funds by allowing them to immediately put any available new moneys to their most cost-effective use.
- Allow local governments to predict what conditions would be at different levels of funding, and to quantify the consequences of underfunded road maintenance.
- Allow local governments to establish performance-based funding allocation policies.
- Reduce governments’ overall maintenance spending once the management system reaches its goal of getting all pavement segments to the condition where preservation is the primary strategy being applied.
- Build support for increased funding by systematically tracking pavement inventories, conditions and maintenance activities across multiple jurisdictions.

**GHG Emissions With Pavement Preservation vs. Deferred Maintenance<sup>3</sup>**



**Bay Area Pavement Condition Index (PCI) Scores, 2001–2010\***



\*PCI scores are 3-year moving averages, except for 2001 and 2002, which are single-year scores, and 2008/09, which is a 3-year moving average computed from individual-year scores for 2006, 2007 and 2009.

## Regional Pavement Condition Summary

The Bay Area’s local street and road network comprises nearly 42,500 lane miles of roadway, and includes not only paved surfaces but also the curbs and gutters, sidewalks, storm drains, traffic signs, signals and lights that are necessary for functioning roadways. To replace this network would cost at least \$50 billion. The roadway network provides access to jobs, homes, schools, shopping and recreation, and is vital to the region’s livability and economic health. As with any asset, regular maintenance is required in order to ensure serviceability.

Every year, local jurisdictions analyze pavement conditions to help gauge their success in maintaining their local street and road networks. MTC, in turn, collects this information to determine regional state of repair. MTC and local jurisdictions use a Pavement Condition Index (PCI) score that rates segments of paved roadways on a scale from 0 to 100. MTC looks at the percentage of the region’s roadways that fall into various condition categories, ranging from a low of “failed” to a high of “excellent.” The classifications used in the regional pavement condition analysis are shown in the following table:

<b>Very Good-Excellent</b> (PCI = 80-100)	Pavements are newly constructed or resurfaced and have few if any signs of distress.
<b>Good</b> (PCI = 70-79)	Pavements require mostly preventive maintenance and have only low levels of distress, such as minor cracks or spalling, which occurs when the top layer of asphalt begins to peel or flake off as a result of water permeation.
<b>Fair</b> (PCI = 60-69)	Pavements at the low end of this range have significant levels of distress and may require a combination of rehabilitation and preventive maintenance to keep them from deteriorating rapidly.
<b>At Risk</b> (PCI = 50-59)	Pavements are deteriorated and require immediate attention including rehabilitative work. Ride quality is significantly inferior to better pavement categories.
<b>Poor</b> (PCI = 25-49)	Pavements have extensive amounts of distress and require major rehabilitation or reconstruction. Pavements in this category affect the speed and flow of traffic significantly.
<b>Failed</b> (PCI = 0-24)	Pavements need reconstruction and are extremely rough and difficult to drive.

The 2010 pavement condition analysis shows that Bay Area streets and roads have a three-year moving average PCI score of 66, which is unchanged from the same calculation for 2009. This score falls in the “fair” range, indicating that the typical city street or county road is becoming worn to the point where rehabilitation may be needed to prevent rapid deterioration. The stability of the Bay Area’s average PCI score is mirrored in the percentage of lane miles included in the various pavement quality classifications in recent years. As the bar graph below shows, roadways in the “excellent” or “very good” ranges account for about one-third of the paved lane miles in the nine-county region. Another one-third falls in the “good” or “fair” ranges, while the final third is classified as “at-risk,” “poor” or “failed.”

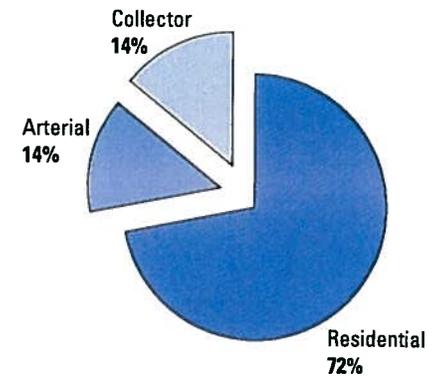
### Functional Classifications

Just as there are different ranges of pavement quality, so too are there various classifications for local streets and roads. A roadway’s “functional classification” is determined primarily by the number of vehicles that use it. About 70 percent of roadways are residential (see chart at right). These are the streets and roads that run through neighborhoods and carry few buses or trucks, other than waste management vehicles. Collector roadways serve to “collect” traffic from the residential streets and deposit them onto arterials, which carry the most car, truck and bus traffic, and which typically provide an outlet onto state highways or freeways. Arterials also function as alternatives to highways and freeways to relieve traffic congestion. Federal funding can be used only on roadways that have a functional classification of collector or arterial, or roughly 28 percent of the Bay Area street system.

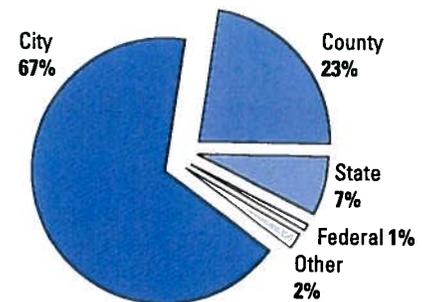
Local streets and roads, which are owned and maintained by cities or counties, account for 90 percent of the Bay Area’s total lane mileage. State highways (including interstate highways) are maintained by Caltrans and comprise about 7 percent of total mileage. Roadways that fall under the responsibility of the federal government primarily include those in national parks, reserves, tribal lands and military installations. About 2 percent of roadways are either privately owned, or are owned and maintained by special districts such as the California Department of Parks and Recreation or the Golden Gate Bridge, Highway and Transportation District.

### Bay Area Local Roadway Characteristics

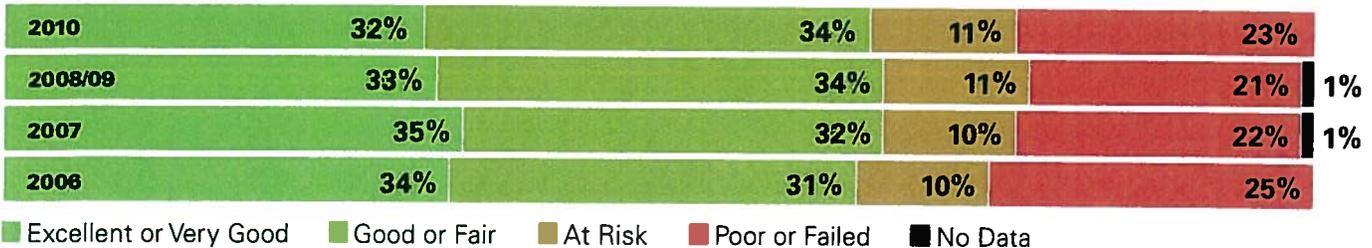
**Functional Classification of Local Street and Road Network, by Percentage of Mileage**



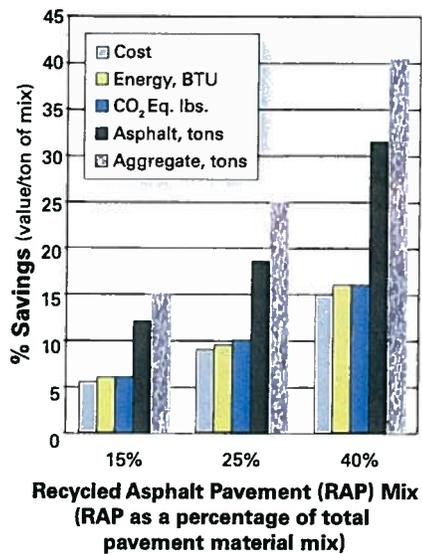
**Ownership of Maintained Roads in Bay Area, by Percentage of Mileage (2008)**



### Pavement Conditions on Bay Area Local Roadways, 2006–2010 (% of lane miles)



**Cost, Energy, Materials and Greenhouse Gas Reduction Associated with Recycled Asphalt Pavement (RAP)<sup>a</sup>**



**Pavement Recycling: Seeing Green in New Technology**

State law obliges MTC and other regional agencies to work together with local governments to reduce greenhouse gas emissions related to transportation. Promising innovations in pavement maintenance, including alternative methods of construction and the use of sustainable materials and technologies, highlight an opportunity to not only move the GHG needle in the right direction but to reduce cities’ and counties’ long-term maintenance costs as well. And unlike other strategies for reducing GHG emissions, these innovations can deliver immediate benefits — with no large-scale behavioral changes required.

**Cold In-Place Recycling**

Several Bay Area municipalities already are experimenting with a relatively new technology known as Cold In-Place Recycling (CIR), which eliminates the need for the extraction and processing of raw materials, as well as the transportation and lay-down of finished asphalt-concrete (the main material in pavement resurfacing). On average, each lane mile paved with CIR instead of conventional hot-mix asphalt reduces CO<sub>2</sub> emissions by 131,000 pounds — or more than 400 percent — at a cost 20 to 40 percent below that of conventional techniques.

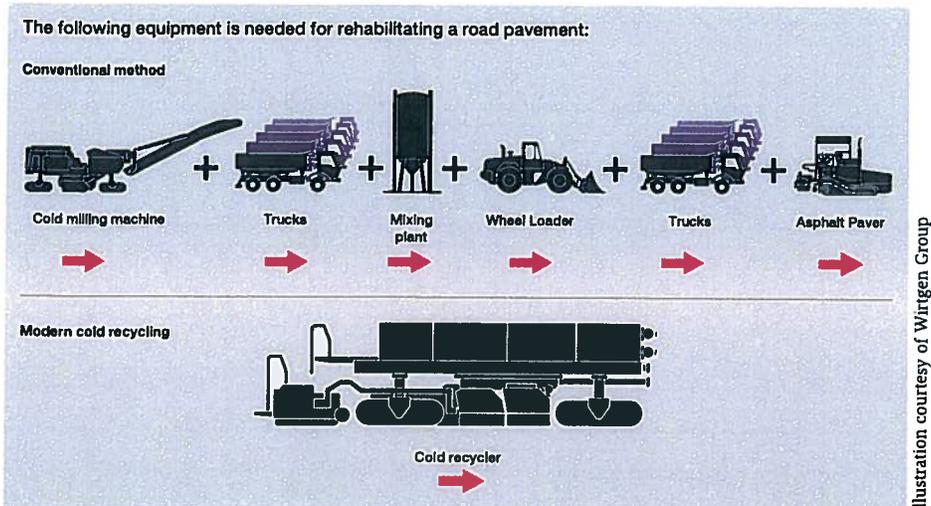
Because CIR requires the use of specialized machinery, local governments typically bid out these jobs to contractors who are experienced in the use of this equipment. A CIR “train” travels down the roadway, cold-planing the existing pavement to a depth of two to eight inches. As soon as the first machine scoops up the pavement, a second pulverizes and mixes it with additives, while a third machine replaces and then smooths the mix back onto the roadway.

MTC recently awarded a \$2 million grant through its Climate Initiatives Program to help finance a joint CIR demonstration project by Sonoma County and the city of Napa, with the intention of piloting the use of this technology for possible applications elsewhere in the Bay Area. The grant includes funds for outreach to familiarize other jurisdictions with the benefits of CIR. Planned outreach elements include site visits, video and sample technical specifications for use by other cities and counties. All climate grants will be evaluated for effectiveness in reducing greenhouse gas emissions.

**Off-Site Recycling**

Another way in which road maintenance and construction are becoming more green is the off-site recycling of asphalt. In this process, workers remove asphalt and transport it to a plant for reprocessing, where machines grind up and mix the recycled material with fresh asphalt, and then apply the mix — known as recycled asphalt or RAP — to the roadways. (Graph at upper left shows cost, energy, materials and greenhouse reductions possible with RAP.)

## Road Rehabilitation Equipment: Conventional vs. Cold In-Place Recycling



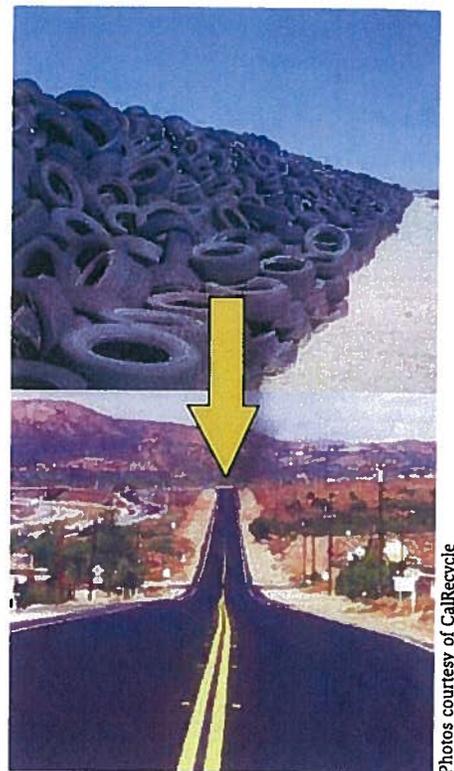
The image above shows the traditional paving equipment that would be replaced by Cold In-Place Recycling. Studies show that for each lane mile treated with CIR instead of conventional paving methods, the GHG emissions savings are equivalent to removing 11 cars from the road for one year. With 42,500 lane miles of local roadways in the Bay Area, the potential impact is enormous.

While off-site asphalt recycling does not deliver the scale of greenhouse gas reductions offered by CIR, it does limit the need to secure, process and transport virgin materials. The quality of recycled asphalt has improved greatly in recent years, and now meets or exceeds the quality of virgin materials. Caltrans has set a target of 15 percent recycled asphalt in highway paving projects statewide. Local jurisdictions across the nation are experimenting with even higher percentages of recycled asphalt.

Just as asphalt is being recycled and reused in roadway maintenance, other materials such as roofing shingles and rubber tires are getting second lives as roadway surfacing materials. Rubberized asphalt concrete — made with a combination of regular asphalt concrete and ground-up tires — produces highly durable, skid-resistant and quiet pavement surfaces while using a material that would otherwise end up in landfills. One lane mile of roadway paved with a two-inch-thick surface of rubberized asphalt concrete consumes about 2,000 scrap tires.

The state of California launched a Rubberized Asphalt Concrete (RAC) Grant Program through its CalRecycle initiative to decrease the environmental impacts from the illegal disposal and stockpiling of waste tires. Any California city or county is eligible to apply for a RAC grant through CalRecycle.<sup>5</sup>

## Rubberized Asphalt Concrete



According to the U.S. Environmental Protection Agency, about 12 million tires are converted into rubberized asphalt concrete annually.

**Cost to Maintain Bay Area Local Streets and Roads, 2010-2035, Including Complete Streets Enhancements**



**Complete Streets: Safer, More Livable**

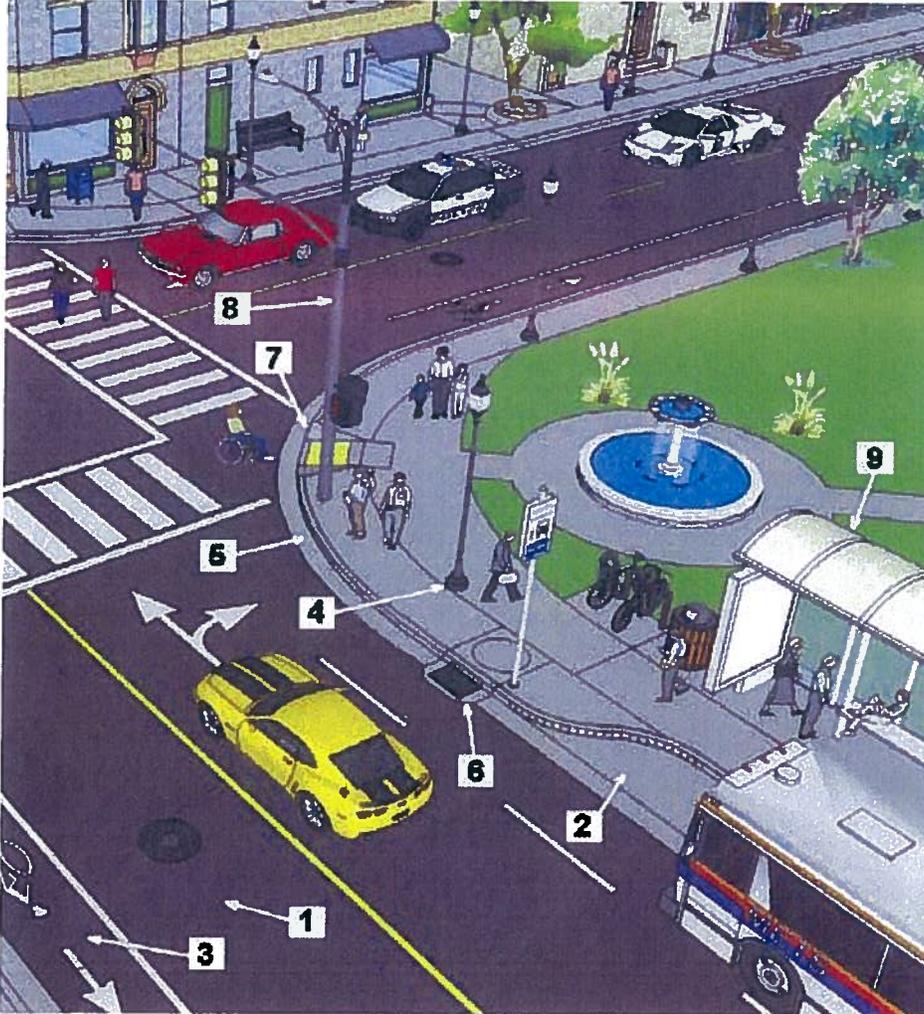
Pedestrians and bicyclists share the Bay Area’s streets and roads with cars, trucks and buses. To make roadways — particularly those in urban areas — more pedestrian- and bicycle-friendly, a new design approach known as Complete Streets has emerged in recent years. While there is no standard template, common elements typically include bike lanes, sidewalk bike racks, transit stops, pedestrian signals, street trees and curb ramps. By incorporating these elements into Complete Streets, transportation agencies help ensure that people of all ages and abilities can use the street safely.

MTC has embraced the Complete Streets concept. MTC Resolution 3765, adopted in 2006 to promote routine accommodation of non-motorized travelers in project planning and design, led to development of a Complete Streets checklist which Bay Area cities and counties must submit with applications for regional funding. At the state level, Caltrans adopted Deputy Directive 64-R-1 in 2008, recognizing bicycle, pedestrian and transit modes as integral elements of the transportation system and considering all transportation improvements as opportunities to improve safety, access and mobility for all travelers. And a Federal Highway Administration safety review found pedestrian safety is improved by streets designed with sidewalks, raised medians, optimal bus stop placement, traffic-calming measures and treatments for disabled travelers<sup>6</sup>. One study cited by the National Complete Streets Coalition found that designing for pedestrian travel by installing raised medians and redesigning intersections and sidewalks reduced pedestrian injury and fatality risk by 28 percent<sup>7</sup>.

**Investing in Complete Streets**

Because each street is unique, the cost of upgrading to a Complete Street can vary widely from project to project. But, on average, costs for Complete Street projects tend to run 15 percent to 25 percent higher than projects without these enhancements. This includes both the pavement (e.g., a bike lane) and non-pavement (e.g., street furniture and plantings) elements that make up a Complete Street. The illustration and table on page 13 show an example of a downtown Complete Street and its associated costs, as estimated by staff from the city of Santa Rosa.

### Elements of an Urban Complete Street<sup>8</sup>



Based on *Transportation 2035 Plan* estimates of the cost to maintain existing pavement and non-pavement assets in the Bay Area, an additional \$7 billion would be required to upgrade to Complete Street status just the region’s major roadways, which account for about 28 percent of the local street and road network. (See chart on page 12.)

### Example: Estimated Construction Costs for Urban Complete Street<sup>9</sup>

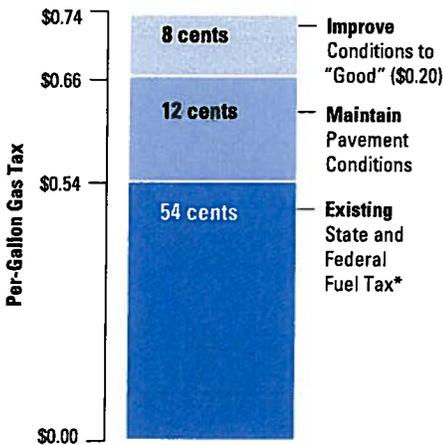
	Item	Total Cost Per Block Conventional Street	Total Cost Per Block Complete Street
1	Pavement Costs Attributed to Cars	\$152,533	\$152,533
2	Pavement Costs Attributed to Buses/Trucks	\$238,333	\$238,333
3	Pavement Costs Attributed to Bicycles		\$47,667
	<b>Subtotal Pavement Costs</b>	<b>\$390,866</b>	<b>\$438,533</b>
4	Lights/Signs/Markings	\$41,600	\$41,600
5	Curb and Gutter	\$42,900	\$42,900
6	Storm Drain	\$153,439	\$153,439
7	Sidewalk and ADA Ramp	\$182,000	\$182,000
8	Traffic Signal	\$390,000	\$390,000
9	Street Furniture and Plantings**		\$187,590
	<b>Subtotal Non-Pavement Costs</b>	<b>\$809,939</b>	<b>\$997,529</b>
	<b>Total Cost</b>	<b>\$1,200,805</b>	<b>\$1,436,062</b>

<sup>9</sup> Estimate provided by city of Santa Rosa.

<sup>\*\*</sup> Street Furniture and Plantings includes bike racks, street trees, lighted bus shelters, trash and recycle bins, benches and plant pots.

### What Will It Take?

To improve the Bay Area’s local streets and roads to a “good” pavement condition (PCI of 75), additional revenues roughly equal to a 20-cent increase in the gas tax — dedicated to local street and road maintenance — would be needed. The figure below illustrates the levels to which per-gallon gas taxes would need to rise in order to generate the funds necessary to maintain current pavement conditions, or to bring them up to a “good” level. To also improve the region’s non-pavement assets to a “good” condition, an additional 18 cents per gallon would be required. (Note: These calculations do not include the cost of Complete Street-type upgrades.)



\* Revenues from the existing fuel tax are dedicated to many purposes — streets and roads are only one of these.



### Looking Forward: The Funding Picture

With a regionwide average PCI score of 66, the Bay Area’s city streets and county roads are close to the tipping point on the pavement life-cycle curve, after which pavement may decline rapidly and repair costs increase (see illustration on page 5).

Predictable, long-term funding is imperative if cities and counties are to travel toward a pothole-free future. The Bay Area currently invests about \$351 million annually in maintaining local streets and roads. If investment continues at this level, local streets and roads will, on average, deteriorate to poor condition (PCI of 45) by 2035. In order to bring the region’s pavement conditions up to good condition (PCI of 75), the region would need to triple current maintenance expenditures to nearly \$1 billion annually. The chart below details the average pavement conditions that are projected at each investment level.

**Projected Pavement Conditions in 2035 Based on Annual Expenditure Level Scenarios**

	Existing Funding	Maintain Current Pavement Condition	Improve Conditions*
Average Regional PCI** in 2035	45	66	75
Pavement Condition	Poor	Fair	Good
Average Annual Expenditure Level***	\$351 million	\$740 million	\$975 million
Annual Expenditure/ Lane Mile	\$8,000	\$17,000	\$23,000
Increase Over Current Expenditure Level (%)	0%	110%	177%

\* Improvements do not include Complete Street-type upgrades.

\*\* PCI is the Pavement Condition Index (Scale of 0 to 100, with 100 being the highest PCI).

\*\*\* Average Annual Expenditure Level assumes a 3 percent inflation rate.

Currently, revenue sources typically used to pay for roadway maintenance include state gas taxes, federal highway funds, county sales taxes, city and county general funds, bonds and traffic fees. As the various levels of government look to renew and/or reauthorize funding measures and long-range plans, attention to the cost of maintaining streets and roads at a good state of repair should remain a high priority.

## Pavement Condition Index (PCI) for Bay Area Jurisdictions, 2006–2010

3-Year Moving Average

Jurisdiction	County	Total Lane Miles	2006	2007	2009 <sup>1</sup>	2010 <sup>2</sup>
<b>Very Good (PCI= 80–89)</b>						
Brentwood	Contra Costa	416	85	84	85	86
Belvedere	Marin	24	81	79	82	84
Dublin	Alameda	240	80	80	81	82
Los Altos	Santa Clara	226	85	84	83	82
Foster City	San Mateo	121	82	83	82	81*
Santa Clara	Santa Clara	597	83	82	82	80*
San Pablo	Contra Costa	104	67	72	76	80
<b>Good (PCI=70–79)</b>						
Livermore	Alameda	655	79	79	78	78
Union City	Alameda	331	76	75	76	78
Contra Costa County	Contra Costa	1327	83	82	80	78
Redwood City	San Mateo	353	74	76	77	78*
Atherton	San Mateo	106	68	69	73	77
Brisbane	San Mateo	57	70	73	76	77
Daly City	San Mateo	254	70	73	75	77*
Pleasanton	Alameda	498	74	75	76	77
Burlingame	San Mateo	162	68	72	75	77*
Morgan Hill	Santa Clara	259	71	75	76	77
Emeryville	Alameda	47	76	79	76	77
Los Altos Hills	Santa Clara	113	74	75	76	77
Sonoma	Sonoma	68	80	79	79	77
Oakley	Contra Costa	229	83	80	78	76
Gilroy	Santa Clara	243	82	80	79	76*
Mountain View	Santa Clara	331	74	74	75	76
Dixon	Solano	129	81	77	76	76
Concord	Contra Costa	713	78	78	78	76
Vacaville	Solano	533	78	79	77	76*
Clayton	Contra Costa	95	75	77	76	75
Campbell	Santa Clara	218	78	76	75	75*
Sunnyvale	Santa Clara	636	80	77	74	75

**Pavement Condition Index (PCI) for Bay Area Jurisdictions, 2006–2010 (continued)**

Jurisdiction	County	Total Lane Miles	3-Year Moving Average			
			2006	2007	2009 <sup>1</sup>	2010 <sup>2</sup>
San Rafael	Marin	331	63	66	70	75
Santa Clara County	Santa Clara	1485	75	77	75	74
San Ramon	Contra Costa	398	74	73	74	74
American Canyon	Napa	102	76	76	75	74
Hercules	Contra Costa	128	75	74	73	73
Windsor	Sonoma	168	74	75	74	73
Novato	Marin	318	65	67	71	73*
Portola Valley	San Mateo	71	64	63	67	73
San Mateo	San Mateo	409	61	67	70	73*
Palo Alto	Santa Clara	470	N/A	N/A	72	73
Danville	Contra Costa	301	74	73	72	73
Walnut Creek	Contra Costa	436	72	74	73	73*
South San Francisco	San Mateo	296	67	71	72	73*
Fairfield	Solano	709	77	75	73	73
Alameda County	Alameda	997	69	71	72	72
Lafayette	Contra Costa	202	64	70	71	72
Corte Madera	Marin	64	73	73	73	72*
Cloverdale	Sonoma	64	69	71	72	71*
Saratoga	Santa Clara	281	70	71	72	71**
Hillsborough	San Mateo	164	64	66	69	71
Piedmont	Alameda	78	67	67	69	70
Cupertino	Santa Clara	303	69	70	70	70
Pinole	Contra Costa	119	71	71	70	70
Tiburon	Marin	68	64	67	68	70
<b>Fair (PCI= 60–69)</b>						
Fairfax	Marin	55	69	70	69	69
Yountville	Napa	17	67	65	67	69
Milpitas	Santa Clara	287	70	70	70	69
Hayward	Alameda	629	68	68	69	69
Antioch	Contra Costa	616	70	70	70	69
San Mateo County	San Mateo	635	65	67	68	69
Los Gatos	Santa Clara	218	72	73	72	69

**Pavement Condition Index (PCI) for Bay Area Jurisdictions, 2006–2010 (continued)**

**3-Year Moving Average**

<b>Jurisdiction</b>	<b>County</b>	<b>Total Lane Miles</b>	<b>2006</b>	<b>2007</b>	<b>2009<sup>1</sup></b>	<b>2010<sup>2</sup></b>
Monte Sereno	Santa Clara	27	65	70	68	69
Newark	Alameda	252	75	71	69	69**
Rohnert Park	Sonoma	206	68	67	67	69
Ross	Marin	22	64	65	69	67
San Carlos	San Mateo	175	68	69	70	67
Pleasant Hill	Contra Costa	242	62	65	65	67
Solano County	Solano	932	58	61	64	67
Healdsburg	Sonoma	93	66	66	67	67
Alameda	Alameda	275	63	63	62	66
Colma	San Mateo	23	67	72	67	65
Santa Rosa	Sonoma	1090	64	64	65	65
Sebastopol	Sonoma	47	67	67	66	65
Fremont	Alameda	1063	70	68	66	64
Pittsburg	Contra Costa	319	65	64	64	64
San Jose	Santa Clara	4182	63	63	63	64
Cotati	Sonoma	46	66	66	64	64*
San Francisco	San Francisco	2130	64	64	64	64
San Bruno	San Mateo	178	62	64	63	63
Benicia	Solano	190	70	68	66	63
Sausalito	Marin	54	69	68	65	63*
Menlo Park	San Mateo	200	62	62	62	63
El Cerrito	Contra Costa	145	53	50	50	62
Half Moon Bay	San Mateo	55	55	59	61	62
Suisun City	Solano	150	53	50	55	62
Mill Valley	Marin	117	64	62	60	61
Albany	Alameda	59	62	63	63	60
Calistoga	Napa	29	57	57	59	60*
Berkeley	Alameda	453	62	60	60	60*
Belmont	San Mateo	135	61	61	61	60

Pavement Condition Index (PCI) for Bay Area Jurisdictions, 2006–2010 (continued)

Jurisdiction	County	Total Lane Miles	3-Year Moving Average			
			2006	2007	2009 <sup>1</sup>	2010 <sup>2</sup>
<b>At-Risk (PCI=50–59)</b>						
Millbrae	San Mateo	124	60	57	57	59*
Pacifica	San Mateo	189	64	60	59	59*
Martinez	Contra Costa	233	57	57	59	59**
Moraga	Contra Costa	110	61	60	59	58**
Napa County	Napa	840	54	51	55	57*
Woodside	San Mateo	97	62	60	57	57
San Leandro	Alameda	392	62	60	58	57*
Napa	Napa	464	52	53	55	57
Oakland	Alameda	1963	56	57	59	56
Richmond	Contra Costa	549	46	50	53	55*
San Anselmo	Marin	80	59	58	57	55**
Petaluma	Sonoma	390	60	57	55	55
East Palo Alto	San Mateo	80	60	56	52	53
Vallejo	Solano	681	54	54	53	53
Marin County	Marin	848	48	49	50	52
<b>Poor (PCI=25–49)</b>						
Orinda	Contra Costa	193	46	47	48	49
St. Helena	Napa	51	58	53	48	46
Larkspur	Marin	64	51	48	47	45
Sonoma County	Sonoma	2718	44	44	44	45
Rio Vista	Solano	45	51	48	45	42***
<b>Regional</b>		<b>42,499</b>	<b>64</b>	<b>65</b>	<b>66</b>	<b>66</b>

**Notes:**

Where "NA" is indicated, the jurisdiction used pavement management software that does not use the PCI scale.

<sup>1</sup> Increased utilization of online reporting options by many jurisdictions in 2009 allowed MTC to collect and tabulate 2009 pavement condition data, even as 2008 data was still being compiled. To simplify reporting, MTC decided not to separately report 2008 data, electing instead to bring PCI data up to date as of 2009. The reported 2009 3-year moving average is computed from the individual-year scores for 2006, 2007 and 2009.

<sup>2</sup> The 2010 3-year moving average is computed from the individual-year scores for 2007, 2009 and 2010.

\* 3-year moving average score is an estimate based on inspections done in 2008.

\*\* 3-year moving average score is an estimate based on inspections done in 2007.

\*\*\* 3-year moving average score is an estimate based on inspections done in 2006.

## Footnotes/Citations

- <sup>1</sup> (Page 5) Press release reference:  
[www.tripnet.org/national/Urban\\_Roads\\_PR\\_092210.pdf](http://www.tripnet.org/national/Urban_Roads_PR_092210.pdf)
- <sup>2</sup> (Page 6) Pavement Preservation: a program employing a network-level, long-term strategy that enhances pavement performance by using an integrated, cost-effective set of practices that extend pavement life, improve safety and meet motorist expectations. (FHWA Pavement Preservation Expert Task Group; see Federal Highway Administration website:  
[www.fhwa.dot.gov/pavement/preservation/091205.cfm](http://www.fhwa.dot.gov/pavement/preservation/091205.cfm))
- <sup>3</sup> (Page 7) Jim Chehovits & Larry Galehouse, "Energy Usage and Greenhouse Gas Emissions of Pavement Preservation Processes for Asphalt Concrete Pavements," *Proceedings of the International Conference for Pavement Preservation, 2010*
- <sup>4</sup> (Page 10) Source: Meyer, Wendall L., FHWA Update, *Proceedings of the North Dakota Asphalt Conference, 2010*. Based on data from: Robinette, C. and J. Epps, "Energy, Emissions, Material Conservation and Prices Associated with Construction, Rehabilitation and Materials Alternatives for Flexible Pavement," *Proceedings of the 89th Annual TRB Meeting, 2010*
- <sup>5</sup> (Page 11) More information about Cal Recycle and the Rubberized Asphalt Concrete Grant Program is available at [www.calrecycle.ca.gov](http://www.calrecycle.ca.gov)
- <sup>6</sup> (Page 12) Federal Highway Administration website:  
[safety.fhwa.dot.gov/ped\\_bike/ped\\_transit/ped\\_transguide/ch3.cfm](http://safety.fhwa.dot.gov/ped_bike/ped_transit/ped_transguide/ch3.cfm)
- <sup>7</sup> (page 12) National Complete Streets Coalition,  
[www.completestreets.org/complete-streets-fundamentals/factsheets/safety](http://www.completestreets.org/complete-streets-fundamentals/factsheets/safety)
- <sup>8</sup> (Page 13) Urban Complete Streets graphic courtesy of Pavement Engineering, Inc., CA

## Project Staff

*The Pothole Report:*

*Can the Bay Area Have Better Roads?* was produced by MTC's Programming and Allocations Section.

### **Alix Bockelman**

*Director, Programming and Allocations*

### **Theresa Romell**

*Pavement Program Manager*

### **Amy Burch**

*Project Manager*

### **Theresa Romell, Sui Tan**

*Data Analysis*

### **Joe Curley**

*Editor*

### **John Goodwin**

*Assistant Editor*

### **Peter Beeler**

*Design*

### **Peter Beeler, Michele Stone**

*Production*

### **Karl Neilsen**

*Photography (except where otherwise indicated)*

### **Dakota Press, San Leandro, CA**

*Printing*

To order additional copies of this publication, contact the MTC Library:  
[library@mtc.ca.gov](mailto:library@mtc.ca.gov) **email**  
510.817.5932 **fax**  
510.817.5836 **phone**



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Joseph P. Bort MetroCenter  
101 Eighth Street  
Oakland CA 94607-4700

510.817.5700 **tel**

510.817.5848 **fax**

510.817.5769 **tty/tdd**

[info@mtc.ca.gov](mailto:info@mtc.ca.gov) **email**

[www.mtc.ca.gov](http://www.mtc.ca.gov) **web**

**ORDINANCE NO. 2012-01**

**NAPA VALLEY TRANSPORTATION AUTHORITY ORDINANCE AND  
TRANSPORTATION IMPROVEMENT EXPENDITURE PLAN  
IMPOSING A TRANSACTION AND USE TAX TO BE  
ADMINISTERED BY THE STATE BOARD OF EQUALIZATION**

The Napa Valley Transportation Authority (the "Authority") ordains as follows:

**SECTION 1. TITLE:** This Ordinance shall be known and may be cited as the Napa Valley Ordinance and Transportation Improvement Expenditure Plan (Authority Ordinance 2012-01), hereinafter referred to as the Ordinance. This Ordinance establishes a retail transactions and use tax for a twenty-five year period commencing July 1, 2018, or upon early termination of the Measure A Flood Protection tax provided however that should the Flood Protection tax be extended by a vote of the electorate then this measure will not take effect until the expiration of such extension.

**SECTION 2. EXPENDITURE PLAN PURPOSES:** This Ordinance provides for the implementation of the Napa Valley Transportation Authority Transportation Improvement Expenditure Plan (the "Expenditure Plan") which will provide funding resulting in countywide local street and road improvements. This funding program will ensure improved maintenance of currently under-funded local community streets and supporting infrastructure (e.g., sidewalks, gutters, curbs) within the public right-of-way. These improvements shall be funded by a one-half of one percent transactions and use tax established for a twenty-five year period commencing July 1, 2018, or upon expiration of the Measure A Flood Protection tax as expressed in Section 1 above. The revenues shall be deposited in a special fund, used solely for the identified improvements as provided herein, and made available to the agencies responsible for the improvements for all purposes necessary for the approval and implementation of the tasks. Notwithstanding any other provision of this Ordinance, identified improvements (the "projects" or "programs") that are eligible to receive revenues from the tax are described in the Expenditure Plan, which Expenditure Plan is hereby incorporated by reference as if fully set forth herein.

**SECTION 3. EXPENDITURE PLAN SUMMARY:** The revenues received by the Authority from this Ordinance, after deduction of required Board of Equalization costs for performing the functions specified in Section 180204(b) of the Public Utilities Code, reimbursing the County of Napa for its cost in conducting the election if the measure is approved per Section 180203(a) of the Public Utilities Code, administration (Section 12 A), and the costs of the annual financial and biennial performance audits (Section 11), shall be used to fund the improvements set forth herein. In the event the measure does not pass, the costs for conducting the election shall be borne by the Authority. A summary of the projects and programs that are eligible to receive this funding is provided in the following sections. All funding and revenues are expressed in 2011 dollars. The annual revenues shall be allocated as follows:

**A. Local Streets and Roads Maintenance Program:** Subject to Paragraph B, of the annual revenues available, ninety-nine percent (99%) shall be allocated on a fair and equitable basis (pursuant to the distribution formula set forth below) to each city, town, and the county (hereinafter referred to individually as Agency and collectively as Agencies) to provide revenue for such projects and to supplement, but not supplant, other revenues available for the Local Streets and Road Maintenance Program. The revenues allocated to each Agency under this Section 3(A) must be used for maintenance, reconstruction or rehabilitation of local streets, roads, and infrastructure within the public right-of-way. Total estimated funding = \$282.15 million (2011 dollars).

1) The revenue allocated to the Local Streets and Roads Maintenance Program shall be allocated to, and expended by, each Agency pursuant to the following distribution formula:

a. To the City of American Canyon 7.7% of the annual revenues available.

b. To the City of Calistoga 2.7% of the annual revenues available.

c. To the City of Napa 40.35% of the annual revenues available.

d. To the County of Napa 39.65% of the annual revenues available.

e. To the City of St. Helena 5.9% of the annual revenues available.

f. To the Town of Yountville 2.7% of the annual revenues available.

Net revenues, plus interest earned, shall be apportioned to the Agencies' transportation improvement account on a quarterly basis.

**B.** Once this measure becomes operative, in order to receive annual allocations under this measure, the Agencies (collectively) must demonstrate that at least six and sixty-seven one-hundredths percent (6.67%) of the value of the allocations each year under Section 3(A) has been committed to Class I Bike lane project(s) which are identified in the adopted Countywide Bicycle Plan through funding not derived from this Ordinance. Funding for Class I Bike lane projects that are funded by philanthropy, state discretionary funding, and federal discretionary funding shall not count towards the six and sixty-seven one-hundredths percent (6.67%). As used in this Section, discretionary funding means any funding that is not tied to a specific state or federal program or formula.

**C. Administration:** Actual costs, not to exceed one percent (1%) of the annual revenue, may be used for administration of this Ordinance by the Authority. Total estimated funding = \$2.82 million (2011 dollars).

**SECTION 4. IMPOSITION OF RETAIL TRANSACTIONS AND USE TAX:** In addition to any other taxes authorized by law, there is hereby imposed in the incorporated and unincorporated territory of the County of Napa, in accordance with the provisions of Part 1.6 (commencing with Section 7251) of Division 2 of the Revenue and Taxation Code, and Sections 7261 and 7262 of the Revenue and Taxation Code except insofar as they are inconsistent with the provisions of Part 1.6 of Division 2 of the Revenue and Taxation Code, all of the provisions of Part 1 (commencing with Section 6001) of Division 2 of the Revenue and Taxation Code, and Division 19 of the Public Utilities Code commencing with Section 180000, which provisions are adopted by reference, a retail transactions and use tax at the rate of one-half of one percent (1/2%) for a twenty-five year period commencing July 1, 2018, or upon expiration of the Measure A Flood Protection tax, which tax shall be in addition to any existing or future authorized state or local transactions and use tax.

**SECTION 5. CONTRACT WITH STATE:** The Authority shall notify the State Board of Equalization at least 110 days prior to the operative date and shall contract with the State Board of Equalization to perform all functions incident to the administration and operation of this transactions and use tax Ordinance, provided that if the Authority shall not have contracted with the State Board of Equalization prior to the operative date, it shall nevertheless so contract and in such a case the operative date shall be the first day of the first calendar quarter following the execution of such a contract.

**SECTION 6. EXPENDITURE PLAN PROCEDURES:**

- A. Each Agency shall biennially develop and submit to the Authority a five-year list of projects to be funded with revenues made available for the Local Streets and Roads Maintenance Program (Section 3(A)). Each Agency shall conduct a local public hearing and adopt a Resolution in support of the proposed list of projects prior to submitting the project list to the Authority pursuant to Section 7.
- B. In the allocation of all revenues made available under Section 3, the Authority shall make every effort to maximize state, federal, and local transportation funding to the Agencies. The Authority may amend the Expenditure Plan in accordance with Section 21 as needed to maximize the transportation funding available throughout the county. It is also the intent of the Authority to encourage the purchase of goods and services for the projects described in Section 3 from suppliers based in Napa County.
- C. The Agencies and the Authority shall fully consider the needs of non-motorized travelers, including pedestrians, bicyclists and persons with disabilities, in all planning, maintenance, construction, operations and project development activities and products. Projects funded in full or in part with Authority revenues shall not remove or reduce existing facilities for bicycling or pedestrians.

**SECTION 7. PROJECT PROGRAMMING APPROVAL:** Prior to the operative date of the tax, and biennially thereafter, the Authority shall approve a five-year list of projects

eligible to be funded with the revenues made available under Section 3 herein, provided that the submittal meets all of the requirements of this Ordinance and funding is, or is estimated to be, available. Prior to Authority approval, the Independent Taxpayer Oversight Committee shall consider each Agency's biennial five-year list of projects and make a finding that such projects are consistent with the intent of the measure, and make a recommendation on which of the items on those project lists should be approved to the Authority.

**SECTION 8. COOPERATIVE FUNDING AGREEMENTS:** To maximize the effectiveness of the retail transactions and use tax revenues, the Authority and/or Agency(ies) may loan revenues actually received, allocated or granted to any public agency within the area of jurisdiction of the Authority provided that the percentage of revenues allocated as provided in Section 3 is maintained over the duration of the Ordinance. Any exchange or loan agreement must include detailed repayment provisions, including appropriate interest earnings based upon the current treasury rate of interest. All loans and/or exchanges must be approved by the Authority's Auditor and by the Authority by a majority vote, and shall be consistent with any and all rules approved by the Authority relating thereto.

**SECTION 9. MAINTENANCE OF EFFORT:** It is the intent of the State Legislature and the Authority that revenues provided from this Ordinance be used to supplement, not supplant, existing local general fund revenues being used for the transportation improvements described in the Expenditure Plan (see Attachment 1). Each Agency receiving revenues pursuant to Section 3 shall annually maintain, as a minimum, the "maintenance of effort" as defined in this Section 9. The maintenance of effort shall be maintained at the same level that local general fund revenues were expended on average for fiscal years 2007/08, 2008/09 and 2009/10 for Local Streets and Roads Maintenance and supporting infrastructure within the public right-of-way for pavement sealing, overlays, reconstruction, associated infrastructure, as required, excluding any local revenues expended for the purpose of storm damage repair as verified by an independent auditor. One-time allocations that have been expended for Local Streets and Roads Maintenance, but which may not be available on an ongoing basis shall not be considered when calculating an Agency's annual maintenance of effort. Prior to the operative date, Agencies shall determine and certify to the Authority the Agency's average maintenance of effort for the 2007/08, 2008/09 and 2009/10 fiscal years. Prior to the beginning of each fiscal year thereafter, Agencies shall certify to the Authority that the maintenance of effort requirement required by this Section will be met that fiscal year, copies of which shall be provided to the Authority Auditor. Any Agency that does not meet its local maintenance of effort requirement for a three year average period shall have its funding under Section 3 the following year reduced by the amount the Agency did not meet its required average maintenance of effort level for the three prior years. Any funds not allocated due to failure to meet the maintenance of effort requirement shall be reserved for the Agency until any and all maintenance of effort expenditures are fulfilled.

**SECTION 10. PRIVATE SECTOR FUNDING:** Revenues provided from this measure shall not be used to replace private developer funding that has been or will be committed for any project to help alleviate the direct traffic impacts of any new or redeveloped residential, commercial or industrial development in Napa County or its cities.

**SECTION 11. INDEPENDENT TAXPAYER OVERSIGHT COMMITTEE:**

A. **ITOC Goal and Functions:** Voter adoption of this transportation retail transactions and use tax Ordinance shall result in creation of the Independent Taxpayer Oversight Committee (“ITOC”) upon the operative date of this tax. The ITOC shall remain in existence for so long as the tax herein exists. The ITOC shall review the fiscal and program performance of the retail transactions and use tax transportation program through a biennial performance audit to ensure that all transportation retail transactions and use tax revenues are spent by the Authority in accordance with all provisions of the voter-approved Expenditure Plan and Ordinance. The ITOC’s secondary mission is to provide positive, constructive advice to the Authority on how to improve implementation over the twenty-five year course of the program; this role shall include consideration by the ITOC of the biennial project lists submitted by the Agencies under Section 6. Up to \$70,000 per year, with adjustments for inflation based on the Consumer Price Index, may be used for activities necessary to the ITOC as described in this Section 11, including financial and performance audits of the Authority and the Agencies receiving revenue from the Authority.

B. **Audit Requirement:** The ITOC shall oversee the independent financial audit of the Authority and the financial and performance audits of the Agencies, which shall be performed in accordance with generally accepted auditing standards and Government Auditing Standards issued by the Comptroller General of the United States and performance goals adopted by the Authority consistent with Public Utilities Code Section 180000 et seq. The audits shall include the basic financial statements of the Authority as defined by the Governmental Accounting Standard Board pronouncement No. 34 and the performance of all aspects of the program based on the specific performance goals adopted by the Authority. The ITOC audit shall not relieve the Authority from performing its auditing obligations as imposed by law.

1) **Role of Fiscal and Performance Audit and the ITOC:**

a. The ITOC shall, under the procurement rules of the Authority, jointly recommend with the active involvement of the Executive Director and the Authority Auditor, an independent California Certified Public Accountant to conduct an annual financial audit of the Authority pursuant to the provisions of this Ordinance, report findings based on the audit to the Authority, and to recommend any additional considerations which the

ITOC believes may improve the financial operation while meeting all voter mandates.

- b. The ITOC shall, under the procurement rules of the Authority jointly recommend with the active involvement of the Executive Director and the Authority Auditor, retention of an independent California Certified Public Accountant to conduct a biennial performance audit of the Agencies, pursuant to the provisions of this Ordinance, report findings based on the audits to the Authority, and recommend any additional considerations which the ITOC believes may improve the integrity of program implementation while meeting all voter mandates.
- c. The ITOC shall review each Agency's annual independent financial audit, report relevant findings based on the audits to the Authority, and recommend any changes which the ITOC believes may improve the financial operations while meeting all voter mandates.
- d. The Authority shall hold a publicly noticed meeting annually, which may be a regular or special Authority Board meeting, with the direct participation of the ITOC, to consider the findings and recommendations of the audits. A report of the findings and recommendations of each audit by the ITOC shall be made readily available to the public in print and on the Authority's electronic website.
- e. The Authority shall publish a biennial report to the community to be published at the expense of tax revenues in all local Napa County newspapers of general circulation.

### **C. Membership and Selection Process**

- 1) The Authority shall develop an open selection process, actively recruit, and appoint seven (7) Committee members who shall be residents of the County of Napa possessing the following credentials:
  - a. One member who is a professional, retired or active, in the field of municipal audit, finance and/or budgeting with a minimum of five years in a relevant and senior decision-making position in the public or private sector.
  - b. One member who is a licensed civil engineer, retired or active, with at least five years of demonstrated experience in the fields of transportation in government and/or the private sector.
  - c. One member who is a Certified Public Accountant (CPA) and experienced in financial audits.

- d. One member shall be a representative of a Napa region Chamber of Commerce.
  - e. One member from a bona fide taxpayers association.
  - f. Two members from the public at-large.
- 2) The Chair and the Executive Director of NCTPA, the Chair of the Napa County Transportation and Planning Agency Technical Advisory Committee, and the County Auditor-Controller shall serve as non-voting ex-officio members of the ITOC.

#### **D. Terms and Conditions for Committees**

- 1) The voting Committee members shall serve a two, three, and four year term, determined by the drawing of lots. Thereafter, Committee members shall serve four-year terms.
- 2) The Authority shall develop by-laws for the operation of the ITOC. The ITOC members shall receive a stipend of \$250 per quarterly meeting and no other payment shall be made for any purpose. This stipend will increase by \$50 per quarterly meeting every five years. A position on the Committee shall become vacant as a result of a member failing to attend two consecutive meetings.
- 3) The voting Committee members cannot be current local elected officials in Napa County or a full time staff member of any city, town, or county government, a local transit operator, or state transportation agency.
- 4) Non-voting ex-officio Committee members shall serve only as long as they remain incumbents in their respective positions and shall be automatically replaced by their successors in those positions.
- 5) If and when vacancies on the ITOC occur on the part of voting Committee members, either due to expiration of term or a vacancy occurring during a term, the Authority shall appoint an appropriate replacement within 90 days of the vacancy to fill the remainder of the term pursuant to the provisions of Government Code Sections 54970, *et. seq* (the Maddy Act).

#### **E. ITOC Operation Protocols**

- 1) The ITOC shall be appointed within 180 days prior to the operative date of the retail transactions and use tax and continue as long as retail transactions and use tax revenues from the current voter authorization are available for expenditure.

- 2) The Authority Board and staff shall fully cooperate with and provide necessary financial and staff support to ensure the ITOC successfully carries out its duties and obligations.

**F. Conflict of Interest**

- 1) ITOC voting members shall have no legal action pending against the Authority and are prohibited from participating in any commercial activity directly or indirectly involving the Authority or Napa County Transportation and Planning Agency (NCTPA), such as being a consultant or vendor to the Authority or NCTPA during their tenure on the ITOC.
- 2) ITOC voting members shall not have direct and/or indirect commercial interest or employment with any public or private entity which receives transportation retail transactions and use tax revenues authorized by this Ordinance.

**SECTION 12. ADMINISTRATIVE FUNCTIONS AND EXPENSES:**

- A. Revenues may be expended by the Authority for the actual expense of salaries, wages, benefits, and those services, including contractual services, necessary to administer the Ordinance; however, in no case shall such administrative expenditures exceed one percent (1%) of the annual revenues provided by the Ordinance.
- B. Administrative functions include providing overall program direction and management necessary to implement Authority policy, formulating organizational goals and objectives, coordinating activities with other agencies and organizations, performing finance, accounting, purchasing, personnel, government and community relations, and legal matters.

**SECTION 13. RECEIPT AND ALLOCATION OF TAX REVENUES:** The Authority Auditor shall receive the tax revenue and shall allocate funds to the Agencies on a calendar quarter basis, together with any accrued interest, by the 20<sup>th</sup> day of the month following the end of the quarter.

**SECTION 14. ESTABLISHMENT OF SEPARATE ACCOUNTING:** Each Agency receiving the revenues identified in Section 3 shall have its revenues deposited in a separate interest bearing Transportation Improvement Fund. Interest earned on revenues allocated pursuant to this Ordinance shall be expended only for those purposes permitted by this Ordinance.

**SECTION 15. IMPLEMENTING ORDINANCES:** Upon approval of this Ordinance by the voters the Authority shall, in addition to the rules required to be provided pursuant to this Ordinance, adopt implementing ordinances, rules, and policies that are not

inconsistent with the purpose and intent of this Ordinance and take such other actions as may be necessary and appropriate to carry out its responsibilities.

**SECTION 16. EFFECTIVE AND OPERATIVE DATES:** This Ordinance shall be effective on November 6, 2012, if two-thirds of the electors voting on the ballot proposition approving the Ordinance vote to approve the ballot proposition on November 6, 2012. The imposition of the tax authorized by this Ordinance shall be operative on July 1, 2018, or upon termination of the Flood Protection tax, and after at least 110 days notice to the State Board of Equalization.

**SECTION 17. PLACE OF SALE:** For the purposes of this Ordinance, all retail sales are consummated at the place of business of the retailer unless the tangible personal property sold is delivered by the retailer or his agent to an out-of-state destination or to a common carrier for delivery to an out-of-state destination. The gross receipts from such sales shall include delivery charges, when such charges are subject to the state sales and use tax, regardless of the place to which delivery is made. In the event a retailer has no permanent place of business in the state or has more than one place of business, the place or places at which the retail sales are consummated shall be determined under rules and regulations to be prescribed and adopted by the State Board of Equalization.

**SECTION 18. LIMITATIONS ON ADOPTION OF STATE LAW AND COLLECTION OF USE TAXES:** In adopting the provisions of Part 1 of Division 2 of the Revenue and Taxation Code:

- A. Wherever the State of California is named or referred to as the taxing agency, the name of this county shall be substituted therefor. However, the substitution shall not be made:
  - 1) The word "State" is used as a part of the title of the State Controller, State Treasurer, State Board of Control, State Board of Equalization, State Treasury, or the Constitution of the State of California;
  - 2) The result of that substitution would require action to be taken by or against this Authority or any agency, officer, or employee thereof rather than by or against the State Board of Equalization, in performing the functions incident to the administration or operation of this Ordinance.
  - 3) In those sections, including, but not necessarily limited to sections referring to the exterior boundaries of the State of California, where the result of the substitution would be to:
    - a. Provide an exemption from this tax with respect to certain sales, storage, use or other consumption of tangible personal property which would not otherwise be exempt from this tax while such sales, storage, use or other

consumption remain subject to tax by the state under the provisions of Part 1 of Division 2 of the Revenue and Taxation Code, or;

- b. Impose this tax with respect to certain sales, storage, use or other consumption of tangible personal property which would not be subject to tax by the state under the said provision of that code.

4) In Sections 6701, 6702 (except in the last sentence thereof), 6711, 6715, 6737, 6797 or 6828 of the Revenue and Taxation Code.

- B. The word "County" shall be substituted for the word "State" in the phrase "retailer engaged in business in this State" in Section 6203 and in the definition of that phrase in Section 6203.

**SECTION 19. PERMIT NOT REQUIRED:** If a seller's permit has been issued to a retailer under Section 6067 of the Revenue and Taxation Code, an additional transactor's permit shall not be required by this Ordinance.

**SECTION 20. EXEMPTIONS AND EXCLUSIONS:**

- A. There shall be excluded from the computation of the transactions tax and the use tax the amount of any sales tax or use tax imposed by the State of California or by any city, city and county, or county pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law or the amount of any state-administered transactions or use tax.

- B. There are exempted from the computation of the amount of the transactions tax the gross receipts from:

- 1) Sales of tangible personal property, other than fuel or petroleum products, to operators of aircraft to be used or consumed principally outside the county in which the sale is made and directly and exclusively in the use of such aircraft as common carriers of persons or property under the authority of the laws of this State, the United States, or any foreign government.

- 2) Sales of property to be used outside the county which is shipped to a point outside the county, pursuant to the contract of sale, by delivery to such point by the retailer or his agent, or by delivery by the retailer to a carrier for shipment to a consignee at such point. For the purposes of this paragraph, delivery to a point outside the county shall be satisfied:

- a. With respect to vehicles (other than commercial vehicles) subject to registration pursuant to Chapter 1 (commencing with Section 4000) of Division 3 of the Vehicle Code, aircraft licensed in compliance with Section 21411 of the Public Utilities Code, and undocumented vessels registered under Division 3.5 (commencing with Section 9840) of the Vehicle Code

by registration to an out-of-county address and by a declaration under penalty of perjury, signed by the buyer, stating that such address is, in fact, his or her principal place of residence; and

- b. With respect to commercial vehicles, by registration to a place of business out-of-county and declaration under penalty of perjury, signed by the buyer, that the vehicle will be operated from that address.
  - 3) The sale of tangible personal property if the seller is obligated to furnish the property for a fixed price pursuant to a contract entered into prior to the operative date of this Ordinance.
  - 4) A lease of tangible personal property which is a continuing sale of such property, for any period of time for which the lessor is obligated to lease the property for an amount fixed by the lease prior to the operative date of this Ordinance.
  - 5) For the purposes of subparagraphs (3) and (4) of this Section, the sale or lease of tangible personal property shall be deemed not to be obligated pursuant to a contract or lease for any period of time for which any party to the contract or lease has the unconditional right to terminate the contract or lease upon notice, whether or not such right is exercised.
- C. There are exempted from the use tax imposed by this Ordinance, the storage, use or other consumption in this county of tangible personal property:
- 1) The gross receipts from the sale of which have been subject to a transactions tax under any state-administered transactions and use tax ordinance.
  - 2) Other than fuel or petroleum products purchased by operators of aircraft and used or consumed by such operators directly and exclusively in the use of such aircraft as common carriers of persons or property for hire or compensation under a certificate of public convenience and necessity issued pursuant to the laws of this State, the United States, or any foreign government. This exemption is in addition to the exemptions provided in Sections 6366 and 6366.1 of the Revenue and Taxation Code of the State of California.
  - 3) If the purchaser is obligated to purchase the property for a fixed price pursuant to a contract entered into prior to the operative date of this Ordinance.
  - 4) If the possession of, or the exercise of any right or power over, the tangible personal property arises under a lease which is a continuing purchase of such property for any period of time for which the lessee is obligated to lease the

property for an amount fixed by a lease prior to the operative date of this Ordinance.

- 5) For the purposes of subparagraphs (3) and (4) of this Section, storage, use, or other consumption, or possession of, or exercise of any right or power over, tangible personal property shall be deemed not to be obligated pursuant to a contract or lease for any period of time for which any party to the contract or lease has the unconditional right to terminate the contract or lease upon notice, whether or not such right is exercised.
  - 6) Except as provided in subparagraph (7), a retailer engaged in business in the county shall not be required to collect use tax from the purchaser of tangible personal property, unless the retailer ships or delivers the property into the county or participates within the county in making the sale of the property, including, but not limited to, soliciting or receiving the order, either directly or indirectly, at a place of business of the retailer in the county or through any representative, agent, canvasser, solicitor, subsidiary, or person in the county under the authority of the retailer.
  - 7) "A retailer engaged in business in the County" shall also include any retailer of any of the following: vehicles subject to registration pursuant to Chapter 1 (commencing with Section 4000) of Division 3 of the Vehicle Code, aircraft licensed in compliance with Section 21411 of the Public Utilities Code, or undocumented vessels registered under Division 3.5 (commencing with Section 9840) of the Vehicle Code. That retailer shall be required to collect use tax from any purchaser who registers or licenses the vehicle, vessel, or aircraft at an address in the county.
- D. Any person subject to use tax under this Ordinance may credit against that tax any transactions tax or reimbursement for transactions tax paid to a district imposing, or retailer liable for a transactions tax pursuant to Part 1.6 of Division 2 of the Revenue and Taxation Code with respect to the sale to the person of the property the storage, use or other consumption of which is subject to the use tax.

**SECTION 21. AMENDMENTS:** This Ordinance and Expenditure Plan may be amended to provide for the use of additional federal, state, and local revenues or to account for unexpected revenues by approval of a two-thirds vote of the members of the Authority; the two-thirds must include the City of Napa, the County of Napa, and at least three other jurisdictions. No amendment may, in the aggregate, reduce the percentage of tax revenue allocated to the Local Streets and Roads Maintenance Program as apportioned in Section 3. No amendment shall operate so as to affect the rate or duration of tax imposed by this Ordinance.

Amendments constituting expenditures for new programs or new projects that were not a part of the voter approved Expenditure Plan or referred to in the Local Streets and

Roads Maintenance Program may only be approved with the subsequent consent of the electorate.

All amendments subsequent to the effective date of this Ordinance to Part 1 of Division 2 of the Revenue and Taxation Code relating to sales and use taxes and which are not inconsistent with Part 1.6 and Part 1.7 of Division 2 of the Revenue and Taxation Code, and all amendments to Part 1.6 and Part 1.7 of Division 2 of the Revenue and Taxation Code, shall automatically become a part of this Ordinance, provided however, that no such amendment shall operate so as to affect the rate of tax imposed by this Ordinance.

**SECTION 22. TEN-YEAR PROGRAM REVIEW:** After the tax has been in effect for ten years after the operative date, the Authority shall conduct a comprehensive review of all revenues, projects and programs under the Expenditure Plan to evaluate the performance of the overall program over the previous ten-year period and to make revisions to the Expenditure Plan to improve its performance and allow for changed demographic conditions, transportation needs, revenues, and technology over the subsequent ten years. Revisions to the Ordinance and Expenditure Plan required as a result of the ten-year review shall be subject to the amendment process in Section 21. However, the 99% local street and road allocation provided in Section 3 shall not be altered.

**SECTION 23. DESIGNATION OF FACILITIES:** Each project or program receiving in excess of \$250,000 funded in whole or in part by revenues from the Ordinance shall be clearly designated with project signage at the project site during its construction or implementation as being provided by revenues from the Ordinance.

**SECTION 24. SEVERABILITY:** If any section, part, clause, or phrase of this Ordinance is for any reason held invalid or unconstitutional, the remaining portions shall not be affected but shall remain in full force and effect.

**SECTION 25. ANNUAL APPROPRIATIONS LIMIT:** Article XIII (B) of the California Constitution requires the establishment of an annual appropriations limit for governmental entities. The maximum annual appropriations limit for the Authority is hereby established as \$40 million. The appropriations limit shall be subject to adjustment as provided by law. All expenditures of the retail transactions and use tax revenues imposed by Section 4 are subject to the appropriations limit of the Authority.

**SECTION 26. ENJOINING COLLECTION FORBIDDEN:** No injunction or writ of mandate or other legal or equitable process shall issue in any suit, action or proceeding in any court against the state or the Authority, or against any officer of the state or the Authority, to prevent or enjoin the collection under this Ordinance, or Part 1.6 of Division 2 of the Revenue and Taxation Code, of any tax or any amount of tax required to be collected.

## SECTION 27. DEFINITIONS:

- A. *Agency* means those cities, town, and county that lie within the geographic boundaries of the County of Napa.
- B. *Authority* means the Napa Valley Transportation Authority created by the Napa County Board of Supervisors with the concurrence of a majority of cities having a majority of the incorporated population of the county.
- C. *Expenditure Plan* means the expenditure plan required by Section 180206 of the Public Utilities Code to be adopted prior to the call of an election on this Ordinance. The expenditure plan includes the allocation of revenues for each authorized purpose. To the extent the summarized provisions of the expenditures contemplated by this Ordinance cannot be reconciled with the Expenditure Plan set forth in Attachment 1, the provisions of Attachment 1 shall prevail.
- D. *Effective Date* means the date the measure was passed by the electorate.
- E. *Highways* means all purposes necessary and convenient to the design, right-of-way acquisition, and construction of highway facilities, including all state highway routes and any other facilities so designated in the Expenditure Plan.
- F. *Infrastructure* means all components within the right-of-way necessary to support the roadway which includes road pavement, sub-grade, curb, gutter, sidewalks, curb ramps, surface and subsurface drainage, replacement traffic control devices, replacement roadway lighting, striping, pavement marking, intelligent transportation systems, and signage.
- G. *Maintenance* means repair, reconstruction or rehabilitation, and/or replacement of streets, roadways, and other infrastructure within the public right-of-way.
- H. *Operative Date* means the date the tax begins to collect revenue for this measure.
- I. *Project* is a single effort with a beginning and an end that would cause the construction or maintenance or reconstruction of some tangible portion of a transportation asset owned or operated by public agency that has independent utility. A *project* is not repeated on an annual basis, it does not appear without a detailed description as to cost and location in a local agency budget, and it must appear in a capital budget.
- J. *Reconstruction or Rehabilitation* includes any overlay, including the placement or replacement of base materials and any sub-grade work or widening of the roadway, if the widening is necessary to bring the roadway width to the desirable minimum width consistent with the geometric design criteria of the state for 3R

(reconstruction, resurfacing, and rehabilitation). This does not include widening for the purpose of increasing the traffic capacity of a street or highway. This does include additions, changes or reconstruction of Infrastructure directly associated with the function of a street or roadway. It also includes additions necessary to incorporate and/or maintain bicycle facilities called for in the Napa County Transportation and Planning Agency's Countywide Bicycle Plan or adopted bicycle plans of the Agencies and any improvements or alterations necessary to the roadway and or pedestrian or bicycle travel ways to improve overall circulation and to meet American's with Disabilities Act requirements.

- K. *Regional Transportation Improvement Program Submission* means any program of projects sent or otherwise caused to be delivered to the Regional Transportation Planning Agency for Napa County by the entity designated by the Regional Transportation Planning Agency with the submission of that program for the local agencies for consideration by the Regional Transportation Planning Agency for inclusion in the Regional Transportation Improvement Program or its related documents.
- L. *Local Streets and Roads* means the pavement facilities and supporting Infrastructure within the street, road, or highway right-of-way.
- M. *Storm damage repair* means repair or reconstruction of local streets and highways and related drainage improvements that have been damaged due to storms and flooding, in those jurisdictions that have been declared disaster areas by the President of the United States and/or by the Governor of California.

**SECTION 28. PUBLICATION OF ORDINANCE:** A summary of this Ordinance shall be published at least five days before its passage in the local newspapers of general circulation published in the County of Napa, and at least once before the expiration of 15 days after its passage together with the names of the Directors voting for and against the same.

The foregoing Ordinance was introduced and read at a regular meeting of the Napa Valley Transportation Authority, held on \_\_\_\_\_, 20\_\_ and passed at a regular meeting of the Napa Valley Transportation Authority held on \_\_\_\_\_, 20\_\_ by the following vote:

\_\_\_\_\_  
KEITH CALDWELL, NVTA Chairman

Ayes: \_\_\_\_\_

\_\_\_\_\_

Noes: \_\_\_\_\_

Absent: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Karalyn E. Sanderlin, NVTA Board Secretary

APPROVED:

\_\_\_\_\_  
Janice D. Killion, NVTA Legal Counsel

Attachment (1) Napa Valley Transportation Authority Transportation Improvement  
Expenditure Plan

## NAPA VALLEY TRANSPORTATION IMPROVEMENT EXPENDITURE PLAN

The net revenues received by the Authority from the proposed transactions and use tax shall be used to fund the projects described below after paying for the costs of this election, the costs of the Independent Taxpayer Oversight Committee, and administering the program. Only one percent (1%) of the net revenues may be expended on the costs of administration. The revenues received by the Authority will be less than the gross revenues actually collected because the fees the State Board of Equalization charges to collect the sales tax will be deducted before the revenues are transferred to the Authority. All funding and revenues are expressed in 2011 dollars over the twenty-five year life of the program.

The revenue allocated to each Agency under this Expenditure Plan may be used for any direct costs of design, materials testing, all project required environmental reviews, construction management, inspection, and construction of the projects.

### **Local Streets and Roads Maintenance Program**

Description:

Of the annual revenues available, ninety-nine percent (99%) shall be allocated to the Local Streets and Roads Maintenance Program. Under the Ordinance, the funds for the Local Streets and Roads Maintenance Program must be used for maintenance, reconstruction or rehabilitation of local streets, roads, and infrastructure within the public right-of-way as defined.

The estimated funding for the Local Streets and Maintenance Program is (millions of dollars):

Project	Percentage Distribution	Transaction and Use Tax
American Canyon	7.7%	\$21.945
Calistoga	2.7%	\$7.695
City of Napa	40.35%	\$114.997
Napa County	39.65%	\$113.003
St. Helena	5.9%	\$16.815
Yountville	2.7%	\$7.695
<b>Total</b>	<b>99%</b>	<b>282.15</b>

### **Amendments**

This Ordinance and Expenditure Plan may be amended to provide for the use of additional federal, state, and local revenues or to account for unexpected revenues by approval of a two-thirds vote of the members of the Authority; the two-thirds must

include the City of Napa, the County of Napa, and at least three other jurisdictions. No amendment shall operate so as to affect the rate of tax imposed by this Ordinance.

Amendments constituting expenditures for new programs or new projects that were not a part of the voter approved Expenditure Plan or referred to in the Local Streets and Roads Maintenance Program may only be approved with the subsequent consent of the electorate.