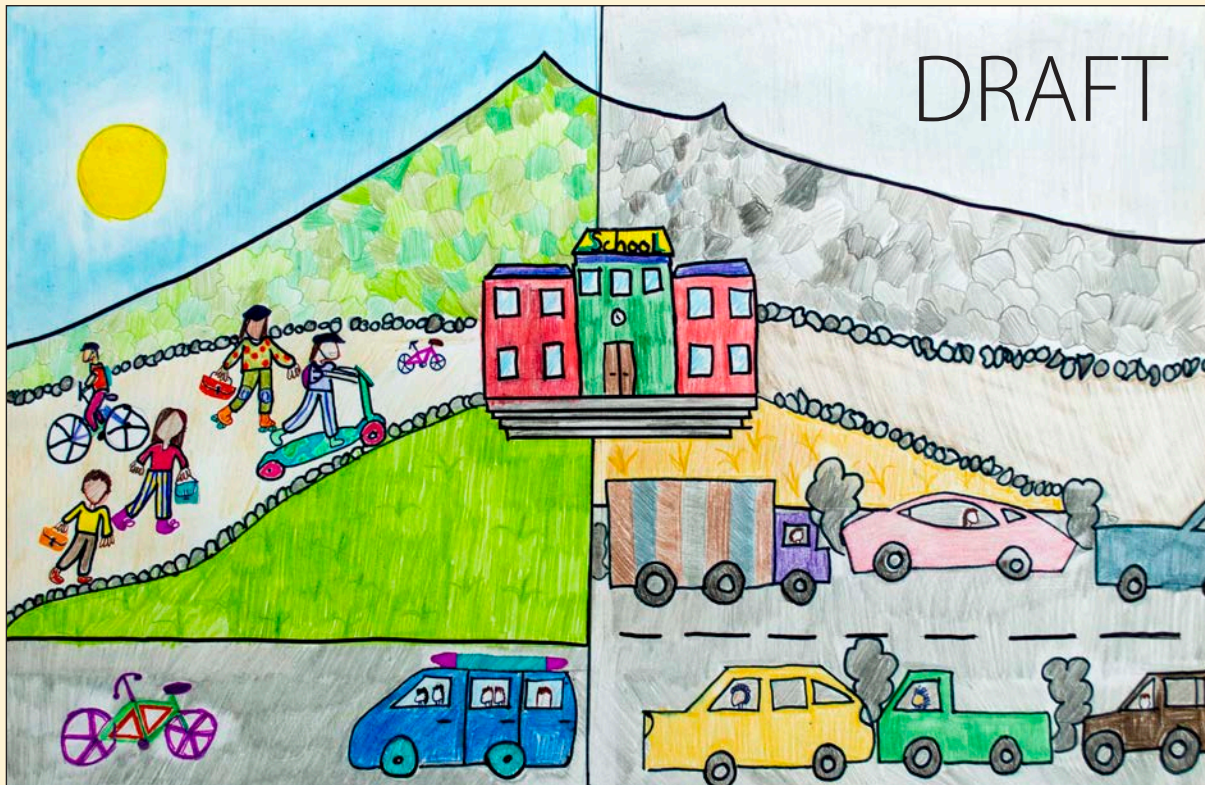


# MARIN COUNTY SAFE ROUTES TO SCHOOLS PROGRAM EVALUATION

2015/16 THROUGH 2018/19 SCHOOL YEARS



Art: Humna Baporia, Edna Maguire

JULY 2020



## ACKNOWLEDGEMENTS

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# INTRODUCTION

Established in 2000, Marin County's Safe Routes to Schools (SR2S) is an award-winning program designed to reduce congestion around schools while instilling healthy habits in children and creating a safer and cleaner environment for all. It does this through classroom education, special events, infrastructure improvements, a crossing guard program, and other strategies that aim to increase the number of non-motorized (walk and bicycle) and higher vehicle occupancy (carpool and transit) trips to and from schools.

To date, Marin's SR2S program has been in operation for nearly 20 years and has expanded to include 56 schools with involvement by over 26,500 students. With its long history and continued community participation, SR2S has enjoyed long-term success.

- ▶ In 2000, five schools participated in Safe Routes to Schools; in the 2018–19 school year 56 schools actively participated in the program.
- ▶ Since 2011 and through 2019, the county has maintained an average 50 percent green trip (arriving to school by walking, biking, carpooling, or taking a bus) rate to and from schools, despite fluctuations in enrollment and numbers of schools in the program.

Although the average countywide green trip rate has remained relatively consistent, individual school districts have achieved recent success in increasing active green trips (walking, biking, scooter, etc.). Since 2011, Mill Valley School District, Ross Valley School District, and Larkspur-Corte Madera have increased the number of active green trips (arriving to school by walking or biking) by three, nine, and 12 percent, respectively.

- ▶ Twenty-five schools have exceeded the countywide average since joining SR2S. Old Mill Elementary School in Mill Valley and Bacich Elementary School in Kentfield, for example, have increased the number of green trips to/from their school by over 20 percent.
- ▶ Safe Route to Schools has extended its reach into 39 of 40 public elementary schools, all 10 middle schools, and five of seven public high schools.
- ▶ Over 140 infrastructure projects aimed at increasing safety and encouraging children to walk or bicycle to school have been planned or built since 2000, at a cost of about \$49,500,000.



## EVALUATION REPORT

This Evaluation Report, covering the 2015/16 through 2018/19 school years, comes as SR2S celebrates its 20th anniversary in Marin County. It identifies new features that have been introduced since 2016 but also examines aspects of the program that continue to make it successful, as well as those that would benefit from improvement. The report also responds to the recommendations from the last evaluation. Lastly, the report outlines a number of

recommendations that are intended to improve the effectiveness of the SR2S program, setting it up for even greater success in future years. Previous evaluations of Marin's SR2S program were completed in July 2011 and September 2016, covering the 2008-2011 and 2011-2015 school years, respectively. The Evaluation Reports considered the overall history of the program.

### Report Organization

This Evaluation Report is organized around eight chapters, plus an Appendix:

1. **Program Overview.** This section provides a brief history and overview of the Safe Routes to School program at both the national and local level.
2. **Education.** This chapter describes components of SR2S classes, including those held in the classroom as well as those in the field. It discusses historic trends and recent changes to the program curriculum.
3. **Encouragement.** This chapter discusses the encouragement component of SR2S which includes events such as iWalk, contests, and the Green Ways to School program.
4. **Engineering.** The Engineering chapter describes the process by which jurisdictions identify and implement infrastructure improvements around schools.
5. **Enforcement and Safety Programs.** Three main topics in this chapter include the role of enforcement, crossing guards, and the Street Smarts campaign to reinforce safety around schools.
6. **Funding.** The funding chapter of the report examines SR2S's funding sources as well as ways in which the Transportation Authority of Marin (TAM) is building long-term financial sustainability for the program.
7. **Evaluation.** This chapter describes the results of the evaluation and examines factors that contribute to schools that are successful in increasing active trips and green trips.
8. **A Look to the Future.** Lastly, the report looks to the future of Marin's SR2S program, making recommendations for its continued success as well as remaining relevant during the current COVID-19 pandemic.
9. **Appendix.** Provides supplementary evaluation data for participating SR2S schools.

### SR2S and Coronavirus



Coronavirus (COVID-19) is changing the way that the Marin County SR2S Team is designing and delivering content to students, as well as conducting engineering sessions and meetings. While this report covers the three prior years of SR2S activity, it is important to note that even during the Winter of the 2019-2020 school year the SR2S Team was working to plan for significant changes in the school environment. Now, more than ever, a strong and active SR2S program is necessary and relevant. See page 74 for more details on the work that is currently taking place to ensure that the Marin County SR2S program remains effective during the COVID-19 pandemic.

# PROGRAM OVERVIEW

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## PROGRAM HISTORY

### Pilot Program

The Marin County Safe Routes to Schools (SR2S) program began in 2000 when the National Highway Traffic Safety Administration funded two Safe Routes to School pilot programs that were to serve as nationwide models. One pilot program was established in Arlington, Massachusetts and the other in Marin County. At the end of the two-year pilot program in Marin County, nine participating schools experienced a 57 percent increase in the number of children walking and biking to school, and a 29 percent decrease in the number of children arriving alone in a car.

Building on this success, the County of Marin adopted SR2S in 2003 after receiving a grant provided by the Bay Area Air Quality Management District (BAAQMD). In November 2004, SR2S reached a major milestone when Marin voters approved the 1/2-cent Transportation Sales Tax (Measure A). The 20-year 1/2-cent transportation-related sales tax provided an ongoing revenue source for SR2S programs, including the deployment of crossing guards and the construction of school travel-related infrastructure projects. As a result of this new funding source, SR2S became a program of the Transportation Authority of Marin (TAM) in

2005. Today, agencies such as the Metropolitan Transportation Commission (MTC) and Caltrans provide supplemental grants to implement new programs in addition to the funds generated locally within Marin County.

### A National Model

Within a year of the launch of the pilot projects in Marin County and Arlington, Massachusetts, similar efforts began throughout the country. Interest in a federally funded national program grew, and in 2005 the SAFETEA-LU federal transportation bill provided \$612 million for a new national Safe Routes to Schools program that provides benefits in all fifty states. Communities have used this funding to construct new bicycle lanes, pathways, and sidewalks, as well as launch SR2S education and promotion campaigns in elementary and middle schools. As the first long-term sustainable program with a dedicated local funding source, Marin County continues to be a national leader with new and innovative programs.

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## SAFE ROUTES TO SCHOOLS IN MARIN COUNTY

Marin's Safe Routes to Schools program integrates health, fitness, traffic relief, environmental awareness and safety into one program. It does this through a comprehensive approach that consists of five key components: Education, Encouragement, Engineering, Enforcement, and Evaluation. The fifth "E"—Evaluation—is an important tool that strengthens existing programs and facilitates long-term goal setting. Evaluation of Marin's program involves documenting trends through student surveys conducted in the fall and spring of each school year, as well as periodic parent surveys. The most recent student survey results from the 2018/2019 school year are incorporated in this report.

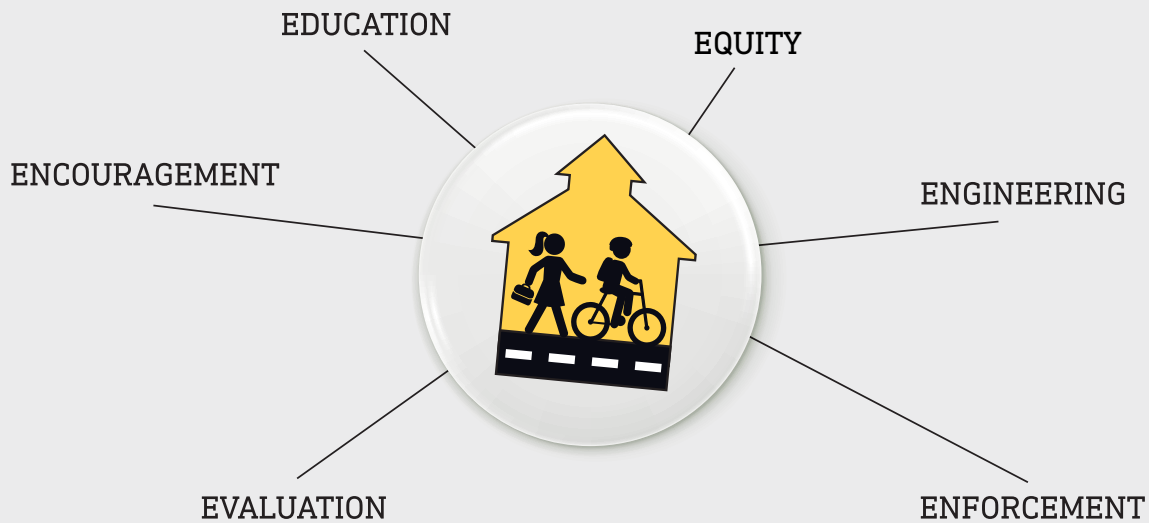
Nationwide, successful SR2S programs have recognized the need for the addition of a sixth "E" – Equity – as a result of increased awareness of the lack of geographic and socioeconomic equity among all student populations. The purpose is to promote the same opportunities for safe, active, and healthy school travel opportunities for all children within the county, and to identify and

address obstacles and challenges to safe walking and bicycling that may disproportionately impact low-income and minority communities. The concept of equality is incorporated within all other program components to ensure that all students across Marin County have equal access to the benefits, opportunities and investments associated with the program.

In 2018, Marin County voters approved Measure AA, a 30-year extension of Measure A, the 1/2-cent Transportation Sales Tax and Expenditure Plan. The Expenditure Plan is broken into four categories designed to reach the county's goals of providing congestion relief, enhancing mobility, improving infrastructure and providing diverse choices for all travel modes. As shown in Table 1, Category 3 addresses safe access to schools and is supported by three programs: Safe Routes to Schools, Crossing Guards, and Safe Pathways. Each of these programs is further discussed in this report.



## SAFE ROUTES TO SCHOOL PLANNING FRAMEWORK



The mission of Safe Routes to Schools is to increase the number of children walking and biking to school. Like other mature SR2S programs, Marin uses a planning framework known as the 6 Es to ensure a successful program. The SR2S planning framework is as follows:

- ▶ **EDUCATION.** Classroom lessons teach children the skills necessary to navigate through busy streets and persuade them to be active participants in the program. Safe Routes instructors have developed the curriculum that includes lessons on safety, health, and the environment.
- ▶ **ENCOURAGEMENT.** Encouragement strategies, such as events, contests, and promotional materials, encourage children and parents to try walking and biking to school. The program supports and coordinates volunteer organizers and provides schools with promotional and contest materials, prizes, and ongoing consultation.
- ▶ **ENGINEERING.** The focus of the engineering component is on creating physical improvements to infrastructure near schools, reducing speeds and establishing safer crosswalks and pathways. The program's professional traffic engineers assist schools in developing a plan to provide a safer environment for children to walk and bike to school. The improvements are implemented at the direction of the local jurisdiction public works staff.
- ▶ **ENFORCEMENT.** Police officers and other law enforcement officials participate throughout the Safe Routes process to encourage safe travel through the community. Targeted

enforcement of speed limits and other traffic laws around schools make the trip to school more predictable for students and allow them to interact with motorists and other travelers in the safest possible way. The program also includes unique safety-related messaging, enforcement enhancements, and outreach to drivers through driver safety campaigns.

- ▶ **EVALUATION.** Program participation is regularly monitored to determine the growth in student and parent participation. Travel surveys are taken during the beginning and the end of the school year to ascertain any change in travel mode to school over the course of the year.
- ▶ **EQUITY.** The program aims to ensure that all children in the county, regardless of their socioeconomic status, have equal access to safe, active, and healthy school travel opportunities, and that obstacles and challenges to safe walking and bicycling that may disproportionately impact low-income and minority communities are identified and addressed. The concept of Equity is incorporated within all other program components to ensure that all students across Marin County have equal access to the benefits, opportunities and investments associated with the program.

## Strategy #4: Reduce school related congestion and provide safer access to schools.

### 1. Safe Routes to Schools

Maintain the Safe Routes to Schools Program. Ongoing funding to support this successful and popular program that promotes walking, biking, taking transit, or carpooling to school.

### 2. Crossing Guards

Expand the crossing guard program, providing funding for up to approximately 96 crossing guards throughout Marin County.

### 3. Provide Capital Funds for Safe Pathways to School Projects

Provide capital funding for school safety related projects, including sidewalk improvements, safer crosswalks and crossings, bicycle and pedestrian safety improvements and speed reduction measures.

Table 1: Category 3 of Marin County's Transportation Sales Tax Renewal Expenditure Plan

## SURVEYS

Regular input from Safe Routes to Schools participants is critical in determining the effectiveness of the program's activities, identifying areas for additional resources, and helping to determine program facets that might need updating or improvements. As participants join each year or change their travel behavior, the program benefits from constant evaluation.

A key element of the SR2S program is quantitative measurement of the shift from single student vehicle trips to school into green trips. To measure how students travel to school, SR2S staff members work with classroom teachers to administer fall and spring surveys at participating schools. These tallies are sent to the National Center for Safe Routes to School, an organization that serves

as the Federal Highway Administration's Safe Routes to School Clearinghouse. The National Center calculates the tallies and provides a summary of the data.

It is important to note the accuracy of this evaluation. The student tally data presented in this report and in the Appendix were tested for statistical significance using confidence interval analysis. During any particular semester from fall 2008 to spring 2019, the data sets for schools that did not have enough responses to meet the confidence level were omitted from the analysis. On average, however, over 85 percent of all survey data met the confidence level threshold. When available, fall and spring data were averaged per school year.

## HOW GREEN IS GREEN?

Throughout this report, "Active Green" and "Green" trips will be referenced frequently as a way to categorize the modes taken to commute to/from school.

### AN ACTIVE GREEN TRIP

is a non-motorized student travel trip that involves physical activity i.e., walking and biking to school.



### A GREEN TRIP

includes Active Green trips but also includes motorized travel categories such as carpooling and bussing by both school busses and public transit.



One way to evaluate the success of the program is to measure the mode shift from single-student occupancy family vehicle trips to Active Green and Green trips.



## PARTICIPATING SCHOOLS

A total of 67 schools have joined Marin’s Safe Routes to Schools program since 2001. However, as shown in Figure 1, 56 schools representing 14 school districts, were actively participating in the program in the 2018–2019 school year. Although new schools participate in the program and others may discontinue partnership with the SR2S program each year, the total number of participating schools has remained relatively consistent for the past years, (see Figure 2).

There are various reasons why some schools do not continuously participate in the program. For example, some elementary schools discontinue participation in the SR2S program when they are unable to recruit and provide parent volunteers to host encouragement events and attend Task Force meetings. Other schools that provide bus service to all of their student population have limited need for the program’s focus on increasing walking and bicycling and thus are not prioritized to receive limited resources from the SR2S program.

SR2S has been extremely effective in reaching many of the county’s younger students. Almost 85 percent of the county’s public elementary schools, all public middle schools and 63 percent of the public high schools are currently participating in the program (see Figure 3). Private schools comprise the smallest portion of SR2S-participating schools, with a 2019 participation rate of 13 percent (5 of 38 schools).

While Safe Pathways and Crossing Guard programs are provided countywide, schools participate in SR2S at different levels, based on the availability of staff and volunteers as well as on the school administration’s willingness to incorporate Safe Routes to Schools lessons into their curriculums.

Additionally, SR2S offers education classes and support on an as needed basis for schools where transportation choices are limited (e.g., private schools that carpool due to long distances to schools; schools where 90% or more of the students ride the bus).

School report cards summarizing travel mode split, SR2S activities undertaken, and the level of ‘Green’ travel status for each participating school in 2018-2019 are provided in Appendix A.

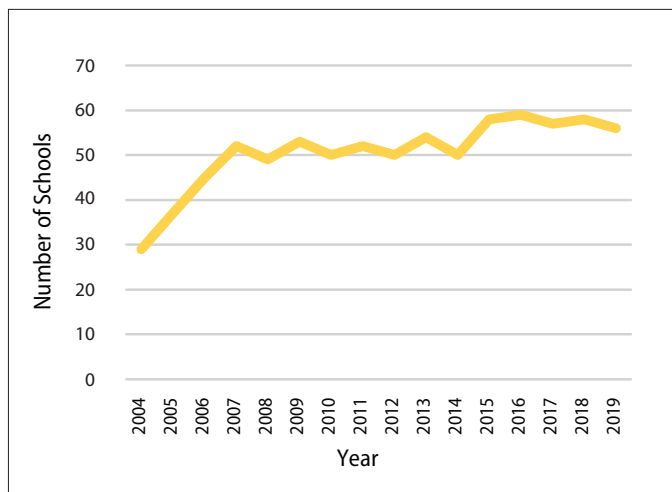


Figure 2. Schools Participating in SR2S (2004-2019)

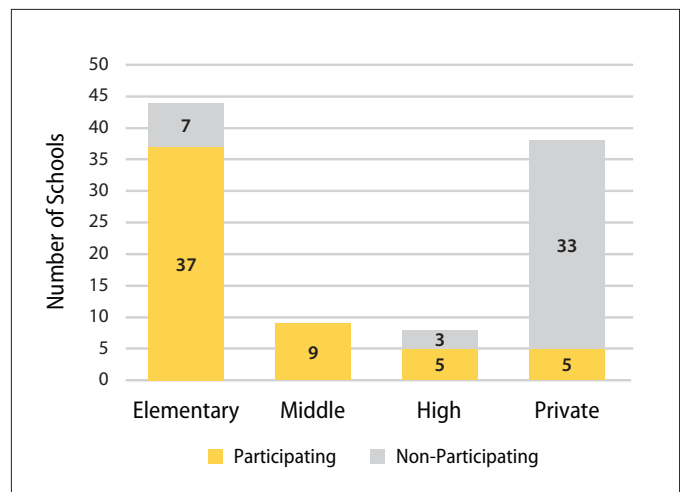


Figure 3. Number of Participating and Non-Participating Schools by Type

**Figure 1: SR2S Schools in Program 2018–2019**



**LEGEND**

1 A. E. Kent MS	20 Loma Verde ES	38 Ross Valley Charter
2 Bacich ES	21 Lu Sutton ES	39 San Domenico
3 Bahia Vista ES	22 Lycée Français	40 San Jose MS
4 Bayside MLK, Jr.	23 Lynwood ES	41 San Marin HS
5 Bel Aire ES	24 Manor ES	42 San Ramon ES
6 Bolinas-Stinson School	25 Marin Primary & Middle	43 Short ES
7 Brookside ES	26 Mary E. Silveira ES	44 Sinaloa MS
8 Coleman ES	27 Mill Valley MS	45 Sir Francis Drake HS
9 Cove School	28 Miller Creek MS	46 Strawberry Point
10 Del Mar MS	29 Neil Cummins ES	47 Sun Valley ES
11 Dixie ES	30 Old Mill School	48 Tamalpais HS
12 Edna Maguire ES	31 Olive ES	49 Tamalpais Valley ES
13 Glenwood ES	32 Park ES	50 Terra Linda HS
14 Hamilton Meadow Park	33 Pleasant Valley ES	51 Vallecito ES
15 Henry Hall MS	34 Rancho ES	52 Venetia Valley ES
16 Hidden Valley ES	35 Redwood HS	53 Wade Thomas ES
17 James B. Davidson MS	36 Reed ES	54 West Marin ES
18 Lagunitas ES	37 Ross School	55 White Hill MS
19 Laurel Dell ES		56 Willow Creek Academy



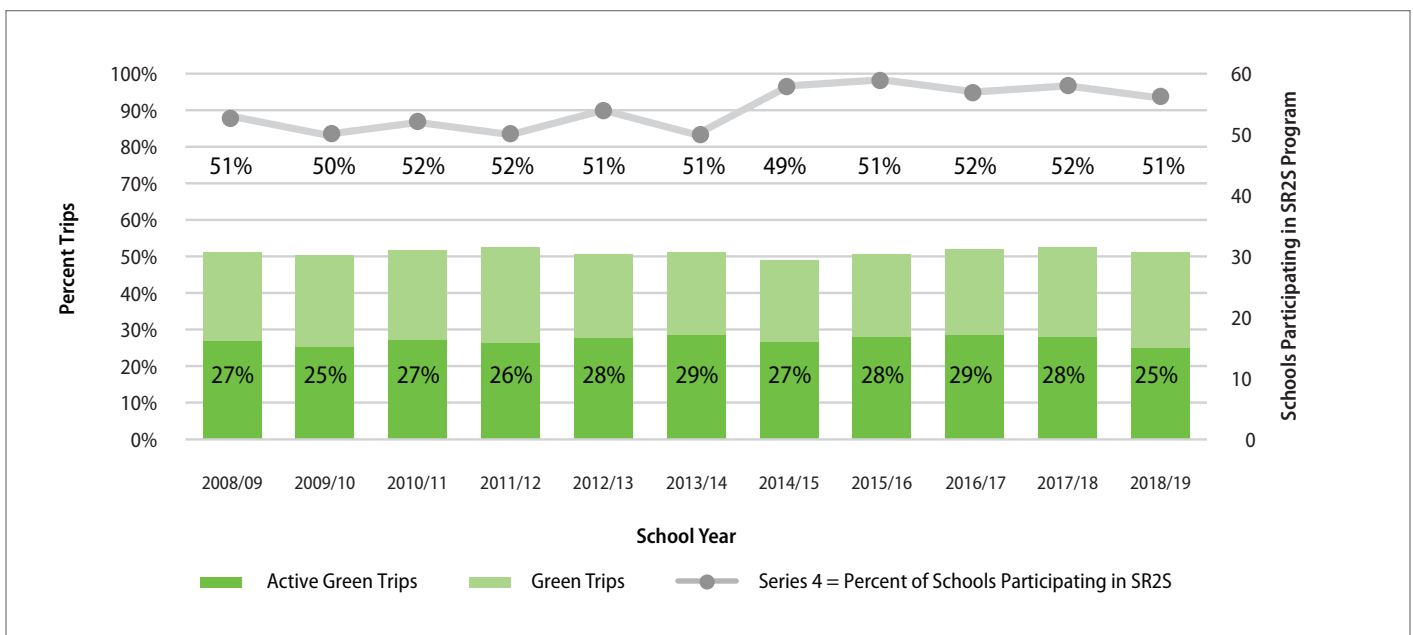
## TRAVEL MODE SHIFT SUMMARY

As mentioned, student travel surveys are an important tool in measuring whether program goals are being met and ensuring that resources are directed toward efforts that have the greatest likelihood of success.

Survey data was solicited from all 56 schools participating in the program during the 2018-19 school year. Mode shift calculations included in this report are based on the 55 schools (98 percent) that returned surveys for fall and/or spring semesters. The results meet the statistically relevant criteria.

For each school in the program, participating or not, a history of mode splits dating back to 2008 when the National Center for Safe Routes to School clearinghouse began keeping records for Marin schools, is provided in Appendix B. The schools are organized by school district, and the data shown is an average of the fall and spring semesters.

Since 2008, the countywide average of green trips by schools participating in SR2S has consistently remained at or around 50 percent despite the addition of new schools to the program (see Figure 4). New schools to the program typically lower the



**Figure 4. Countywide Active Green and Green Trips / Enrollment (%)**

Note: "Active Green Trips" represent the sum of walk, bike, and other trips. "Green Trips" represent the sum of non-family vehicle trips.

average countywide green trip rate because “before” data from new schools represents commute trips by students who would not have participated in the education or encouragement activities.

Figure 5 illustrates commute trip trends for school years since the program inception. Since 2008 an additional 6,200 students used green modes of transportation to travel to or from school. During the 2018-2019 school year, an average of over 15,000 students used green travel modes.

Starting with the 2015/2016 school year student enrollment had begun to plateau. Accordingly, the number of daily green trips per school day remained around 15,500 trips since 2015, fluctuating

slightly based in part on the rise and fall of the enrollment numbers. That equates to roughly 5.6 million annual green trips to and from school and 2.7 million annual active green trips based on a 180-day school year.

As detailed in this report, SR2S will continue outreach efforts at schools with lower green trip rates in order to promote awareness of available SR2S tools and strategies. The Primary Green Trips Factors section in the Evaluation chapter of this report further analyzes each school’s level of SR2S involvement to better assess what factors may influence a school’s green trip commute rate.

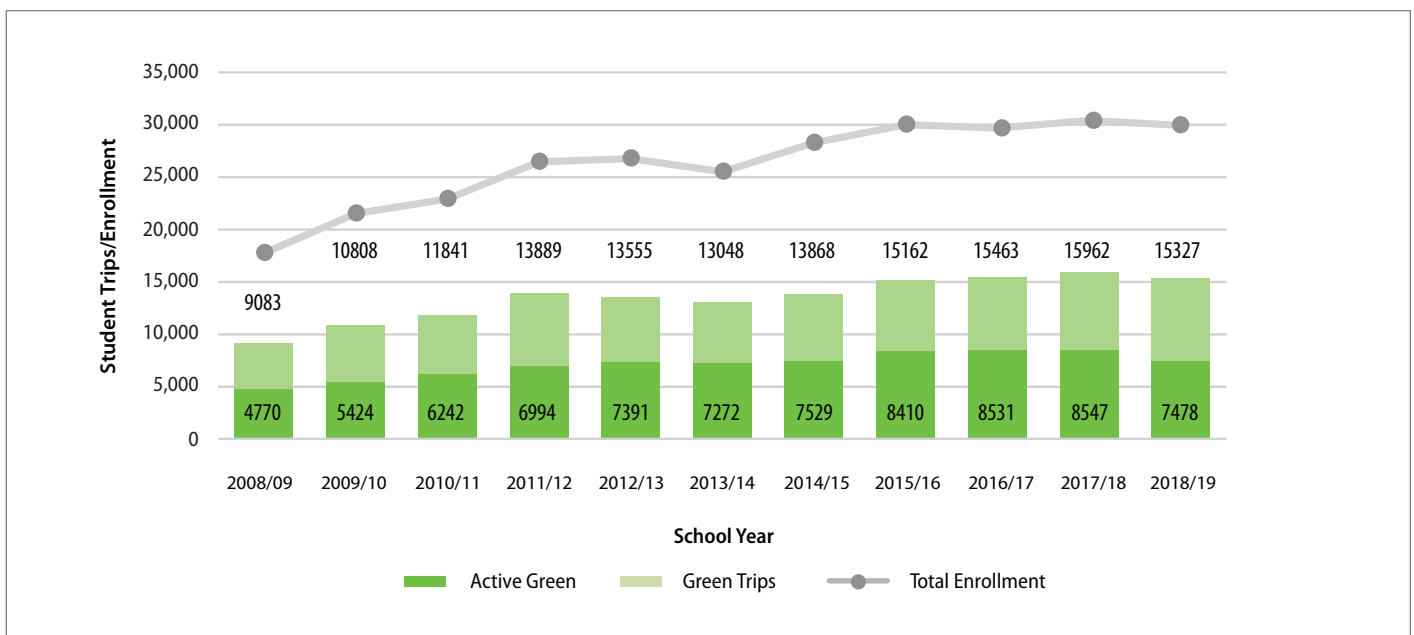


Figure 5. Countywide Active Green and Green Trips and Enrollment (#)

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## SAFE ROUTES TO SCHOOLS EFFECT ON TRAFFIC CONGESTION & VEHICLES MILES TRAVELED

One of the positive outcomes of Marin's Safe Routes to School program is the resulting reduction in vehicle trips when students walk, bike, carpool, or ride the bus to school. Along key roadways peripheral to schools, automobile traffic attributable to school trips comprise anywhere between 15 and 30 percent of total vehicle trips during the weekday AM peak period. Since the implementation of the SR2S program, traffic in the vicinity of participating schools has generally decreased from between 5 and 20 percent.

Vehicle miles traveled (VMT) relates motor vehicle trip mobility to the performance of traffic facilities by relating how far vehicles must travel to and from a certain destination. While VMT only includes vehicle trip counts, the metric inherently accounts for the benefits of transit and active transportation trips that reduce motor vehicle travel.

The reduction of VMT results in the reduction of greenhouse gas (GHG) produced by vehicles. Vehicle emissions represent carbon dioxide, methane, and nitrous oxide (N<sub>2</sub>O) gasses that are produced from the combustion of fuel in light duty vehicle engines. Each of these gasses has a different degree of impact on climate change. To facilitate comparisons across different greenhouse gasses, the term "carbon dioxide equivalent" or CO<sub>2</sub>e is used. Each greenhouse gas is weighted relative to the warming impact of one metric ton of carbon dioxide.

Using student travel mode share data, VMT and GHG reductions resulting from the SR2S program were estimated. Among participating schools, approximately 1,200 one-way family vehicle trips have been eliminated per school day from Marin roadways. The corresponding number of daily trips was determined by multiplying this number by four (i.e., a two-way return trip for drop-offs and pick-ups). This assumption should be considered a conservative way of estimating the maximum VMT associated with student vehicle trips.

Based on these assumptions, it was found that the reduction of family vehicle trips has resulted in a daily reduction of up to 10,200 vehicle miles traveled. Assuming 180 days in an average school year, this corresponds to a reduction of up to 1,840,900 vehicle miles traveled annually, equating to an annual greenhouse gas savings of 633 CO<sub>2</sub>e.

### Green Trips

Green trips are comprised of both active green (biking, walking, scootering, etc.) and green (bus, carpool) trips. Green trips represents all possible ways to travel to and from school without the use of a family vehicle that is not a carpool. Figure 6 shows the percentage of green trips per school, and represents an average of the data collected in the past three years.

Marin County schools that participate in the SR2S program show high rates of green commuting. A total of 25 out of the 56 participating schools (45 percent) have green trip commute rates of greater than 50 percent. Further, 10 schools (18 percent of participating schools) have green trip rates of higher than 65 percent, where more than two-thirds of all students report commuting to and from school by a green mode.

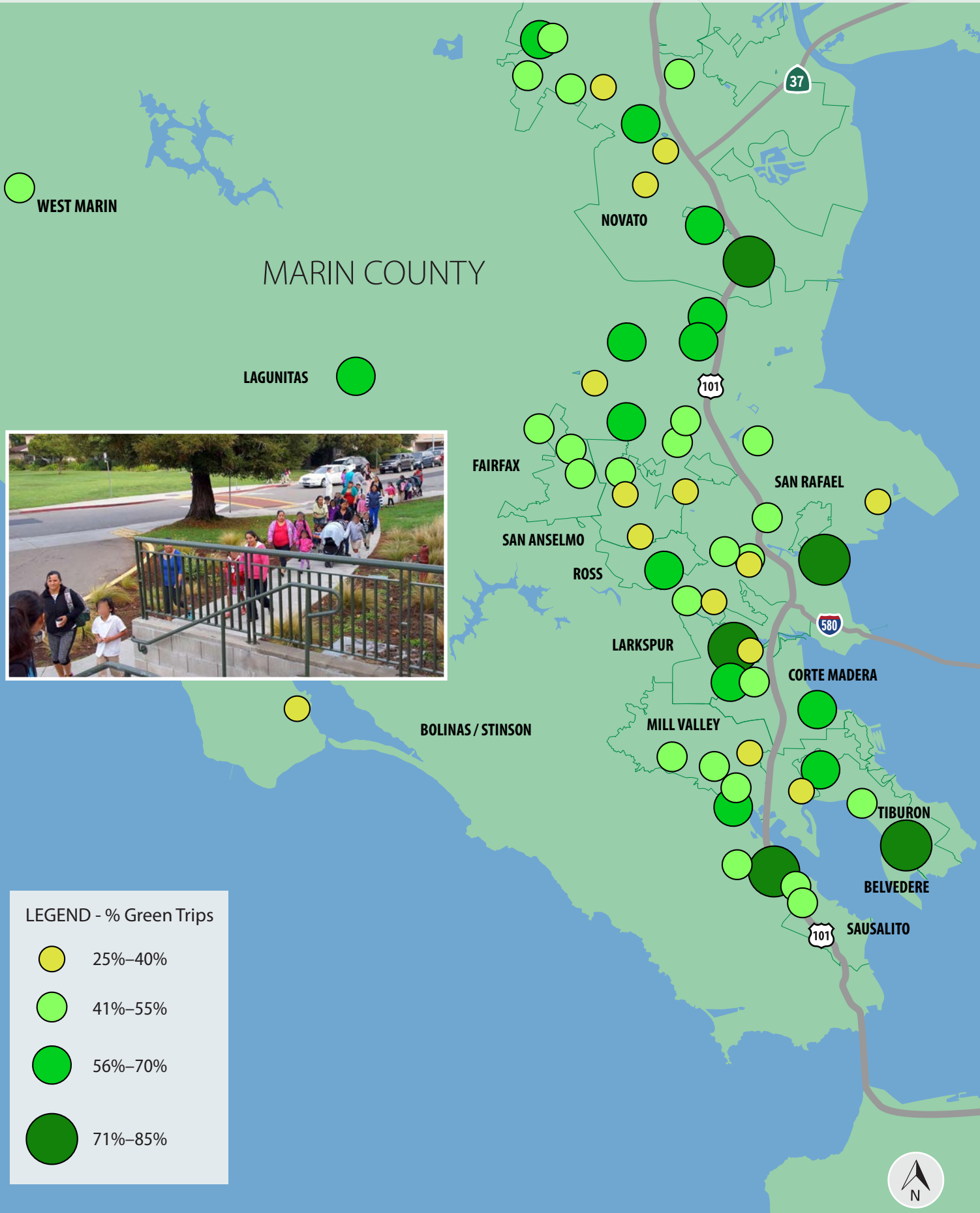
### Family Vehicle Trips

Family vehicle trips, which comprise of single-student (i.e., non-carpool) pick-up and drop-off trips, are major contributors to traffic congestion on roadways serving local schools. Figure 7 shows the net change from family vehicle trips to other green modes of travel, comparing travel mode data from a baseline year (e.g., a school's first year in the Marin SR2S program and an average of the past three years of travel mode data collected for the school.





About 59 percent of participating schools have seen traffic decreases of up to 30 percent. These traffic decreases are a result of shifting from single-student vehicle trips to green modes of travel such as carpooling, riding a public transit or school bus, walking, or biking to school. Reasons that schools experience an increase in family vehicle trips may include gaps in the availability of team leaders at the schools to promote SR2S program elements, schools experiencing transition, e.g., increasing the number of grades served at the school or serving a larger enrollment area due to other school closures, or eliminating school bus service. The Evaluation chapter details successful strategies countywide that have led to an increase in green trips.



Figure 6: Green Trips

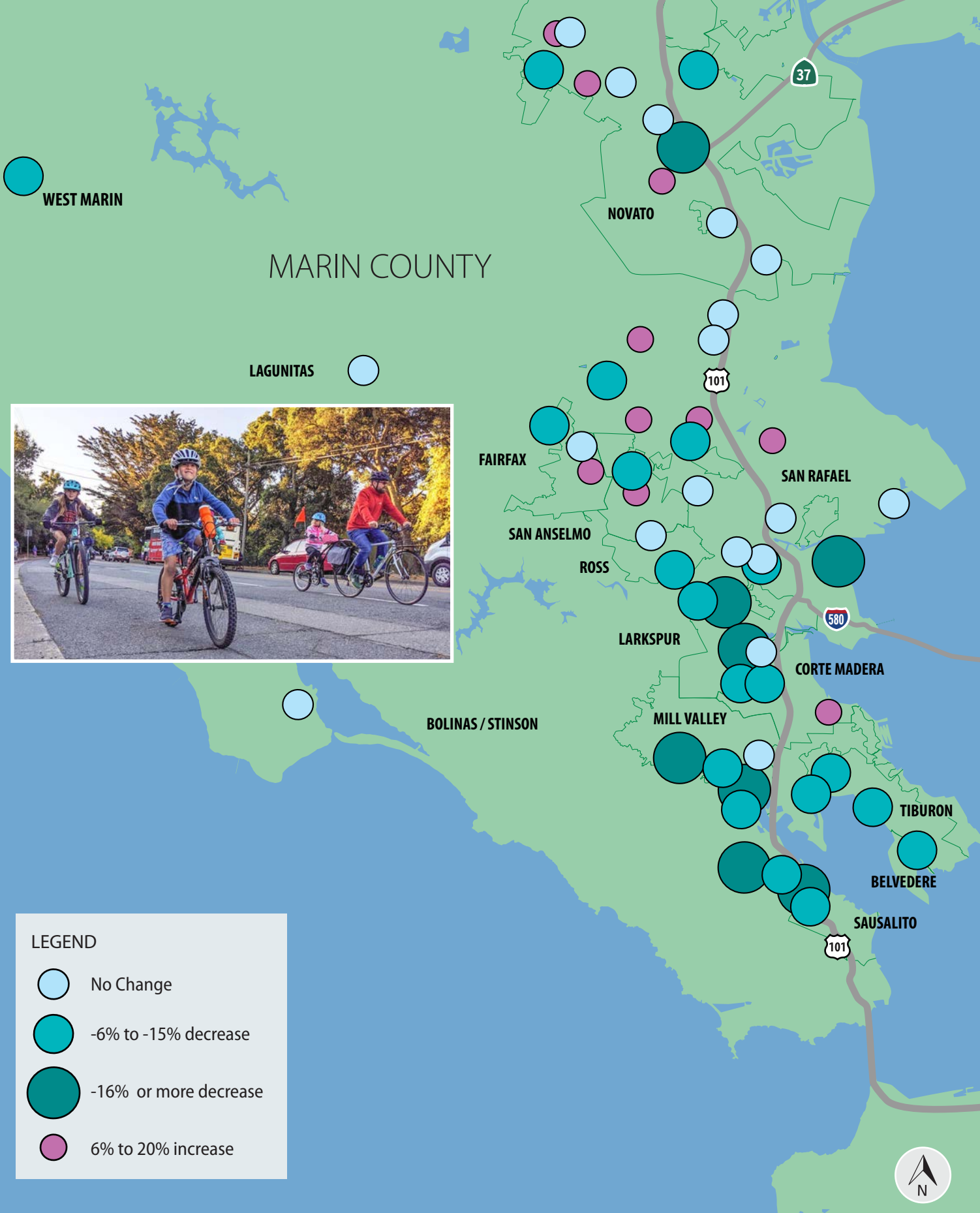


LEGEND - % Green Trips

	25%–40%
	41%–55%
	56%–70%
	71%–85%



**Figure 7: Family Vehicle Trips**



**LEGEND**

- No Change
- 6% to -15% decrease
- 16% or more decrease
- 6% to 20% increase



## CASE STUDY

### PARK AND WALK



Thanks to grant funding by the Bay Area Air Quality Management District, Safe Routes to Schools created a new pilot program called Park and Walk (PAW) to increase sidewalk usage and decrease traffic congestion on streets adjacent to schools.

The new PAW campaign encourages families to park a short distance away from school and then walk with their child to the school door. PAW families filled up the neighborhood sidewalks with smiling faces and hands being held en route to school. Colorful PAW lawn signs marked suggested routes for parents to “park,” and then walk to school.

At Loma Verde Elementary School in Novato, PAW was successfully implemented by volunteer parents, student leadership, law enforcement, and the school Principal, Tehniat

Cheema. Backpack cards were distributed to all students participating in active transportation to school by foot, bike or scooter. Volunteer parents and student leaders stamped cards at a morning welcome table for nine consecutive days. PAW was promoted to parents via the school newsletter, Open House, backpack mail and mobile text. If a child received six stamps on their backpack card, then he/she qualified for a raffle prize drawing on the last day of the PAW pilot. In all, 63% of the school achieved six punches on their punch card. This compares with the survey measure in the fall when only 15% of the students walked or biked to school.

This resulted in a dramatic decrease in the numbers of vehicles in the pick-up lines at both the front and back school entrances of the school.



## TASK FORCES

In addition to working countywide to increase green trips to and from school, the Safe Routes to School program strives to address safety issues along specific school routes. SR2S staff facilitate school district Task Forces to discuss these safety challenges. Task Force committees bring together parent leaders, elected officials and staff from the local jurisdiction, traffic engineers, school district representatives, law enforcement personnel, and neighborhood leaders to focus on specific transportation safety concerns in a neighborhood and work to provide solutions to address the concerns. Task Forces collaborate with the SR2S staff to design and implement a program that addresses the unique needs of their school district.

Task Force meetings provide an ideal venue for SR2S program stakeholders to discuss issues specific to each school district. The meetings also provide an opportunity for stakeholders to identify neighborhood-specific issues that require more focused attention. As shown in Table 2, there were eight active Task Forces in the 2018–2019 school year.

Additionally, SR2S has partnered with the five members of the Marin County Board of Supervisors to form Neighborhood Safety Committees in order to focus on specific safety issues in specific neighborhoods that may require focused attention. These committees include neighbors and businesses from the area in addition to the usual Task Force participants. To date, SR2S program staff has participated in Neighborhood Safe Street Committees in Sleepy Hollow in San Anselmo, Oak Manor in Fairfax, McAllister in

TASK FORCE	DISTRICT
Mill Valley	Mill Valley
Tiburon, Belvedere	Reed
Ross, San Anselmo, Fairfax	Ross Valley
Novato	Novato
Kentfield	Kentfield
Larkspur, Corte Madera	Larkspur, Corte Madera Twin Cities
Sausalito	Sausalito Marin City
San Rafael	San Rafael

**Table 2: Active Task Forces (2018/19 School Year)**

Kentfield, Terra Linda in San Rafael, Davidson in San Rafael, Cove in Corte Madera, Almonte in Mill Valley, and West Marin. At the time of this report, there is one active neighborhood sub-committee: Butterfield in Ross Valley. Neighborhood committees differ from Task Forces in that their efforts have a shorter duration with specific tasks and outcomes. The results of Committee efforts are then folded back into the Task Force work.



## WHO IS SAFE ROUTES?

### David Kundhardt – Larkspur/Corte Madera Safe Routes to Schools Task Force Member



When David Kundhardt was elected to the Corte Madera Town Council, he requested to serve as the Safe Routes to Schools liaison. "I knew about Safe Routes because of some of the brilliant work done in our community. I first became familiar with the program when my kids were going to school 10 years ago," he explained. Today David serves on the Larkspur/Corte Madera Safe Routes to Schools Task Force. He finds it a useful tool to help set community priorities, to apply pressure on the public process, and contribute to the priorities set as part of the Capital Improvement Program. "Safe Routes benefits seniors

and average people, too" he said. "It's not just for school age kids." Recently Corte Madera improved crossings along its main thoroughfare, Tamalpais Avenue. "They are more visible, traffic lanes are narrower, and should slow auto traffic. There is more of a concentration of where kids cross the road."

He applauds the Redwood High School parking program that provides priority carpool parking and limits parking permits to students who live farther from campus. "The notion that kids who live within 20 minutes of school should be walking completely makes sense. My kids walked a mile and a half to Redwood." Unfortunately, despite these policies some students chose to drive anyway and parked in neighborhoods adjacent to the school which created issues among neighbors. In response the town started issuing resident parking permits which has generally been well received.

Councilmember Kundhardt sees many benefits of SR2S. Fewer cars are on the road, kids are getting exercise, and greenhouse gas emissions are reduced. "If our overall goals are to have fewer single-passenger automobiles, more walking and riding, and more community solutions for moving around," he said "then SR2S is a great contributor. When we have solutions in place then we have an opportunity for better community. When I'm on the bike path, there are wonderful conversations that strike up, that I'd never have if I was driving that same corridor."



## WHO IS SAFE ROUTES?



Students, teachers, parents, and the community at large all contribute towards the success of the Safe Routes program. Without these stakeholders, there would be no volunteers to hand out prizes, no students to lead their peers, and no new

routes-to-school identified. Throughout this report, "Who is Safe Routes" sections present interviews with a handful of key contributors to Marin County Safe Routes to Schools.

The Education element of the SR2S program is comprised of a comprehensive curriculum that encompasses lessons on traffic safety, healthy living, and promoting environmental awareness for both active and green modes of transportation. This chapter provides an overview of the SR2S education programs traditionally

offered to participating schools, and introduces new programs implemented during the evaluation period. Additionally, it assesses student participation and provides recommendations for enhancing the Education element in the future.

## EDUCATION PROGRAMS AND CLASSES

Safe Routes to Schools has always offered a variety of education programs designed to instill healthy habits in children and create a safer and cleaner environment for all. Since the previous Evaluation Report, the program continued to offer many similar classes, but revamped the curriculum to add more interactive, kid-friendly activities to enhance their learning. Starting in 2nd grade and continuing through high school, the SR2S curriculum provides age-appropriate instruction that meets California state education standards as applicable.

Each year an average of 410 education programs and classes are held at schools throughout the county. The education programs offered are summarized in Table 3, and a detailed description of each program is included in Appendix C.

Education programs at the primary school levels includes pedestrian and bicycle safety coursework taught by trained instructors. Safety classes are provided to 2nd, 4th and 6th graders during the school day, often scheduled by physical education teachers. Safe Routes to Schools has also modified the curriculum to fit all primary and middle school grades upon request. In-classroom lessons such as “Stop, Look and Listen” and “Bike Safety” are followed by “Walk

Around the Block” and “Bike Rodeo” where students can practice the “hands on” skills learned in class. Classes are tailored to meet classroom needs and time constraints, address school-specific concerns and utilize existing student skill sets. For example, after a high-profile collision between a child and a bicyclist, SR2S provided a custom class teaching students bicycling rules and etiquette on the multi-use pathway. Custom presentations are created for bike field trips, including route planning and safety instruction for group riding.

Additionally, SR2S classes and activities educate students on the environmental and health benefits of green travel. Schools are increasingly adding Green Teams to engage students in environmental awareness. Safe Routes to Schools’ newly developed Sustainable Transportation class for middle and high schools, supports their efforts by showcasing the positive impact of green transportation on greenhouse gas reduction. The education and encouragement programs are intrinsically linked; messaging throughout school communities promotes road safety and highlights the health and environmental benefits of active transportation.







EDUCATION PROGRAMS	GRADE
<b>Classroom Teaching</b>	
Share the Road* <sup>1</sup>	High
Poster Art	All grades
Stop Look and Listen	2
Bike Safety	4
Drive Your Bike: Part I	6
Bike Commute: Part I	High
<b>Field Training</b>	
Walk Around the Block	2
Bike Rodeo	4
Drive Your Bike: Part II	6
Bicycle Field Trip	Middle and High
Family Biking <sup>1</sup>	Parents and Elementary
<b>Assemblies</b>	
Cool With Traffic Assembly*	Elementary
“Go Green” Assembly	Middle
<b>Presentations</b>	
Sustainable Transportation*	Middle and High
Travel Journal	Middle
Marketing Strategy and Transportation	Middle and High
How to Ride the Bus or SMART Train	High
<b>Other</b>	
Bicycle Blender	All
Transit Race and Scavenger Hunt	High
No Idling Campaign <sup>1</sup>	Middle and High
Distracted Driving Campaign	High
What Do I Stand For?	Middle and High

**Table 3: Education Programs**

<sup>1</sup>Program available through MTC Spare the Air grant funding

\*New since 2016



## KEEPING IT FRESH

Since its inception, the Safe Routes to Schools curriculum has continuously evolved over time, expanding programs offered to meet students' needs. Between 2016 and 2019, four new education programs were added while other existing programs updated its content. SR2S staff revamped the curriculum, adding more interactive, student-friendly activities and introducing science-based exercises about transportation and the environment that met grade-appropriate standards.

## SUSTAINABLE TRANSPORTATION

The Sustainable Transportation class teaches high school students that transportation choices matter. Using fact-based science, the class creates awareness of how vehicular greenhouse gases contribute to climate change. In addition to building awareness of the impact of fossil fuels, the thought-provoking and interactive class challenges students to reconsider their commute choices.

## CASE STUDY

### DRIVE CLEAN MARIN PARTNERS WITH SAFE ROUTES TO SCHOOLS



Safe Routes to Schools' goals include reducing traffic and pollution around campuses by having more families walk, bike, or park and walk a short distance to school if they live too far. Drive Clean Marin's initiative seeks to have every Marin resident make their next car an electric car. The two programs recently joined forces to promote and encourage greener commute options.

Safe Routes to Schools hosted a Parent Education night at Sun Valley Elementary School, in partnership with Drive Clean Marin, to build awareness of the health impacts of pollution on children

and promote a reduction in vehicle emissions. Drive Clean Marin's goal is to inspire residents and employees to reduce their carbon footprint by driving electric vehicles. Safe Routes to Schools promotes healthy and safe transportation choices, noting that clean air while walking or biking to school is important for developing lungs and brains.

Parents that drop off or pick up their children may form a line of idling cars while inching their way to a school's campus. Air toxins from exhaust deposited at school are known to be harmful, causing asthma, respiratory problems, and even cancer.





## **FAMILY BIKING**

The Family Biking program bring parents and youth together for two hours of instruction either in a rodeo setting or through on-the road field trips. Four events are hosted each year, including a bike drills course at the popular Sundays on Sherman family event in Novato. In San Rafael, low-income youth learn to ride a bike and practice safety rules on a course that looks like a miniature street. Tam Valley Recreation Center hosted a Family Bike Ride where parents and their kids were taught multi-use pathway etiquette and responsibility for young children. Annually, one of the Family Biking events is in partnership with the Fruit and Veggie Festival hosted by Marin Health and Human Services. Plans include developing classes for parents using cargo bikes to transport young children, teaching parents on how to instruct their own kids to navigate the streets safely. The program is funded by MTC and implemented by TAM's Safe Routes to Schools Program. Funding has been renewed through 2021.

## **BE COOL WITH TRAFFIC**

The new Be Cool With Traffic school-wide assembly combines encouragement for green travel with rules of the road for safety. Selected students perform with playful characters including Law and Order, the Polar Bear, and Big Traffic, delivering the message that short trips are best made by walking and rolling. Students enjoy watching Big Traffic being reprimanded to obey all traffic laws, including how to cross the street in crosswalks

and looking left, right and left before stepping off the curb. This addition reinforces safety lessons taught in the 2nd and 4th grade curriculum.

## **SHARE THE ROAD CLASSES FOR HIGH SCHOOLS**

A Share the Road class was recently added to the high school curriculum thanks to 2018-19 MTC Spare the Air grant funding. A total of 700 students (300 students at San Marin High School and 400 students at Drake High School) received the education through their Wellness and Physical Education classes.

The Share the Road class introduces students to the fundamental safety concerns of pedestrians, cyclists, and drivers. Students are taught laws governing the rights and responsibilities of all road users. Students come away with a better understanding of why laws are created from the perspective of a pedestrian, cyclist or driver. For example, students learn why cyclists are given the right to use a full lane so that when they are driving a car, they can anticipate when a cyclist might be traveling in the middle of the lane. Emerging drivers are presented with data warning about distracted and reckless driving and are shown how speed is the leading cause of fatalities among teen drivers. Bringing awareness to this age group reinforces the safety responsibility of every person on our streets, whether walking, biking or behind the wheel of a car.



## CASE STUDY

### SHARE THE ROAD CLASSES FOR HIGH SCHOOLS



Ride as Far Right as is PRACTICABLE



New Share the Road curriculum teaches high school students the rules of the road and emphasizes predictable behavior of all road users. Regardless of whether the students drive, walk, or bike, the intent of Share the Road is to provide teens with a better understand of the rights and perspectives of other road users and their personal responsibility for safety.

Using Department of Motor Vehicle laws and data-based statistics, topics address common causes for injury and fatalities, including: pedestrian right-of-way when using crosswalks versus mid-block crossing, use of the “Dutch reach” when exiting a car into traffic, when cyclists’ legally can and should take a full lane of traffic, the impact of speed and distracted driving, and what to do if involved in a crash. San Marin students then selected

a topic and created short videos to share what they learned with fellow students.

Ashley Leonard, a sophomore at San Marin High School, was concerned about the safety of fellow students crossing the streets adjacent to her high school. Ashley, as part of her Girl Scout Gold Award, received grant funding from Metropolitan Transportation Commission (MTC)’s Spare the Air Youth program for Safe Routes Instructors to teach Share the Road classes to all 300 San Marin freshmen.

A Safe Routes to School program goal is for this next generation of motorists, pedestrians and cyclists to know the legal rights and responsibilities of all road users. The education comes at a crucial time, right before many teens are eligible to obtain drivers licenses. This class teaches students to comprehensively think about safety for everyone.



## TEENS GO GREEN PROGRAM

Teens Go Green provides opportunities for middle and high school students to be engaged in education and encouragement efforts aimed at reducing greenhouse gas emissions and promoting health. Middle and high school students enjoy the leadership roles and depth of experience that the program provides, particularly at a time when they are exerting their independence and developing critical thinking skills. It is a testament to the value and success of the Teens Go Green program that year after year teachers continue to invite coordinators into their classrooms and form lunchtime clubs.

The Teens Go Green program uses the “Service Learning” approach to engage students in civic responsibility and social action. The National Service Learning Clearinghouse defines Service Learning as “a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities.”

In addition to promoting “green transportation” with morning events and contests, the Teens Go Green program develops leadership skills while imparting lessons in environmental stewardship and citizenship. The program also enhances career preparedness, as described in the ‘Who Is Safe Routes’ interview – “High School Internship.”

## TEENS GO GREEN COMMUNITY PARTNERSHIP

Over the past 12 years, students, school administration and the SR2S program have mutually benefited from on-going partnerships centered around Teens Go Green. Since 2013, the Safe Routes to Schools Teen Coordinator has served as a community partner working with groups of six Marin School of Environmental Leadership (MSEL) students each semester. Through this partnership, SR2S has taught middle and high school students how to create, organize and market campaigns and events involving school-wide participation and engaging outside community members. Four schools developed such partnerships through the service learning approach employed by the program: Terra Linda High School, Miller Creek Middle School, Kent Middle School, and Mill Valley Middle School.

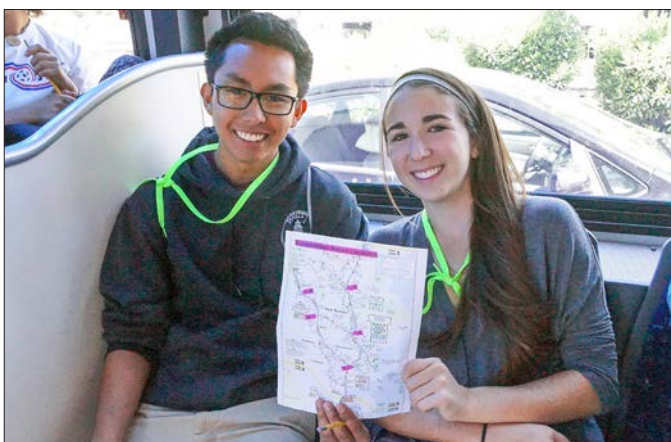
MSEL at Terra Linda High School incorporates service learning into their freshman and sophomore curriculum. Since 2013, the Teen Coordinator served as a “Community Partner for Transportation” working closely with groups of six students over the course of one semester to develop a project that addresses a current environmental concern. Through this partnership, Safe Routes to Schools was able to work collaboratively and more in depth with students on transportation-related projects.





The Transportation Nation (Transit Race) was one such project developed and piloted with MSEL students. In 2016, Miller Creek's 8th grade science teacher invited the Teen Coordinator into his classes to lead discussions on the impact of idling cars on student's health. Through a joint effort of Miller Creek and Safe Routes to Schools staff, MTC Spare the Air grant funding was obtained. Through student engagement, air quality testing devices were ordered and a campaign was launched to make parents aware of the dangers of idling on developing lungs and brains. 'No Idling' signs were installed and students handed out cards to parents in the pick-up zones remind them to "Turn the Key, Be Idle Free".

The Teen Coordinators have facilitated other service learning opportunities. In 2017, Hall Middle School students organized a Bike Donation Drive and collected 27 bikes that were given to families who could not afford to purchase their own. Since 2013, staff has trained students to perform the Go Green Assembly, to create PowerPoint presentations, and to refine their speaking skills by presenting at the Spare the Air Youth Conference. Teens Go Green has led high school students in creating, organizing, and promoting large scale events such as Drake High School's 'No Cars on Campus' events, which encourage students to leave cars at home in order to have the parking lot available for other Earth Day activities.



## WHO IS SAFE ROUTES?

### Pepe González, Principal of Laurel Dell and Short Elementary Schools



A strong supporter of the Safe Routes to Schools Program, Pepe González is the returning Principal of Short Elementary School while continuing his job as the Principal of Laurel Dell Elementary, both in San Rafael. Mr. González facilitated the implementation of the SR2S program years ago while at Laurel Dell Elementary and is now introducing it to Short Elementary, a school that previously has never incorporated a SR2S program.

Mr. González, a Dominican University graduate, considers that the SR2S program is an important component of the broad education of his more than 300 students at both sites. Mr. González values Safe Routes to School as it teaches the importance of green travel while creating sense of community.

“Schools thrive when our community participates in events that bring us together, keep us safe, and allow us to enjoy our beautiful Marin County climate,” he says. “I love seeing our students and families walking and riding in groups, talking and connecting with each other and their environment on their way to school!”

### PE Teacher – Melissa Palmer



When Safe Routes to Schools started at Mill Valley Middle School in 2000, cycling to school was rare; students would ask fellow students who biked to school, “is there something wrong with your family’s car?” Now, bike racks are overflowing with hundreds of bikes daily.

Melissa Palmer, Physical Education Teacher, includes as part of her curriculum a week of Safe Routes to Schools’ Bike Drills safety classes for all 400 of her sixth-grade students. Through

these classes, students will learn the rules to help them to share the road safely and respectfully. Ms. Palmer, who has witnessed the 20-year evolution of biking at her school, truly values the safety classes taught at the start of every school year.

According to Ms. Palmer, the courses created on their blacktop, “reinforce real-life behavior that students experience on the road; students get to practice making full stops, taking turns and making eye contact with other drivers, balancing while riding slowing and using hand signals, stopping for pedestrians and much more.” According to Ms. Palmer the that the in-class PowerPoint presentation with an interactive quiz also gets students to really think about their behavior and the decisions that they must make as drivers and pedestrians.

Ms. Palmer and the other PE teachers are dedicated to promoting life-long habits, of which biking is one that every kid can be successful at doing. Ms. Palmer notes that even her Special Needs students can participate, some riding a bike for the very first time during the Bike Drills classes. According to Ms. Palmer, “riding a bike builds confidence” and teaches students how to be respectful citizens.



## RECOMMENDATIONS FOR IMPROVEMENTS IN SR2S EDUCATION

The table below provides recommendations for the improvement of the Education element and is based on the success and lessons learned from existing Education programs.

**Table 4: Recommendations in Education**

PROGRAM	STATUS	RECOMMENDATION
Elementary and Middle School Pedestrian and Bicycle Safety Education	The core curriculum is comprised of 2nd, 4th and 6th grade pedestrian and bicycle education classes, which are hugely popular due to their hands-on approach to learning. During this evaluation period, an increased number of schools requested that SR2S teach 1st through 5th graders each year, providing age appropriate safety classes to all of their students.	Continue to provide pedestrian and bicycle safety education programs to children in 2nd, 4th and 6th grades while continuing to provide classes to every student in every grade at school sites that request it. Offer an increased number of Family Biking classes, providing hands-on training to teach caregivers how to ride with youth. Seek sponsorships and donations for a new fleet of bikes, replacing outdated bikes used in SR2S rodeos and bike drills classes. Update existing and create new printed materials for increased outreach to parents and student recognition.
Middle and High School Education	Grants from MTC’s Spare the Air Youth program funded a new Share the Road curriculum, which was developed and piloted at San Marin High School. Share the Road combines education for pedestrian, cycling, and driving safety into one class. New Sustainable Transportation classes were developed during the current evaluation period.	Offer the new Share the Road class to an increased number of High Schools. Continue to offer Sustainable Transportation classes to middle and high school students, demonstrating how transportation choices can benefit the environment. Continue classes and events that teach high school students of the benefits, route planning and use of public transit.
Elementary and Middle School Assemblies	A new Cool with Traffic Assembly was developed in 2015/2016 to reinforce safety while further promoting walking, biking, and carpooling to schools.	Promote and support an increased number of school-wide assemblies that showcase the benefits of active travel and that teach safety skills, in order to reinforce key messages taught in the 2nd and 4th grade pedestrian and bicycle classes.

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# ENCOURAGEMENT



The Encouragement element of SR2S is focused on motivating school communities to embrace green travel modes through the use of contests and special events. Similar to the education programs, encouragement programs are made possible through collaboration between school administration, SR2S staff and dedicated volunteers. This chapter provides an overview of Encouragement programs historically offered by SR2S, introduces new programs implemented during the evaluation period, and provides recommendations for future programming.

## ENCOURAGEMENT CONTESTS AND SPECIAL EVENTS

The partnership between Safe Routes program volunteers, local schools, and SR2S staff make up the backbone of successful SR2S encouragement programs. In elementary schools, SR2S parent volunteers promote and host contests and events. In middle through high school, events and contests are facilitated through student clubs with support from their teachers and SR2S coordinators. Encouragement programs are generally held in the mornings as children arrive to school. To boost participation, program volunteers are prominently stationed at the schools and provide students with recognition and incentives for walking, rolling, carpooling or taking transit.

A list of encouragement events and contests offered are listed in Table 5.

International Walk and Roll to School Day and National Bike to School Day are two popular events hosted annually at participating elementary, middle, and high schools. These larger events are community-based and often attended by local government officials, law enforcement and other civic leaders who join schools to celebrate healthy and safe walking and bicycling practices.



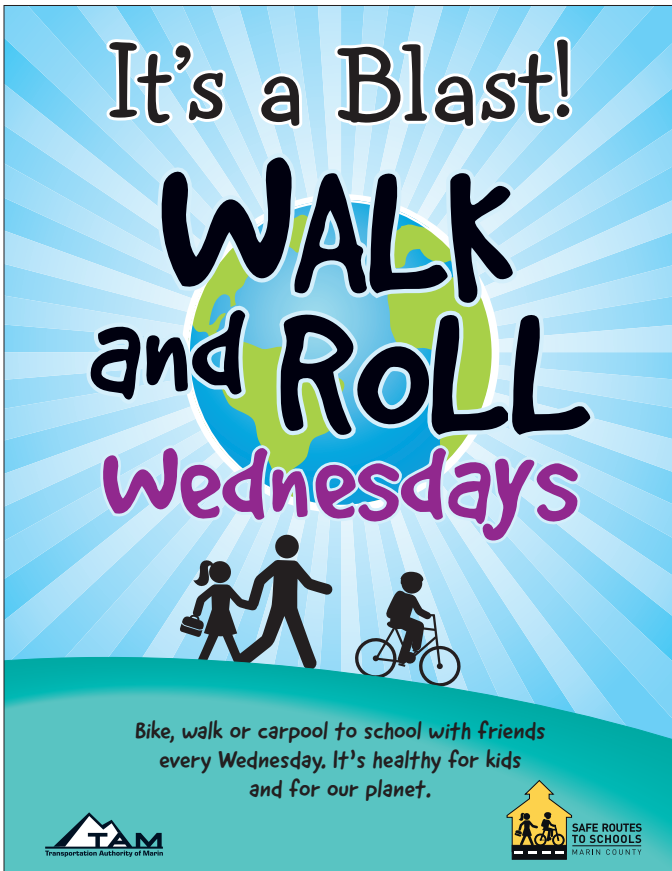
TITLE	GRADE
<b>Events</b>	
Go Green Days*	Middle & High
National Bike to School Day*	All grades
International Walk to School Day	All grades
Walk and Roll Wednesdays	Elementary
<b>Contests</b>	
Green Sneaker Challenge*	K-8
Search for Hidden Treasure*	Bi-Lingual Elementary
Go Green Contests	Middle & High
Green Ways to School Classroom Contest	Elementary
<b>Other</b>	
Park and Walk Campaign*	Elementary
Bike Hero Award*	K-8
Art Contest*	Middle and High
Travel Journal	Elementary

**Table 5: SR2S Encouragement Programs**

\*New since 2016

<sup>1</sup>Made possible with Bay Area Quality Management District Funding

## KEEPING IT FRESH



### Keeping It Fresh

During the 2016–2019 evaluation period, the Walk and Roll Wednesdays became Safe Routes to Schools' signature program, embedded annually in 35 public elementary schools. The purpose of Walk and Roll Wednesdays is to promote green travel once per week throughout the school year.

Additionally, starting the fall of 2016, the new Green Sneaker Challenge was introduced at 30 elementary schools. The popular Green Sneaker Challenge now kicks-off each school year. Peak participation was in 2017 and 2019 with 28 schools hosting the program.

Monica Leifer, SR2S Bi-Lingual Coordinator, created the Search for Hidden Treasure Monthly Contest in 2018 for Laurel Dell, Bahia Vista, Olive, Venetia Valley, and Martin Luther King Academy Elementary Schools. Participating students receive a Treasure Card which is stamped monthly when they travel green to school. At the end of the semester, the card is entered into a raffle drawing



and winners are announced at all school assemblies. A partnership with Marin Health and Human Services supports the program by providing staffing and incentives for encouragement events and raffle prizes for contest winners.

In the 2018-19 academic year, Safe Routes to Schools launched Park and Walk (PAW) to encourage families with small children or who live further away to park and walk part-way to school in order to help reduce traffic and congestion in school drop-off zones. The intent of this program is to help establish healthy habits with kindergarten through second grader students so that at the appropriate time they will feel comfortable walking together with friends to school. Through BAAQMD funding, Park and Walk lawn signs were created and placed along popular walkways to school. A two-week contest was held with refreshments served to parents while students had their PAW cards stamped at welcome tables.





## Teens Go Green

The Teens Go Green program relies on partnerships formed with teachers and students to host Safe Routes encouragement and education programs. From 2016 to 2019, Safe Routes to Schools programs were implemented at all eight public middle schools and at seven public high schools.

The middle schools with the highest percentage increase in active and green trips compared to baseline surveys were those where Teens Go Green Coordinators had on-going partnerships with teachers and students, and robust encouragement events were hosted at Kent, Miller Creek, Mill Valley and Hall Middle Schools.

Teens Go Green Coordinators have supported environmental student leadership clubs at Drake and Redwood High Schools since 2012, meeting weekly with students to promote sustainable transportation at their schools. In spring of 2018 and 2019, Drake High School reintroduced “No Cars on Campus”— a one-day event

where students and staff leave their vehicles at home and the front parking lot at Drake High School is completely void of cars. The empty parking lot provides a powerful visual of how that space could be used if no one drove to school. Safe Routes to School presence in these clubs ensures that encouragement programs created by the students (International Walk and Roll to School (iWalk), National Bike to School Day, Cocoa for Carpools) are hosted each year.

During Sustainability Week, Redwood Club students host a week-long contest promoting walking and biking to school. Additionally, Redwood’s High School’s science teachers invite Safe Routes to Schools to lead discussions on transportation’s impact and solutions on climate change, with a new Sustainable Transportation Class as an outcome.





## Transit Race and Scavenger Hunt

Initiated via a 2013 pilot program, Safe Routes promotes public transit at two Marin public high schools. Additionally, the program helps to generate awareness regarding the benefits of using transit through basic instruction and motivation strategies. Safe Routes staff collaborated with students from Marin School of Environmental Leaders (MSEL) at Terra Linda High School to create the Transit Race and Scavenger Hunt.

The race continues to be hosted as a class at Terra Linda High School annually, with instruction provided on route planning, mobile app usage, and student Clipper cards. During the race, students travel in small groups by bus throughout Marin to seek locations selected by Safe Routes organizers. The groups take “selfies” to score points, and the group with the most points at the end of the “race” wins. The event builds students’ confidence and motivation for riding the bus throughout the county.

In 2017, Safe Routes staff trained 100 Drake High School Revolution of Core Knowledge (ROCK) students on how to ride Bay Area transit for a day-long “Epic Journey” transportation class. ROCK is one of the school’s small learning academies for 9th and 10th grade students. Students learned how to plan routes and travel by Marin Transit, SMART train, Golden Gate Ferry and buses, and BART. Similar to the Transit Race, students hunted for iconic structures and had to create videos of their experience to present in class, further reinforcing independence and fun while journeying on public transit.

## Integrating Technology

Beginning in 2016, Safe Routes to Schools helped promote and sponsor the School Tag program at Willow Creek Academy. School Tag is an automated program developed by a Willow Creek Academy parent volunteer where students log their walks and rides by scanning their tag on sensor boxes located on recommended routes to schools. Students were rewarded points based on their daily green trips, and those with the most points were entered into raffle drawings for prizes. Parents also enjoy the feature of being able to track their student’s arrival to school.

The use of Active4.me, a national online trip tracking program, was piloted at four schools in 2010 through TAM’s Green Ways to Schools funding. It continues to be funded by four Marin schools in 2016-19 and is supported by Safe Routes to Schools staff. Active4.me is an online program that allows schools to scan barcodes to track student trips to school. Each student is given a barcode tag and entered into the active4.me database with their distance from home. On program days, a volunteer scans in each student as they arrive, capturing that trip and reporting the collective progress of greenhouse gas reduction for the school. Active4.me also provides text notifications telling parents that their student has successfully arrived and scanned in at school.

## CASE STUDY

### Redwood High School Limits Student Parking

In an effort to increase carpooling and reduce congestion, Redwood High School, in consultation with the City of Larkspur and the Central Marin Police Authority, developed new student parking policies and procedures. As stated in the policy: "Given the challenges of student parking on our campus and our surrounding community, our growing student population and our intentions to reduce school commute auto congestion and single-occupancy vehicles parking on campus, we have changed the policies and procedures around student parking on our campus."

During the 2018-19 school year, a limited number of student parking permits were issued to students who live more than a 20-minute walk from Redwood. The same number of student parking permits will be issued as there are student parking spaces, plus approximately 15 additional permits to account for absences on any given day. Furthermore, student parking permits will first be issued to students who live in close proximity to Redwood and make a commitment to carpooling. Redwood defines a carpool as three or more students, including the driver, in a car, who live more than a 20-minute walk from Redwood. Carpool parking spots are located in prime locations in both parking lots and will be monitored by campus assistants and administration. To ensure the safety of all students and community members, students with a parking permit will not be allowed to drive off campus during lunch.

The main goals of the new policy are to reduce the number of students driving to school and help students arrive safely.



Those who live within a 20-minute radius of Redwood can reasonably walk or bike to school. "While sometimes a challenge," it states, "we appreciate all of our students who walk, bike, bus or carpool to school to help us manage the parking and traffic challenges in our community and model treading lightly on our environment." Students with reserved spots can avoid speeding to school because they know they will be guaranteed a parking spot when they arrive.

Safe Routes to Schools applauds Redwood's bold initiative to reduce car usages and encourage green transportation choices. Redwood also publishes information on green choices on their website, including walking and biking maps and bus schedules.



## WHO IS SAFE ROUTES?

### Aracelia Mendoza – Parent Volunteer Leader

Aracelia Mendoza has a full plate: parenting four children in elementary school, working a full-time job, and taking teacher credential courses. When asked to serve as the parent volunteer leader at Olive Elementary School, however, she did not hesitate. Her dream is to work at a preschool and teach street safety, so that her students can travel green to school just like she used to.

Aracelia's main goal with Safe Routes is to promote pedestrian safety, specially now that the SMART train passing by in the vicinity of Olive Elementary. "I see very young kids walking by themselves and very close to the tracks and that worries me terribly. For this reason, I consider pedestrian education at an early age of utmost importance. Children's safety is my top priority."

"Growing up in the countryside in Mexico, I used to walk about a mile to school with eight neighbors of different ages, all between second and sixth grade. We did that morning and afternoon



and it was so fun that is one of the happiest memories of my childhood," says Aracelia. She currently lives too far to walk her children to school, but has created what she refers to as "one of the biggest carpools in Marin" – serving nine students.

### Aaron Roller – "School Tag" Inspires Biking at Willow Creek Academy

If you travel down Bridgeway in Sausalito in the morning, you might see a bike train leading to Willow Creek Academy, regardless of the weather. The School Tag program at Willow Creek has inspired parents and students to collect points and win prizes when they walk, bike, carpool and take the bus to school.

School Tag is an automated program designed by tech-parent Aaron Roller with input from his 8th grade daughter, Lillie and her friend, Lila LeCog, who wanted to create a safer and healthier school by eliminating cars on campus. To play the game, students are given a tag with a unique country designation for tracking purposes. Students log their walks and rides by scanning their tag on sensor boxes located on various routes to schools. The further the student walks or bikes the more points he or she accumulates toward a weekly and month-end prize.

One parent, Christian Verduzco, and his son Jarel have been biking every day in large part to participate in the School Tag program. Mr. Verduzco values the time with his son; "Because of School Tag, my son is eager to bike to school. It's given me a unique opportunity to teach him responsibility, to pay attention and follow instructions while learning a valuable life lesson and having fun."

In addition to School Tag, Mr. Roller spearheaded a new car drop off policy at his school, redirecting traffic away from campus, creating safe access for students walking and rolling to school.



Mr. Roller is exemplary in going the extra mile benefitting Safe Routes to Schools. His plans include making the School Tag technology available for broader use by other schools.



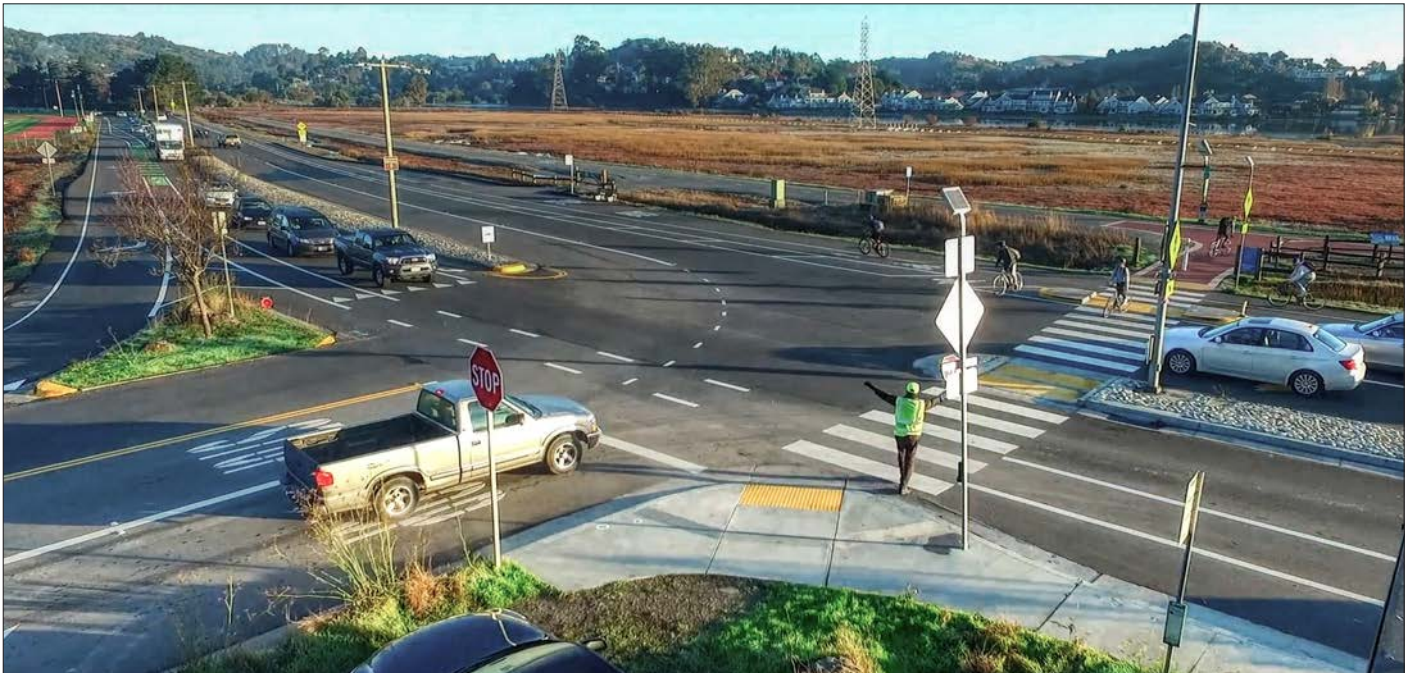
## RECOMMENDATIONS FOR IMPROVEMENTS IN SR2S ENCOURAGEMENT

The table below provides recommendations for the improvement of the Encouragement element and is based on the success and lessons learned from existing programs.

**Table 6: Recommendations in Encouragement**

PROGRAM	STATUS	RECOMMENDATION
Bi-Lingual Program	Provide encouragement programs to seven schools where the majority of students speak English as a second language. A partnership with Marin County Health Department was forged, providing additional grant funding to supplement SR2S encouragement programming. Walking School Buses formed at Venetia Valley and Bahia Vista Elementary Schools.	Continue partnership with Marin County Health Department to obtain grant funding for SR2S contest supplies and incentives to run encouragement events at low income schools. Expand outreach to families in apartment buildings to promote walking school buses.
Walk and Roll Wednesday	Since 2013, the number of schools that host regular year-round events has tripled, to currently 35 schools.	Develop more strategies to encourage weekly Walk and Roll to School days, such as expanding the Park and Walk program, the Walking School Bus and Bike Train initiatives. Focus on behavioral based incentives such as recognition programs for students who participate in the programs.
Elementary School Challenges/Contests	Implemented in 12 schools in 2015, the number of schools participating in challenges and contests has since doubled, with 25 schools hosting the fall contest. A Bike Hero contest was developed in May 2019 with over 20 student nominations received.	Continue to kick-off the school year with an annual month-long Green Sneaker Challenge, providing promotional materials, volunteer support and incentives to an estimated 30 elementary schools. Continue promoting May as Bike Month with an annual Bike Hero award.
Teens Go Green Middle and High School	Teens Go Green Coordinators are currently working with students in all eight public middle schools to host iWalk, monthly events, Bike to School Day, and contests. Middle Schools with the most robust Teens Go Green programs also have the highest percentage of green travel. Coordinators also work with student leaders at five public High Schools, hosting encouragement events.	Continue to engage teachers and student leaders to host monthly Go Green events, iWalk, Bike to School Day and contests.
Specialty Programs	SR2S provides program expertise to support volunteers developing new initiatives; School Tag, Walking School Buses, school-safety assemblies are some initiatives created during the current evaluation period.	Encourage schools to develop their own strategies for promoting Walk and Roll to School days such as Willow Creek Academy's School Tag on-line system program and Venetia Valley's Walking School Bus.
Technology	SR2S supports Active 4 Me, a fee for service, on-line trip tracking system that records students' green trips to schools.	Fund and create a new program website that allows an interactive interface for schools, enabling better access to materials and tracking of participation levels. Pilot the broader use of School Tag, a trip tracking program that allows students to self-scan and record their daily green travel. School Tag encourages student participation through popular gaming technology.

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The Safe Routes to Schools program recognizes that, while education and encouragement can change behavior, the lack of comfortable and direct walking and biking paths to school along with challenging intersections to cross, represent some of the primary barriers preventing parents from allowing their children to walk and bike to school.

The Engineering component of the SR2S program works to remove these barriers by assisting communities in identifying circulation and access issues and solutions. This process includes a walk and bike audit and the creation of improvement concept plans, which eventually become part of a jurisdiction's infrastructure improvement list. Often the basis for grant proposals, these plans are a critical part of SR2S, which has been extremely successful in funding infrastructure improvements across the country. To date, over 150 SR2S projects totaling over \$40 million have been constructed or are currently in design. This section describes

some of these key projects, as well as the engineering and implementation process.

Previous surveys have found the following five improvements to be most effective in encouraging walking and biking to school:

- ▶ **Bike/pedestrian paths separated from traffic**
- ▶ **Improved intersections**
- ▶ **Bike lanes**
- ▶ **Crossing guards**
- ▶ **Marked crosswalks**
- ▶ **Sidewalks**
- ▶ **Signage and Street Markings**



## DEVELOPING CONCEPT PLANS



The SR2S engineering team works closely with each of the participating Task Forces to identify shorter- and longer-term engineering projects that can improve walking and biking to school. This process consists of the following steps:

- ▶ A walk and bike audit is conducted with the engineering team, Task Force members, and representatives from the local jurisdiction and law enforcement.
- ▶ The audit identifies operational and physical obstacles within the school study area, which are then prioritized by the jurisdiction and Task Force.
- ▶ The engineering team, working closely with the local jurisdiction's Public Works department, develops draft conceptual plans for the highest prioritized locations to address the operational and physical obstacles within the school area.
- ▶ The plans are presented to the school Task Force for review.
- ▶ Staff from the local jurisdiction seeks funding to develop detailed engineering designs and, ultimately, to construct the recommended measures.

The concept plans include both short-term and longer-range recommendations. Short-term measures can typically be implemented within one to two years, are relatively low cost, and can be funded locally. Larger projects need to rely on other funds, including grant funding from State or Federal programs. In addition, TAM's Safe Pathways program is a key source of funding for schools that have completed SR2S Travel Plans or have the project on their infrastructure improvement list. (for more information on funding sources, see the chapter on Funding.)

## ACHIEVING RESULTS

As mentioned, the SR2S program has been increasingly successful in implementing engineering projects throughout the county. Figure 8 identifies schools that participate in the SR2S program and that have had infrastructure improvements completed as a result of the SR2S engineering process. The engineering projects vary widely in scope and cost, and can include:

- ▶ **School area signing**
- ▶ **Pavement markings**
- ▶ **New bicycle lanes**
- ▶ **High visibility crosswalks**
- ▶ **Traffic calming features**
- ▶ **Intersection curb extensions and ramps**
- ▶ **Pedestrian refuge islands**
- ▶ **New traffic controls**
- ▶ **Multi-use pathways**
- ▶ **New sidewalks**
- ▶ **Rectangular Rapid Flashing Beacons**
- ▶ **Radar Speed Feedback signs**

Much of the success of the Safe Routes program can be attributed to the collaborative work of the Task Forces with local jurisdictions. Engineering plans need to be developed and implemented with the support of both community members and city officials. It is particularly important that Public Works staff from the relevant cities and the SR2S engineering team work collaboratively with Task Forces to address their concerns. Without consistent Public Works involvement, Task Forces can lose confidence in the ability to improve walking and bicycling infrastructure and safety.

A "toolbox" of pedestrian and bicyclist enhancement measures based on current best practices is presented in the following pages.

Figure 8: Infrastructure Projects Near Schools





## Figure 9. Toolbox



**School area signage** warn motorists that they are entering a school zone, and or a school crossing.



**School area pavement markings** also warn motorists that they are about to enter a school zone or encounter a school crossing.



**High-visibility crosswalk striping** provides heightened visibility over standard crosswalk markings.



**Bicycle lanes** designate an exclusive space for cyclists through the use of pavement markings and signage. Bike lanes visually remind motorists of bicyclists' right to the street.



**School bike routes** provide children guidance for the recommended route to and from school, while increasing motorist awareness of the presence of children as co-users of the roadway.



**Curb extensions**, sometimes called bulb-outs, make pedestrians more visible to motorists while providing additional room to wait before crossing the street. The extensions also reduce crosswalk lengths and slow turning vehicles.





**Median refuge islands** are protected areas where pedestrians, who may be less able to cross the street in one stage, may safely pause or wait while crossing a street.



**Extending sidewalks** where they currently do not exist provides access to schools. Sidewalk widening can enable pedestrians to walk side-by-side or wheelchair users to pass each other.



**Rectangular rapid flashing beacons** are pedestrian-activated beacons that supplement warning signs. By alerting motorists of pedestrians waiting to cross the street, they have been proven to increase driver yield compliance.



**Radar speed feedback signs** display motorist speed compared to the speed limit of the street, alerting motorists if they drive in excess of the limit.



**Multi-use pathways** are shared between pedestrians and bicyclists and allow them to travel separated from vehicular traffic. Paths are typically at least ten feet wide to provide bi-directional travel.



**A cycle track** is an exclusive bike facility physically separated from vehicular lanes or parking lanes and distinct from the sidewalk. By separating bicyclists from motor traffic and pedestrians, cycle tracks offer a higher level of safety.

## Low Cost Improvements / Safe Pathways Cycle 4

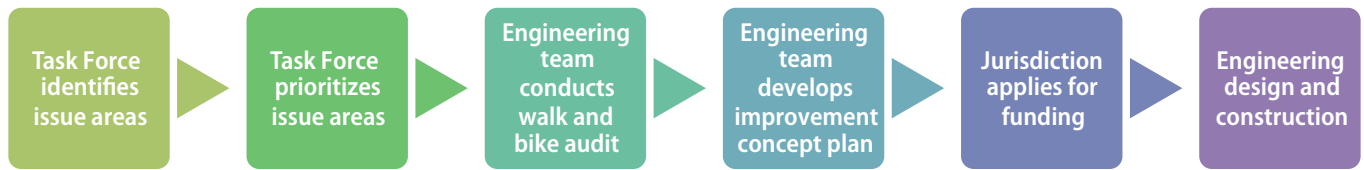
TAM's Safe Pathways to Schools Program funds construction projects that makes the commute to school safer. In 2016 TAM issued a Safe Pathways to Schools call-for-projects as part of a fourth funding cycle. TAM has previously funded 53 projects for a total of \$8 million dollars as part of the previous three funding cycles.

As part of the Safe Pathways application process, TAM categorized projects as either "small" or "large." "Small" Safe Pathway projects are

projects that require \$50,000 or less to design and construct and that should be completed within one year from commencement. Large projects have a maximum requested amount of \$400,000.

The fourth cycle of the Safe Pathways to Schools Call for Projects resulted in funding totaling \$5.2 million. This breaks down to approximately \$4.5 million for 13 large projects and \$700,000 for 13 small projects..

Figure 10: Process Diagram



## INNOVATIONS

The SR2S engineering team is helping jurisdictions develop projects that feature innovative engineering solutions based on latest design guidelines and recommended best practices. Described below are examples of two projects that received Safe Pathways to School grant funding in 2019 and will provide key safety improvements at two schools in Marin County.

### Third Street Hawk: San Rafael High School

San Rafael High School is bounded to the south by Third Street, a major five-lane arterial roadway in the City of San Rafael. The Montecito Plaza Waterfront Trail, a popular trail used by students, and which provides access to the Canal District, terminates on the south side of Third Street. Students using this trail must cross Third Street to arrive at school. Many students cross Third Street at non-crosswalk locations, particularly at the location where the trail ends.

Pedestrian and bicyclist routes have been identified as part of the San Rafael High School Master Plan. Crossing Third Street was identified as a barrier to travel to and from school, particularly for students arriving from the Canal District, which has the highest enrollment for San Rafael High School.



The San Rafael School District received Safe Pathways funding to implement innovative improvements that will close this pedestrian and bicycle gap on Third Street. A pedestrian hybrid beacon crossing (HAWK) will be installed to provide a controlled pedestrian crossing of Third Street to the east of Union Street, connecting the Montecito Plaza Waterfront Trail to the south and San Rafael High School to the north. Additionally, the project includes a staggered Z-crosswalk to increase pedestrian awareness of vehicles, bulb-outs on both the north and south side to shorten the crossing distance, and sidewalk widening on the north side of Third Street to ten feet.



## Doherty Drive Buffered Bicycle Lanes and Traffic Calming

Doherty Drive is a one-mile long, two-lane collector roadway in the City of Larkspur. Henry Hall Middle School is located on the west end of the street near Magnolia Avenue, and Redwood High School is located on the east end of the street near Riviera Circle. The street also provides local access to additional community facilities such as Piper Park, the Central Marin Police Authority, and several residential neighborhoods.

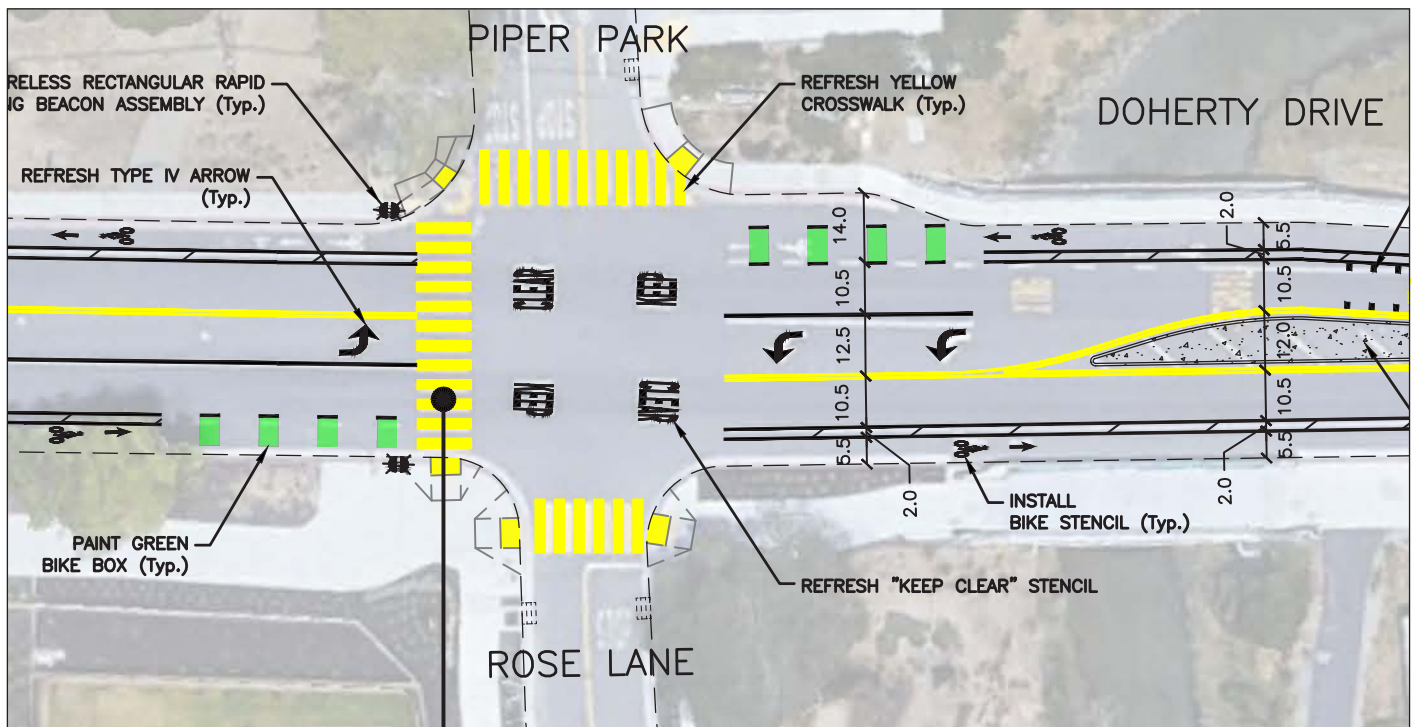
While the street provides local access to these facilities, Doherty Drive also serves as the through-facility between Larkspur and Highway 101. Parents and school staff have reported that vehicles travel too fast along the roadway, and that the narrow Class II bicycle lanes do not provide a comfortable separation between the cyclists and the vehicles.

The City of Larkspur received Safe Pathway funding to reconfigure the roadway to provide buffered bicycle lanes on Doherty Drive between Magnolia Avenue and Riviera Circle. The buffered zone markings will reduce the travel lanes to 10.5 feet in both directions. The narrower lanes will serve as a traffic calming measure by slowing down vehicular speeds along the corridor. Additionally, the project will be enhanced with green painted bicycle lanes and dashed conflict zones.

In addition to corridor improvements, the project proposes enhancements at the Doherty Drive/Rose Lane intersection, which provides access to Hall Middle School and Piper Park. With the funding acquired from Safe Pathways, a raised crosswalk and a Rectangular Rapid Flashing Beacon (RRFB) will be constructed at this intersection to facilitate crossings across Doherty Drive. These enhancements will heighten the visibility of the crosswalk and its pedestrians, as well as physically slow speeds along Doherty Drive.



*Doherty Drive and Rose Lane prior to capital improvements to be constructed.*





## Suggested Routes to Schools Maps

The Safe Routes to Schools program works with several schools each year to develop school route maps. These maps are used to inform students and families about suggested walking and bicycling routes to school as well as to identify areas that may need to be addressed for potential future infrastructure improvements.

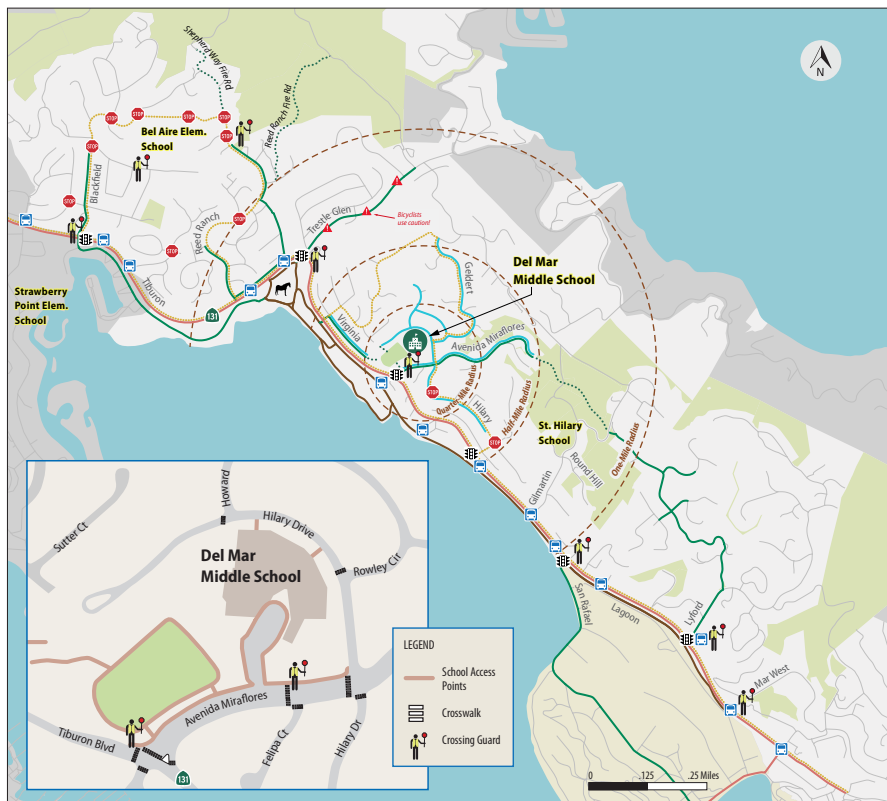
Route maps are created in collaboration with staff from Public Works departments, school administration, and parent volunteers who are familiar with the conditions of the various routes to schools.

Each map begins with a plotting session. School representatives from communities in the school district draw on a large-scale map the preferred route for students who walk and bicycle to and from their neighborhood. Walking routes are drawn to at least a half-mile radius out from the school while bicycle routes extend past the one-mile radius mark. Areas of concern are called out with stickers on the map and the challenges are discussed by the group.

Using the information gathered at the working session, a preliminary map is created. In addition to the suggested walking and biking routes, the map shows additional key features such as crossing guard locations, traffic signals and all-way-stop controlled locations. The preliminary map is then presented

to the representative Task Force, where members discuss the recommended routes and make changes to the routes as necessary.

Once the maps are approved by the Task Force and receive sign-off from their jurisdiction, the school is able to administer the maps. Depending on the level of funding available, some schools choose to print physical copies and send them home with the students, while other schools provide digital copies to families via their websites.



## Suggested Routes to School

### DEL MAR MIDDLE SCHOOL

Reed Unified School District

- LEGEND**
- Recommended Walking Routes
  - Recommended Bike Route
  - Multi-use Trail
  - Fire Roads/Trails
  - All-way Stop
  - Traffic Signals
  - Crossing Guard
  - Marin Transit Route 219
  - Golden Gate Transit Route 8, Marin Transit Route 119
  - Bus Stop
  - Blackie's Pasture drop-off zone. 10 min. bike ride to school.



## WHO IS SAFE ROUTES?

### Kristi Fish – Principal at Hidden Valley School in San Anselmo

Kristi Fish has been at Hidden Valley Elementary School for eight years. Previously she was a teacher at Bacich Elementary School and an administrator at Ross Elementary. Kristi became interested in the SR2S program and decided to organize a mini Task Force for SR2S because she felt that the school couldn't do it alone. It was important to her that parents felt safe for their children to walk and bike to school and to do so she needed input, support and advocacy from the neighbors.

"I wanted to create a whole community of walkers and bikers. It's the culture. It needs to be normal that this (walking and biking) is how we get to school". One outcome of her mini Task Force was the installation of a Rapid Rectangular Flashing Beacon (RRFB) near the school. The RRFB has helped immensely. "Parents have seen that we can make a difference; that small voices can make change. As we work with neighbors, the sheriff and CHP, and with Supervisor Katie Rice we can make safety improvements and have an impact".

Hidden Valley School has regular assemblies that introduce safety messages about once a month. One fun way that the Safe Routes parent volunteers have used this venue to connect with the kids is a safety skit that a group of parents and kids have created. Students who often take a "green" way to school and were chosen to be leaders and teach the other students.

"Students want to be recognized. Recognition by their peers is the most valued. The immediate gratification of getting a prize doesn't last but the peer recognition is much more meaningful," she said. "This generation of young people want to make a difference; they want to be part of change. Safe Routes is the skeleton that holds us together. Without the outside structure I wouldn't have had the support I get. It helped to bring the stakeholders together. I so appreciate the support. We're making the world greener. Kids feel better walking and biking. They are talking to each other and then they are ready to sit down and pay attention in class."



## WHO IS SAFE ROUTES?

### Chris Blunk – Novato Public Works Champion



Novato's Public Works Director, Chris Blunk, is a bit of a miracle worker. When he joined the City of Novato as the Assistant Public Works Director in 2017, he got an earful about issues along Vineyard Road at his first Safe Routes to Schools Task Force meeting. The winding road, bound by Pleasant Valley Elementary School on the west end and Sinaloa Middle School to the east, was plagued by discontinuous sidewalks and a lack of bike lanes. While parents were asking for improved pedestrian and cycle routes to school, many in the community were vocal about preserving the rural character of the neighborhood and were not supportive of changing the nature of the roadway. The Vineyard Road impasse continued for more than a decade. Before Chris arrived, the street was slated to be repaved without any improvements.

Chris immediately started thinking about how to resolve the issue. His office held a workshop to give neighbors a chance to voice their concerns. "I like this process, because it allows people to listen to each other," he said. From feedback received at that meeting and from a subsequent Safe Routes to Schools walk audit, Chris proposed a compromise; the sidewalk gap on one side of the street would be closed rather than on both sides. Bike lanes would be added where they could be accommodated without fundamentally changing the rural character of the neighborhood. Additionally, the walk audit gave his staff new information to justify a crosswalk connecting Dominic Drive to Vineyard Road. State gas tax funds from Senate Bill 1 (SB1) were tapped to add to the repaving already funded which helped to create a project that was considerate of all parties.

"With the sidewalk completed, more students and neighbors feel safer to travel Vineyard Road. Now you can walk your dog and feel comfortable sending your kid off to bike to school," Chris noted.

Chris is a firm believer in public participation. "I believe in providing more opportunities for our residents to get involved to have their voices heard by staff and city representatives. We can deliver a better-quality product if we know what the neighbors want."



## RECOMMENDATIONS FOR IMPROVEMENTS IN SR2S ENGINEERING

The table below provides recommendations for improved engineering services for the SR2S program, and is based on the success and feedback received from participating jurisdictions.

**Table 7: Recommendations in Engineering**

ENGINEERING	STATUS	RECOMMENDATION
Support Task Forces and Public Works Departments to Identify Short-term Projects	SR2S engineers coordinate with Task Forces and municipal public works departments to identify issues and recommend short-term improvement measures implemented by local jurisdictions.	Continue to provide engineering and safety improvement support to public works departments. Work with SR2S Task Forces to identify short-term remedies. Continue to provide design services for low-cost projects.
Prepare Plans for Longer-term Infrastructure Projects	Public Works have installed over 150 infrastructure projects to improve school travel safety including, but not limited to, sidewalk gap closures, bicycle lanes, and use of new tools such as cycle tracks, bike boxes, and rectangular rapid flashing beacons.	Focus infrastructure/safety improvements on high vehicular volume corridors and in areas with high levels of school enrollment. Continue exploring new and improved tools for improving pedestrian and bicycle safety. For e.g., NACTO measures.
Suggested Routes to School Maps	Prepared Suggested Routes to School maps illustrating preferred walking and bicycling routes, along with existing sidewalks, bikeways, crosswalks, crossing guards, etc.	Continue to provide route maps for schools. Prepare three to five new suggested routes to school maps every year. Update existing maps as necessary to account for changes in walking and bicycling facilities.

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# ENFORCEMENT AND SAFETY PROGRAMS

Marin's Safe Routes to Schools program is fortunate to have the support and partnership of local police officers who are often active participants on school Task Forces. Surveys have found that the top two reasons parents don't feel comfortable allowing their children walking or bicycling to school are challenging intersections and speeding vehicles. Local police departments play a critical role in addressing these concerns.

The Safe Routes to School's Enforcement component is additionally supported by two key safety programs: the Crossing Guard program and Street Smarts. These programs, along with the role of speed enforcement in SR2S, are addressed in this section.

## LAW ENFORCEMENT

The Enforcement program relies heavily on the participation of police departments to ensure drivers, cyclists, and pedestrians all obey the rules of the road. Local police officers often participate on Task Forces, which may also include representatives from the Marin County Sheriff and California Highway Patrol, when appropriate.

Police officers use a combination of enforcement and education measures to raise safety awareness around schools, including

citations, radar trailers, and educational pamphlets. Although there is no formalized law enforcement rotational schedule to monitor all schools, officers from various jurisdictions contribute to SR2S. Some provide enforcement during special events, such as International Walk to School Day and other educational efforts. The CHP rotates around the schools in Marin and many jurisdictions' law enforcement liaison officers attend task force and neighborhood meetings to receive and provide input.





## SAFE ROUTES ENFORCEMENT – A LOOK FORWARD

Recently, the Safe Routes to Schools National Partnership, an advocacy organization, announced that it was replacing Enforcement with Engagement in the Safe Routes list of E's. In a blog post from July 1, 2020 the Partnership states: "All Safe Routes to School initiatives should begin by listening to students, families, teachers, and school leaders; working with existing community organizations; and building intentional, ongoing engagement opportunities into the program structure." Marin Safe Routes to Schools has always used Engagement to bring together stakeholders in district Task Forces to assess the safety issues of the community. However, more can be done to include Marin residents of color in every level of planning for the program, including Enforcement.

Law enforcement liaisons, including representatives from the Marin County Sheriff, California Highway Patrol, and each city and town have been valuable partners within Marin's communities to address traffic safety issues. They attend Task Force and school meetings to gather information to help ensure that pedestrians, cyclists, and drivers all obey rules of the road. Additionally, officers use a combination of enforcement and education, including ticketing, radar trailers and educational pamphlets, to promote safety. Finally, law enforcement has assisted in major

events such as International Walk to School Day by leading bike parades and helping with temporary street closures.

Though enforcement is sometimes necessary, Marin's Safe Routes to Schools program is committed to using education as a first course of action for safe streets involving schools and community outreach. One example of grassroots engagement with local constituents is the Butterfield Road "Eyes Up" pilot program. The campaign serves to educate local communities to supplement traffic enforcement, creating safer streets for schools and neighbors.

While Marin's SR2S program recognizes the inequitable impacts of law enforcement on people of color, it has always prioritized facilitating positive partnerships between local law enforcement and the school communities in which they serve. Further, since unsafe traffic behavior continues to be a major issue for the safety of children walking and bicycling to school in many Marin County communities, it needs to be determined through direct conversations with the communities in which the SR2S program works whether Engagement, on its own, can act as an effective tool to address these conditions. Marin SR2S is committed to engaging communities on the appropriate role of law enforcement in the execution of the SR2S program.

## CROSSING GUARDS

Surveys report that 40 percent of parent responders are concerned about challenging intersections. Crossing guards can play a vital role in the parent's decision to allow their children to walk or bike to school. By making school trips safer, a key barrier to promoting walking and biking is eliminated, reducing the need for some students to be driven to school.

TAM's Crossing Guard Program is a valuable local safety effort. While some schools have attempted to implement volunteer crossing guard programs, experience suggests that this is not a viable long-term strategy as volunteers are not always reliable on a day-to-day basis. Other Bay Area Crossing Guard programs such as those in Santa Clara County have realized that in order to eliminate liability concerns and to ensure that there are well-trained crossing guards with back-ups for every critical intersection, they should contract with a professionally-trained and staffed company.

Marin's Crossing Guard Program is managed directly by TAM and deploys trained school crossing guards throughout the county. Using input from schools, the directors of the Public

Works departments initially identify intersections within their jurisdiction that would benefit from the provision of adult crossing supervision. These locations are submitted to TAM for evaluation and prioritization based on standardized criteria using pre-determined elements that expand upon state criteria.


All the locations are ranked based on the overall intersection score, and the locations with the highest scores are prioritized for inclusion in the crossing guard program. The number of locations that are staffed is limited by the availability of program funds. This process was developed as a way to promote equity in the selection process and to prioritize highest needs location throughout the county.

In November 2018, the approval of Measure AA increased funding for crossing guards and enabled the expansion of the program from 58 to 97 TAM-funded crossing guards throughout the county. An additional eight guards are provided using outside funding sources. A map of the Marin crossing guard locations are shown in Figure 11.

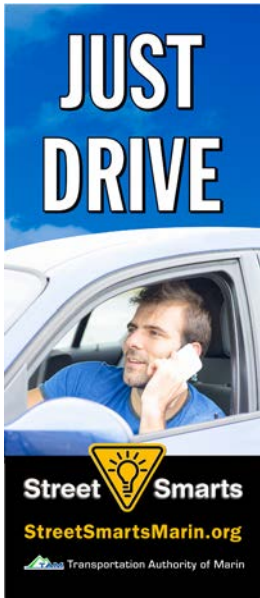
Figure 11: Crossing Guard Locations



LEGEND

 Crossing Guard Locations

## STREET SMARTS MARIN



Street Smarts Marin is a public education campaign designed to raise awareness of driver, pedestrian, and bicyclist behavior in order to make streets safer and friendlier. The program works on many levels by providing transportation-related safety messages via outdoor media (e.g., banners, signs, and posters) and community outreach (e.g., brochures, presentations, and press coverage).

Street Smarts Marin was first piloted in the fall of 2008 in three communities: Corte Madera, Larkspur, and Mill Valley. The pilot program was well-received; feedback collected from

citizens and city/town staff was overwhelmingly positive. As a result, the program was expanded in the fall of 2009 to include five additional jurisdictions: Belvedere, Fairfax, Ross, San Anselmo, and Tiburon. Since 2011, Street Smarts banners have been typically deployed twice per year; in the spring before school dismissal (May) and throughout the summer in anticipation of the start of the school year (August).

In April of 2020, the City of San Rafael deployed 37 Street Smarts banners throughout the city. This was San Rafael's first-ever banner deployment.

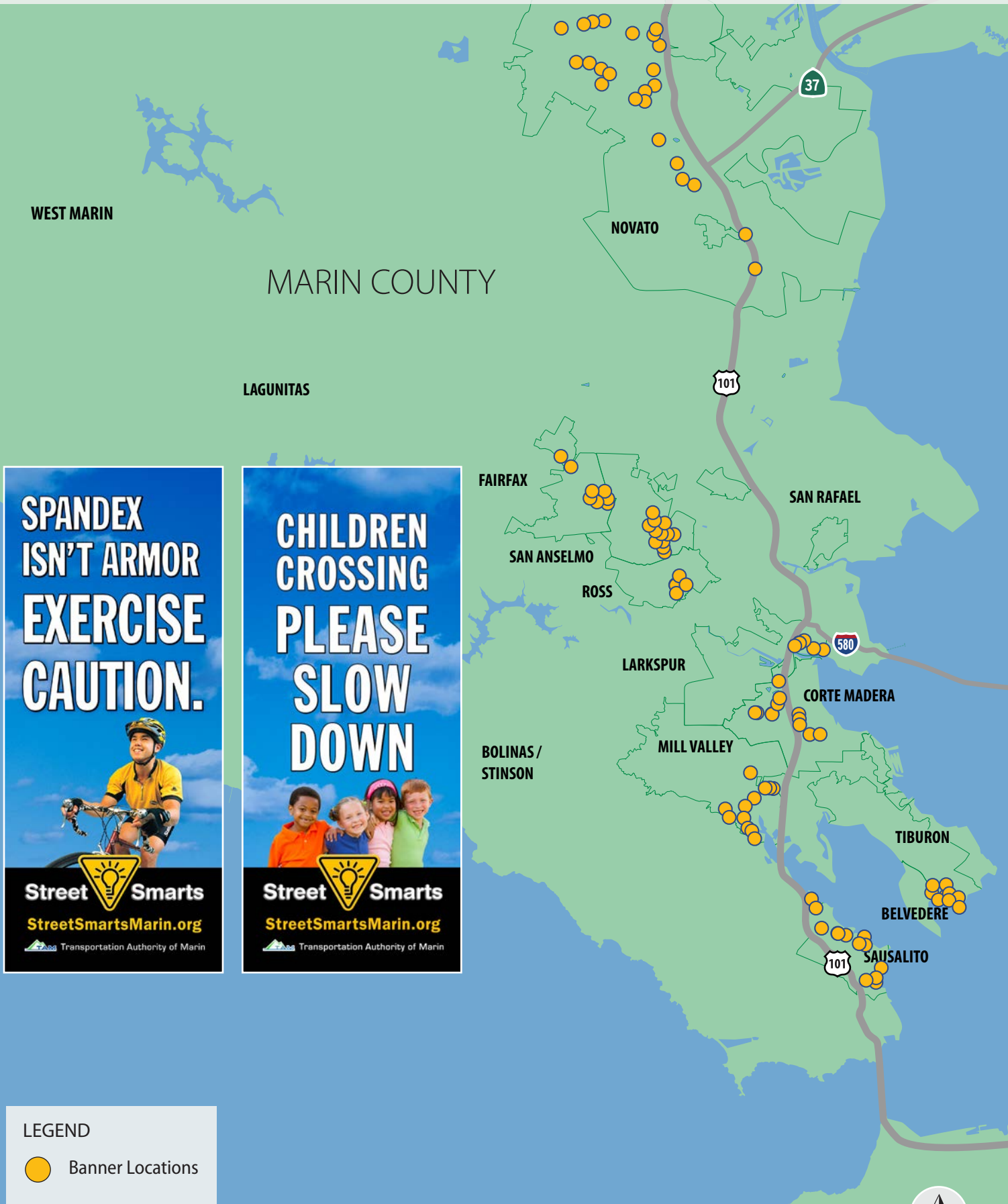
Figure 12 maps the locations where Street Smarts banners have been deployed. The banners are placed at key locations identified by law enforcement, and contain messages targeting behaviors including high speeds, distracted driving, and bicycle and pedestrian safety.

The Street Smarts program offers the following tools:

- ▶ **Banners and Signs.** Horizontal and vertical banners, signs, and posters that include key messages targeted at the top five "bad behaviors." Special banners are also available for schools.
- ▶ **Brochures.** Mainly distributed at schools, the brochures highlight safe as well as unsafe driving practices, stopping distances at various travel speeds, information for children, and safety data relevant to Marin County's communities.
- ▶ **Community Outreach.** A 50-slide presentation titled "Get Street Smart! Did You Know?" was developed for communicating with schools, neighborhoods, civic and business groups, and others. The presentation is designed to raise awareness, change attitudes, and improve driving, pedestrian, and bicycling behaviors.
- ▶ **Neighborhood Kits.** Available to participating communities, these kits include background information about Street Smarts Marin, an assortment of lawn signs, the "Get Street Smart! Did You Know" presentation, educational brochures, and fliers developed and contributed by AAA including "Safe Walking Tips," "Getting Children to School Safely," etc.
- ▶ **Website.** Part of TAM's overall website, the Street Smarts Marin ([www.streetsmartsmarin.org](http://www.streetsmartsmarin.org)) site includes general program information, as well as downloadable materials.
- ▶ **Press Coverage.** The Street Smarts program is promoted through local paper coverage, newsletters, and email updates.

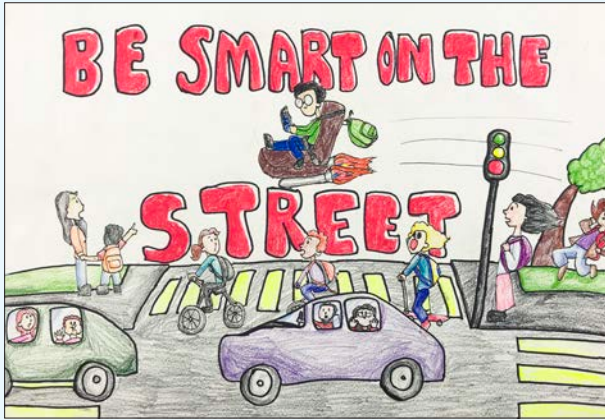


Figure 12: Street Smarts Banner Locations (2016–19)



## CASE STUDY

### Student Art Promotes Safety



As part of the Safe Routes to School/Street Smarts Art Contest, over 120 students submitted drawings showcasing “fun green travel and safe roads for all users.” According to the SR2S Program Director, Gwen Froh, “the art contest was another way to engage students to positively impact our community.” In fact, Street Smarts Marin will incorporate student art in new banners to promote safety messages throughout the county.

Winners of the contest were announced on March 2, 2018 at a highly attended award ceremony at the Marin Museum of Bicycling in Fairfax. Awards were presented to students by the long-standing supporter of Safe Routes to Schools, 2nd District Supervisor Katie Rice. At the ceremony, Supervisor Rice praised the community for supporting Safe Routes to Schools, which serves 25,000 students through Measure A Funding (now Measure AA).

Madison Bishop, 4th grader at Bel Aire Elementary, beamed when she won first place. The win was poignant for Madison’s mom, Sharon. “After losing my own little sister to an accident, there must have been angels making this story come together so many years later. It means the world to our family that Madison’s artwork will underscore messages of safety and care that will accompany countless children on their safe routes to school.” Madison added, “I’m really happy that my artwork gets to be shared as a symbol of safety.”

Ava McKeever, a 7th grader from White Hill Middle School took home the first place award for middle schools. Second place winners were Haly Rothbart from Hall Middle School and Humna Baporia, 2nd grader from Edna McGuire.

*Art: Ava McKeever*

## WHO IS SAFE ROUTES?

### High School Intern – Anna Tackabery



Anna Tackabery, a student of the Marin School of Environmental Leadership (MarinSEL) at Terra Linda High School, selected to work with Safe Routes to School as her senior year internship. Anna claims students should learn independence through green travel, even if parents themselves are not promoting it. She says, “when students practice walking, biking, or riding transit to school, they build confidence for using those modes of transportation in other aspects of their life.”

Anna recognizes that Safe Routes to Schools does much to impact kids and the community, and because of the program’s reputation, she said she wanted to be a part of it. When Anna was a sophomore, Safe Routes to Schools was a Community Partner with Anna’s MarinSEL group. With support from the SR2S Community Partner, Anna and her classmates hosted several events to get peers to leave their cars at home. Additionally, they added a new carpool policy for San Rafael School District to adapt to their SR2S policy. As part of her Internship, Anna worked with Terra Linda High School on its facility remodel, ensuring that carpool spots would be allocated and students walking or on bikes would have safe access onto the campus.

Anna values the leadership skills that she’s obtained through MarinSEL and Safe Routes to Schools. She appreciates the professional exposure to career development, and specifically, the opportunity to empower students’ to be self-reliant through green travel choices.

## WHO IS SAFE ROUTES?

### Nancy Vernon, aide to supervisor Katie Rice



*Nancy Vernon (right) in discussion with a Safe Routes to Schools parent.*

Nancy Vernon first got involved with the Safe Routes to Schools program 14 years ago when her children started at Wade Thomas School. "We were looking for grant funding for sidewalks around the school and I had no idea how to do that. Safe Routes to Schools taught me how to go through the process. We did a walk audit and eventually, the sidewalks got completed. Being with SR2S helped me get involved in the community coming in as a 2nd grade parent."

Nancy started working with Supervisor Katie Rice seven years ago and soon became her Safe Routes representative. Supervisor Rice's commitment to and concern for public safety, and specifically about youth as they walk and bike to school, has allowed Nancy to be deeply involved in Safe Routes activities. "It's a totally different role than being a team leader. Representing the county, I get to work on issues and make things happen. I love working with the communities. I am gratified that I can help

get kids to school safely without car. In my role as the county representative I am able to make sure the county keeps things on the list and move things forward."

Nancy also initiated the smaller "Neighborhood Safe Streets Committees" groups, which started with a letter to the Marin Independent Journal about policing the Butterfield corridor. "I saw a value bringing together community groups and other stakeholders on what is happening on the Butterfield corridor." The group meets twice a year addressing small issues. At the same time, she became aware that neighbors on McAllister Avenue in Kentfield were meeting with the county, so she formed a group on safety issues for that neighborhood and another at Oak Manor in Fairfax.

"Safe Routes is a very important as part of those discussions. I see them as subgroups of the task forces to focus on specific neighborhood issues that need to move faster or that require continuing discussions like on Butterfield."

One of the programs that was initiated from these discussions is the Eyes Up campaign. "There was a great deal of community energy that wanted and needed to go somewhere. The engineering part is being done, but there was a real need to do something about driver behavior. I believe it's an important role for the county and Safe Routes to help them with that effort; to focus it and help manage the process."

"I love to put the pieces together; making order out of chaos. I want to make it easier for the people to be engaged and active and feel like they are accomplishing something. I'm really grateful to be able to do all this wonderful community work."

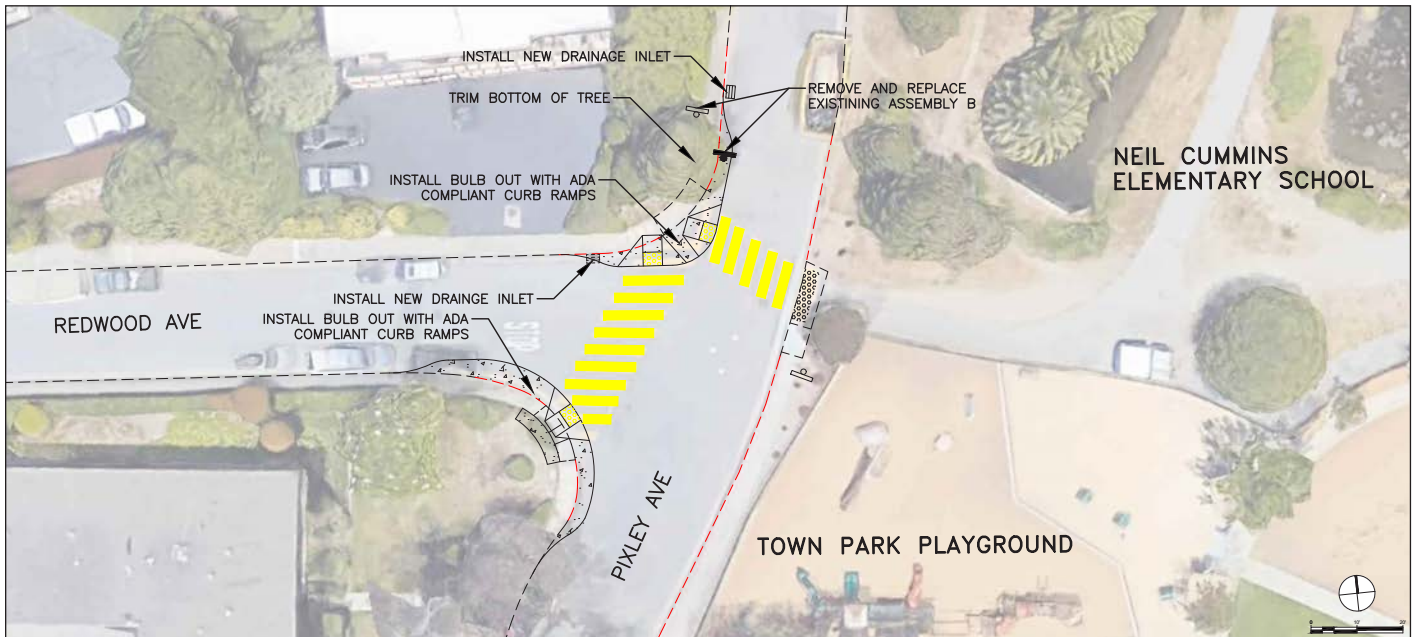


## RECOMMENDATIONS FOR IMPROVEMENTS IN SR2S ENFORCEMENT AND SAFETY PROGRAMS

The table below provides recommendations for enhancing the enforcement element of the SR2S program, and is based on the success and feedback received from participating schools.

**Table 8: Improvements in Enforcement**

PROGRAMS	STATUS	RECOMMENDATION
Enforcement	Local law enforcement plays an important role to address traffic safety issues and remains an important partner in helping the school communities successfully execute many of the SR2S programs.	Incorporate newly defined best practices from national resources for SR2S to further engage Marin’s communities of color in local programming and participation of law enforcement in the SR2S program.
Crossing Guard Program	Incorporate newly defined best practices from national resources for Safe Routes to further outreach and engage people of color in local programming and decisions regarding participation of law enforcement in the SR2S program.	Continue to support the Crossing Guard program by identifying potential locations for guard deployment and providing education to school children regarding crossing streets. Procure additional funds to deploy more crossing guards at the over 150 total potential sites that have been identified.
Street Smarts Marin	Participation in 11 communities throughout Marin, including the annual deployment of 100 banners in high-visibility areas. 500 lawn signs distributed to municipalities and schools in the past three years. San Rafael participated with a banner deployment for the first time in the program’s history during the 2019-2020 school year.	Expand program to include social marketing with information, educational materials, and quick facts on both the program and being Street Smart available through social networks.  Update banner artwork and messaging to include an emphasis on distracted driving; banners are now 10 years old and need a messaging and artwork refresh.



The Marin Transportation Sales Tax was approved by voters under Ballot Measure A in November 2004 and extended again in November 2018 as Measure AA by voters until 2049. The measure provided a one-half cent increase in Marin County’s sales tax that would be designated to transportation-related expenditures, including the Safe Routes to School Program. Marin County became the first jurisdiction in the country to provide long-term funding for its Safe Routes to Schools programs. Since then, it has been extremely successful in leveraging this money to secure even

greater funding. SR2S’s capital funding program, Safe Pathways to Schools, has been particularly vital in providing a “local match” source that is used to gain additional state and federal capital funding. By using this approach, TAM has been able to triple its initial investment, and allowed SR2S staff to expand its innovative programming, as well as implement a wide-range of infrastructure projects. This included additional funding for crossing guards from the 2010 voter-approved Measure B \$10 vehicle registration fee.

### Marin’s SR2S program has been funded through a variety of sources:

- ▶ Measure AA (1/2 cent sales tax) (TAM)
- ▶ Measure A (1/2 cent sales tax) (TAM)
- ▶ ATP (Caltrans)
- ▶ Federal SRTS
- ▶ State SR2S
- ▶ One Bay Area Grant (OBAG) from MTC
- ▶ Transportation Enhancement Program
- ▶ Bicycle Transportation Account (Caltrans)
- ▶ TAM Safe Pathways
- ▶ Local TFCA (TAM)
- ▶ Transportation for Livable Communities (MTC)
- ▶ Bicycle Facilities Program (BAAQMD)
- ▶ Regional TFCA (BAAQMD)
- ▶ Local Jurisdictions’ general funds
- ▶ Office of Traffic Safety
- ▶ Highway Safety Improvement Program (HSIP) (Caltrans)
- ▶ School districts and Individual Schools
- ▶ Measure B \$10 Vehicle Registration Fee (VRF) (TAM)

## TRANSPORTATION SALES TAX EXPENDITURE PLAN

Measure AA, the 1/2 cent Transportation Sales Tax Renewal, is expected to generate \$827 million over a 30-year period (through FY 2049). As shown in Table 9, approximately \$95.1 million, or 11.5%, is allocated to school access programs. Of this, nearly \$29 million will be used to support many of SR2S's programs, such as classroom activities and special community events. The remaining \$66 million is split between two complimentary programs - the Crossing Guard program (approximately \$58 million) and the Safe Pathways to Schools Projects (approximately \$8 million).

**Table 9: Measure A Funding Allocation for Implementation Category #3**

Category #3 Reduce school related congestion and provide safer access to schools	%	Est. 30-year revenue
1. Safe Routes to Schools	3.5%	\$28.9 M
2. Crossing Guards	7.0%	\$57.9 M
3. Provide capital funds for Safe Pathways To School projects	1.0%	\$8.3 M
<b>TOTAL</b>	<b>11.5%</b>	<b>\$95.1 M</b>

Source: TAM 2018 Final Expenditure Plan, Marin County Transportation Sales Tax Renewal

### Safe Pathways to School

Safe Pathways is SR2S's capital funding program, which is projected to provide \$19.9 million over 44 years for engineering, environmental clearance, and construction of pathway and sidewalk improvements. Safe Pathways projects are selected based on the following performance criteria:

- ▶ Completes a gap in the bicycle and pedestrian system along a major school route
- ▶ Maximizes daily use by students and others
- ▶ Relieves an identified safety or congestion problem along a major school route
- ▶ Attracts matching funds
- ▶ Respects geographic equity

Although Safe Pathways projects target improvements around schools, they benefit the entire community, creating a safe network of bicycle and pedestrian facilities, enhancing safety and reducing local congestion.

To date, the Safe Pathways program has funded over \$14 million in infrastructure projects. Its first funding cycle in 2007 provided \$1.77 million for 12 projects in the county. During its second cycle in 2010, over \$2 million in Transportation Sales Tax funds were allocated to 13 new Safe Pathway projects. In 2015, the third cycle of grants totaled \$4.2 million, and included both "large" and "small" projects. Large projects had funding requests of up to \$300,000 and small projects could receive up to \$25,000. The inclusion of small projects as a discrete category was created to facilitate the quick implementation of low cost improvements, which proved extremely successful.

In 2019, \$5.16 million was allocated to 26 projects, consisting of 13 large and 13 small projects. Funding for individual projects was increased to \$400,000 for large projects, and \$50,000 for small projects. A list of all funded infrastructure projects per jurisdiction is provided in Appendix D.

## VEHICLE REGISTRATION FEE

In addition to the Transportation Sales Tax, SR2S programs received another source of revenue in November 2010 when Marin voters approved Ballot Measure B. The measure authorized a ten-dollar increase in motor vehicle registration fees for the exclusive purpose of funding local transportation projects and programs. A portion of the funds is dedicated to School Safety and Congestion Reduction, which includes the following objectives:

- ▶ Maintain and expand the School Crossing Guard program
- ▶ Enhance/expand programs designed to reduce congestion and improve safety around schools, including Street Smarts and SchoolPool programs

Annually, approximately \$150,000 is programmed for crossing guards and \$25,000 for Street Smarts.



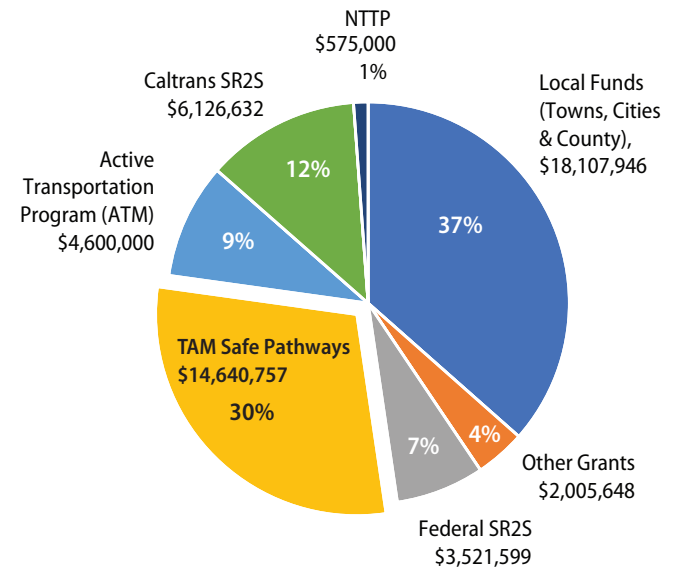
## LEVERAGING OF FUNDS

One of the unique features of Marin’s Safe Routes to Schools is its grant assistance program, which provides support to cities, towns and the county in developing and submitting grant applications. Primarily aimed toward infrastructure projects, the grants have ranged from as little as \$5,000 for crosswalk enhancements to more than \$900,000 for more comprehensive improvements. Combined, this level of assistance has resulted in Marin County being awarded over \$34.9 million in outside funding since the program began in 2000.

### Infrastructure Grants

In order to increase the impact of local funds, Safe Pathway projects are expected to attract matching grants from other sources. As shown in the chart below, SR25 has been extremely effective in leveraging the Transportation Sales Tax’s “seed money.” Safe Pathways to School currently makes up 8.7 percent of the total infrastructure funding for Safe Routes projects.

**Figure 13: Infrastructure Funding**



## PROGRAM FUNDING

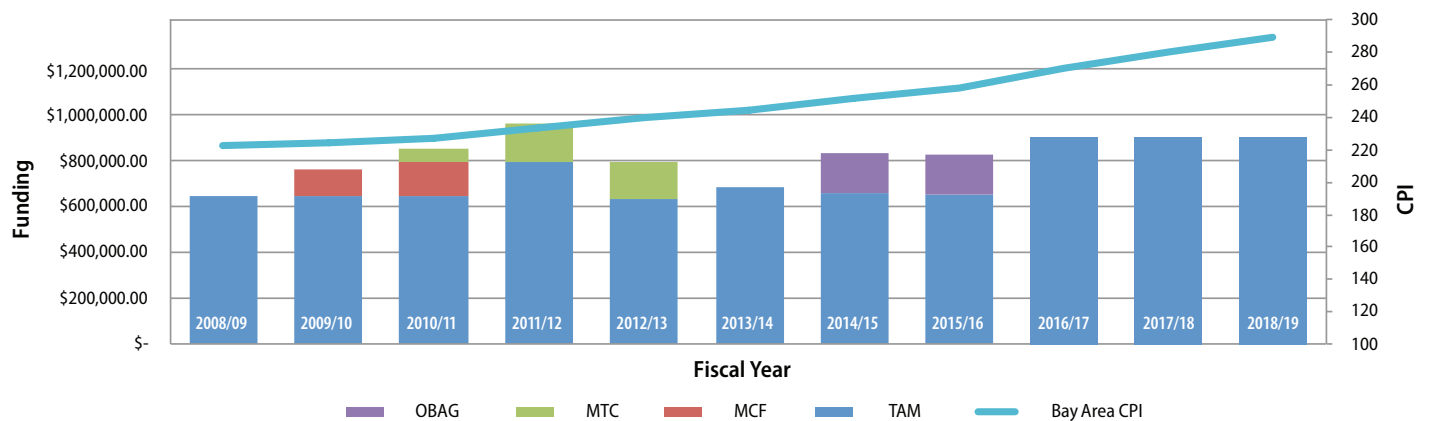
Funding for the SR25 program from 2008–2019 is shown in Figure 12 and is compared to the annual Consumer Price Index (CPI) for the Bay Area. While funding from TAM’s Measure AA 1/2 cent Transportation Sales Tax funds remain relatively consistent, grant funding has decreased over time.

As the CPI increases in Marin County, program staff wages must also increase. Over time, program funding increases are needed to be able to keep staff hours from decreasing. This proves to be

a challenge as more schools join the program and staff hours are limited.

Maintaining SR25 presence at participating schools while adding new schools to the program would require additional staff time. Teaching classes and providing tools to implement activities such as contests to a greater number of schools require supplemental resources. Moreover, increased outreach to disadvantaged schools would also require more staff time.

**Figure 14: SR25 Program Annual Funding Sources and Bay Area CPI**



## CASE STUDY

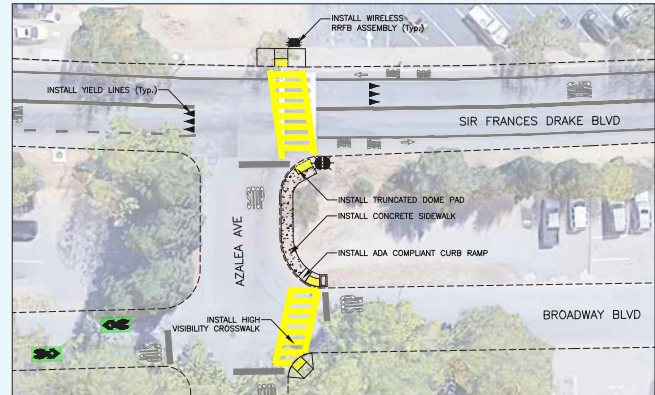
### Safe Pathways Cycle 4 Small Projects

In 2019, 13 small projects were awarded Safe Pathways funding, totaling \$700,000.

These improvements, which were meant to be implemented quickly, included:

- ▶ Corte Madera Pixley Avenue/Redwood Avenue Intersection Improvements
- ▶ Larkspur South Eliseo Drive Crosswalk Improvements
- ▶ Larkspur South Eliseo Drive Bicycle Lane & Splitter Islands
- ▶ Marin County RRFBs in Unincorporated Areas
- ▶ Marin County Point San Pedro Road RRFBs
- ▶ Mill Valley Throckmorton Avenue/Olive Avenue Intersection Improvements
- ▶ San Anselmo Caleta Avenue Sidewalk Gap Closure
- ▶ San Anselmo Sunnyside Avenue Sidewalk Gap Closure
- ▶ San Anselmo Myrtle, Tamalpais and Raymond Avenues Sidewalk Gap Closure
- ▶ San Rafael Fifth Avenue and River Oaks Road RRFB
- ▶ San Rafael Knight Drive and Ashwood Court RRFB
- ▶ San Rafael Mission Avenue and Park St RRFB
- ▶ Sausalito Nevada Street Restriping

Many Public Works departments, working with the various Task Forces, had identified locations that could immediately benefit from lower-cost enhancements such as pedestrian crossing beacons, vehicle speed feedback signs and small sidewalk gap closers. The inclusion of “small projects” in the third cycle of Safe Pathways funding proved very popular and successful.



## WHO IS SAFE ROUTES?

### Transportation Authority of Marin



TAM staff works closely with the Safe Routes to School Program to promote its continued success in Marin. From managing the ½ cent transportation sales tax and \$10 vehicle registration fee, the driving force behind its success, to creatively finding new funds, TAM is dedicated to maintaining and growing the Safe Routes Program. TAM staff have actively supported the Safe Routes team since 2004, providing coordination with cities, towns, and the county- TAM's member agencies. TAM staff directly manage the Crossing Guard program, and guide the Street Smarts program.

TAM has managed the environmental clearance, design and construction of several Safe Pathway projects. Additionally, of special importance, TAM Board members and staff have come together with the Safe Routes team to coordinate all the program features in order to keep a complex program going strong. From paying the bills to championing innovation, TAM staff remain a key source of sustainability for the success of Safe Routes in Marin.



## RECOMMENDATIONS FOR IMPROVEMENTS IN SR2S FUNDING

The table below provides recommendations associated with the funding of the SR2S program, and is based on the success and feedback received from participating jurisdictions.

**Table 10: Recommendations in Funding**

FUNDING	STATUS	RECOMMENDATION
Secure Supplemental Program Funding	Measures AA and B provide the majority of funding for the SR2S program. However, supplemental outside funding is helpful to achieve program objectives.	Leverage TAM's Measure AA and Measure B funding to secure potential outside supplemental funding to achieve SR2S program objectives.
Secure Funding for Infrastructure Improvements	Between 2016-2019 Marin's SR2S program secured funding for the implementation of infrastructure projects, including sidewalks, pathways, multi-use bridges, enhanced crosswalks, and improved intersections.	Continue to seek outside funding for implementation of capital infrastructure projects, e.g., through the Active Transportation Program.
Identify Short-Term and Longer-Range Safe Pathways Projects	Potential projects are only eligible if included in an adopted Safe Routes Travel Plan. SR2S engineers have developed low-cost/short-term solutions, and also longer-range designs.	Continue to identify effective Safe Pathways projects, including popular lower-cost solutions that can be implemented within a short timeframe.

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## PRIMARY GREEN TRIP FACTORS

A main goal of the Safe Routes to Schools program is to help schools reach their potential in green trip mode share. To monitor the success of the program in achieving this goal, staff regularly collect and analyze student tally data, comparing year-to-year growth in walking and bicycle trips. In addition to tracking changes in travel mode share data, it is also important to consider

the various factors that could influence deviations to existing travel mode splits. This holistic approach to program evaluation helps staff better understand why some schools are successful in achieving high rates of green travel modes and how those successes can be replicated at other schools.

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## METHODOLOGY



Extensive evaluation of the program was conducted using both quantitative and qualitative analysis of various factors that impact the choices students make with regard to their travel modes. The evaluation sought to identify these factors impacts on the percentage of “Active Green Trips” which include non-motorized student travel modes that involve physical activity, i.e., walking and bicycling; and “Green Trips” which include Active Green trips as well as carpooling and school buses. Both Active Green (walk, bike and other) and Green (non-single student occupancy family vehicle trips) trips help achieve the SR2S goals of increasing healthy travel choices and reducing school-related vehicular traffic congestion.

The first step in conducting the assessment was to evaluate the student travel mode splits for each participating school. A review of

the shifts in both Active Green Trips and Green Trips was conducted for the 56 schools that participated in the 2018–2019 school year. These mode share calculations were averaged from student tally data from both the fall and spring semesters and then makes comparisons between the green and active green modes from the 2018-19 school year to the school’s baseline time period.

The supplementary factors and corresponding scores used to assess each school are based on a review of the education and encouragement classes and events held at each school, as well as on SR2S staff knowledge of administrator and parent volunteer activity. These factors were assigned ratings of ‘low’, ‘medium’, or ‘high’ as they pertain to each school. For example, a ‘low’ administration participation ranking was given to schools with

little to no participation or promotion of SR2S, a 'medium' team leader participation ranking was given to schools with team leaders who facilitate a Walk and Roll Wednesday program at their school and hosts other contests and events, whereas a 'high' education ranking was provided to schools that host all of SR2S's core safety education programs every year in addition to providing additional classroom activities, assemblies, and educational events. See Table 5 for a detailed explanation of ranking criteria.

As mentioned in the Engineering chapter, the lack of comfortable and direct walking and biking paths to school can dissuade parents from allowing their children to walk and bike to school, resulting in lower active trips. Each school was ranked as having low, medium, or high green infrastructure based on the walking and biking infrastructure near the school.

The availability of busing options (both yellow school bus and public transit) for students to travel to and from school were evaluated. Some schools have a yellow school bus program that provides their students with the option to travel to school by bus via a direct connection between their neighborhood and the school campus. Other schools are only served by public transit operators providing local and regional transit access to the schools. However, it should be noted that although these services are available, they may not be convenient options for school travel.

Public transit schedules may not always coincide with school schedules. For example, some buses with stops near school sites only make stops at these locations every 30 minutes to one hour. This would mean students using public transit would potentially have to arrive an hour early to be on campus by their first period, or similarly, would have to wait up to an hour after their last period before boarding buses.

Additionally, it was noted whether or not a school could be considered a "Neighborhood School." A neighborhood school is a school whose boundaries and the nature of the surrounding

residential neighborhood make walking and biking to school an easy choice. Students that attend neighborhood schools are likely to live within walking and/or bicycling distance from their school, making this a more viable option for them to travel to and from school.

Finally, the number of crossing guards serving crossing locations along routes to each school is also tabulated. It should be noted that based on location, some crossing guards serve multiple schools. Because crossing guard locations are selected based on criteria that includes high pedestrian volumes, schools with higher active trips are often served by multiple guards at different crossing locations near the school. There are also schools that have high or moderate active trips but are not served by crossing guards. These schools are typically elementary schools that have a relatively smaller student body, and therefore less pedestrian volume generated.

Table 10 details the criteria used to assess schools based on these factors, and Table 11 provides the results of this multi-faceted program evaluation for all participating schools during the 2018-2019 school year.

As seen in the matrix, the schools with the highest rate of active trips generally have supporting infrastructure as well as active leadership and participation. Of course, there are exceptions and anomalies.





Factor	High	Medium	Low
<b>School Involvement-Based</b>			
<b>Administration</b>	<ul style="list-style-type: none"> <li>Actively involved in promoting the program</li> <li>Participates in and independently promotes events</li> <li>Attends Task Force Meetings</li> <li>Hosts SR2S assemblies</li> </ul>	<ul style="list-style-type: none"> <li>Promotes events at the request of SR2S staff</li> <li>Include SR2S information in school newsletters</li> </ul>	<ul style="list-style-type: none"> <li>Little to no participation in or promotion of SR2S events and programs</li> </ul>
<b>Team Leader</b>	<ul style="list-style-type: none"> <li>Makes extra effort beyond the minimum requirements to ensure the success of SR2S programs</li> <li>Attends Task Force meetings</li> <li>Develops and implements new programs</li> <li>Hosts extra contests and/or events</li> </ul>	<ul style="list-style-type: none"> <li>Coordinates a weekly Walk and Roll Wednesday program</li> <li>Hosts contests provided by SR2S</li> </ul>	<ul style="list-style-type: none"> <li>No team leader</li> </ul>
<b>Education</b>	<ul style="list-style-type: none"> <li>Hosts all core SR2S education safety programs each year</li> <li>Coordinates additional classroom activities, schoolwide assemblies and educational events</li> </ul>	<ul style="list-style-type: none"> <li>Hosts some SR2S education safety programs</li> </ul>	<ul style="list-style-type: none"> <li>Does not offer an education program</li> </ul>
<b>Encouragement</b>	<ul style="list-style-type: none"> <li>Hosts all available SR2S encouragement programs at least once per year</li> <li>Develops and hosts additional encouragement events</li> <li>Actively promotes SR2S through school newsletters and other media</li> </ul>	<ul style="list-style-type: none"> <li>Hosts some encouragement events when coordinated by SR2S team</li> <li>Coordinates monthly Walk and Roll events</li> </ul>	<ul style="list-style-type: none"> <li>Only holds annual events e.g., iWalk or National Bike to School Day</li> </ul>

**Table 10.: Assessment Factors for SR2S Participation Success (1 of 2)**

Factor	High	Medium	Low
<b>Geographic / Infrastructure-Based</b>			
<b>Green Infrastructure</b>	<ul style="list-style-type: none"> <li>• School is located in a very walkable and bikeable community.</li> <li>• Pedestrian-friendly sidewalks and dedicated bicycle facilities within a one-half mile radius of the school</li> <li>• High-visibility crosswalks and signage at intersections and crossings serving school-based traffic</li> <li>• School has ample and secure bicycle parking</li> </ul>	<ul style="list-style-type: none"> <li>• School is located in a moderately walkable and bikeable community</li> <li>• Some pedestrian-friendly sidewalks and dedicated bicycle facilities within a one-mile radius of school; however, facilities could be upgraded to better accommodate pedestrians and bicyclist</li> <li>• Opportunities for improved crosswalks and signage at intersections and crossing serving school-based traffic</li> <li>• Minimal bicycle parking provided at school</li> </ul>	<ul style="list-style-type: none"> <li>• Noticeable gaps in pedestrian and bicycle infrastructure connecting neighborhoods to school</li> </ul>
<b>Bussing</b>	<p>Yellow (Y) • School is directly served by yellow school service and may also be served by public transit operators</p> <p>Transit (T) • School is served by public transit operators providing local and regional service to the community</p> <p>No (N) • School does not have a yellow school bus system and is not served by public transit operators</p>		
<b>Neighborhood Schools</b>	<p>A neighborhood school is one which draws its student population from within defined neighborhood boundaries. This would result in students living within walking / bicycling distance to their school</p>		
<b>Crossing Guards</b>	<p>Schools that have an assigned crossing guard.</p>		

**Table 11: Assessment Factors for SR2S Participation Success (2 of 2)**

School Name	Baseline			2018/2019 Trips		2018/2019 School Trips by Mode								Factors <sup>1</sup>						
	Semester	Green Trips	Active Green Trips	Green Trips	Active Green Trips	Walk	Bike	Other	School Bus	Public Transit	Carpool	Family Vehicle	Aministration	Team Leader	Education	Encouragement	Green Infrastructure	Busing <sup>2</sup>	Neighborhood Schools	Crossing Guards <sup>3</sup>
A. E. Kent Middle School (5-8)	2001	48%	34%	61%	48%	34%	12%	2%	0%	1%	13%	39%	H	H	H	H	M	N	M	4
Bacich Elementary School (K-5)	Fall 2001	28%	20%	42%	32%	25%	5%	3%	0%	0%	10%	58%	L	M	H	M	M	N	M	3
Bahia Vista Elementary School (K-5)	Fall 2002	49%	45%	70%	62%	61%	1%	1%	0%	0%	8%	31%	L	M	H	H	H	Y	H	3
Bayside Martin Luther King, Jr. Academy (K-8)	Fall 2015	64%	63%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	H	L	L	M	L	P	H	0
Bel Aire Elementary School (3-5)	Fall 2002	57%	19%	68%	26%	18%	8%	1%	38%	0%	4%	35%	M	M	H	M	M	Y	M	1
Bolinas-Stinson School (K-8)	Fall 2002	72%	12%	73%	8%	5%	4%	0%	63%	0%	3%	28%	L	L	H	L	M	Y	L	1
Brookside Elementary School (K-5)	Fall 2001	37%	16%	47%	39%	29%	5%	6%	0%	0%	8%	54%	L	H	H	H	H	N	H	1
Coleman Elementary School (K-5)	Spring 2008	42%	12%	37%	17%	15%	2%	1%	9%	0%	11%	63%	M	H	H	H	M	Y	M	0
Cove School (K-5)	Fall 2014	59%	43%	40%	27%	13%	10%	4%	6%	0%	8%	60%	H	H	H	H	H	Y	M	1
Del Mar Middle School (6-8)	Fall 2004	58%	22%	66%	25%	12%	12%	1%	30%	1%	10%	34%	M	M	H	M	M	Y	L	2
Dixie Elementary School (K-5)	Fall 2003	51%	19%	41%	18%	13%	5%	1%	19%	0%	4%	58%	H	H	H	H	M	Y	M	1
Edna Maguire Elementary School (K-5)	2004	60%	23%	41%	28%	14%	10%	4%	4%	0%	9%	60%	M	H	M	H	H	Y	M	1
Glenwood Elementary School (K-5)	2000	46%	26%	39%	18%	11%	6%	1%	10%	0%	11%	62%	M	M	H	M	M	Y	M	2
Hamilton Meadow Park K-8 (K-8)	Fall 2001	45%	28%	34%	26%	22%	1%	3%	1%	1%	6%	66%	L	N/A	M	N/A	M	N	L	1
Henry Hall Middle School (5-8)	Fall 2009	54%	38%	78%	58%	16%	38%	4%	6%	10%	4%	23%	M	H	H	M	H	P	H	2
Hidden Valley Elementary School (K-5)	Fall 2008	60%	30%	48%	27%	13%	13%	1%	7%	1%	14%	52%	H	H	H	H	M	Y	H	1
James B. Davidson Middle School (6-8)	Fall 2010	63%	19%	62%	17%	14%	3%	0%	27%	7%	11%	39%	L	L	M	L	H	Y	L	3
Lagunitas Elementary School (K-8)	Fall 2000	40%	16%	32%	16%	6%	10%	1%	2%	1%	14%	68%	L	L	H	L	M	N	L	0
Laurel Dell Elementary School (K-5)	2004	45%	17%	48%	19%	17%	1%	1%	25%	0%	5%	51%	M	L	M	H	M	Y	H	2
Loma Verde Elementary School (K-5)	2008	40%	16%	35%	20%	16%	3%	1%	0%	1%	14%	65%	H	H	L	H	M	N	M	1

**Table 12: Evaluation Summary of Participating Schools (1 of 3)**

NOTES

1. Ranking: L - Low, M - Medium, H - High
2. Bussing: Y - Yellow School Bus, T - Public Transit, N - No bussing options
3. # of locally funded crossing guards



School Name	Baseline			2018/2019 Trips		2018/2019 School Trips by Mode							Factors <sup>1</sup>							
	Semester	Green Trips	Active Green Trips	Green Trips	Active Green Trips	Walk	Bike	Other	School Bus	Public Transit	Carpool	Family Vehicle	Aministration	Team Leader	Education	Encouragement	Green Infrastructure	Busing <sup>2</sup>	Neighborhood Schools	Crossing Guards <sup>3</sup>
Lu Sutton Elementary School (K-5)	2004	34%	23%	31%	19%	13%	4%	2%	0%	1%	12%	68%	L	L	L	L	M	N	M	1
Lycée Français de San Francisco	Fall 2010	8%	8%	37%	2%	2%	1%	0%	29%	0%	7%	63%	H	H	H	H	L		L	0
Lynwood Elementary School (K-5)	2004	35%	25%	48%	32%	30%	0%	2%	11%	1%	5%	53%	M	L	H	H	M	N	H	2
Manor Elementary School (K-5)	Fall 2000	39%	24%	41%	32%	20%	11%	2%	0%	3%	7%	59%	H	M	M	M	H	N	M	2
Marin Primary & Middle School (K-8)	2008	16%	10%	31%	14%	8%	6%	1%	9%	0%	8%	70%	M	M	L	M	H		L	2
Mary E. Silveira Elementary School (K-5)	2006	55%	30%	55%	25%	22%	3%	0%	24%	0%	5%	36%	M	M	H	M	M	Y	M	0
Mill Valley Middle School (6-8)	2003	49%	29%	69%	56%	25%	28%	4%	4%	2%	7%	31%	M	M	H	M	H	Y	L	1
Miller Creek Middle School (6-8)	2004	69%	20%	69%	32%	20%	12%	0%	29%	0%	8%	32%	M	H	H	H	M	Y	M	1
Neil Cummins Elementary School (K-4)	2001	52%	25%	54%	44%	23%	17%	4%	0%	0%	9%	46%	M	H	H	H	H	N	H	3
Old Mill School (K-5)	2003	17%	16%	36%	28%	23%	5%	1%	0%	0%	8%	64%	M	H	H	H	M	N	H	2
Olive Elementary School (K-5)	2004	30%	9%	42%	19%	16%	3%	1%	4%	0%	19%	58%	M	H	H	H	H	N	H	1
Park Elementary School (K-5)	2004	44%	34%	64%	58%	39%	12%	8%	0%	0%	6%	36%	L	M	H	M	M	N	H	1
Pleasant Valley Elementary School (K-5)	Fall 2003	28%	14%	35%	22%	12%	8%	3%	5%	0%	11%	65%	L	M	H	M	M	N	M	2
Rancho Elementary School (K-5)	2003	43%	12%	39%	25%	21%	3%	1%	1%	1%	13%	61%	H	M	H	M	M	N	M	4
Redwood High School (9-12)	2009	47%	17%	46%	19%	12%	7%	1%	4%	5%	18%	54%	H	L	L	L	H	P	L	0
Reed Elementary School (K-2)	2003	36%	8%	50%	10%	8%	2%	0%	33%	0%	7%	50%	L	M	L	M	M	Y	M	2
Ross School (K-8)	Fall 2001	43%	36%	51%	45%	29%	12%	5%	0%	0%	6%	50%	L	L	H	L	M	N	M	4
Ross Valley Charter (K-5)	Spring 2018	60%	40%	45%	21%	7%	13%	1%	14%	2%	9%	55%	L	M	L	M		N	L	1
San Domenico School (K-12)	Spring 2012	70%	19%	84%	21%	10%	1%	1%	51%	0%	12%	33%	L	M	H	M	M	Y	L	0
San Jose Middle School (6-8)	Fall 2011	58%	12%	36%	10%	8%	2%	0%	1%	7%	19%	63%	L	L	L	L	M	P	M	2

**Table 12: Evaluation Summary of Participating Schools (2 of 3)**

NOTES

1. Ranking: L - Low, M - Medium, H - High
2. Bussing: Y - Yellow School Bus, T - Public Transit, N - No bussing options
3. # of locally funded crossing guards

School Name	Baseline			2018/2019 Trips		2018/2019 School Trips by Mode							Factors <sup>1</sup>							
	Semester	Green Trips	Active Green Trips	Green Trips	Active Green Trips	Walk	Bike	Other	School Bus	Public Transit	Carpool	Family Vehicle	Amintistration	Team Leader	Education	Encouragement	Green Infrastructure	Busing <sup>2</sup>	Neighborhood Schools	Crossing Guards <sup>3</sup>
San Marin High School (9-12)	Spring 2019	42%	21%	33%	7%	5%	2%	1%	1%	6%	16%	71%	L	M	H	L	M	P	L	1
San Ramon Elementary School (K-5)	2006	41%	22%	48%	23%	20%	4%	0%	6%	0%	19%	52%	L	L	L	L	M	N	M	4
Short Elementary School (K-4)	Fall 2012	63%	7%	58%	20%	20%	0%	0%	37%	0%	2%	43%	L	N/A	N/A	N/A	M	Y	M	0
Sinaloa Middle School (6-8)	Spring 2012	61%	34%	54%	30%	14%	16%	1%	1%	2%	22%	46%	M	M	H	L	M	P	M	3
Sir Francis Drake High School (9-12)	Fall 2004	66%	25%	49%	30%	22%	9%	0%	1%	2%	18%	51%	M	H	H	H	M	P	L	0
Strawberry Point School (K-5)	2006	24%	15%	29%	20%	18%	2%	0%	3%	0%	6%	72%	L	H	H	H	M	Y	M	2
Sun Valley Elementary School (K-5)	2004	41%	15%	38%	19%	13%	4%	2%	14%	0%	6%	62%	H	H	H	M	M	Y	M	2
Tamalpais High School (9-12)	2004	52%	19%	84%	12%	8%	4%	1%	67%	2%	3%	17%	L	L	L	L	H	P	L	0
Tamalpais Valley Elementary School (K-5)	2000	17%	17%	29%	21%	15%	5%	1%	0%	0%	9%	71%	L	N/A	H	L	M	N	M	1
Terra Linda High School (9-12)	Fall 2014	37%	12%	51%	15%	8%	4%	4%	0%	15%	20%	52%	M	M	L	M	M	P	L	0
Vallecito Elementary School (K-5)	2000	56%	24%	45%	31%	23%	7%	2%	10%	0%	5%	55%	M	M	L	M	M	Y	L	3
Venetia Valley Elementary School (K-8)	2002	46%	13%	42%	8%	7%	2%	0%	29%	0%	5%	58%	M	M	N/A	H	M	Y	H	2
Wade Thomas Elementary School (K-5)	2002	47%	40%	43%	30%	24%	4%	2%	3%	0%	11%	57%	M	L	M	M	M	N	M	1
West Marin Elementary School (2-8)	2009	54%	17%	63%	11%	10%	1%	0%	50%	0%	3%	37%	L	L	L	L	M	Y	L	0
White Hill Middle School (6-8)	2006	67%	11%	76%	19%	10%	9%	1%	47%	3%	6%	24%	L	L	H	L	M	Y	L	1
Willow Creek Academy (K-8)	Fall 2015	22%	10%	35%	17%	11%	5%	1%	6%	4%	9%	65%	H	H	L	H	L	P	L	0

**Table 12: Evaluation Summary of Participating Schools (1 of 3)**

NOTES

1. Ranking: L - Low, M - Medium, H - High
2. Bussing: Y - Yellow School Bus, T - Public Transit, N - No bussing options
3. # of locally funded crossing guards

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## SAMPLE ASSESSMENT OF SCHOOL SR2S PARTICIPATION

The following sample schools demonstrate the importance of administrative support through policies and funding. Safe Routes to Schools participated in these initiatives through direct involvement and by creating a culture that promotes green transportation modes to schools.



**REDWOOD HIGH SCHOOL** in Larkspur has a large student population that commutes from relatively long distances from within Marin County but benefits from the local feeder districts that have high rates of walking and biking, such as Larkspur/Corte Madera and Kentfield. Larkspur has been actively improving conditions for pedestrians and cyclists along Doherty Drive with new bike lanes and sidewalks and is focusing on the Lucky Drive entrance to the school. Recently, the administration, working with Safe Routes to Schools, initiated new parking policies intended to discourage parking on campus for students who live in close proximity to the school. This included the creation of designated parking spaces for carpools and the initiation of a parking permit program for the school parking lot, with permits being allocated to students who live outside a 20-minute walk to school. Safe Routes also assisted with content for a page on Redwood High's website, providing travel information for all modes. The results were significant; carpooling increased from 15% to 20% from fall 2017 to spring 2018 and overall single occupant vehicles decreased by 8% with slight increases in walking, biking and transit. This demonstrates that strong administrative leadership and policies that promote green modes has a positive effect on reducing traffic.



**REED SCHOOL DISTRICT** in Tiburon benefitted from a City Council-initiated traffic committee that was formed in 2011 and that included representation from Safe Routes to School. The committee launched two policy initiatives to encourage students to commute to school by other modes other than single-occupancy vehicles (SOVs). The first initiative provided a one-year funding commitment in 2013 for a Bike Train serving Bel Aire Elementary and Del Mar Middle School students, under Safe Routes oversight. The Bike Train program continued beyond the one-year commitment with parent volunteers leading Bike Trains to both Bel Aire and Reed Elementary Schools and middle school students self-organizing for cycling to Del Mar. Next, Tiburon also provided increased yellow bus service to reduce travel times for students and provide additional rider capacity. A parent volunteer launched a robust communications campaign to promote the bus service which

helped to result in a large increase in bus registration. The results of both programs were impressive. At Del Mar, rates of biking nearly doubled from 2013 to 2015 and school bus usages jumped from 11% to 28%, while commuting by Single Occupancy Vehicle (SOV) decreased from 51% to 33%. At Bel Aire, the numbers of students riding school buses jumped by 10%. The town's commitment to funding services had a marked impact on contributing to a reduction of traffic congestion in the city.



**MARK DAY SCHOOL** is a private K-8 school in San Rafael that draws students from across Marin County and San Francisco and that has benefited from successful SR2S techniques. Safe Routes to Schools worked with the school to introduce a carpool program in the early 2000's. A recent remodel of the school triggered a requirement to reduce traffic and, as a result, Mark Day initiated bus service serving students coming from San Francisco, Mill Valley, San Anselmo, Terra Linda/Sleepy Hollow, and Greenbrae. A corresponding communications effort on green travel to school families included a mailing that included information on carpooling, school bus information and designated driving routes; an Online Carpool Map with all current families listed to help match Mark Day families for carpooling; a web site registration for bus service; and robust promotion of both programs. As a result of these efforts carpooling increased from 38% to 53% and school bus use rose from 6% to 14% with a reduction in SOV from 54% to 29% between 2010 and 2019. Success at Mark Day School indicates that Safe Routes program strategies, policies and programs can also provide benefits to students even at non-participating schools when schools adopt and maintain them.



**HALL (Larkspur), KENT (Kentfield), and MILL VALLEY MIDDLE SCHOOLS** provide model examples of on-going, robust Safe Routes to Schools programming with over 50% of the students at each school walking and biking to school. Middle school students are at an age where they can confidently travel to school without adult supervision yet in order to achieve significant results in rates of green trip commuting, infrastructure and Safe Routes to Schools programs must play an instrumental role. While the presence of

'Complete Streets' infrastructure improvements helps to create safe access to these schools, another contributing factor to high levels of green travel among middle school students is the level of SR2S involvement from the elementary schools that feed into the middle schools. The feeder schools to Hall, Kent and Mill Valley Middle Schools, (Bacich, Neil Cummins, and Mill Valley Elementary schools) have strong Safe Routes to Schools programs with on-going parent volunteers to implement encouragement events and advocate for safe infrastructure. District Administration is actively supportive, promoting green travel to school communities and hosting Safe Routes to Schools pedestrian and bicycle safety classes annually during Physical Education. These schools showcase what can be achieved with the "right ingredients;" sustainable Safe Routes to Schools programming combined with safe access to schools.



**NEIL CUMMINS ELEMENTARY** is a neighborhood school in Corte Madera that consistently achieves over 55% green travel mode share thanks, in part, to a "No Cars on Campus" policy, requiring parents to park and walk with young students to class. Under this policy teacher parking is provided and safety on campus for walkers and rollers is prioritized. The philosophy behind the policy is that school drop-off zones can make children feel rewarded for driving when a greeter cheerfully opens their door, valet style. Parking and walking, even partway to school, provides the necessary small steps to solidify habits with young children. As a result of a large number of students walking to Neil Cummins, heavily trafficked Tamalpais Drive qualified for improved crosswalks. Importantly, pollution caused by cars lining up to drop off or pick up students is eliminated from the campus. Neil Cummins is the model school for providing a healthy, safe campus for its students while promoting sustainable, active travel.

## WHO IS SAFE ROUTES?

### Gretchen Schubeck – School Travel Workgroup Focuses on Mitigating Climate Change



The City of Novato identified Safe Routes to Schools as one solution integral to the City's Greenhouse Gas (GHG) reduction plan. To help meet their GHG reduction goals, Novato's Sustainability Coordinator, Gretchen Schubeck, formed a School Travel Workgroup with representatives from Safe Routes to Schools, Novato School District, the City of Novato, and volunteers from the community. The group collaborates on joint messaging to promote safe and healthy green travel to families at 12 Novato schools.

According to Schubeck, it will take a village to combat climate change; but she believes she has the right community partners to deliver co-branded messaging for mode shift to occur. For example, Leslie Benjamin, Director of Communications for the Novato School District, has been instrumental in applying a top-down approach for promoting Safe Routes to Schools to the broader school community. Through her initiative, the Superintendent of the Novato School District can deliver widespread messaging to prioritize green travel throughout the school year.

Thanks to Gretchen's initiative and the leadership of the workgroups, the Novato School District encouraged green commuting to schools by plotting school family addresses on maps to illustrate students' proximity to their neighborhood schools. Armed with this data, the group strategized to recommend travel modes based upon distance and safety factors. The maps will also be used by the workgroup to get parent volunteers to provide suggested routes to schools and to identify safety concerns that can be addressed through enforcement or better engineering.

Schubeck said, "Working collaboratively is the key to developing workable solutions. The City's partnership with the Safe Routes to Schools team feels like it could be a real game-changer in terms of reducing carbon emissions tied to school travel in Novato."

## RECOMMENDATIONS FOR IMPROVEMENTS IN SR2S EVALUATION

The table below provides recommendations for enhancing the evaluation element of SR2S. It is based on the insights gained during the comprehensive evaluation done of existing participating schools.

**Table 13: Recommendations in Evaluation**

EVALUATION	STATUS	RECOMMENDATION
Annual Student Tallies and Parent Surveys	Provide school-by-school snapshots in time of participation. In 2015 more than 1,300 detailed responses were received from more than 30 schools.	Continue evaluating the program through the use of student tallies and parent surveys. Aim for increased survey response rates from all participating schools.
Student Travel Trends Matrix	For the first time, in 2016 the program identified historical travel mode trends by school, going back up to 10 years. This report continues this analysis.	Continue, on a year-to-year basis, to populate and assess the school travel trends to identify potential strategies to further increase green trips.
School Busing	The SR2S program supports independent yellow school bus programs, as well as public transit service through Marin Transit.	Continue supporting public transit and the reintroduction of yellow school bus. Support school efforts to considering the addition of yellow school bus service.



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# A LOOK TO THE FUTURE

The Marin County Safe Routes to Schools program has consistently proven its effectiveness in reducing the number of children who are driven alone to school and in increasing the numbers of students walking, bicycling, taking the bus, or participating in a carpool.

Schools that have been with the program the longest have generally experienced the most dramatic results. For example, since the fall of 2003, Mill Valley Middle School has seen a 20 percent decrease in the number of students driven alone, with a 27 percent increase in reported Active Green trips made. This corresponds to a reduction in vehicle miles traveled of approximately 1,435 miles each school day. This change in travel behavior has far-reaching benefits for the community, from a reduction in congestion and greenhouse gas emissions to increases in safety and the promotion of a healthy lifestyle and a more sustainable future.

In order to strengthen the relevance and long-term impacts of Safe Routes to Schools, the program is constantly evolving and developing new ideas. The past three years has seen updated classroom offerings, new contests, new partnerships, the innovative use of technology, construction of new engineering treatments, and new funding sources. These developments have been key in allowing SR2S to expand its reach while at the same time strengthen its core elements.

However, a well-established program like Marin County's focuses on continual maintenance rather than expansion. Keeping in mind the three key elements of success (see box below), the following recommendations are intended to improve the effectiveness of the existing program, so that it can continue to be a leader for years to come.

## KEY ELEMENTS OF A SUCCESSFUL PROGRAM

When it comes to showing tangible results, participating SR2S schools have achieved various levels of success. Those that have experienced the most dramatic results—whether it has been through a high increase in green trips or a large number of infrastructure projects—often have three key features in common:

- ▶ **A strong vision.** Having a long-term vision in place allows schools to more effectively implement their goals as they relate to Education, Encouragement, Engineering, Enforcement, Evaluation, and Equity. It is those schools that have a clear vision for their future that are also able to more successfully seek out grants.
- ▶ **Active school participation.** Based on the survey results, it is evident that those schools that experience the most reduction in car trips are also those that are fully engaged

in the six "Es." Schools that do not participate in classroom education activities, or at least one of the all-school events, do not do as well as those that do. Involving the whole school reinforces the lessons taught at specific grade levels and continues the teaching process. Lastly, a successful program cannot be achieved without a team of active school leaders and volunteers.

- ▶ **Strong local support.** An effective SR2S program requires a team approach that involves not only schools, but also support from city, town and county representatives and elected officials. Enforcement programs cannot be administered without the cooperation of local police departments, just as engineering projects cannot be implemented without the help of agency engineers.



## SAFE ROUTES TO SCHOOL PROGRAM DURING COVID-19

The onset of the Coronavirus disease (COVID-19) in the winter of 2019/20 has changed the way that students in Marin County, and around the world, 'attend' school as distance learning while sheltering-in-place became necessary. Regardless of when students physically return to school in the future, the Marin SR2S program continues to be effective during the period of time when schools are closed due to the pandemic.

While it is clear that many SR2S activities cannot continue in the same format as prior to the COVID-19 pandemic, there is no less relevance to the SR2S program. In fact, the ability to adapt existing programs and create new ones to meet the current need for social distancing is precisely in line with the goals of the program. The pressures of social distancing and potential for a decrease in walking, biking, rolling, busing and carpooling to and from schools upon their re-opening means that it is imperative that the program is well-prepared to meet the new challenges that will be presented at the start of the new school year.

In addition to making changes to how traditional SR2S programs are delivered to students across Marin County, SR2S staff are developing new material and programs that reflect the changing nature of traveling to and from school due to concerns over COVID.

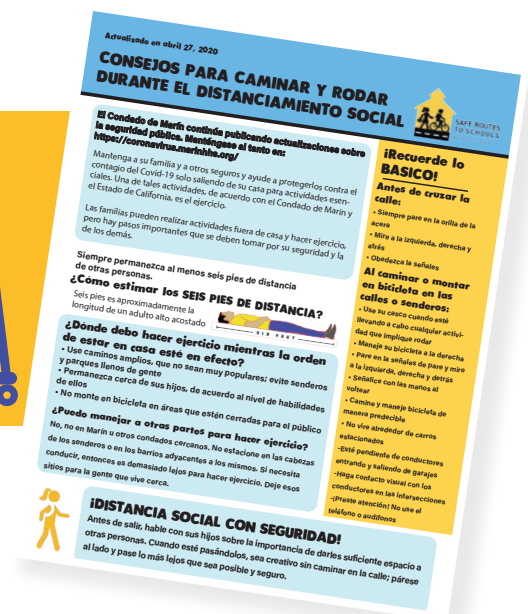
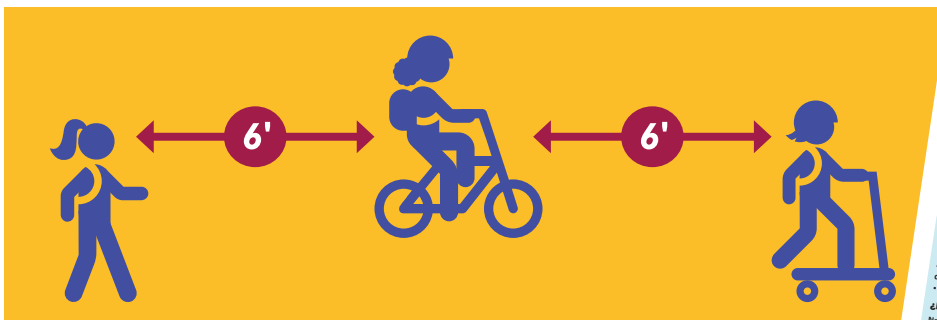
For example, SR2S staff created downloadable materials that contain age-appropriate tips for maintaining social distancing while walking and rolling. The flyer has been disseminated by Physical Education departments county-wide with links to the remote learning lessons on the SR2S website. Additionally, the Canal Alliance requested copies of the flyer in Spanish to be distributed with food to families in need.

Staff are also researching creative approaches and programs from around the country such as Seattle's "Stay Healthy Streets," in which

walking and biking is prioritized on city streets to encourage active transportation while maintaining social distancing. These efforts recognize that streets must be configured so that people are able to safely move around their communities, even as we transition from crisis to recovery. As part of this effort, SR2S is prioritizing the following activities:

- ▶ 'Pop-up' or quick-build programs that focus on inexpensive and temporary infrastructure that prioritizes safe walking and rolling on streets near schools. Depending on the context of the neighborhoods that the schools are located in, this may take the form of pop-up bike lanes and sidewalk extensions that are installed using traffic cones, to residential streets that promote shared use by closing them to through traffic using signs;
- ▶ Guidance to schools to identify potential routes for walking and biking to school that would allow for appropriate social distancing protocols;
- ▶ "Park and Walk" locations for schools are being identified for students so that students continue to be encouraged to walk to school, even if they are driven part of the way. "Park and Walk" can also help reduce traffic congestion associated with drop-off and pick-up activities and helps to prioritize safe and equitable access to school for all students, including for those who have no options to walking or biking.

SR2S staff are also actively focused on remaining a valuable resource to school communities by adjusting the program to reflect the realities of the COVID-19 crisis. Examples of how the approach to the program has changed are described on the following pages.





## Education

In early March 2020 SR2S staff started to develop and test how learning materials would be delivered, how to engage students while learning from home, conduct school travel audits, and identify recommended technologies that would be used to enable remote learning. Additionally, the suite of materials and programs that the SR2S program normally creates and facilitates has been re-structured in order to be delivered and administered remotely.

TAM has created a SR2S webpage (<http://www.tam.ca.gov/sr2s>) as one way the latest program information and resources for continuing to engage with the program is disseminated during the period of time when schools remained closed.

Some examples of education materials that continue to be created and taught include:

- ▶ Pedestrian and Bicycle Safety Lessons continue to be developed and taught remotely. Remote learning lessons for K through 8th grades have been developed in video format and made available online. The online lessons include grade-specific content and run about 15 to 20 minutes. A lesson called “Stop Look Listen” was created for 1st and 2nd grade students while the “Drive That Bike” lesson is delivered to middle school students in 6th, 7th and 8th grades. Additionally, SR2S staff are designing on-site bike classes for smaller groups in order to maintain proper social distancing.
- ▶ Mapping – Safe Routes to School has created Suggested Routes to School maps for specific schools across the County and will continue to create route maps for use in remote mapping workshops. These maps are used to collaboratively identify primary routes to schools as well as ‘Park and Walk’ locations. A current list of maps is available on TAM’s Safe Routes website.

## Encouragement

Encouragement activities that promote physical health and mental well-being during the period of time when schools are closed have been developed by SR2S. These activities primarily take the place of traditional contests, which are being conducted even during this period of remote learning. An Art and Poetry contest for Elementary and Middle School students in April generated entries from 19 schools that can be viewed on the Safe Routes to School website: <http://www.saferoutestoschools.org>.

Some additional examples of recent Encouragement activities that have been held for students of all age-groups include:

- ▶ Primary School: “Walk and Roll Recess Challenge” – Throughout May 2020, students at participating schools were invited to get their “Ya Ya’s” out. The Walk and Roll Recess Challenge is a month-long contest encouraging students to exercise daily. The purpose of the challenge is to build a sense of school spirit and unity during this time of separation by providing a fun activity to boost physical and mental health for students.
- ▶ Middle School: “Bike Week” – In May 2020, Middle School students were invited to gear up to ride for Bike Week – an educational contest to encourage students to practice biking while following rules of the road and physical distancing. The five-day contest starts with proper bike and helmet fit and includes engaging videos to reinforce safe riding. A short, educational quiz at the end of the program’s fifth day is the student’s entry into the contest.



Work by Art & Poetry participant Aileen Muraffa.

- ▶ High School: “Share Your Climate Story” – In collaboration with Sonoma Eco2Schools and other Bay Area Spare the Air Youth programs, the Share Your Climate Story is a contest being promoted at Marin high schools with engaged participation in SR2S programming. The contest’s goal is to get teens to use story-telling to share their science-based knowledge, experiences and actions to promote solutions for combating climate change.

## Task Forces



Task Force committees continue to work remotely to regularly bring together a variety of school community stakeholders to focus on specific transportation safety concerns in a neighborhood and work to develop potential solutions. The Task Forces have been specifically focused on planning for the 2020/21 school year with discussions on how to create safe streets for walking and biking while maintaining social distancing.

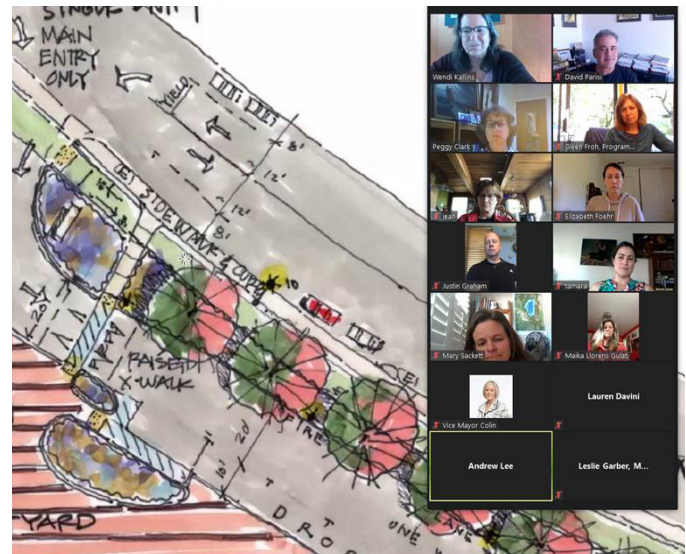
A total of 12 video Task Force conferences have either taken place or have been scheduled between April and September 2020 across Marin County from Sausalito to Novato.

## Engineering

Despite working remotely, school communities continue to influence the physical changes to local streets and pathways that, once designed and constructed, will help to create safer and more comfortable routes to school for the County's students.

Some examples of ways the program continues to work collaboratively with school communities include the following:

- ▶ Walk Audits - walk audits are continuing to be held remotely using Google Earth and other tools that allow participants to be able to view conditions on the roads and to discuss user behavior. This engagement will continue to inform Engineering Teams who will continue to develop longer term concept ideas to improve safety and comfort around schools while thinking in the short-term how to expand space around schools to allow for socially distanced walking and biking.
- ▶ Route Mapping – new and/or modified walking and/or cycling maps are being prepared for distribution to school communities that reflect the construction of infrastructure projects intended to make active transportation to schools safer and more comfortable.



- ▶ Improvement Plan Development – engineering design of improvement projects funded through TAM's Safe Pathways to School program is continuing in order to move towards the implementation of pathway and sidewalk improvement projects aimed at making physical improvements to enhance the safety of school trips by walking and biking.

## Planning for the Future

When schools re-open in fall 2020, TAM's Safe Routes to School program will be ready with curriculum and activities designed to keep kids healthy and active even if social distancing measures are still in place. School leaders, jurisdictional public works staff and county health officials are collaborating with our Safe Routes

to Schools team to ensure that we are well prepared for the new school year. In response, the SR2S is actively developing new strategies, curriculum and activities to support the re-opening of schools.

## RECOMMENDATIONS

The following recommendations are intended to improve both the effectiveness and the long-term sustainability of Marin’s Safe Routes to Schools program.

**Table 14: Recommendations to Improve Effectiveness and Long-term Sustainability**

PROGRAMS	STATUS	RECOMMENDATION
<b>EDUCATION</b>		
Elementary and Middle School Pedestrian and Bicycle Safety Education	The core curriculum is comprised of 2nd, 4th and 6th grade pedestrian and bicycle education classes, which are hugely popular due to their hands-on approach to learning. During this evaluation period, an increased number of schools requested that SR2S teach 1st through 5th graders each year, providing age appropriate safety classes to all of their students.	Continue to provide pedestrian and bicycle safety education programs to children in 2nd, 4th and 6th grades. Continue providing classes to every student in every grade at school sites that request it. Offer an increased number of Family Biking classes, providing hands-on training to teach caregivers how to ride with youth. Seek sponsorships and donations for a new fleet of bikes, replacing outdated bikes used in SR2S rodeos and bike drills classes. Update existing and create new printed materials for increased outreach to parents and student recognition.
Middle and High School Education	Grants from MTC’s Spare the Air Youth program funded a new Share the Road curriculum, which was developed and piloted at San Marin High School. STR combines education for pedestrian, cycling, and driving safety into one class. New Sustainable Transportation classes were developed during the current evaluation period.	Offer the new Share the Road class to an increased number of High Schools. Continue to offer Sustainable Transportation classes to middle and high school students, demonstrating how transportation choices can benefit the environment. Continue classes and events that teach high school students of the benefits, route planning and use of public transit.
Elementary and Middle School Assemblies	A new Cool with Traffic Assembly was developed in 2015/2016 to reinforce safety while further promoting walking, biking, and carpooling to schools.	Promote and support an increased number of school-wide assemblies that showcase the benefits of active travel and that teach safety skills, in order to reinforce key messages taught in the 2nd and 4th grade pedestrian and bicycle classes.

PROGRAMS	STATUS	RECOMMENDATION
<b>ENCOURAGEMENT</b>		
Bi-Lingual Program	Provide encouragement programs to seven schools where the majority of students speak English as a second language. A partnership with Marin County Health Department was forged, providing additional grant funding to supplement SR2S encouragement programming. Walking School Buses formed at Venetia Valley and Bahia Vista Elementary Schools.	Continue partnership with Marin County Health Department to obtain grant funding for SR2S contest supplies and incentives to run encouragement events at low income schools. Expand outreach to families in apartment buildings to promote walking school buses.
Walk and Roll Wednesday	Since 2013, the number of schools that host regular year-round events has tripled, to currently 35 schools.	Develop more strategies to encourage weekly Walk and Roll to School days, such as expanding the Park and Walk program, the Walking School Bus and Bike Train initiatives. Focus on behavioral based incentives such as recognition programs for students who participate in the programs.
Elementary School Challenges/Contests	Implemented in 12 schools in 2015, the number of schools participating in challenges and contests has since doubled, with 25 schools hosting the fall contest. A Bike Hero contest was developed in May 2019 with over 20 student nominations received.	Continue to kick-off the school year with an annual month-long Green Sneaker Challenge, providing promotional materials, volunteer support and incentives to an estimated 30 elementary schools. Continue promoting May as Bike Month with an annual Bike Hero award.
Teens Go Green Middle and High School	Teens Go Green Coordinators are currently working with students in all 8 public middle schools to host iWalk, monthly events, Bike to School Day, and contests. Middle Schools with the most robust Teens Go Green programs also have the highest percentage of green travel. Coordinators also work with student leaders at 5 public High Schools, hosting encouragement events.	Continue to engage teachers and student leaders to host monthly Go Green events, iWalk, Bike to School Day and contests.
Specialty Programs	SR2S provides program expertise to support volunteers developing new initiatives; School Tag, Walking School Buses, school-safety assemblies are some initiatives created during the current evaluation period.	Encourage schools to develop their own strategies for promoting Walk and Roll to School days such as Willow Creek Academy's School Tag on-line system program and Venetia Valley's Walking School Bus.
Technology	SR2S supports Active 4 Me, a fee for service, on-line trip tracking system that records students' green trips to schools.	Fund and create a new program website that allows an interactive interface for schools, enabling better access to materials and tracking of participation levels. Pilot the broader use of School Tag, a trip tracking program that allows students to self-scan and record their daily green travel. School Tag encourages student participation through popular gaming technology.



PROGRAMS	STATUS	RECOMMENDATION
<b>ENGINEERING</b>		
Support Task Forces and Public Works Departments to Identify Short-term Projects	SR2S engineers coordinate with Task Forces and municipal public works departments to identify issues and recommend short-term improvement measures implemented by local jurisdictions.	Continue to provide engineering and safety improvement support to public works departments. Work with SR2S Task Forces to identify short-term remedies. Continue to provide design services for low- cost projects.
Prepare Plans for Longer-term Infrastructure Projects	Public Works have installed over 100 infrastructure projects to improve school travel safety including, but not limited to, sidewalk gap closures, bicycle lanes, and use of new tools such as cycle tracks, bike boxes, and rectangular rapid flashing beacons.	Focus infrastructure/safety improvements on high vehicular volume corridors and in areas with high levels of school enrollment. Continue exploring new and improved tools for improving pedestrian and bicycle safety. For e.g., NACTO measures.
Suggested Routes to School Maps	Prepared Suggested Routes to School maps illustrating preferred walking and bicycling routes, along with existing sidewalks, bikeways, crosswalks, crossing guards, etc.	Continue to provide route maps for schools. Prepare three to five new suggested routes to school maps every year. Update existing maps as necessary to account for changes in walking and bicycling facilities.
<b>ENFORCEMENT</b>		
Enforcement	Local law enforcement plays an important role to address traffic safety issues and remains an important partner in helping the school communities successfully execute many of the SR2S programs.	Incorporate newly defined best practices from national resources for SR2S to further engage Marin's communities of color in local programming and participation of law enforcement in the SR2S program.
Crossing Guard Program	Improved safety at challenging intersections. TAM's separate crossing guard program currently provides guards at 90+ locations serving 70 schools in the County thanks to increased Measure AA funding.	Continue to support the Crossing Guard program by identifying potential locations for guard deployment and providing education to school children regarding crossing streets. Procure additional funds to deploy more crossing guards at the over 150 total potential sites that have been identified.
Street Smarts Marin	Participation in 11 communities throughout Marin, including the annual deployment of 100 banners in high-visibility areas. 500 lawn signs distributed to municipalities and schools in the past three years. San Rafael participated with a banner deployment for the first time in the program's history during the 2019-2020 school year.	Expand program to include social marketing with information, educational materials, and quick facts on both the program and being Street Smart available through social networks.  Update banner artwork and messaging to include an emphasis on distracted driving; banners are now 10 years old and need a messaging and artwork refresh.

PROGRAMS	STATUS	RECOMMENDATION
<b>FUNDING</b>		
Secure Supplemental Program Funding	Measures AA and B provide the majority of funding for the SR2S program. However, supplemental outside funding is helpful to achieve program objectives.	Leverage TAM's Measure AA and Measure B funding to secure potential outside supplemental funding to achieve SR2S program objectives.
Secure Funding for Infrastructure Improvements	Between 2016-2019 Marin's SR2S program secured funding for the implementation of infrastructure projects, including sidewalks, pathways, multi-use bridges, enhanced crosswalks, and improved intersections.	Continue to seek outside funding for implementation of capital infrastructure projects, e.g., through the Active Transportation Program.
Identify Short-Term and Longer-Range Safe Pathways Projects	Potential projects are only eligible if included in an adopted Safe Routes Travel Plan. SR2S engineers have developed low-cost/short-term solutions, and also longer-range designs.	Continue to identify effective Safe Pathways projects, including popular lower-cost solutions that can be implemented within a short timeframe.
<b>EVALUATION</b>		
Annual Student Tallies and Parent Surveys	Provide school-by-school snapshots in time of participation. In 2015 more than 1,300 detailed responses were received from more than 30 schools.	Continue evaluating the program through the use of student tallies and parent surveys. Aim for increased survey response rates from all participating schools.
Student Travel Trends Matrix	For the first time, in 2016 the program identified historical travel mode trends by school, going back up to 10 years. This report continues this analysis.	Continue, on a year-to-year basis, to populate and assess the school travel trends to identify potential strategies to further increase green trips.
School Bussing	The SR2S program supports independent yellow school bus programs, as well as public transit service through Marin Transit.	Continue supporting public transit and the reintroduction of yellow school bus. Support school efforts to considering the addition of yellow school bus service.

## WHO IS SAFE ROUTES?

### Marin Safe Routes to Schools Staff

Safe Routes to Schools staff help implement the program, by teaching classes to the students, presenting at assemblies, and overseeing and planning the encouragement activities. Every year staff keeps track of each school's participation in various programs as well as their mode split, and then notifies schools and parent team leaders through a report card.

Not only do SR2S staff members interface with school staff, students, and parents, but SR2S also leads Task Force meetings and participates in neighborhood committees. The staff engineers coordinate with public works departments to recommend and develop improvement measures to create safer routes to school.



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*Kavi Chakrabarty, 1st Grade, Lynwood Elementary*

