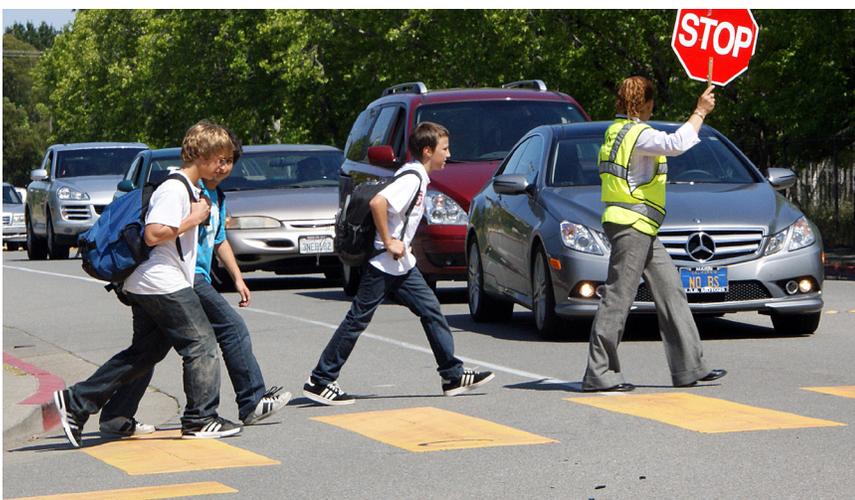




# MARIN COUNTY SUMMARY OF VRF FINDINGS OF BENEFIT



# Acknowledgements

The Transportation Authority of Marin and staff members would like to thank the Board of Commissioners and the Expenditure Plan Advisory Committee members for their contributions, assistance, and advice in developing the Expenditure Plan for Marin County's Vehicle Registration Fee.

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# Summary of VRF Findings of Benefit

## 1a. Maintain Local Streets (35%)

## 1b. Maintain Class I Pathways (5%)

This element would provide funding for the maintenance and rehabilitation of local streets and roads, sidewalks, and multi-use pathways, including new and existing facilities. It would also incorporate the “complete streets” practice that makes local roads safe for all modes, including bicyclists and pedestrians, while also accommodating transit services. Fee payers benefit from having roadways safely maintained and operating efficiently. It is difficult for drivers of all types of vehicles (automobiles, trucks, and buses) and bicycles to safely navigate poorly-maintained roadways (i.e. low pavement quality, faded striping, etc). Programs that improve local road operations benefit the fee payer by identifying and mitigating recurring congestion problems. Improved crossings and intersection performance improves safety and efficiency for all users. Well maintained pathways encourage walking and bicycling, which helps to reduce congestion and pollution by limiting the number of driving trips.

Eligible Projects Include	Relationship to Fee Payer
Road maintenance and congestion relief on local residential roads	Local streets and roads must be kept in good working order, including proper design and maintenance. Street repaving and rehabilitation is essential for the continued operation of all modes of transportation, especially automobiles and trucks. If streets are not routinely repaved and rehabilitated, the pavement quality deteriorates to a point where drivers can no longer travel safely on roadways, travel speeds increase and wear and tear on vehicles increases as well. Well maintained roads benefit the fee payer by increasing safety, comfort and convenience for fee payers.
Safety improvements for all modes	Improved safety for all road users is crucial to ensuring the proper functioning of a transportation network. By reducing the number of accidents on a given roadway, there is less delay to motorists.
Pothole repair on residential streets, repair and maintenance of sidewalks and pathways	Potholes in roadways are a significant hazard as they can damage vehicles and bicycles and often force both motorists and bicyclists to travel outside of designated travel lanes. The installation and repair of sidewalks provides a safe route of travel for pedestrians. Without a sidewalk in good working order, pedestrians may be forced to walk in traffic lanes, creating safety hazards and resulting in reduced motor vehicle speeds. Maintenance of these facilities also improves safety, so that there are fewer opportunities for vehicle/pedestrian conflicts and associated traffic congestion that may result when incidents occur.
Crosswalk and accessibility enhancements	Enhancing crossing treatments will improve safety for all modes at intersections, where most vehicle and pedestrian accidents occur. Improving the pedestrian path of travel will also ensure that pedestrians have better access to transit service, thereby increasing the number of local transit trips and reducing local vehicle trips and congestion.
Intersection control and drainage improvements	Properly maintained signalization ensures that traffic flows smoothly and traffic “hot spots” are effectively mitigated. If drainage goes without proper maintenance, water is retained on roadways or pathways, creating driving, walking and bicycling hazards.
Maintenance and improvement of bicycle and pedestrian pathways	Maintenance of Class I pathways encourages trips to be made by bicycle and on-foot, reducing roadway congestion for fee payers. Maintaining pathways is one of the most effective ways to encourage bicycle and pedestrian travel, reducing both congestion and the impacts created by vehicle trips.

### **Consistency with Regional Transportation Plan<sup>1</sup>**

This element in the expenditure plan is consistent with the MTC's nine-county Regional Transportation Plan ("*Transportation 2035 Plan*"). The Regional Transportation Plan includes several regional performance objectives that this fee will help to achieve, including:

- Maintain pavement condition index (PCI) of 75 or greater for local streets and roads.
- Reduce fatalities from motor vehicle collisions by 15 percent from today by 2035.
- Reduce per-capita delay by 20 percent from today by 2035
- Reduce daily per-capita vehicle miles traveled (VMT) by 10 percent from today by 2035
- Reduce emissions of fine particulates (PM2.5) by 10 percent from today by 2035
- Reduce emissions of coarse particulates (PM10) by 45 percent from today by 2035
- Reduce carbon dioxide (CO2) emissions to 40 percent below 1990 levels by 2035
- Reduce bicycle and pedestrian fatalities attributed to motor vehicle collisions by 25 percent (each) from 2000 by 2035.
- Reduce bicycle and pedestrian injuries attributed to motor vehicle collisions by 25 percent (each) from 2000 by 2035.

### **Included in County Transportation Plan**

This element and its eligible projects are also identified in Marin County's 25-year Transportation Vision<sup>2</sup>, which articulates a number of countywide goals and their accompanying benefits, including:

#### Goals:

- Create a multi-modal transportation system, emphasizing alternatives to single-occupant driving.
- Reduce overall congestion, not just on Highway 101 but also on the roads that provide connections and alternatives to freeway travel.
- Maximize mobility for all residents of Marin County including seniors, youth and disadvantaged residents.
- Maintain and expand on existing services and infrastructure.
- Support environmental quality and regional land use plans.

#### Benefits:

- Our local roadway network – the basic building block of our transportation network – will be enhanced and maintained throughout the County. Roads will serve a variety of users from local automobile trips to bicyclists, pedestrians and transit users.
- Bicycle use and walking will serve more trips, reducing pollution and congestion from vehicle trips and promoting the physical health of the community as projects big and small make cycling or walking a convenient, safe, and easy option for both work and recreational trips.

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<sup>1</sup> Metropolitan Transportation Commission, *Transportation 2035 Plan Performance Assessment Report* ([http://mtc.ca.gov/planning/2035\\_plan/Supplementary/T2035Plan-Perf\\_AssessmentReport.pdf](http://mtc.ca.gov/planning/2035_plan/Supplementary/T2035Plan-Perf_AssessmentReport.pdf))

<sup>2</sup> TAM website. <http://www.tam.ca.gov/index.aspx?page=79>

## 2. Improve Transit for Seniors and People with Disabilities (35%)

Funds in this element will be distributed by formula to Marin Transit for use on a mobility management program and enhancements to the specialized transportation system for the disabled (paratransit) to include older adults regardless of disability.

Fee payers benefit from reduced trips by "at risk" drivers, reduced local automobile trips, and improved safety. Fee payers also benefit from increased options to driving, reduced dependence on friends and family for mobility, and increased options as older drivers prepare to "retire" from driving.

Eligible Projects Include	Relationship to Fee Payer
Mobility Management Program	Fee payers would benefit greatly from an enhanced mobility management program, as it would provide dedicated funding to expand mobility options for Marin County's growing senior population. By having a dedicated program manager who will be a single point of contact to coordinate existing resources and tailor mobility solutions for individuals in need, such as travel training education, outreach on transportation options and increased use of taxis, fee payers will benefit from reduced vehicle trips, fewer "at risk" drivers, and improved mobility services for family members and friends.
Support and enhance paratransit (e.g. Whistlestop Wheels) and other local services	The expansion of transit service provides congestion relief as there are fewer drivers on the road. Extending or expanding transit service beyond commute hours can increase the desirability of commuting by transit during peak periods because riders know that there are options to leave and return home at any time during the day. There is a particularly strong relationship between providing transit service in congested corridors and the fee payer, as this service provides an alternative transportation option for persons who would choose a viable alternative, thereby reducing the congestion and air quality impacts of additional vehicle trips.
Create a "Paratransit Plus" program	The expansion of all types of specialized transit services including traditional paratransit services for older adults, regardless of disability status, will enable more of Marin's senior population to access vital transportation services. While many individuals may not qualify for Paratransit services, or be willing to "label" themselves as needing such services, they would undoubtedly benefit from additional transportation choices. By removing that stigma and broadening the range of services being offered to seniors and persons with disabilities, this program will ensure that individuals can be matched to the services that best meet their needs. This will reduce the need for "at risk" seniors to continue driving and improve safety on Marin County roadways.
Other innovative programs	Additional programs that provide enhanced mobility options for seniors and persons with disabilities in Marin will benefit the fee payer by reducing vehicle trips and corresponding congestion and emissions, and limit the number of traffic injuries and deaths due to rapidly increasing numbers of older drivers.

### **Consistency with Regional Transportation Plan**

This expenditure plan element is consistent with the MTC's nine-county Regional Transportation Plan ("*Transportation 2035 Plan*" or RTP). The RTP includes several regional performance objectives that this fee will help to achieve, including:

- Meet an increasing demand for paratransit and specialized mobility services as the Bay Area population grows older. In 2005, about 11% of Bay Area residents were age 65 or older. By 2035, however, 25% of the population will be 65 or older, while the number of people over age 85 will nearly triple by 2035.
- Decrease by 10 percent the combined share of low-income and moderate low-income residents' earnings consumed by transportation and housing.

### **Included in County Transportation Plan**

This expenditure plan element and its eligible projects are also identified in Marin County's 25-year Transportation Vision, which articulates a number of countywide goals and their accompanying benefits, including:

#### Goals:

- Create a multi-modal transportation system, emphasizing alternatives to single-occupant driving.
- Maximize mobility for all residents of Marin County including seniors, youth and disadvantaged residents.

#### Benefits:

- Extensive community service bus or shuttle routes will provide for Marin's growing population of seniors and other transit-dependent riders.
- Paratransit services will improve mobility for elders and the disabled.
- New creative alternatives to standard "big bus" transit and traditional ADA mandated paratransit will ensure that service is accessible to all.

### **Included in Senior Mobility Action and Implementation Plan**

The Marin County Division of Aging & Adult Services and Marin Transit recently completed the *Senior Mobility Action and Implementation Plan*, which offers a tiered set of strategies for improving senior mobility in Marin County. This Plan is consistent with many of these strategies. Implementation of the *Senior Mobility Action and Implementation Plan* would benefit greatly from the increased revenue generated by the vehicle registration fee.

#### Tier I:

- Community Bus for Seniors
- Flexible Transit Services
- Walkable Communities for Seniors
- Community-Based Volunteer Driver Programs
- Encouraging Use of Transit
- Information and Assistance
- Walking Groups for Seniors
- Planning Policies for Senior Housing

#### Tier II:

- Countywide general public demand-response
- More amenities at bus stops
- Casual carpooling at senior facilities, and senior ride-sharing

### 3. Reduce Congestion and Pollution (25%)

First, this plan element would seek to improve the safety of drivers and students traveling to school by providing safe paths of travel for students and parents choosing to walk or bicycle to school, as well as reducing conflicts between automobile traffic and students and parents who travel on-foot or by bicycle. It will sustain and enhance existing programs that educate and incentivize walking, bicycling, taking transit or carpooling to school, particularly the Safe Routes to School program managed by the Transportation Authority of Marin.

Second, this expenditure element will also enhance and expand existing commute alternative programs (carpool, vanpool, emergency ride home, telecommuting, carsharing, etc.).

Third, this expenditure element will support efforts to expand “green” transportation options, such as alternative fuel vehicles.

Fee payers benefit from school access and safety programs as more students can get to school by walking, bicycling, or taking transit. Access to school via these modes reduces the need for vehicle trips in the morning and afternoon, one of the major causes of localized traffic congestion and related air quality impacts in Marin County. Fee payers also benefit from improved safety near schools, which reduces incidents and related delays. Fee payers also benefit from commute alternatives programs and alternative fuel programs through the reduction of congestion during the commute period, along with the mitigation of air pollution via reduced trips and low emission vehicles.

Eligible Projects Include	Relationship to Fee Payer
Maintain and expand the School Crossing Guard program	<p>Improved school crossings reduce collisions and improve safety for roadway users as well as those walking and biking to school. Crossings near schools are a particularly dangerous environment, particularly for children. Most children, even those who take transit or are driven to school, must cross at least one intersection to get to their school. However, most children are unfamiliar with the rules of the road and may not be physically advanced enough to cross the road by themselves.</p> <p>Dedicated crossing guards have proven to be very effective at limiting collisions near schools and prioritizing the safe travel of youth. The use of crossing guards can also reduce the reluctance parents may have in allowing their children to walk or bicycle to school. Additional high priority locations have been identified for crossing guards in the County but there is insufficient funding to complete them. The fee payer would get maximum value if the crossing guard program could be expanded to include these crucial locations.</p>
Provide direct or matching funds for Safe Routes to Schools programs that address safety around schools and provide transportation options for parents and students	<p>One of the primary traffic generators in Marin County comes from parents dropping off and picking up their children at school. Studies have shown that more than 20% of morning traffic congestion in Marin County can be attributed to parents driving their kids to school<sup>3</sup>. Congestion from schools increases commute times for drivers, slows down transit service, and creates dangerous conditions for bicyclists and pedestrians. Safe Routes to School (SR2S) programs are designed to get more children walking and biking to school safely. The program includes education, incentives, engineering and partnerships with schools, neighborhoods, parents, local governments, and law enforcement.</p> <p>In Marin County, SR2S programs have shown to be extremely effective in shifting the travel behavior of youth. At the end of Marin’s original pilot program the participating schools experienced a 57% increase in the number of children walking and bicycling to school and a 29% decrease in the number of children arriving alone in a car<sup>4</sup>. These funds would have a multiplier effect in terms of benefit to fee payers, as they would enable Marin County to leverage otherwise unattainable regional, state, and federal grant funds.</p>
Enhance/expand programs designed to reduce congestion around schools, including Street Smarts and School Pool	<p>The Green Ways to School/ SchoolPool Marin program helps families find others in their neighborhood to carpool, walk, bicycle, or take the bus together to and from school. By promoting group travel to and from school, which fosters a sense of security and safety, Marin County has been able to increase the number of parents and kids who are willing to carpool, walk and bicycle to school, thereby significantly</p>

<sup>3</sup> <http://www.tam.ca.gov/index.aspx?page=94>

<sup>4</sup> <http://www.saferoutestoschools.org/about.shtml>

<p>programs</p>	<p>reducing localized vehicle trips, congestion, and emissions. Other programs include educational and promotional efforts within the schools to increase awareness of the programs and improve safety. Funds for these projects also have a multiplier effect as they can be used to leverage other regional, state and federal grant funds.</p>
<p>Enhance/expand existing local commute alternative programs designed to reducing single occupancy commuting including: Carpool and vanpool information and incentives, Emergency Ride Home, and transit information and promotion as well as programs that provide information and training for those interested in biking and walking to work</p>	<p>Considerable research has demonstrated that commute alternative programs that promote and incentivize the use of carpools/vanpools, transit, walking and biking can reduce single occupancy driving. Support programs such as Emergency Ride Home programs enhance the benefits of these programs. A recent ridesharing study concluded that such programs can reduce daily vehicle commute trips to specific worksites by 5-15%.<sup>5</sup> Furthermore, marketing programs can often increase use of alternative modes by 10-25% and reduce automobile use by 5-15%.<sup>6</sup> The benefit to the fee payer is clear as fewer vehicles on the road would lead to an easing of traffic congestion and air pollution. These funds would significantly enhance and expand existing local Marin County commute programs that have proven to be beneficial for all commuters, employees and employers. Providing alternatives to single-occupancy commute trips and new programs that mitigate transportation related emissions can have significant positive impacts on fee payers, including reduced congestion, transportation costs, and emissions, along with improved public health both at the local level and for the region as a whole.</p>
<p>Support efforts to bring a carsharing program to Marin County</p>	<p>Carsharing programs have proven to be very effective at reducing both vehicles on the road and vehicle ownership. More specifically, each car-sharing vehicle takes private cars off the road.<sup>7</sup> A study<sup>8</sup> of San Francisco's City CarShare found that members drive nearly 50% less after joining. The study also found that when people joined the car-sharing organization, nearly 30% reduced their household vehicle ownership and two-thirds avoided purchasing another car. The implementation of a car sharing program in Marin County would benefit the fee payer by reducing congestion due to vehicle trips, providing additional mobility choices, and reducing transportation costs for those that participate in the program.</p>
<p>Support development of alternative fuel infrastructure and promotional programs</p>	<p>Reducing air pollution through mitigation programs and projects is identified as a possible expenditure in the statute established by Senate Bill 83. By providing alternative fuel vehicle and infrastructure support Marin County can make using lower emission vehicles more feasible for government agencies, businesses, and individuals. These programs will benefit fee payers by providing lower cost alternatives to the cost of driving, while reducing emissions associated with gasoline powered vehicles. Such outcomes will benefit the fee payer by improving air quality, especially on congested roadways and at intersections. Travel corridors with high levels of congestion, as well as intersections with continued delay create "hot spots" of air pollution, which are particularly harmful to drivers. The increased use of alternative fuel vehicles can have positive health impacts for drivers.</p>

<sup>5</sup> Reid Ewing (1993), *TDM, Growth Management, and the Other Four Out of Five Trips*.

<sup>6</sup> Victoria Transport Policy Institute, <http://www.vtpi.org/tdm/tdm23.htm>

<sup>7</sup> Transportation Research Board (2005), *Car-Sharing: Where and How it Succeeds*, Transit Cooperative Research Program Report 108. [http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp\\_rpt\\_108.pdf](http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rpt_108.pdf)

<sup>8</sup> Cervero, Robert and Yu-Hsin Tsai (2003). "San Francisco City CarShare: Travel-Demand Trends and Second Year Impacts." Institute of Urban and Regional Development, UC Berkeley.

### **Consistency with Regional Transportation Plan**

This expenditure plan element is consistent with the MTC's nine-county Regional Transportation Plan ("*Transportation 2035 Plan*"). The Regional Transportation plan includes several performance objectives that this fee will help to achieve, including:

- Reduce bicycle and pedestrian fatalities attributed to motor vehicle collisions by 25 percent (each) from 2000 by 2035.
- Reduce bicycle and pedestrian injuries attributed to motor vehicle collisions by 25 percent (each) from 2000 by 2035.
- Reduce fatalities from motor vehicle collisions by 15 percent from today by 2035.
- Reduce per-capita delay by 20 percent from today by 2035
- Reduce daily per-capita vehicle miles traveled (VMT) by 10 percent from today by 2035
- Reduce emissions of fine particulates (PM2.5) by 10 percent from today by 2035
- Reduce emissions of coarse particulates (PM10) by 45 percent from today by 2035
- Reduce carbon dioxide (CO2) emissions to 40 percent below 1990 levels by 2035

### **Included in County Transportation Plan**

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#### Goals:

- Create a multi-modal transportation system, emphasizing alternatives to single-occupant driving.
- Reduce overall congestion, not just on Highway 101 but also on the roads that provide connections and alternatives to freeway travel.
- Maximize mobility for all residents of Marin County including seniors, youth and disadvantaged residents.
- Maintain and expand on existing services and infrastructure.
- Support environmental quality and regional land use plans.

#### Benefits:

- Getting children to schools will generate less congestion, as walking, cycling, buses and carpools grow as viable options.
- Bicycle use and walking will serve more trips, reducing pollution and congestion from vehicle trips and promoting the physical health of the community as projects big and small make cycling or walking a convenient, safe, and easy option for both work and recreational trips.
- Coordinating and timing Transportation Demand Management (TDM) strategies with transit improvements will enhance the effectiveness of both measures. TDM efforts to encourage the use of alternative modes can only be effective to the extent that alternatives exist. The local bus transit plan will ultimately improve the effectiveness of transit improvements, as well as TDM programs.
- Expanding the use of alternative fuel vehicles will reduce greenhouse gas emissions, while enabling the maximum flexibility in travelling. Programs to support Electric Vehicles will encourage conversion to this desirable alternative to gasoline powered vehicles.