



DRAFT REPORT | 2017



GETTING AROUND MARIN

STRATEGIC VISION PLAN

ABOUT TAM

The Transportation Authority of Marin (TAM), as a Congestion Management Agency and the Transportation Sales Tax Authority of Marin County, manages transportation projects in Marin County, California, with local, regional, state, and federal funding. According to TAM's mission statement:



TAM is dedicated to making the most of Marin County transportation dollars and creating an efficient and effective system that promotes mobility and accessibility by providing a variety of high quality transportation options to all users.¹

TAM's mandate is clear, and to advance our mission, TAM must balance a wide range of needs, challenges and opportunities across a variety of modes, partners, and networks to create an efficient and effective transportation system. To help guide transportation improvements and remain competitive for project funding, TAM has adopted principles, goals, and objectives that seek to move our mission statement into implementation in the local communities of Marin.

¹ Transportation Authority of Marin, <http://www.tam.ca.gov/index.aspx?page=343>.

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Overview

The *Strategic Vision Plan* is a long-range plan providing a vision for all modes of transportation in Marin County. This vision consists of programs specifically developed and tailored to Marin's unique needs, history, and culture, resulting in a strategy to protect and enhance Marin's quality of life and natural beauty.

As a Vision Plan, this report articulates a shared consensus around what our transportation system will look like in the future from the perspectives of the public, who relies on the system, and of our local transportation providers, who plan, maintain and operate our transportation infrastructure.

TAM's vision is of an efficient and effective transportation system, one that enhances our scenic environment, provides equity for all of our users (including our vulnerable populations), and grows our economy for our residents, visitors, and workforce.

Marin's leadership in considering all modes of transportation serves as a building block toward achieving this vision and reflects the local plans and goals of our small towns and cities, transit operators, and transportation providers, while advancing critical new technologies and best practices to address our growing transportation challenges.



GETTING AROUND MARIN



Pedestrians enjoying Sausalito's wide sidewalks

As an update to the 2003 Vision Plan, *Moving Forward: A 25-Year Transportation Vision for Marin County*, the development of the *Strategic Vision Plan* builds on the foundation established in the original transportation blueprint for Marin County. The *Strategic Vision Plan* reflects the advancements in our transportation system since 2003, and the increased knowledge base from plans, studies, and reports of our local conditions and travel choices. Nearly 15 years of investments and changes to our transportation system have passed since that plan was completed, and while many of today's challenges and mobility needs are similar, the specifics have evolved.

This update provides an opportunity to revisit Marin's transportation planning needs and redefines the Vision Plan from 2003 to match today's' challenges and solutions, and is informed by the following considerations and approaches:

- A track record of completed projects and enhancements made to the transportation system since the 2003 Vision Plan adoption
- Substantial planning efforts and studies that have advanced our understanding of the local and regional issues facing our transportation network
- Ongoing and extensive public and stakeholder outreach and community discussion that has occurred since 2003 on projects, plans, and funding needs
- Opportunities for harnessing rapidly expanding technological advancements and innovation to address our challenges

This document begins with a definition of Marin's transportation challenges and opportunities; followed by an overview of the planning, outreach, and stakeholder engagement processes that have helped shape the vision; and concludes with a transportation vision and supporting strategies that will address key transportation challenges, improve mobility, and enhance our quality of life. This report considers Marin's planning framework and identifies funding sources, projects, and programs that support implementation of the *Strategic Vision Plan*.

The *Strategic Vision Plan* is designed to be a fluid document that can adapt to changes in the transportation setting. Therefore, this document may be updated, changed, or modified to respond to economic, demographic, technological, and other changes in our society, and does not establish any implementation regulations or requirements. This format provides a status report, a framework for future decision-making regarding transportation investments and improvements in Marin County that reflects current needs and values, and an understanding of future challenges.

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This report considers Marin's planning framework and identifies funding sources, projects, and programs that support implementation of the *Strategic Vision Plan*.

ACCOMPLISHMENTS SINCE 2003 VISION PLAN

In 2003, TAM's predecessor agency, the Marin County Congestion Management Agency, prepared *Moving Forward: A 25-Year Transportation Vision* for Marin County. This 2003 Vision Plan provided direction for planning activities and future revenue discussions, ultimately assisting in the development of TAM's half-cent Transportation Sales Tax Expenditure Plan.

The 2003 Vision Plan aimed to achieve the following goals:

- Create a multimodal transportation system, emphasizing alternatives to single-occupant driving.
- Reduce overall congestion, not just on Highway 101 but also on roads providing connections and alternatives to freeway travel.
- Maximize mobility for all residents of Marin County including seniors, youth, and disadvantaged residents.
- Maintain the quality of life enjoyed in Marin County.
- Maintain flexibility to allow for different needs in different parts of the county and to respond to changing conditions, including changes in funding.

The 2003 Vision Plan's goals and objectives are still relevant today. This clear articulation of vision and goals was instrumental in setting the stage for a transportation sales tax for local transportation investment. Passage of the 1/2-cent transportation sales tax (Measure A) in 2004, and an annual \$10 Vehicle Registration Fee (VRF), provided a reliable funding stream for local streets and roads maintenance, major roadway improvements, Safe Routes to Schools programs, and local transit services. The list below provides an overview of completed and successful efforts, organized by mode of transportation.

LOCAL TRANSIT

- Expansion of local transit services, paratransit services, West Marin transit services, and the Muir Woods Shuttle.
- Institution of Marin's Senior Mobility Services through Marin Access to meet the transportation needs of older adults and people with disabilities.
- Major completion of the Sonoma-Marín Area Rail Transit (SMART) rail service to San Rafael and agreement on full funding for the SMART Larkspur Extension.

HIGHWAYS

- Completion of the Highway 101 Gap Closure Project in San Rafael, the high-occupancy vehicle (HOV) lane, and separated (Class I) multi-use path through Central Marin.
- Major progress in the Marin Sonoma Narrows, including extension of segments of the HOV lane, Phase 1 grade separations, redirection of driveways to new frontage roads, and implementation of new Class I and Class II facilities for bicycles and pedestrians.²



Highway 101 Gap Closure Project and Class 1 Multi-Use Path in San Rafael

² Class 1 bike and pedestrian facilities provide full separation for vehicle traffic; Class 2 facilities are located on street and are striped as a separate lane (conventional bike lanes).

GETTING AROUND MARIN

COMPLETE STREETS

- Ongoing success of the Safe Routes to Schools Education and Outreach program, with an average of over 50% Green Trips³ in over 55 schools countywide, reducing congestion on our roadways.
- Funding and implementation of nearly \$20 million in Safe Pathways capital projects to increase safe access to schools, and placement of 82 crossing guards near schools.
- Major road improvements including 4th Street in San Rafael, Miller Avenue in Mill Valley, Sir Francis Drake Boulevard thru Samuel P. Taylor Park in West Marin, and portions of Novato Boulevard in Novato.
- Bike and pedestrian investments through Regional Measure 2 fund sources including the Central Marin Ferry Connector, Cal Park hill tunnel, Lincoln Hill Pathway, and progress on the North South Greenway throughout Marin.



A bicyclist on Bridgeway in Sausalito

TRANSPORTATION DEMAND MANAGEMENT

- Commute alternatives support programs including a vanpool incentive to support higher occupancies in local vanpools, Emergency Ride Home to guarantee a ride home to commuters who leave their car at home, and TAM's innovative Lyft incentive program for first and last mile trips to SMART stations.

OTHER EFFORTS

- Passage of the Local Transportation Sales Tax, allowing for leveraging funds for local highway and other improvements from regional state and federal sources.
- Passage of the Marin \$10 Vehicle Registration Fee to support ongoing road and pathway maintenance needs, senior mobility needs, commute alternatives, and low-emission vehicle programs.
- Significant planning and investments from Marin County's Non-Motorized Transportation Pilot Program and regional Measure 2 Bridge Toll Program.

“ While not an exhaustive list of accomplishments, significant progress has been made in physical changes to the transportation network, enhanced by the availability of local funding sources to attract and leverage regional, state and federal funding.

³ Marin County Safe Routes to Schools Program Evaluation Report, 2016.

Relevant Studies and Plans

While many of the projects and programs envisioned in the 2003 Vision Plan have been implemented, there are a number of other plans, listed below, that inform local knowledge of travel behavior and serve as the basis for delivering transportation services to the County. These plans do not “sit on a shelf” but rather provide an understanding of the cause of our existing challenges, develop potential solutions, and identify the financial resources to implement these issues. Each plan and study furthers our understanding of Marin’s transportation system and supports future programming and funding decisions.

Each of these plans serve critical functions; in some cases plans are developed to improve mobility, some to enhance local communities, and others to prioritize investments. Using this base of knowledge, TAM advances critical projects and programs with a multitude of local, state and federal funding sources to maximize local competitiveness for funding. These plans also serve to define what improvements could be considered in the near term, and serve to address current needs while preparing for a future transportation system.

These plans include the following:

TRANSIT AND TRANSIT CORRIDOR PLANS

To assess transit performance and identify how best to improve the transit system, TAM works with Marin Transit and Golden Gate Transit to move commuters, seniors, students, and other transit users that reduce demand on our local roadways. These plans range from needs assessments for local communities, and market analysis for the county as a whole to understand what local transit needs are, to service plans like the short range Transit Plan that identifies services to be implemented over the next three years, and specific evaluation reports to monitor and improve services like the Muir Woods shuttle.

- Bettini Transit Center Relocation Study
- Short Range Transit Plans for Marin Transit and Golden Gate Bridge, Highway and Transportation District (rural Fixed-Route Expansion Plan)
- Muir Woods Shuttle Evaluation Reports
- The Central/Southern Marin Transit Study
- Fairfax San Rafael Transit Corridor Study
- Countywide Transit Market Assessment
- Marin Access Strategic Analysis and Recommendations
- Marin Senior Mobility Action and Implementation Plan
- Coordinated School Transportation Study
- Community Needs Assessments (Tiburon and Novato)
- Metropolitan Transportation Commission’s (MTC) SMART Integration Plan

ROADWAY PLANS

Roadways in Marin County are prioritized with local jurisdiction staff for improvements, with local dedicated transportation funding support from TAM. Local transportation funds are critical for the planning, design, public engagement and construction of these projects, and can leverage regional, state and other funds to make our roadways safe and accessible for all users.

- General Plans, Capital Improvement Plans
- Congestion Management Plan
- Miller Avenue Streetscape Project
- Sir Francis Drake Boulevard Rehabilitation Project (Highway 101 to Ross)
- Sir Francis Drake Boulevard Rehabilitation Project (West Marin)
- Novato Boulevard Improvement Project

COMMUTE ALTERNATIVES AND CLEAN TECHNOLOGY PLANS

Marin County boasts the second-highest electric vehicle adoption rate per capita in California, and TAM has developed programs and plans that support Marin's goals of environmental stewardship. TAM supports public agency adoption of clean air technology, including public funding of charging stations, and clean fuel fleet vehicles with local dedicated transportation funds.

- Siting and placement plans for electric vehicle charging stations in Marin County.
- Employer/employee support programs including Guaranteed Ride Home, telework initiatives, innovative carpool pilot programs, and regional rideshare coordination.
- SMART MTC Integration Plan and First/Last Mile Plans.

BIKE AND PEDESTRIAN PLANS

Marin County has a history of bike and pedestrian planning, with many walkable and bikeable neighborhoods and communities. TAM coordinates many of these plans with our local cities and towns to promote projects for funding through regional and state Active Transportation funding and local Safe Pathways funding. Additionally, TAM supports the development of many multimodal projects incorporating bike and pedestrian planning efforts through complete streets development.

- Safe Routes to Schools Evaluation Report
- Local Jurisdiction Bicycle/Pedestrian Plans
- Bikeshare Feasibility Study
- Non-motorized Transportation Pilot Program
- Multimodal roadway, highway, and transit plans identified above

COMMUNITY BASED TRANSPORTATION PLANS

These plans advance equity-based development of our transportation system, prioritizing projects and programs for funding through Lifeline and other Funding Programs.

- The Canal Neighborhood Community Based Transportation Plan, 2007
- The Marin City Community Based Transportation Plan, 2009, 2015
- The City of Novato Community Based Transportation Plan, 2015

TAM'S ADOPTED GOALS AND OBJECTIVES

TAM's mission statement is provided below:

"TAM is dedicated to making the most of Marin County transportation dollars and creating an efficient and effective system that promotes mobility and accessibility by providing a variety of high quality transportation options to all users."⁴

⁴ Transportation Authority of Marin, <http://www.tam.ca.gov/index.aspx?page=343>.

TAM's mission statement highlights two of its key objectives: providing cost-efficient mobility and accessibility and providing a variety of high-quality transportation options. Mobility refers to the transportation system's capacity to move people and goods from place to place, while accessibility refers to the ease of access for all users. This is more than a semantic difference. By recognizing the importance of both mobility and accessibility, TAM's mission statement underscores that an effective transportation system must provide efficient travel overall between key destinations, by addressing congestion, while also ensuring an equitable allocation of travel options to provide efficient access regardless of one's mode of travel.

Figure 1 TAM Goals and Objectives

PRINCIPLE	GOAL	OBJECTIVE
Economy	Support a growing and sustainable economy in Marin County.	Contributes to economic vitality.
		Contributes to a flexible system that responds to changing technology.
		Contributes to an efficient and effective transportation system.
Environment Health and Safety	Support a healthy and safe quality of life in Marin County.	Promotes a healthy environment and a healthy population.
		Contributes to safer travel.
Equity	Maximize mobility for all people.	Enhances mobility and access for all.

GETTING AROUND MARIN

In the spring of 2015, TAM engaged the public through outreach for Marin's transportation needs in the Plan Bay Area 2040 update. The outreach effort led to the development of projects and priorities for consideration by the TAM board for future regional, state and federal Funding and informed the adoption of county transportation goals and objectives, which are defined by three guiding principles:

- Economy
- Environmental health and safety
- Equity

These are defined in Figure 1. The *Strategic Vision Plan* builds on these principles and previous outreach to define a long-range vision for Marin County, beyond current projects and priorities.

The regional transportation plan, known as Plan Bay Area, also provides a considerable policy discussion around the long-range needs and priorities for transportation improvements in Marin. As a constrained plan, TAM must make tough choices in regards to the priority and importance of specific transportation investments in Marin.

In the latest round of Plan Bay Area, Marin County's projected transportation revenues shrank significantly. This forecasted reduction puts increased strain on existing local transportation funding for needs as diverse as local school transportation improvements, bike and pedestrian priorities, roadway maintenance, and major projects like a direct connection between Highway 101 and Interstate 580.

As a guiding policy document supporting the development of a variety of multimodal transportation projects in Marin, TAM's *Strategic Vision Plan* works with the transportation element of Plan Bay Area to ensure that our transportation system needs and priorities are reflected in the plan.



The SMART train testing services at the Downtown San Rafael Station



Marin Transit Bus

ABOUT TRANSPORTATION FUNDING

Funding plays an important role in the transportation environment. TAM receives federal, state, regional, and local funding for transportation related projects. Funding is distributed based on requirements from each funding source, but many other factors are taken into consideration. These may range from environmental considerations like greenhouse gas and air quality benefits to strategic decisions about future fund availability, project competitiveness for grants and other sources, and regional, state and federal policy implementation. Local funds, controlled by local representatives are of considerable value in leveraging other funding sources dedicated for specified uses. Figure 2 outlines the funding sources Marin County currently receives and the types of projects and programs that these sources can fund.

In addition to these formula funding sources, regional, state, federal and air district funding is often distributed via competitive grant programs. These grant programs are awarded to projects that contribute to state and regional policies, including goals for housing production, greenhouse gas (GHG) emissions reduction, and investments in disadvantaged communities.

GETTING AROUND MARIN

Figure 2 Marin County Funding Sources

FUNDING TYPE	FUNDING SOURCE	PROJECT TYPES
Local (Countywide)	Half-Cent Transportation Sales Tax	<ul style="list-style-type: none"> • Local transit • Safe Routes to Schools • Major roads • Local roads • Highway 101 HOV Gap Closure Project
	\$10 Vehicle Registration Fee	<ul style="list-style-type: none"> • Local road and pathway maintenance • Senior mobility services • Programs to reduce congestion and pollution • Transit Operations and Maintenance • Transit Capital
	Marin Transit Property Tax	<ul style="list-style-type: none"> • Transit Operations and Maintenance • Transit Capital
Local (Municipalities)	Sales Tax	<ul style="list-style-type: none"> • Funding availability varies by jurisdiction, often used for local road maintenance
	Parcel Tax/Fee	<ul style="list-style-type: none"> • Funding availability varies by jurisdiction, typically used for local road maintenance or local transportation projects
Regional	Transportation fund for clean air	<ul style="list-style-type: none"> • Transportation projects that meet clean air requirements • Bike, pedestrian and employer/employee support projects
	Bridge Tolls	<ul style="list-style-type: none"> • Projects that provide a nexus to improvements in Bridge toll corridors
State	Gas Tax Subventions	<ul style="list-style-type: none"> • Funding directly to local jurisdictions • Used for local road maintenance
	State Transportation Improvement Program (STIP)	<ul style="list-style-type: none"> • Highway Capital Improvements
	Transportation Development Act Article 3	<ul style="list-style-type: none"> • Bike, pedestrian, and employer/employee support projects
	Transportation Development Act and State Transit Assistance	<ul style="list-style-type: none"> • Transit operations and maintenance • Transit Capital projects
Federal (Regional Distributed)	Gas Tax – One Bay Area Grant (OBAG) Program	<ul style="list-style-type: none"> • Various projects that meet federal eligibility requirements and regional policy goals
Federal	FTA Formula Funds	<ul style="list-style-type: none"> • Transit operations and maintenance • Transit capital projects

02

Getting Around Marin Today

Marin County is central to a booming Bay Area economy. With communities located primarily on the Bay frontage adjacent to Highway 101, this corridor serves as the County's primary access route for northbound and southbound trips. Overall, our transportation infrastructure presents several key challenges:

- Aging roads and bridges require ongoing maintenance, with much of our infrastructure built as communities incorporated.
- Limited connectivity in both the east-west and north-south directions minimizes redundancy in the network, constraining travel choice in terms of routes available, and flexibility to adjust to network disruptions or changes in circulation patterns.



GETTING AROUND MARIN



Highway 101 over Richardson Bay in Southern Marin

- Limited access and egress points to a number of communities, such as Sausalito, Mill Valley, Marin City, the Tiburon peninsula, Bel Marin Keys, and others.
- Hilly terrain and sensitive watersheds limit opportunities to increase access across and within many communities.
- Sensitivity to sea level rise due to the location of a number of transportation assets along Bay frontage.
- Limitations to the existing right-of-way available for transportation infrastructure expansion.
- Marin serves as a connection for northern counties to access regional population and job centers of Oakland and San Francisco.

In order to assess the challenges faced in traveling around Marin County, the *Strategic Vision Plan* is informed by an understanding of local population, employment and housing patterns, and the existing transportation setting. The following sections define Marin County's demographics, development context, roadways, and transit and multimodal networks serving local residents, employees, and visitors.

DEMOGRAPHICS

The transportation system connects Marin County's residents, employees, and visitors with jobs, services, entertainment, and other opportunities. Supporting TAM's mission statement – providing cost-efficient, effective and high-quality transportation options that provide residents mobility and accessibility – requires a look at how transportation demand might change in the future. Demographic trends illustrate the current demands on Marin's transportation system, and forecasts can inform our understanding of future investment needs because they identify housing and employment growth patterns. This section provides an overview of current and forecast demographic information as they relate to the geographic and modal balance of Marin's transportation investments.



GETTING AROUND MARIN

POPULATION

Marin is the second smallest county in the Bay Area after Napa County, with a current population of approximately 261,200 people. There are approximately 112,000 homes with an average of 2.4 people per household and a median income of \$91,500. Marin is a slow-growth county, and the population has remained relatively constant between 2010 and 2015, as shown in Figure 3.⁵ This growth pattern was reflected in school enrollment during that period, and is expected to continue with 1.3% of Bay Area housing growth and 2.7% of Bay Area job growth forecasted for Marin County over the next 40 years.

Nearly one in five (19%) of Marin's residents are over the age of 65, while more than one-third (34%) of residents are over the age of 55. The median age in Marin County is 45.

Marin serves as home to one of the most widely visited National Recreation Areas in the United States, with approximately 15 million annual visitors to the Golden Gate National Recreation Area.^{6,7} This influx in visitors is acutely felt in many southern Marin communities like Sausalito and Mill Valley as well as in communities along Highway 1 on Marin's coast.

⁵ American Community Survey, 2011-2015 Five-Year Estimates.

⁶ [https://irma.nps.gov/Stats/SSRSReports/National%20Reports/Annual%20Visitation%20By%20Park%20\(1979%20-%20Last%20Calendar%20Year\)](https://irma.nps.gov/Stats/SSRSReports/National%20Reports/Annual%20Visitation%20By%20Park%20(1979%20-%20Last%20Calendar%20Year))

⁷ <http://www.cnn.com/2017/03/10/travel/most-popular-national-park-service-sites-2016/>



Students participating in TAM's Safe Routes to Schools Program

Figure 3 Marin County Municipalities and Local Job Totals

EMPLOYMENT

Marin County is currently home to approximately 98,100 jobs, and economic growth patterns are expected to continue, with approximately 16,800 jobs added over the 30-year forecast period. While this growth rate of 6.5%, or 560 jobs per year between 2010 and 2040, reflects a decline in the total share of jobs in the region from 3.5% to 2.9%, it is higher than the population growth forecast and indicates that Marin will continue to import jobs from surrounding counties. Comparing to state economic records, the number of jobs has grown by approximately 13,500 between 2010 and 2015, providing an accounting for significant growth already received beyond regional forecasts and predictions.⁸

⁸ <http://www.labormarketinfo.edd.ca.gov/cgi/dataanalysis/labForceReport.asp?menuchoice=LABFORCE>

Novato
26,380

Fairfax
1,550

San Anselmo
3,310

San Rafael
43,430

Ross
360

Larkspur
7,500

Corte Madera
6,500

Mill Valley
5,980

Tiburon
2,840

Belvedere
310

Sausalito
5,220


**Unincorporated
Marin County**
18,410


37

101

580

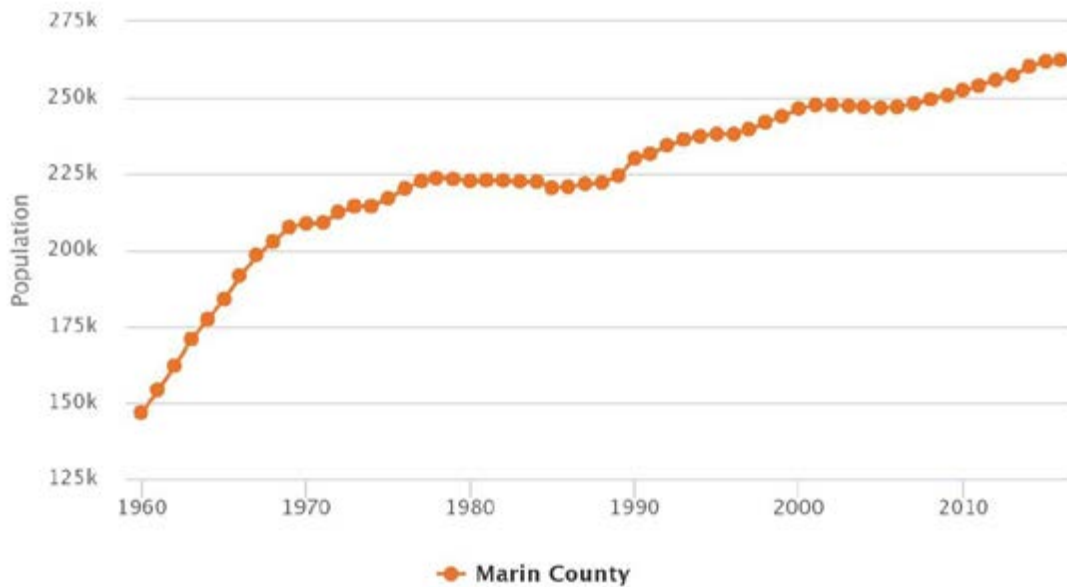
1

 Municipality

 Total number of local jobs

GETTING AROUND MARIN

Figure 4 Marin County Population Growth, 1960-2015



Source: Vital Signs, <http://www.vitalsigns.mtc.ca.gov/population>

HOUSING

The Association of Bay Area Governments' Regional Housing Needs Allocation (RHNA) calls for 187,990 units to be built in the Bay Area during the next eight-year period (2014-2022). During the last RHNA cycle, Marin County's cities and towns permitted 32% of the growth forecasted during the 2007-2013 period. This low growth in housing is due to many factors, including the nationwide downturn in residential building associated with the Great Recession.

During the current 2014-2022 RHNA cycle, Marin County's projected growth was the second lowest of all counties in the Bay Area, and was reduced by 52% compared to the previous 2007-2013 RHNA cycle. Marin County will accommodate less than two percent of Bay Area growth (see Figure 5).

Figure 5 Regional Housing Need Allocation, 2014-2022

	2007-2014 RHNA	2014 -2022 RHNA	% CHANGE
Belvedere	17	16	-6%
Corte Madera	244	72	-71%
Fairfax	108	61	-44%
Larkspur	382	132	-66%
Mill Valley	292	129	-56%
Novato	1,241	415	-67%
Ross	27	18	-33%
San Anselmo	113	106	-6%
San Rafael	1,403	1,007	-28%
Sausalito	165	79	-52%
Tiburon	117	78	-33%
Unincorporated Marin County	773	185	-76%
County Totals	4,882	2,298	-53%

Source: Association of Bay Area Governments

Future housing supply plans call for development to be in the largest Marin cities of San Rafael and Novato, accommodating 44% and 18% of the Marin's total development, respectively. Other housing development is anticipated throughout the remaining municipalities.⁹ Development activities in Marin, as manifest in the number of building permits issued, fell below RHNA housing allocations in the 2007-2014 period (see Figure 6). Belvedere and Corte Madera were the only municipalities meeting or exceeding the local RHNA forecasts, while most others issued permits for less than half of their RHNA housing allocations.

⁹ Association of Bay Area Governments, Regional Housing Need Plan for the San Francisco Bay Area: 2014-2022, http://www.abag.ca.gov/planning/housingneeds/pdfs/2014-22_RHNA_Plan.pdf.

GETTING AROUND MARIN

Figure 6 Building Permits Issued, 2007-2014

	2007-2014 RHNA	PERMITS ISSUED	PERCENT OF RHNA MET
Belvedere	17	20	118%
Corte Madera	244	263	108%
Fairfax	108	13	12%
Larkspur	382	136	36%
Mill Valley*	292	163	56%
Novato	1,241	322	26%
Ross	27	8	30%
San Anselmo**	113	36	32%
San Rafael	1,403	167	12%
Sausalito	165	48	29%
Tiburon*	117	12	10%
Unincorporated Marin County*	773	355	46%
County Totals	4,882	1,543	32%

Notes:

* Jurisdiction opted to have 2014 permits counted towards its 2014-2022 RHNA allocation

** Data is available only for 2014

Source: Association of Bay Area Governments

Marin County has 112,295 housing units,¹⁰ and experiences high median home values at \$785,100,¹¹ resulting in limited opportunities for low and middle-wage workers to live in the county. According to a recent UC Davis Study,¹² approximately 8% of the rental and owner-occupied housing in Marin is classified as affordable, with approximately 7,610 housing units. At the same time, low-wage jobs account for roughly 23% of the workforce, or 23,669 jobs.¹³ This unmet need for affordable housing is likely to increase the distance driven for low-wage and other Marin workers who live outside of Marin County.

10 American Community Survey, 2014 estimate.

11 American Community Survey, 2010 – 2014 Five-Year Estimates

12 Metropolitan Transportation Commission. 2016. "UC Davis Jobs-Housing Fit (JHFIT) Ratio Indicators." <http://mtc.ca.gov/our-work/fund-invest/federal-funding/obag-2> Retrieved from http://mtc.ca.gov/sites/default/files/UC_Davis_Jobs_Housing_Fit.xlsx

13 For the purposes of this analysis, affordable rental units are defined as rental units priced at less than \$750 per month; affordable owned units are defined as owner-occupied or vacant for sale housing units valued at less than \$150,000; and low-wage jobs are defined as those jobs with earnings of \$1,250 per month or less.

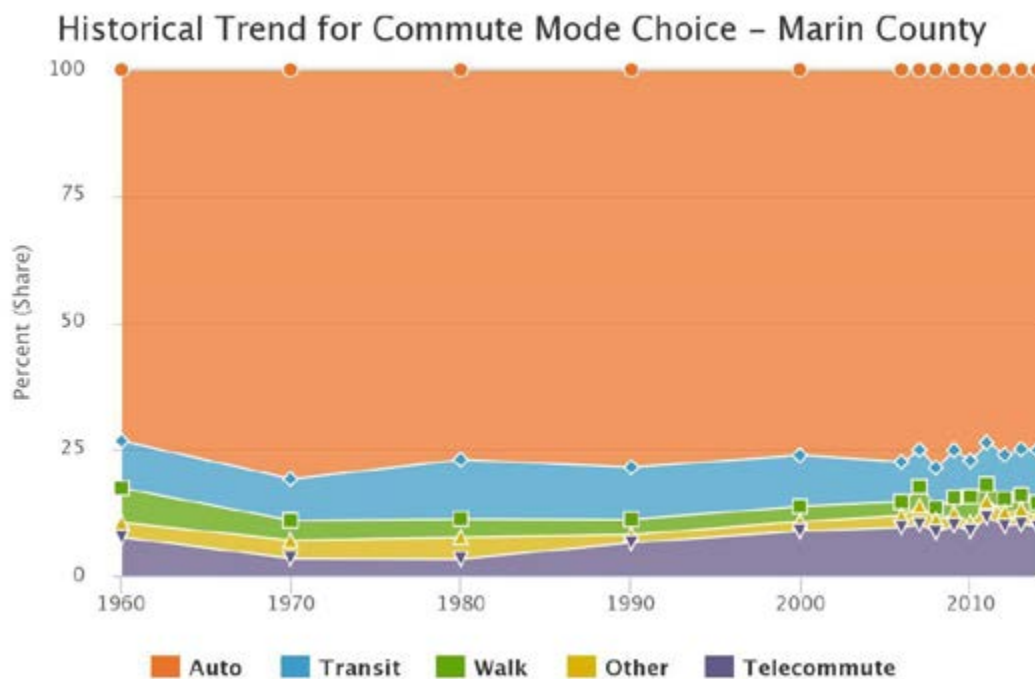
TRANSPORTATION

TRAVEL BEHAVIOR

Marin's current transportation network includes the roads, transit services, and bike networks that support travel through and across the county. As of 2015, approximately 79% of commute trips were made by car, 10% by transit, and 5% by bike or walking. About 10% of people in Marin County telecommute and do not generate commute trips (see Figure 7).¹⁴ These numbers have been relatively consistent over the past few decades.

¹⁴ Vital Signs, Commute Mode Choice – Marin, <http://www.vitalsigns.mtc.ca.gov/commute-mode-choice>.

Figure 7 Marin Commute Mode Choice



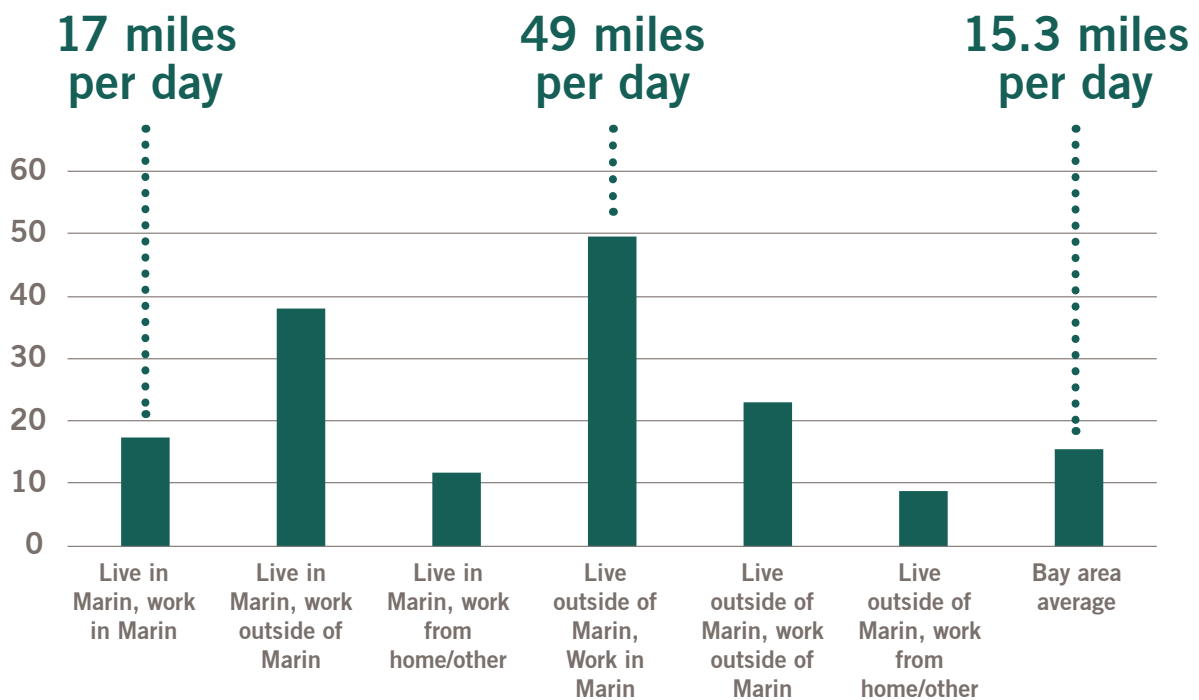
Source: Vital Signs

GETTING AROUND MARIN

Estimates for daily per capita vehicle miles traveled (VMT) show that Marin residents who work in the county drive approximately 17 miles per day, significantly less than non-resident workers who drive approximately 49 miles per day.¹⁵

¹⁵ Bay Area Air Quality Management District. 2015. Vehicle Miles Traveled by Jurisdiction. <http://capvmt.us-west-2.elasticbeanstalk.com/>

Figure 8 Daily Per Capita Vehicle Miles Traveled (VMT)



Source: Metropolitan Transportation Commission, 2010
Note: for non-commercial passenger vehicle miles only

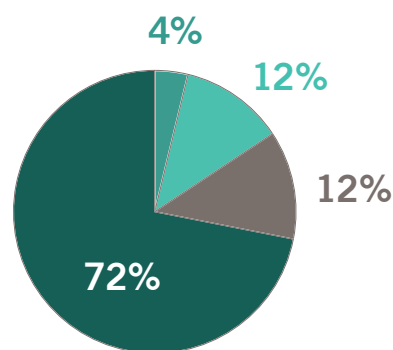
In 2017, TAM released its most significant undertaking to date to understand local and regional travel behaviors, with a comprehensive look at the origin and destinations of Marin's residents, workers, and visitors.

Marin residents account for the primary usage of our local road system, with approximately 72% of trips made locally, starting or ending within the county. As a central part of the Bay Area economy, Marin's highways and roadways also carry trips that pass through the county, starting and ending outside of Marin. These trips passing through the County account for roughly 4% of morning and afternoon peak period trips.

Marin experiences significant peak-directional traffic impacts from flows of workers across county lines. The most significant of these commute flows include in-flows of workers from Sonoma County (35.3% of in-flows, or 15,958 workers) and Contra Costa County (18.4% of in-flows, or 8,315 workers) and out-flows of workers into San Francisco at (61% of out-flows, or 24,331 workers).¹⁶ These directional flows have significant impacts on many of our heaviest traveled corridors, including southbound Highway 101 in the morning, and northbound Highway

¹⁶ American Community Survey, 2010-2014 Five-Year Estimates.

Figure 9 Afternoon Vehicle Trips (3-7pm)



- Passing through Marin County
- Trips entering Marin County (start elsewhere)
- Trips leaving Marin County (start in Marin)
- Intra-county trips (start and end in Marin)

101 and eastbound I-580 in the afternoon. Marin also experiences large visitor and recreational trip volumes during weekend and off-peak hours, especially for access to the Golden Gate National Recreation Area in southern Marin, where volumes on Saturdays and Sundays approach weekday peaks. Additionally, Marin serves as gateway to the Redwood Empire, and Highway 101 experiences heavy volumes on Fridays and Sundays, as visitors travel to various vacation destinations in the North Bay.



Aerial view of the Central Marin Ferry Connector

GETTING AROUND MARIN

Additionally, due to the County's location across the Bay from major economic centers of San Francisco and Oakland, Marin residents have average daily trip lengths that are 17% longer than the Bay Area average. Of all of Marin's jurisdictions, Novato has the longest average trip length. At the same time, many of the local Marin County trips are short, with 57% of the trips within the county under five miles.

The Highway 101 corridor is the most frequently congested roadway in Marin County, with other areas of high congestion along major arterials. At locations on Highway 101, volumes can exceed 200,000 vehicles per day. Volumes are a function of roadway capacity, and the highest volumes are recorded in central Marin, north of San Rafael (both on Highway 101 and primary arterials), where significant roadway supply provides capacity.

In many cases, county gateways are among the most congested roadways in Marin during the peak commute periods. During the morning peak hours, the 11th worst commute of the Bay Area occurs on southbound Highway 101 between Rowland Boulevard and Lincoln Avenue (including the Highway 37 and I-580 interchanges).

Vehicle delay is also high on the southbound approach to the Golden Gate Bridge during morning commute hours. During the afternoon peak hours, vehicle delay in southern Marin on Highway 101 backs up from the Richmond-San Rafael Bridge approaches towards Sausalito; on northbound Highway 101, travel into Sonoma County during evening commute hours also faces significant delays. The eastbound approaches to the Richmond-San Rafael Bridge are regularly congested during the afternoon commute period, with segments of Highway 101 near the bridge approach are congested during both morning and afternoon commute periods. Figure 7 illustrates frequently congested road segments with highest traffic volumes during morning and afternoon commute hours.

There are 243,069 registered vehicles, or approximately 1 car per resident and 2.2 vehicles per Marin household.¹⁷ Approximately 75% of commuters drive alone,¹⁸ with an average travel time to work of 29.4 minutes.



Figure 10 Regional Commute Patterns in Marin County



GETTING AROUND MARIN

Road Network

Marin County has a predominantly rural and suburban development pattern, and with the hilly terrain, opportunities for north-south or east-west travel are limited. This topography presents challenges for multiple forms of transportation infrastructure, from operating transit service to large capital projects. Roadways serve as the basis for our local transit systems, provide critical connections for pedestrians and bicyclists, and they are a critical portion of our transportation network for all users.

The lack of redundancy available in the network means that many Marin communities rely upon just a single highway or arterial road to connect with employment centers or other major travel generators. Congestion often occurs during peak hours on the handful of major travel corridors such as Highway 101, the Richmond-San Rafael Bridge, and Sir Francis Drake Boulevard, along with the interchanges that connect our local roads to our highways. See Figure 9 for Marin's primary road and highway network.

Many of our local roadways connect local neighborhoods, but do not provide alternate routes between cities and across the county. Roads throughout the county are aging, with poor pavement conditions and limited multimodal facilities.

In 2016, MTC estimated that \$890 million is needed beyond currently available revenues to bring Marin's roadways up to State of Good Repair levels. In addition, on our highways and roadways along the Bay, the network is susceptible to damage from flooding and sea level rise impacts. Highway 37 in Marin flooded during the winter of 2017, causing unprecedented closures for three weeks and severely disrupting travel options between Marin County and Sonoma, Napa, and Solano Counties. Risk of flooding on Highway 37 and other Bay frontage roads, including Highway 1 in southern Marin, continues to increase along with sea level rise and unpredictable weather patterns.

In the fall of 2017, a third lane will open on the Richmond San Rafael Bridge in the eastbound direction during peak hours, and is expected to provide congestion relief for many Marin workers living in the East Bay. This major change is also supported by a pair of ongoing projects on the approaches to the Richmond-San Rafael Bridge, which will improve access to the bridge's third lane by improving the Bellam Boulevard off-and on-ramps to I-580 and Sir Francis Drake Boulevard.



Highway 37 flooded in Marin during winter 2017



Larkspur Ferry Terminal

Figure 11 Marin's Primary Road and Highway Network



GETTING AROUND MARIN

Transit

The hilly terrain and suburban development in Marin makes it difficult to provide bus service to many outlying residential communities. As a result, most bus service is concentrated along Highway 101 and major arterials. Additionally, many residents drive to park-and-ride facilities, which are often over capacity, to access transit and ferry service.

Marin County is served by both local fixed route and regional transit service, including bus, ferry, and the new Sonoma-Marín Area Rail Transit (SMART) commuter rail service. The main transit providers in Marin are:

- Marin Transit: Local fixed-route, paratransit and ADA services, Senior Mobility programs, community shuttle, supplemental school, rural fixed-route, and Muir Woods Shuttle services
- Golden Gate Transit: Regional and express bus service with connections to San Francisco, Contra Costa, and Sonoma Counties
- Golden Gate Ferry: Regional ferry service to San Francisco County
- SMART: Regional commuter rail service, expected to begin in 2017 with service between Marin and Sonoma Counties
- Marin Access Paratransit, Dial-a-Ride (demand-response), volunteer driver, and subsidized taxi (catch-a-ride) services administered by Marin Transit

Primary or high ridership bus routes are summarized in Figure 12 and Figure 13, and all transit including bus, ferry, and SMART rail routes are illustrated on Figure 14.

Marin Transit is the primary provider of bus transit service for trips that begin and end in Marin County. Golden Gate Transit is the primary provider of regional bus and ferry services, connecting Marin and Sonoma Counties with San Francisco and the East Bay. Combined, the operators serve a total of approximately 3.5 million passengers annually, system-wide. In addition to local and rural fixed-route services, Marin Transit operates Marin Access, which offers curb-to-curb, Dial-a-Ride (demand-response), volunteer driver, and subsidized taxi (catch-a-ride) services for senior and disabled residents and to residents in several of its more rural communities, including Point Reyes, Dillon Beach/Tomales, Novato, and Muir Woods.

Travel between Marin County and San Francisco is an important aspect of Marin's transportation network. Transit routes that provide a direct connection to San Francisco have the highest ridership. Golden Gate Ferry provides service between Marin and San Francisco; between 2005 and 2015, ridership increased 50% at the Sausalito terminal and 30% at the Larkspur Terminal.

Regional bus transit services are provided by the Golden Gate Bridge Highway and Transportation District (GGBHTD) under the banner of Golden Gate Transit, which serve 3.7 million passengers per year (regional bus routes only). Ferry Services provided by Golden Gate Ferry serve 2.5 million passengers annually out of the Larkspur and Sausalito ferry terminals and recently expanded to Tiburon. Regional bus services are available primarily along Highway 101, with regional commute bus routes serving Mill Valley, Novato, and the Sir Francis Drake corridor.

Figure 12 Golden Gate Transit Bus Routes with Highest Ridership (Fiscal Year 2015)

ROUTE	DESCRIPTION	ANNUAL RIDERSHIP (FY13/14)
Route 70	Novato – San Rafael – San Francisco	720,467
Route 101	Santa Rosa – Novato – San Francisco	490,614
Route 80	Santa Rosa Novato – San Francisco	161,839
Route 4	Mill Valley – San Francisco	352,695
Route 54	San Marin – San Francisco	200,512

Source: Golden Gate Transit SRTP, <http://goldengatetransit.org/services/documents/srtp-fy2017-2026.pdf>

Local bus services are provided by Marin Transit, and serve 3.5 million passengers per year, including a number of demand responsive and senior mobility programs.



Figure 13 Marin Transit Bus Routes with Highest Ridership (Fiscal Year 2013/2014)

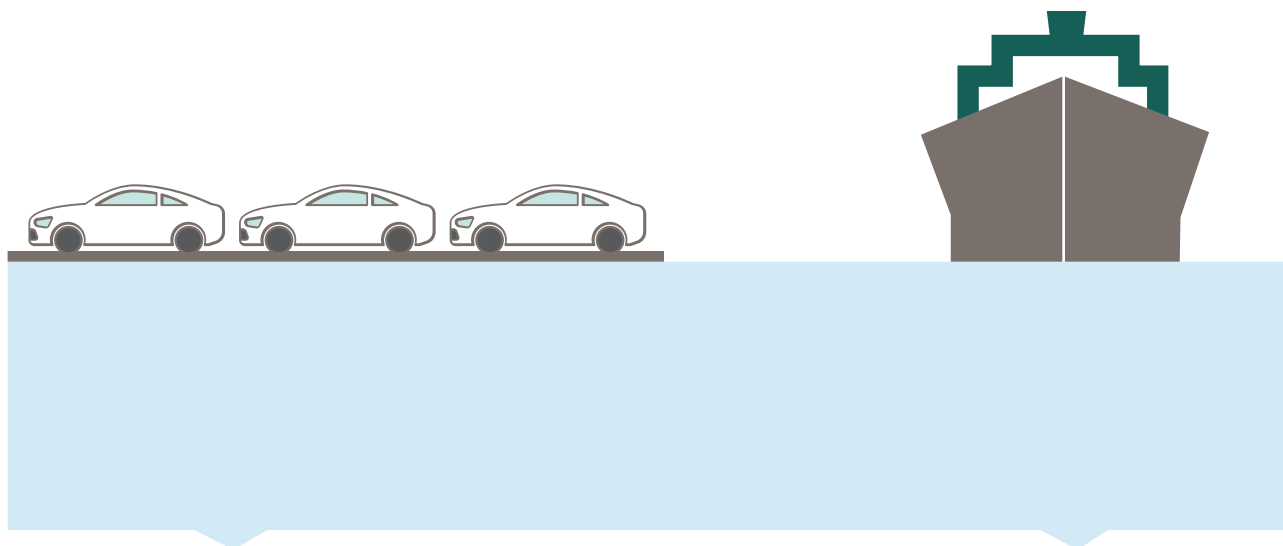
ROUTE	DESCRIPTION	ANNUAL RIDERSHIP (FY13/14)
Route 35	Canal – San Rafael	574,669
Route 71	Highway 101 Corridor	341,105
Route 23	Fairfax – San Rafael – Canal	339,118
Route 17	Sausalito – Mill Valley – San Rafael	322,826
Route 22	San Rafael – Marin City	281,761

Source: Marin Transit SRTP, http://marintransit.org/pdf/SRTP/2016-2025/2016-2025SRTP_FINAL.pdf

Marin Transit also operates the Muir Woods Shuttles on weekends, which move approximately 103,052 weekend visitors. Supplemental school bus service provided by Marin Transit operate during school hours. Ridership ranges from approximately 4,026 annual passengers on Route 139 (Lucas Valley to Terra Linda High School) to 39,537 annual passengers on Route 151 (San Jose Middle School to Novato High School to San Marin High School).

In 2016, MTC released estimates of revenue needs to bring the transit system up to State of Good Repair and maintain that level for the 24 year period from 2017 through the Plan Bay Area forecast year of 2040. Golden Gate Ferry and Transit systems would require an estimated \$707 million, and Marin Transit would require \$106 million above currently identified funding levels to reach this level.

GETTING AROUND MARIN



10,300

During Fiscal Year 2016/2017, there were approximately 10,300 passenger trips per weekday on Golden Gate Transit routes serving the Highway 101 corridor. This includes passengers traveling in or through Marin County, but not to/ from the East Bay.

50%

Between 2005 and 2015, Golden Gate Ferry ridership increased 50% at the Sausalito Terminal and 30% at the Larkspur Terminal.



“Marin Transit local riders have a significantly lower income and a lower proportion identify as white/ Caucasian compared to all Marin County residents.”²⁰

²⁰ Marin Transit, 2016-2025 Short Range Transit Plan, July 2015.

Figure 14 Marin Transit Routes



GETTING AROUND MARIN

Walking and Biking

The Marin County bicycle network includes both regional and local networks consisting of shared lanes, on-street bike lanes, and off-street paths. Southern Marin County sees a heavy influx of recreational bicyclists on weekends, an economic generator for local shops and communities.

Regional bike networks in Marin include the North-South Greenway, the Bay Trail, the Cross Marin Trail, and the Marin Headlands Trails. Primary challenges for the walking and biking communities include crossing Highway 101 and accessing regional transit facilities on Highway 101, traversing downtown San Rafael, and flooding from sea level rise on the Mill Valley Sausalito Pathway.

Our local jurisdictions develop local bike and pedestrian plans prioritizing local and regional improvements to the bike and pedestrian network. Marin's hilly terrain and indirect travel routes limit the range of walking trips connecting residential neighborhoods and jobs, services, and recreation areas. Crashes involving pedestrians and bicyclists occurred most frequently in Sausalito and along Sir Francis Drake Boulevard, between San Rafael and Fairfax. Cities and neighborhoods along the Highway 101 corridor have lower pedestrian mode shares in relation to the county as a whole, though there are pockets with higher trips in larger town centers. Communities with above-average walking mode shares include San Anselmo (10%), Strawberry (10%), Marin City (9%), and San Rafael (8%).²¹

²¹ American Community Survey 2011-2015 Five-Year Estimates. Table B08301

“Marin has reduced annual VMT by an estimated 7.9 million miles, or more than 21,000 miles each day, through investments in our bike and pedestrian networks¹⁹.

¹⁹ Marin Department of Public Works. 2014. Nonmotorized Transportation Pilot Program (NTPP). <https://www.marincounty.org/main/county-press-releases/press-releases/2014/nonmotorized>



Tennessee Valley Bike Path



The recently opened Central Marin Ferry Connector in Larkspur



Cyclists ride on bike path



More than
50 School Districts
now participate

83 Crossing
Guards



34 yellow school
buses operating



Source for the 83 crossing guards data point: (<https://www.tam.ca.gov/projects-programs/crossing-guard-program/>)

Number of schools participating in SR2S: Transportation Authority of Marin, Marin County Safe Routes to schools Program Evaluation Report, 2016 (<https://www.tam.ca.gov/projects-programs/safe-routes-to-school/>)

Number of yellow school buses operating: 34 (<https://www.marincounty.org/~media/files/departments/bs/district-1/2016/coordinated-countywide-school-transportation-workshop-presentation-marin-transit-12115.pdf?la=en>)

School Transportation

Marin County is a leader in expanding transportation choices for school trips, with an award-winning Safe Routes to Schools program that has been in place since 2000 and includes 52 schools.²² Currently, 11 school districts participate in the Safe Routes to School program, a primary goal of which is to encourage non-driving trips to school and reduce congestion, and five school districts offer yellow school bus service. Countywide, there has been an 8% mode shift from single-student vehicle trips to sustainable modes; the county as a whole has maintained over 50% non-drive school trips between 2011 and 2015.²³

²² Transportation Authority of Marin, Marin County Safe Routes to Schools Program Evaluation, November 2013, <http://www.tam.ca.gov/Modules/ShowDocument.aspx?documentid=4517>.

²³ Ibid.



GETTING AROUND MARIN

School districts further encourage non-driving travel alternatives through participation in Marin Transit's Youth Pass program, which offers discounted transit passes to registered students under 18 years of age. Eight school districts participate in Marin Transit's Youth Pass program and five school districts receive transportation services through Marin Transit.

In addition to these services, Marin Transit, Marin County Office of Education, and TAM participated in the development of a coordinated yellow school bus plan, to support local jurisdictions in determining effective local yellow school bus routes. As a result of this process, the Ross Valley, Tiburon peninsula, and Mill Valley have all instituted pilot yellow school bus services in their communities, in addition to the district provided yellow school bus services in San Rafael and West Marin. In communities and school districts where Safe Routes walking and

biking programs are not feasible, school district decisions on transportation-related topics like bell times, school calendars, district boundaries, and enrollment policies supporting neighborhood schools play a large role in the support available for school transportation services.



Students promoting TAM's Safe Routes to Schools Programs



School bus service on the Tiburon Peninsula

Senior Mobility

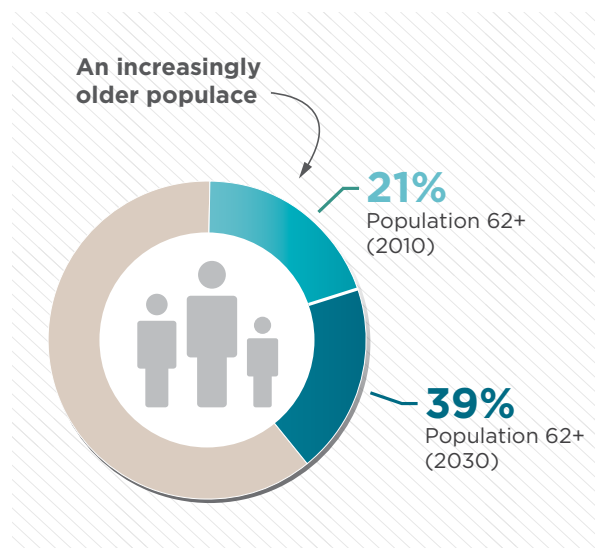
The average age of residents in Marin County is the oldest among Bay Area counties, and the population is aging faster than the rest of California. The number of senior Marin County residents – those over the age of 65 – has doubled since 2000 and is projected to increase an additional 41% over the next decade. As these residents live longer, and shift their travel behavior to rely on non-driving modes, there will need to be cost effective and convenient options to keep this population active, healthy, and engaged with our community.²⁴

Marin Transit provides a mobility management program called Marin Access that provides transit service and information for older adults and persons with disabilities. The Travel Navigators Program is part of Marin Access and serves as a one-stop resource for transportation information and eligibility that is available to senior, disabled, and low-income residents who are unable to drive themselves. The Travel Navigators program has a telephone hotline where trained guides provide personalized recommendations on the transportation programs best suited for individuals' unique needs and assist customers through the eligibility and application processes.

²⁴ Marin Transit, Internal Study of Marin Transit's Mobility Management Programs, June 2016, http://www.marintransit.org/pdf/planning/Draft_Senior_Study.pdf.

The following senior transportation services are available in Marin:

- Marin Access Paratransit (operated by Whistlestop Wheels) provides local and inter-county trips
- Volunteer Driver programs that provide 1,300 rides per month to seniors who have difficulty using fixed-route or paratransit programs
- Catch-a-Ride “voucher-less” discount taxi service, which provides 1,878 rides per month
- Golden Gate Transit's Paratransit, which provides inter-county service between Sonoma, Marin, and San Francisco Counties

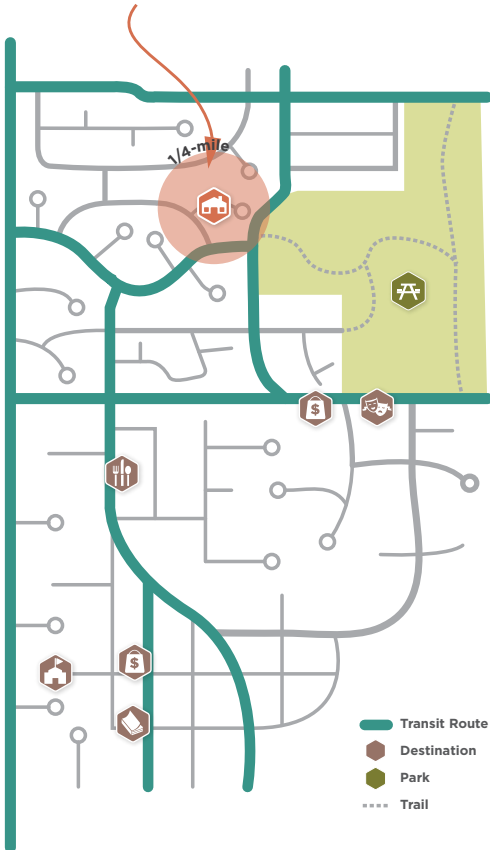


GETTING AROUND MARIN

Seniors prefer fixed route service in Marin.

7%
are transit riders

77%
live within ¼ mile of a bus stop



ADA-eligible riders who are low-income and receive Social Security are eligible for 20 free rides within Marin County per quarter, thanks to funding from Marin's Measure B vehicle registration fee. Measure B also funds the Catch-a-Ride discounted taxi service.

03

Public Participation and Outreach

Since its founding as the Congestion Management Agency and Sales Tax Authority for Marin County, TAM has continued to work closely with local jurisdictions, elected officials, transit agencies, community-based organizations, and the general public to maximize input into both the regional and local planning efforts. The transportation vision presented in this report considers previous planning processes, an analysis of existing conditions, ongoing agency and stakeholder engagement including direct input from the community and broad outreach.



GETTING AROUND MARIN



The Bettini Transit Center in Downtown San Rafael

PUBLIC OUTREACH 2015

In 2015, TAM conducted extensive outreach to represent our local residents' priorities and related projects in MTC's Regional Transportation Plan update and to kick off the *Strategic Vision Plan* process. A public workshop, with over 80 participants, helped define the transportation projects and priorities considered by the TAM board, transit operators and local cities and towns. This workshop was widely publicized to reach a broad range of Marin communities. Outreach included:

- Interactive outreach efforts to various elected and community organizations
- An input solicitation survey (online and paper) with over 600 responses
- An informational booth at the Marin County Fair
- A public agency workshop for city managers, public works directors, and planning directors
- Flyer and fact sheet distribution
- Educational board items from January 2015 to June 2015 on transportation topics

The public outreach in 2015 identified a number of projects that were subsequently added to the Regional Transportation Plan, namely:

- Highway projects, including the 101/580 Direct Connector, completion of the Marin Sonoma Narrows, ramp metering, and interchange improvements
- Roadway projects, including improvements to local congested roads such as Tam Junction, Sir Francis Drake Boulevard, and Tiburon Boulevard/ East Blithedale Avenue
- Transit projects like the completion of SMART, improved East Bay and Sonoma bus transit connections, shuttles to major transit hubs, and additional ferry service

- Bike and pedestrian projects such as the North South Greenway, upgrading the bike path between Mill Valley and Sausalito, completion of the full SMART bicycle/pedestrian pathway project, the Grand Avenue Bridge connecting the Canal neighborhood to 2nd Street in San Rafael, and improvements to Andersen Drive and Sir Francis Drake Boulevard.

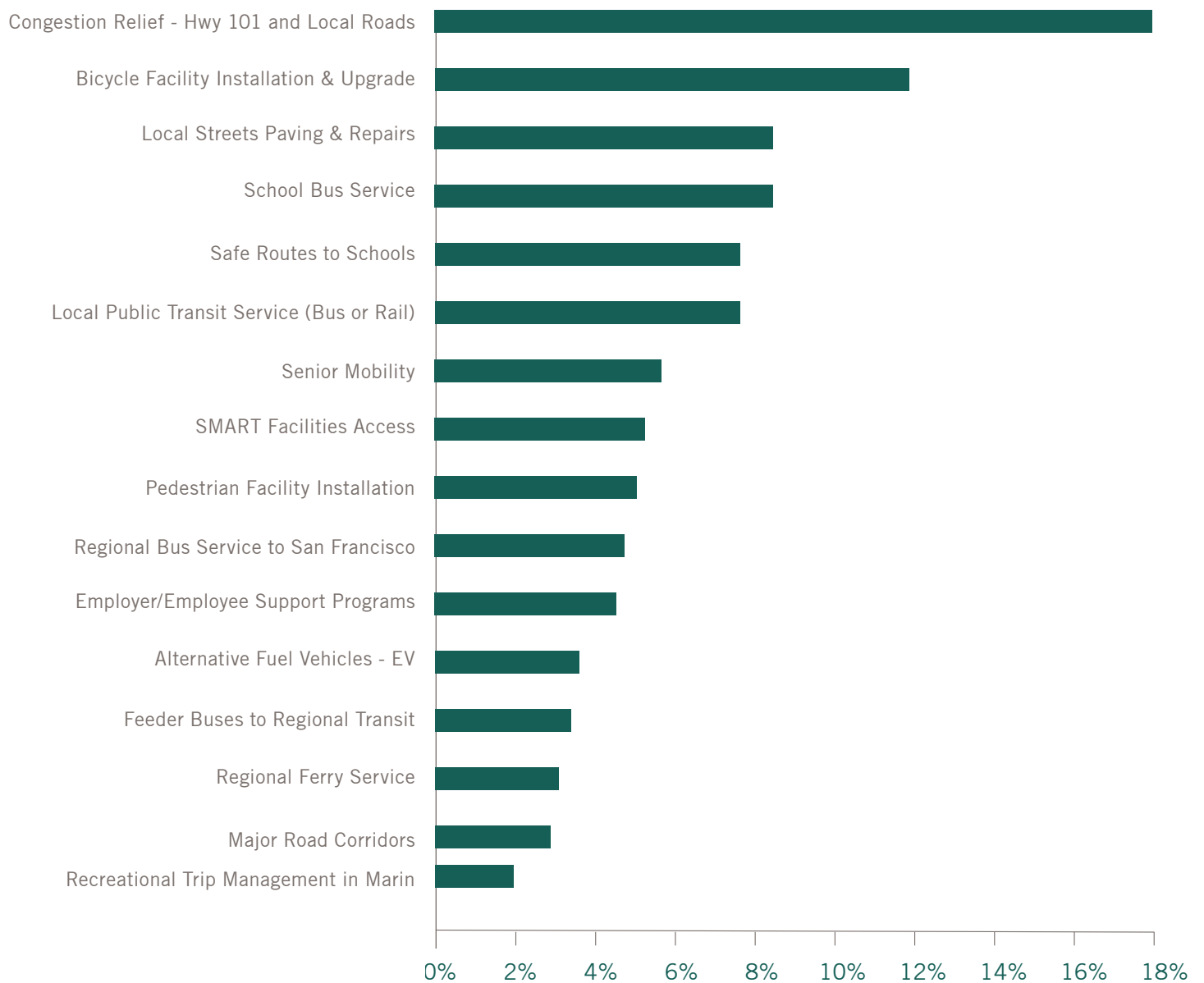
Additionally, this outreach identified the following considerations for funding:

- Enhanced senior transportation options
- School buses and transportation options for children
- Improved transit service, including increased transit speed, increased frequency, transit only lanes, reduced fares, and improved weekend service
- Programming for the disabled and those without a car
- Rehabilitation of the Alto Tunnel for bikes and pedestrians
- Additional parking, particularly in downtown San Rafael and the Larkspur Ferry Terminal area

Priorities in this original 2015 round of outreach were determined by the use of the "TAM Bucks" format, where limited funding was allocated to specified categories. TAM Bucks is a participatory budgeting survey in which Marin residents take part in a democratic process to directly decide how to spend part of TAM's transportation budget. This effort showed significant support for congestion relief (18.4%), bike facilities (11.5%), and local road repair (8.2%).

GETTING AROUND MARIN

Figure 15 Priorities



AGENCY COORDINATION

Based on the 2015 outreach discussion with the public about projects and priorities for our transportation system, TAM met with all of Marin's towns and cities in the summer of 2015 to discuss their long-range plans and projects for improving the transportation system in Marin County.

TAM evaluated each of these projects against the local adopted goals and objectives (see Chapter 1) and identified approximately \$1.4 billion in project needs. In 2016, MTC identified approximately \$225 million in funding anticipated for Marin's transportation projects by 2040, a substantial reduction in the amount of funding anticipated for Marin's transportation needs, including the following:

- No funding identified for the construction of the Highway 101 Direct Connector to I-580 (northbound to eastbound)
- Reduction of funding for Highway 101 Tiburon Boulevard /East Blithedale Avenue improvements
- Reduction of funding for local road maintenance, transit capital improvements, and bike and pedestrian projects countywide
- No funding for yellow school buses from existing transportation funding sources

Due to this decrease in funding, TAM and its partner agencies are facing increasing challenges in planning for improvements to our local roads, transit systems, and needed infrastructure upgrades to address growing congestion, access to jobs, and our changing transportation system.

TRANSPORTATION VISION ONLINE SURVEY

In the fall of 2016, TAM reached out to the public to understand individual preferences and values in moving around Marin. TAM partnered with local governments, transit agencies, and community groups across the county to distribute and encourage participation in an online survey, "Getting Around Marin." Administered in both English and Spanish, the survey invited Marin residents and commuters to identify transportation values and priorities, consider trade-offs between potential investments and policies, and provide feedback about local and regional mobility.

The Getting Around Marin survey received nearly 4,000 responses, nearly 90% of which came from Marin residents, and results were screened out for repeat submittals. Nearly half of survey respondents (46%) said that they both live and work in Marin.

The survey asked respondents to identify their top three most important values with respect to transportation, from the following: travel time, cost, flexibility, safety, comfort, and the environment. Of these values, the top three most commonly selected values were:

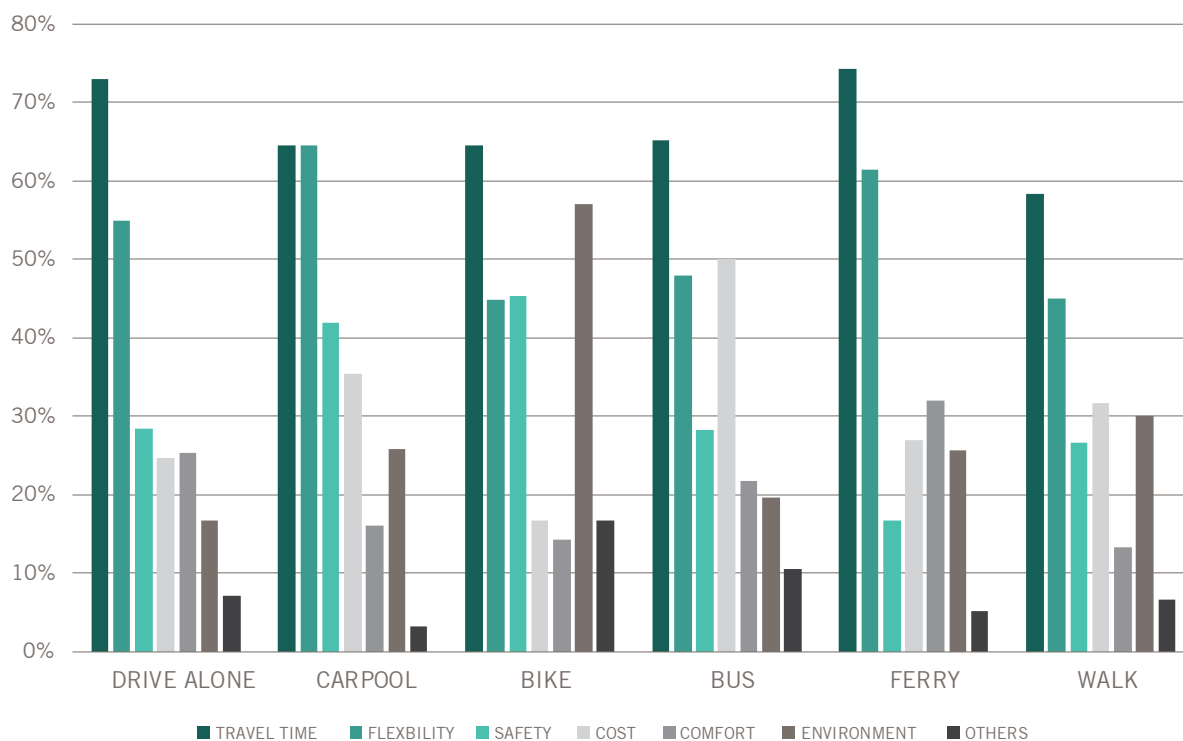
- Travel time (71% of all respondents)
- Flexibility (53% of all respondents)
- Safety (29% of all respondents).

GETTING AROUND MARIN

These top values remained remarkably consistent regardless of respondents' place of residence. Travel time is universally held as the most important transportation value, regardless of the mode of travel. However, other value differences are evident based on respondents' primary mode of travel. A majority of bus riders (50%) expressed cost as a top value, the only category of road users to make this choice. Bicyclists were about three times as likely as the general survey population to regard the environment as a top value (57% compared to 19%). They were also more likely to choose safety than those who primarily drive alone (45% and 28% made this value selection, respectively). Ferry riders were the only group to select comfort as one of

their top three values, with 32% of ferry riders making this choice versus 24% in the general survey population. Carpoolers were most likely to state flexibility as a top value (65% selected), compared to just 53% of all respondents who selected flexibility as their most important value. These results are summarized in Figure 15, which displays the percentage of respondents who selected each value as among their top three, sorted by their primary mode of travel.

Figure 16 Most Common Transportation Values by Primary Travel Mode





The survey highlighted variations in transportation values and investment priorities based on respondents' place of residence, age, and preferred mode of travel. Residents of more suburban areas reported transportation priorities and values distinct from residents of more rural areas.²⁵ Similar splits were observed between older and younger Marin residents. For instance, residents of more suburban Marin communities choose walking as a secondary travel mode at nearly twice the rate of residents of more rural communities, as shown in Figure 17. Marin residents over the age of 35 are twice as likely as those under 35 to choose bicycling as a secondary travel mode (Figure 21).

Survey respondents were also asked to indicate the extent to which they agreed or disagreed with a series of hypothetical mobility choice statements using a numeric scale, zero to 100, where zero indicates strong disagreement and 100 indicates strong agreement. An average score of 60, for instance, indicates that roughly 60% of respondents agree with the statement, and 40% disagree. These hypothetical "trade-off" statements covered a wide range of travel options, and they help to illuminate the mobility-related values of Marin residents by compelling them to choose between two distinct options in plausible scenarios. The full results of these survey questions are shown in Figure 18.

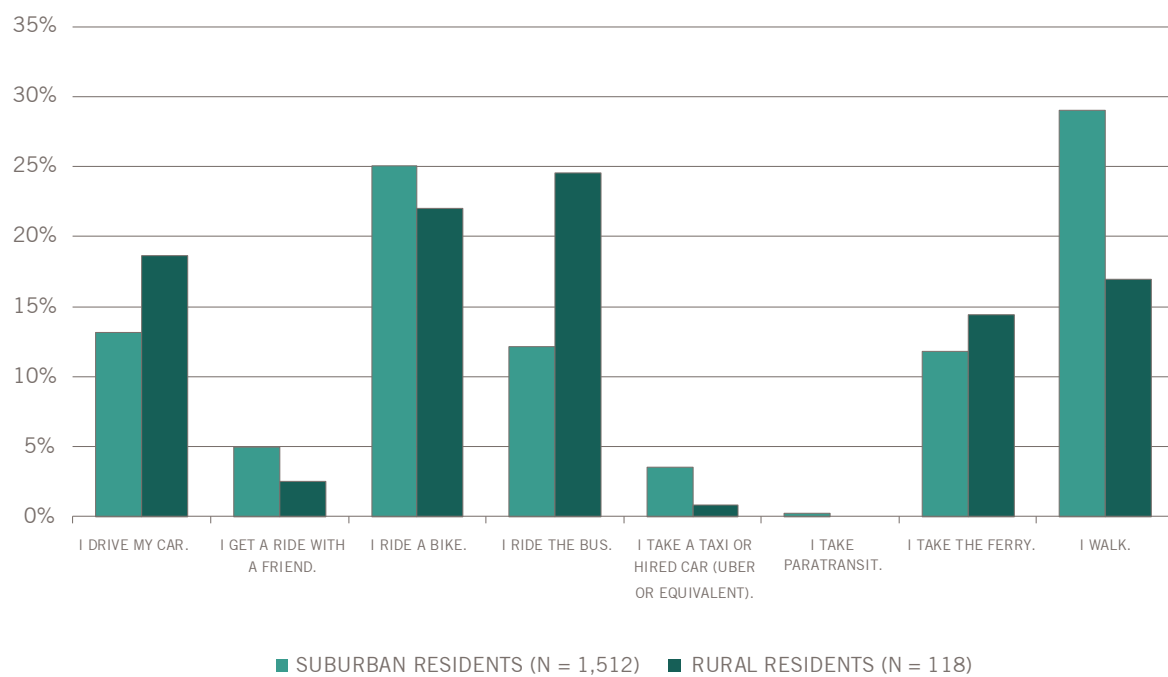
²⁵ Suburban areas are defined as the communities of Belvedere, Corte Madera, Fairfax, Kentfield, Larkspur, Marin City, Mill Valley, Novato, Ross, San Anselmo, San Rafael, Sausalito, Strawberry, and Tiburon. All other communities were classified as "rural."

GETTING AROUND MARIN



Princess Drive in Sausalito

Figure 17 Secondary Mode Split, by Place of Residence



General themes of feedback collected from those surveyed are grouped according to the corresponding travel mode(s) below:

TRANSIT

While just 4% of Marin residents report taking transit as their primary form of travel (as shown in Figure 20), the survey showed transit is increasingly common as a secondary mode among both younger and rural demographics. Rural residents are more likely to choose transit as their secondary mode than suburban residents (24% vs. 12%, respectively). Transit is also a more common secondary travel mode among younger respondents (under 35); 20% of those between the ages of 18 and 35 take the bus as a secondary mode, compared to just 12% of those over 35 and 11% of those over 65 (Figure 21).

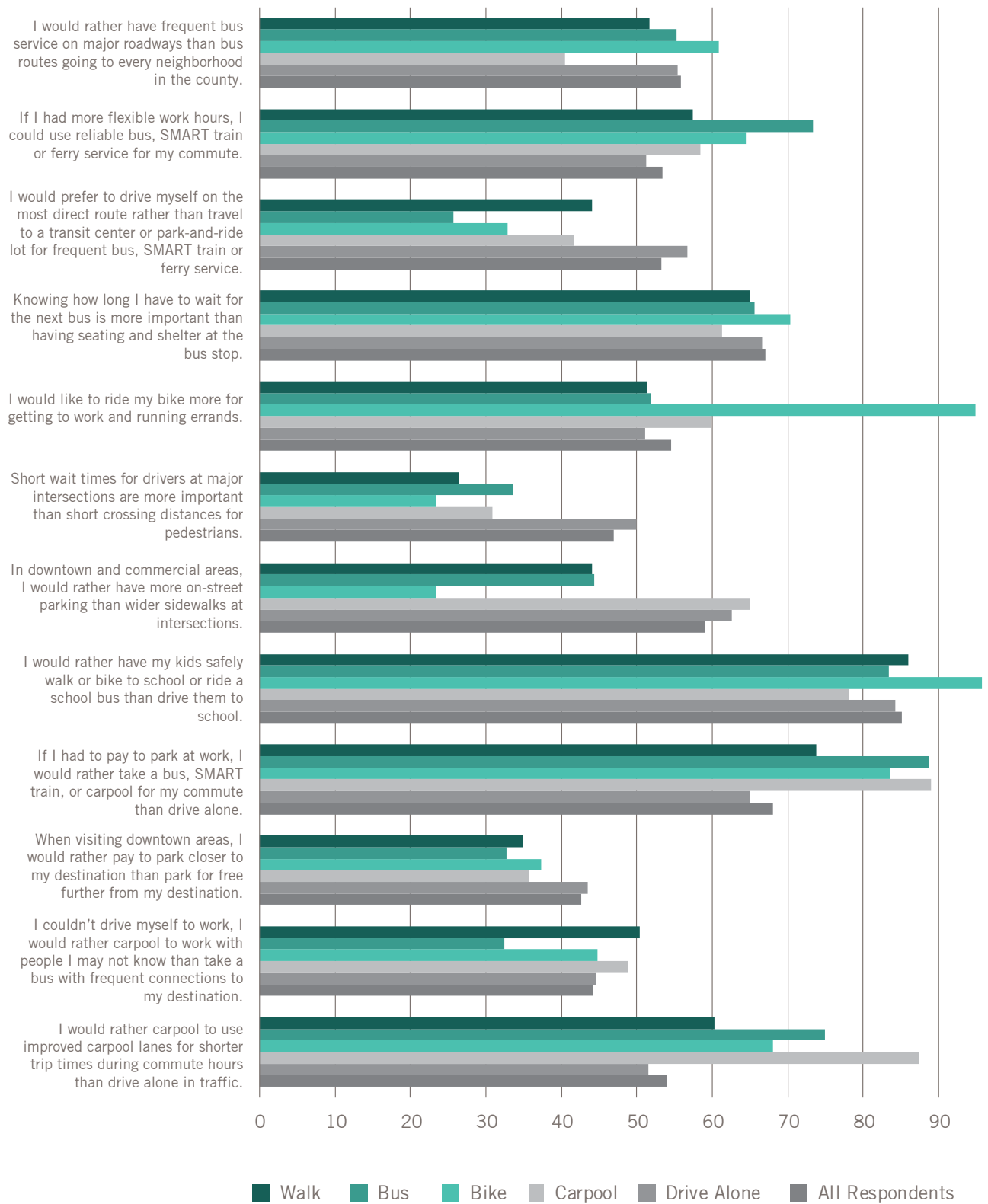
The survey asked respondents to indicate their preference in a tradeoff between installing real-time information displays and providing additional seating at bus stops (Figure 18). Real-time arrival information is a highly sought-after transit amenity and widely preferred over seating at bus stops. This preference is especially strong for residents age 18 to 35 and those who take transit occasionally, and it may be an effective incentive for occasional transit riders to ride more regularly. While preference for real-time arrival information over bus stop seating is strong across all groups, occasional bus riders exhibit the strongest preference in this area. Three-quarters of occasional bus riders prefer real-time arrival information, compared to a 67% among those who regularly drive alone and 66% among regular bus riders. Respondents age 18 to 35 were most likely to favor real-time arrival information over bus stop seating (76% support), while 66% of those over 35 and 55% of older adults over 65 preferred real-time information.



Marin Transit bus stop in Marin City

GETTING AROUND MARIN

Figure 18 Percent of Respondents Who Agree with the Following Statements, by Primary Travel Mode



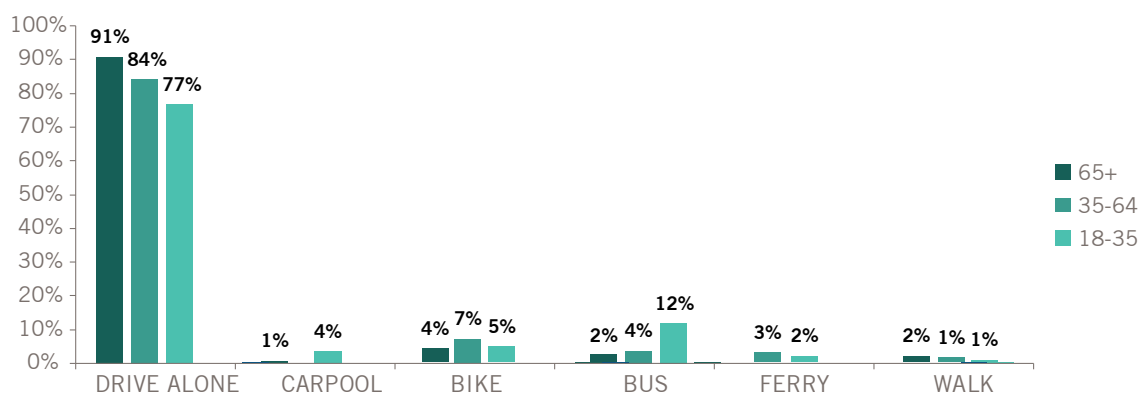
ROADWAY AND HIGHWAY PROJECTS

The most dominant mode of travel in Marin County is driving alone (Figure 20), though the extent of its dominance is slowly declining as younger adults increasingly pursue transit, walking, and biking. About 85% of Marin residents in both suburban and rural areas get to work by driving alone. Driving alone is also the predominant mode among non-resident workers traveling to Marin (88%), likely due to the longer trip distances and lack of transit connectivity between their origins and destinations. However, alternatives to drive-alone travel are more popular among younger Marin residents; just 77% of Marin residents between ages 18 and 35 get around by driving alone, compared to 84% of residents between the ages of 35 and 64 and 91% of residents over 65. This demographic shift in primary travel modes is shown in Figure 19.

Figure 20 Primary Mode Split of Survey Respondents



Figure 19 Primary Mode Split of Survey Respondents, by Age Group



GETTING AROUND MARIN

Having to pay for parking at work is a strong stimulus for residents of all demographic groups to use alternative modes of travel. The survey shows a broad preference for taking transit or carpooling over paying for parking at work. As shown in Figure 18 more than two-thirds (68%) of respondents would prefer to take transit or carpool over paying for parking at work. While carpooling is a generally unpopular travel mode in Marin - less than two percent of respondents travel around Marin regularly this way - residents between 18 and 35 years old show an above-average preference to carpool over paying for parking at work, compared with other groups. Respondents of the 18-35 demographic, are nearly twice as likely as adults over 65 to prefer carpooling or taking transit over paying for parking at work. This indicates that parking management strategies tailored for major employers or retail business districts may have significant impact on reducing drive-alone commuting.

Several respondents commented that the carpool lanes on Highway 101 are often as congested as the general traffic lanes. Abuse of carpool lanes by single-occupancy vehicles is also a frequently mentioned challenge on the Highway 101 corridor.

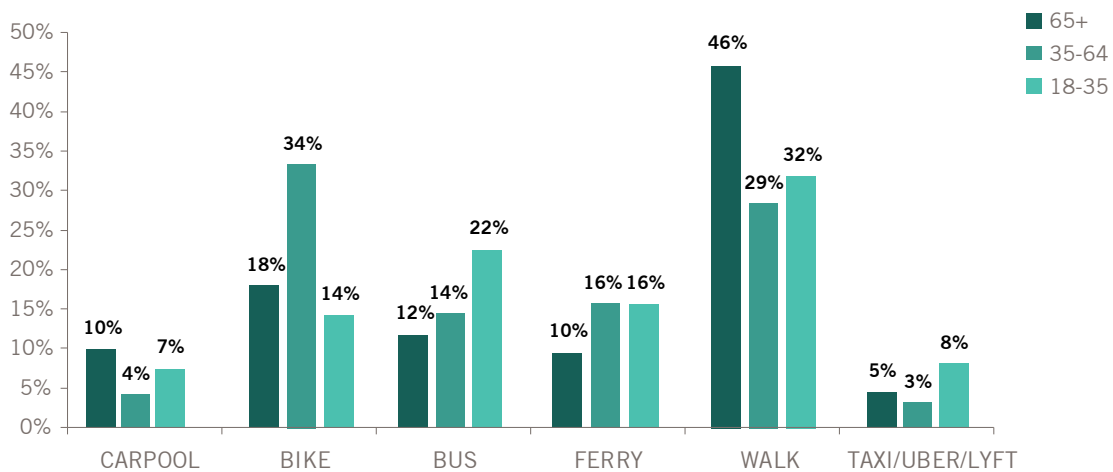
Congestion on Sir Francis Drake Boulevard is the most frequently-mentioned challenge to vehicular travel in Marin. Nearly 100 respondents mentioned the corridor by name as Marin's most significant transportation challenge. Concerns about congestion on Sir Francis Drake were most frequently mentioned in relation to access to Highway 101 and I-580. In particular, the lack of a highway-to-highway connection from Highway 101 northbound to eastbound lanes of I-580 causes significant congestion on arterial streets in Larkspur and San Rafael. Access to the Richmond-San Rafael Bridge is a regional bottleneck and the focal point of many respondents' perceptions of congestion in Marin. Residents and commuters alike believe long queues on the approach to the Bridge are the cause of much of the congestion on northbound Highway 101 in southern Marin, especially during peak commute times.

ACTIVE TRANSPORTATION/ SAFE ROUTES TO SCHOOL

With its picturesque landscapes and extensive network of on-street bike lanes recreational trails, Marin County has a strong culture of recreational cycling. Biking as a primary mode of travel is relatively uncommon in Marin, with five percent of Marin residents reported that they mainly travel by bike (Figure 20).

As a secondary or occasional mode of travel, biking is more common. Biking accounted for more than a quarter (27%) of the secondary mode choices reported, second only to walking (32%). Biking as a secondary mode becomes more common as residents age; among respondents under 35, 13% say they bike as a secondary mode, while 26% of those over 35 said they bike occasionally (Figure 19).

Figure 21 Secondary Mode Split of Survey Respondents, by Age Group



Among bicyclists who reported biking as their primary or secondary travel modes, respondents shared a strong desire to bike more for non-recreational trips like commuting and running errands. Regular (primary) bicyclists expressed a nearly unanimous preference (95%) to ride more (Figure 16), while 86% of occasional (secondary) bicyclists favored doing so. The general Marin population as a whole, however, was neutral on this question, 55% of whom expressed preference to bike more for these types of trips. These findings suggest there is significant latent demand for non-recreational bike travel among Marin residents who already bike. However, increasing the prevalence of bike travel in Marin may require the support of targeted investments in bike infrastructure improvements to achieve two key behavior shifts: to persuade occasional bicyclists to bike with more regularity, and to encourage those who do not currently bike to become occasional bicyclists.

Respondents who primarily bike to get around Marin frequently stated that the lack of a safe, contiguous network of bike lanes and paths impeded their desire to bike more often. Many bicyclists strongly supported completing the Alto Tunnel, a proposed bike/pedestrian tunnel along a former rail corridor between Corte Madera and Mill Valley. Lower-cost, intersection-level bike improvements on arterial or residential streets may facilitate short, non-recreational cycling trips more than longer, segregated off-street paths. Respondents expressed support for intersection-level bicycle and pedestrian improvements at the following locations:

GETTING AROUND MARIN

- Bellam Boulevard, between Andersen Drive and Francisco Boulevard East
- Andersen Drive & 2nd Street
- Bike lockers at park-and-ride locations
- Protected bike lanes and walking paths along Sir Francis Drake Boulevard
- Civic Center Drive, between SMART crossing and San Pedro Road
- San Pedro Road, westbound between Highway 101 northbound ramp and Merrydale Road; eastbound between Pilgrim Way and Highway 101 off-ramp
- D Street corridor, particularly where it is mostly residential between Antoinette Avenue and 1st Street
- Blithedale Avenue/Tiburon Boulevard crossing over Highway 101



Sir Francis Drake Boulevard in Fairfax



Grant Avenue in Downtown Novato

Walking as a primary mode of travel is uncommon, due to the hilly terrain, low-density patterns of development, and lack of sidewalks in many areas of Marin. Less than two percent of respondents reported walking as their primary mode of travel. However, walking is the most common secondary or occasional mode of travel reported in the survey. Suburban residents are nearly twice as likely as those in rural areas to choose walking as a secondary travel mode (29% vs. 17%), as shown in Figure 19.

Intersection-level improvements to shorten crossing distances provide complementary benefits to bicyclists and pedestrians that both groups are about equally likely to support. The survey asked respondents to choose between shorter pedestrian crossing distances and shorter wait times for drivers at intersections. Bicyclists and pedestrians prefer shorter crossing distances over shorter wait times for drivers at intersections by an almost equal margin. As shown in Figure 16, 77% of cyclists and 74% of pedestrians prefer shorter crossing distances. Respondents who drive alone were neutral on this issue, as a slight majority (51%) preferred shorter wait times over shorter crossing distances.

The most noticeable divide on mobility-related values emerged based on respondents' preferred mode of travel, where regular bicyclists shared values that diverged from most other Marin residents. The survey asked respondents to choose between wider sidewalks at intersections and on-street parking in downtown areas, a trade-off between allocating additional roadway space for vehicles and reallocating space for other travel modes. Regular bicyclists are the only cohort that prefers wider sidewalks at intersections to more on-street parking in downtown areas. A clear majority of bicyclists (77%) were in favor of wider sidewalks. Pedestrians who walk as their primary travel mode, who would most directly benefit from wider sidewalks, showed a slimmer majority as 56% preferred wider sidewalks (Figure 16). Overall, respondents favored more on-street parking by a margin of 59% to 41% who preferred wider sidewalks. Respondents who drive alone favored on-street parking in downtown areas to wider sidewalks by a slightly larger margin, 62% to 38%.

There is a broad preference among both suburban and rural residents that their children walk or bike to school rather than being driven by their parents (87% of suburban residents vs. 80% of rural residents).



TAM's Crossing Guard at San Jose Middle School in Novato

INNOVATION

Over the last several years, the transportation industry has seen rapid changes in mobility from the use of smartphones and advances in autonomous vehicle technologies. These changes will have long-term implications for how Marin residents and workforce travel around the county. This change is led by a wave of mobile applications like Uber, Lyft, and Waze, and the rapid deployment of autonomous vehicles. These technologies are shifting the way people move around the suburban portions of Marin County and are likely to influence future travel behaviors. These technologies, coupled with the maturity of clean, electric vehicle technologies, create possibilities for improved mobility and access while reducing greenhouse gas and particulate emissions.

Many of these changes already present new mobility options, and are likely to have a substantial effect on our local and regional transportation patterns. TAM is taking a leadership role in strategically adopting emerging technologies. For example, TAM has developed a pilot program partnership with a ride-hailing service (Lyft) to promote first/last mile connections to SMART rail stations as a low-cost solution alternative to more expensive shuttles and fixed-route transit services. In addition to using shared mobility services, Marin County residents are already investing in clean fuel technology, with the second-highest rate of electric vehicle adoption in the state.

On February 24, 2017, TAM hosted its first innovation workshop to gather industry experts, innovators, and practitioners to develop a further understanding of how a variety of technological changes are likely to influence Marin's transportation network and travel behaviors.

SHARED MOBILITY SERVICES

With the development of smartphones, mobile applications like Uber, Lyft, Scoop, and many others have developed new mobility options that are currently operating in Marin County. Shared mobility services may present transformative innovations, as they have already changed public perceptions of personal vehicle ownership. These services offer the ability to summon a vehicle on-demand, increasing access to vehicles for trips requiring a car and reducing the need for personal vehicle ownership among some user groups.

These services also complement areas with reliable, high-frequency transit services and are likely to shift personal travel behaviors and vehicle ownership rates in these locations. When personal vehicles are required for longer or specialized trips, car-sharing services such as Zipcar can offer short-term, hourly car rentals. For those with a personal vehicle that may be underutilized, peer-to-peer car-sharing services like Turo and Getaround are available to rent out personal vehicles on a short-term basis, decreasing the cost of vehicle ownership. On-demand carpooling apps such as Scoop allow commuters to share rides and use HOV lanes with minimal planning and without a long term commitment.

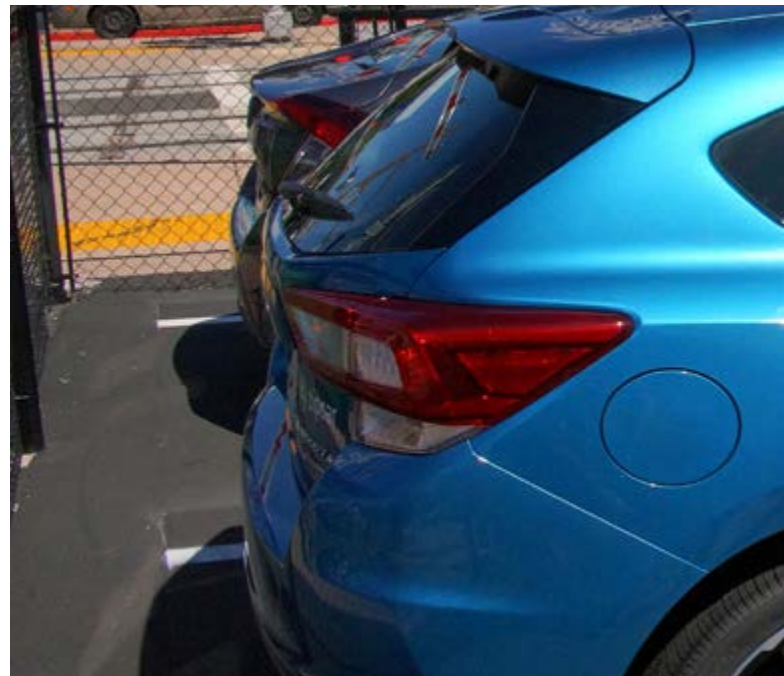
Shared mobility services are transforming access to bicycles as well as personal vehicles, with bike-share services opening around the country. Bike-share programs showcase the idea of shared mobility as a form of transit service and as a community asset. Many of these services are in dense urban areas and support first and last mile connectivity to transit, although suburban bike-share programs are expanding as well.

The future of shared mobility services is still very uncertain. High levels of venture capital investment support many of these companies, and the long-term viability of their business models is unknown. Many of these companies share a vision for the future based on autonomous vehicles and operation of a fleet service to reduce operating costs on a per-trip basis. Ultimately, the impact of these services and the future evolution of these services are unknown.

AUTONOMOUS VEHICLES (AVS)

Nationwide roadway fatalities exceeded 35,000 deaths in 2015 alone.²⁶ By reducing human error, AVs offer a great promise to increase safety on our local roads. In 2016, the first fully autonomous vehicles were tested on the nation's roadways, and some experts predict full rollout of autonomous vehicles in the early 2020s, adoption rates and level of automation in vehicles are uncertain, and will be subject to many state and federal regulation and rule-making decisions. AVs can offer increased roadway capacity and supply in some circumstances, but may also increase VMT and thus roadway wear and congestion in the future. Parking is another area of interest, as local land use and parking management strategies will need to adjust and accommodate the change on parking demand resulting from AVs. There are many unknowns about how this emerging technology will impact local and regional mobility, including fleet adoption, ownership models, and infrastructure needs.

²⁶ <https://www.nhtsa.gov/press-releases/traffic-fatalities-sharply-2015>



TAM partnered with ZipCar and Whistlestop to open a new carshare pod next to the Downtown San Rafael SMART station

GETTING AROUND MARIN

THE DELIVERY ECONOMY

Amazon and other online delivery services are changing the movement of local goods, our travel to local shops, and how deliveries are made daily on our local roads and infrastructure. The increase in delivery trips is a factor in local road traffic demand. In 2017, drone technology was used to deliver packages for the first time, and automated semi-truck fleets made their first delivery in America. These impacts will shift the amount of local trips in Marin County, and may reduce the number of commercial trucks, parking and loading zones, and trips on our roadways.

TAM will continue to explore topics that are likely to inform our local transportation options, and is also looking to shorter term best practices to improve local travel conditions. Many of the innovative changes that can be considered are being tested in other communities across the region, state, and nation, and programs that support the environment, improve our transportation system, and reduce transportation costs will be explored in future efforts.



04

Transportation Vision

Through the combination of the plans described previously, public outreach, and transportation challenges described in previous chapters, TAM has developed a shared *Transportation Vision* intended to address ongoing challenges and implementation of multimodal mobility improvements throughout Marin County.



GETTING AROUND MARIN



Muir Woods Shuttle in Stinson Beach

The development of this Vision considered the following four questions.

- What are Marin's existing transportation challenges?
- What plans are in place to address these challenges?
- What did we hear from the public?
- What types of projects are supported by transit operators and local jurisdictions?

This Vision was developed to address these questions, and identify how mobility can be improved throughout the county. The vision is structured with two parts:

- The broad Vision Statement is an overarching mission to coordinate transportation efforts in the county.
- Three guiding strategies built around TAM's adopted goals identify specific tools and programs to support TAM's mission statement and make progress toward achieving the Vision.

PLANNING FRAMEWORK

The *Vision* is intended to reinforce and support TAM's adopted goals to support the economy, environmental health and safety, and ensure equity. From these foundational goals, this vision articulates several key objectives:

- Contribute to economic vitality;
- Create a flexible system that responds to changing technology;
- Develop an efficient and effective transportation system;
- Support a healthy environment and a healthy population;
- Achieve safer travel; and
- Enhance mobility and access for all.

These core objectives articulate long-held values in Marin County and were confirmed in TAM's 2015 Regional Transportation Plan project submittal process. The updated Vision supports the previous vision of the development of a multimodal transportation system and recognizes that providing incremental but substantial improvements to our transportation system will be more effective than one single project or program to address our challenges in how we get around. Without opportunities for substantial increases in roadway capacity, this strategy meets TAM's goals and is effective in enhancing mobility, both on Highway 101 and on local connector roads.

Additionally, the Vision builds on the existing plans of the transportation system in Marin, like SMART commuter rail, and the Richmond-San Rafael Bridge third lane. The Vision defines needs, challenges and values that will lay the foundation to build a more flexible and resilient multimodal transportation network throughout Marin County. Above all, the transportation system in Marin will be designed, built, and maintained to sustain the quality of life enjoyed in Marin County.

VISION FOR THE FUTURE

The Vision Statement articulates the *Strategic Vision Plan*'s fundamental purpose and supports TAM's mission. The vision statement is as follows:

Make it convenient, easy, and safe to travel in Marin County, through strong neighborhood, local and countywide connections that consider the needs for all transportation modes and their users.

As a reflection of TAM's three core goals, the Vision Statement also includes three strategies:

1. **Support a strong economy** by making it easy for residents, visitors, and workers to get to work and places they want to be.
2. **Promote equity** by providing transportation that is accessible, affordable, and convenient for all residents and workers in Marin County.
3. Advance Marin County's **leadership in sustainability** and **protect the environment** by providing choices that make it possible for people to get around without driving alone.

Each of the Vision Strategies may be implemented through a variety of projects and programs spanning the full range of transportation investments and programs. These tools and programs are the result of public and agency outreach and reflect the universe of local projects and programs. Together these tools and programs make up the universe of our vision for the future. While it is not feasible to fully implement all of the Vision Strategies at present funding levels, the *Strategic Vision Plan* outlines the anticipated spectrum of mobility needs in Marin that will be prioritized as funding is allocated in the future. The Vision Strategies support aspirational goals for the transportation system, developed to serve local Marin needs and reflect our local Marin values.



Larkspur

ECONOMIC STRATEGY

Support a strong economy by making it easy for residents, visitors, and workers to get to work and the places they want to be.

The Economic Strategy emphasizes projects that facilitate economic growth and success in Marin. Marin is a low-growth county with limited housing production and population growth, and is likely to continue this path forward in the future. For Marin to remain economically competitive in the long term, increasing the mobility of Marin residents, visitors, and workers to get to jobs and other destinations will require a number of projects and programs.

Our local roads play a vital role in supporting our economy, and maintaining these roadways are a key component of this vision and a high priority of survey respondents. Maintaining our local roads and fixing potholes countywide follows the region's fix-it-first strategy of investment. Roads throughout the county are in need of repair, including bridge and pavement rehabilitation and replacement. High-quality roadways, especially Highway 101, form the underlying basis for all roadway users.

Modernizing interchanges with local highways can provide Complete Streets that connect our local communities, a benefit to local residents and workers. Highway 101 bisects a large number of our communities in Marin County, and many interchanges are in need of modernization, including Tiburon Boulevard/East Blithedale Avenue, Tamalpais Drive, Freitas Parkway, and Lucas Valley Road, among others. These interchange improvements with Complete Streets best practices can benefit all users in Marin County, and increase access and enhance safety for transit users, bikes, and pedestrians.

Marin County's major roadways were identified as a top priority for funding in the 2004 transportation sales tax for funding. Due to limited funding and higher implementation costs, a number of these roadways are still in need of improvements. These projects offer a chance to make important safety-related improvements for all users and improve traffic flow.

Local communities and employer destinations also play a role in managing demand, with parking management as an option to increase transit usage and promote alternatives to commuting alone. Managing parking to encourage alternative forms of transportation such as SMART, regional transit, or vanpools, is an effective way to encourage transit usage and increase the efficient movement of traffic on Highway 101.

In order to facilitate regional trips, infrastructure improvements will be required, including:

- Supporting the Marin-Sonoma Narrows high-occupancy vehicle (HOV) lane completion between Marin and Sonoma counties will allow for a unified North Bay approach to regional transit services and carpooling.
- Protecting Highway 37 from sea level rise is also a component of this vision, as the roadway serves as a major thoroughfare for Marin workers from other North Bay counties.
- Completing the direct connector between northbound Highway 101 and eastbound I-580 will reduce travel impacts for residents and workers on our local roadway system in Larkspur and San Rafael as well as substantially improve operations on the highway.

GETTING AROUND MARIN

- Shorter-term improvements like bus-on-shoulder, ramp metering, and changes in the hours of HOV lane operations may be helpful in managing traffic flow on the highway.

Autonomous vehicles (AVs) may increase highway capacity, but their contribution to local concerns like congestion are still unknown and likely to change by regulation and policy development in the future. It is important for the county to keep focus on innovation through best practices, like adaptive signal controls on our local roadways. TAM is also looking at a standalone innovation program to improve travel conditions in Marin. This program could serve as a way to pilot programs, like TAM's Lyft First/Last Mile Partnership currently underway, or serve as a tool to test smart infrastructure that interfaces with connected vehicles.

One of the cornerstones of the Economic Strategy is to provide accessible transit services and increase higher-occupancy usage of our roadways through regional transit services. These operational improvements can support the regional transit connections and attract "choice riders" that would otherwise choose to commute in single-occupancy vehicles. Operational improvements could include:

- Higher-frequency transit service on major roads and high performing routes.
- More regional and express bus services connecting the Marin workforce to job centers.
- Regional facilities like a bus-on-shoulder operation from Novato to San Rafael can increase transit attractiveness for regional trips.

- In southern Marin, supporting expansion of park and ride lots can increase carpooling and transit usage into San Francisco, along with increased ferry services out of the Larkspur Ferry Terminal.
- Expansion of ferry service in Marin County translates into less cars driving into regional job centers or along congested corridors.
- Short-term improvements to increase the attractiveness of transit include providing real-time traffic information in the county and building safety and access improvements to transit facilities around the county, including SMART stations.

These transit trips depend on a new Transit Center in San Rafael, currently relocating to accommodate SMART's Larkspur Extension. A new bus maintenance and operations facility is also needed to reduce ongoing transit operations costs. As the newest transit option for the Bay Area, SMART's commuter rail is an asset to provide alternative commute choices in Marin County.

EQUITY STRATEGY

Promote equity by providing transportation that is accessible, affordable, and convenient for all residents and workers in Marin County.

The Equity Strategy emphasizes accessibility and mobility options, for all residents and visitors to get around. This strategy aims to increase access and mobility for all modes of travel in Marin, for all users in Marin with particular care and consideration to the most vulnerable populations. Recognizing these varied groups of users who depend on our transportation system, and the impacts of our transportation choices on vulnerable populations, this strategy also includes components related to maintaining and protecting our existing system.

The Equity Strategy aims to support transit operations and capital improvements through ongoing local community transit services, which can serve as a lifeline service for many users. These services include community shuttles, demand responsive services, and senior mobility services. A core component of the Equity Strategy is the continued maintenance, enhancement, and expansion of transit services throughout Marin, with a particular focus for improving access for transit-dependent communities. Partnerships and service enhancements through shared mobility providers may offer one means of providing enhanced transit service in certain areas. Locating a local transit operations and maintenance facility in order to lower costs will be critical for future delivery of these services.

To increase mobility options, this strategy includes creating bus-on-shoulder facilities to facilitate attractive transit services that provide travel time savings, providing yellow school bus service and yellow school bus parking facilities, expanding yellow school bus services for school

trips that are outside of walking and biking distance from schools, extending Safe Routes to Schools education and outreach programs, supporting crossing guards for school trips, and supporting bike and pedestrian access to transit services. Providing safe and accessible pathways to transit, including SMART stations, will maximize our investments in a new mobility option in the North Bay, and ensure accessibility for all populations.

Protecting our transportation assets from sea level rise includes providing resiliency to our assets while preventing greenhouse gas emissions to reduce our carbon footprint. Resiliency to our facilities includes protecting our local roadways and highways from the effects of rising seas, while reducing harmful emissions from gasoline powered single-occupancy vehicles. Investments such as employer/employee programs that support carpooling, ridesharing and transit usage, and promoting clean technology vehicles, like electric vehicles, help attain these goals.

Finally, the Equity Strategy is centered on continued support for regional and local bike path development. Connecting our communities on key regional facility gap closures will allow for users to travel to employment centers and avoid reliance on vehicles for travel around the county. Local bike and pedestrian paths that support connections within communities are also included in this strategy. Supporting recreational trail access to support walking and biking for all users is also critical.

GETTING AROUND MARIN

ENVIRONMENTAL STRATEGY

Advance Marin County's leadership in sustainability and protect the environment by providing choices that make it possible for people to get around without driving alone.

Improvements identified in the Environment Strategy support Marin County's goals of reducing transportation-related pollution and providing sustainability through resiliency. The Environment Strategy meets these goals with programs and projects that support transit use and active transportation, while increasing vehicle occupancy and expanding the adoption of clean fuel vehicles.

Supporting our existing transit services through multimodal access to transit is a key tool to provide easy and safe access. Increasing first- and last-mile connectivity to SMART and regional transit services are tools that are available to encourage 'green commutes'. Supporting transit connectivity through bike and pedestrian access, additional transit connections and providing bike-sharing, ridesharing, and new mobility options that encourage transit use are all identified in this strategy.

In addition to supporting new transit connectivity, bike and pedestrian projects that further complete gaps in our regional and local bike system also support this strategy. By providing safe and accessible facilities, more trips can be made by bike and pedestrian modes. Extending the reach of Safe Routes to Schools education and outreach in local communities will reduce congestion on neighborhood streets from parents picking up or dropping off schoolchildren. Completion of robust bike and pedestrian networks that connect schools with surrounding communities will help ensure that greater proportions of schoolchildren travel to and from school safely via non-driving modes.

Sea level rise adaptation efforts are underway, including vulnerability assessments on the impact of sea level rise on transportation. Sea

level rise adaptation plans are being brought forth in Marin, including: Highway 37 and low-lying portions of Novato, critical areas around Richardson Bay, and the Canal neighborhood in San Rafael. Additional sea level rise adaptation programs will address flooding on our local roads and in southern Marin, namely Manzanita Park-and-Ride, which floods periodically. Even our highways are part of this strategy, including completing the Marin Sonoma Narrows HOV lanes and multi-use path system, which will encourage regional transit use, increase the occupancy and efficiency of all vehicles, and expand the regional bicycle network.

To support transit use, increasing vehicle occupancy through carpooling, ridesharing, and other services is an opportunity to innovate and work with private-sector companies to expand offerings and reducing the need to own a vehicle. There is currently rapid innovation in the carpool sector, and this is likely to continue in the future as trends of vehicle ownership change to allow for reliance on vehicles on an as-needed basis. Carsharing and ride-hailing companies offer a way for households to reduce vehicle ownership while still giving people easy access to vehicles for occasional and necessary trips.

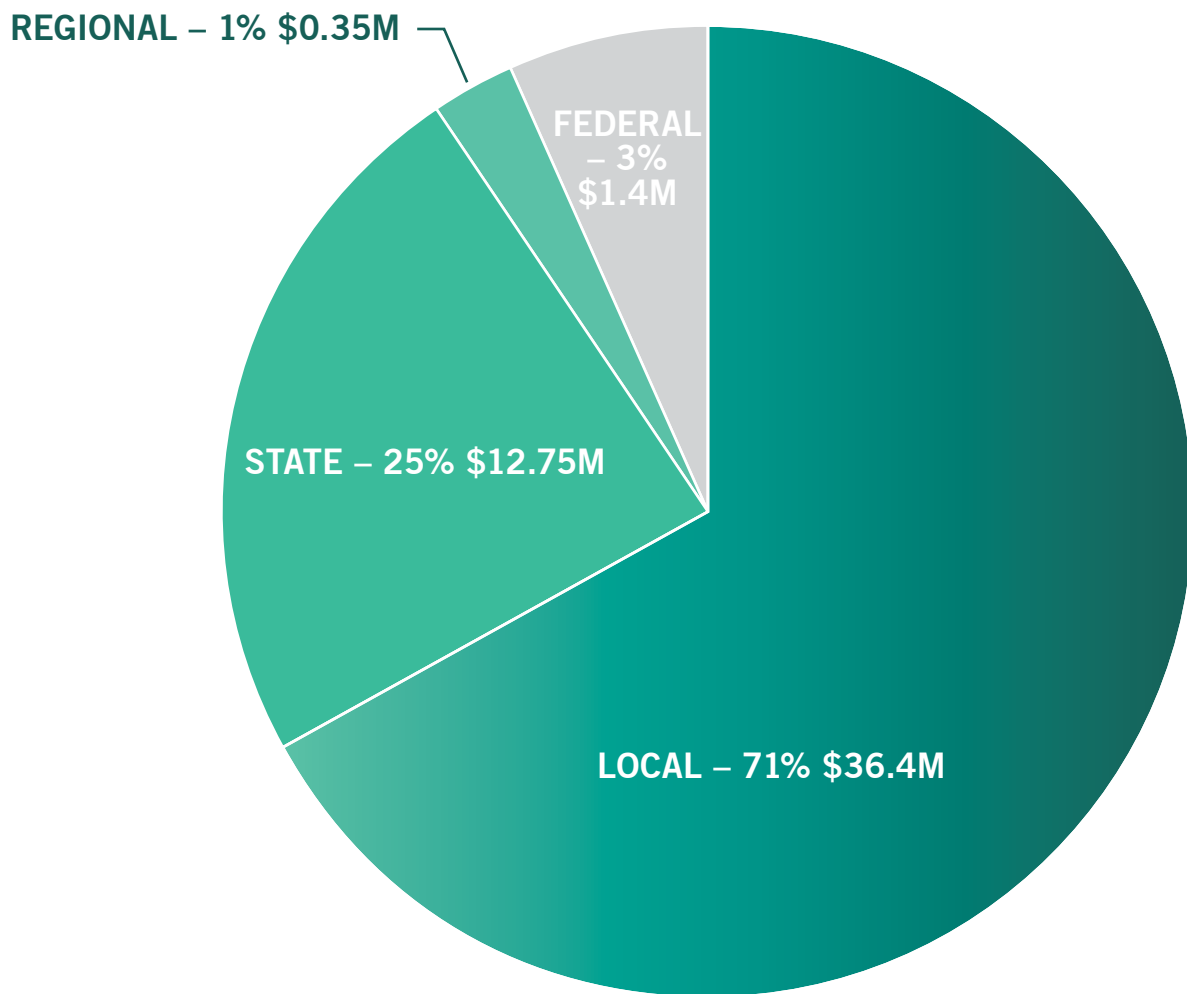
Electric vehicles (EVs) offer a significant opportunity to reduce greenhouse gas emissions. The Environmental Strategy identifies workplace electric vehicle charging stations and public fleet replacement as key tools to support adoption locally. With limited new development occurring in the County, identifying ways to encourage or incentivize existing workplaces to provide charging stations to their employees overcomes a key hurdle in increasing EV adoption rates. Charging electric vehicles mid-day also lowers demand on the electrical grid during costly evening peak periods. In the shorter term, alternative fuels, such as renewable diesel, support greenhouse gas emissions reductions without the need for fleet turnover in municipal agencies. Golden Gate Transit and Marin Transit have piloted these options, resulting in immediate greenhouse gas reductions for both agencies.

05

How Do We Get There?

Planning for the comprehensive improvements to our transportation system will require multiple funding sources, including local, regional, state, and federal transportation funding streams to implement projects and programs. Local funds are key to attracting other public financing and can leverage regional, state, and federal funding. The existing local funding provided in Marin makes up the largest share of transportation funding available to Marin's projects and programs, as shown in Figure 22.

Figure 22 Estimated Transportation Funding Sources for Marin County (2016-2017)



LOCALLY GENERATED FUNDS

TAM receives funding from locally generated sources, including a local voter approved half-cent countywide sales tax that generates approximately \$25 million annually for local transportation projects and programs approved by Marin voters. About 80% of these funds are dedicated to ongoing operations and maintenance of our transportation system, local transit operations, Safe Routes to Schools programs, and local road maintenance and improvements. This sales tax is Marin County's largest ongoing source of revenue for transportation, and it will expire in 2024 unless reauthorized by Marin's voters.

The countywide half-cent transportation sales tax funds four key strategies and provides approximately \$25 million annually:



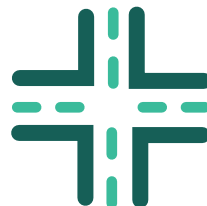
55%

LOCAL TRANSIT
SERVICES



7.5%

HIGHWAY 101
CARPOOL LANE
GAP CLOSURE
PROJECT THROUGH
SAN RAFAEL
(COMPLETED IN 2010)



26.5%

MAJOR ROAD
AND LOCAL ROAD
IMPROVEMENTS



11%

SAFE ROUTES TO
SCHOOLS PROGRAM

GETTING AROUND MARIN

In 2010, Marin County voters also passed a \$10 Vehicle Registration Fee, allocating additional funding for senior mobility programs, crossing guards, local road maintenance, and congestion and pollution reduction programs. Revenues generated from the \$10 Vehicle Registration Fee provides approximately \$2.3 million in annual revenues for transportation.

With the transportation sales tax set to sunset in 2024, the TAM board will consider reauthorization of the sales tax. However, reauthorization of the sales tax alone is may not create enough additional funding for new

or ongoing challenges. Given the fact that the major capital projects in the original sales tax expenditure plan are complete, and given the changing needs of the transportation system, TAM will consider seeking voter approval to extend, and possibly augment the sales tax to create new local funds for growing transportation demands.

In addition to these two main funding sources, a number of local jurisdictions also have local transportation sales taxes and development impact fees to provide funding for local road maintenance and other locally identified and approved needs. Marin Transit has a parcel tax countywide that supports transit services.

Revenues generated from the \$10 Vehicle Registration Fee provides approximately \$2.3 million in annual revenues for transportation.



35%

**LOCAL STREETS
MAINTENANCE**



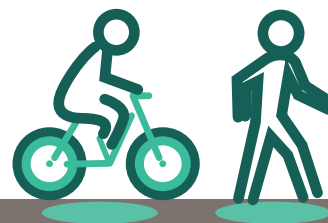
35%

**SENIOR MOBILITY
PROGRAMS**



25%

**CONGESTION
REDUCTION MEASURES,
INCLUDING SAFE
ROUTES TO SCHOOLS
IMPROVEMENTS,
EMPLOYER/EMPLOYEE
SUPPORT PROGRAMS,
AND ELECTRIC VEHICLE
CHARGING STATIONS**



5%

**BIKE AND
PEDESTRIAN
IMPROVEMENTS**

REGIONAL FUNDS

MTC is the metropolitan planning organization that distributes federal funding through the Bay Area's nine-county region, and they also have the ability to raise revenues through bridge tolls on the Bay Area bridges, (with the exception of the Golden Gate Bridge which is managed by the Golden Gate Bridge Highway and Transportation District).

In 2002, voters approved Regional Measure 2, which provided funding for projects within the toll corridors throughout the Bay Area. The region is considering raising the bridge tolls to address growing needs in the bridge toll corridors; Regional Measure 3, the possible ballot measure associated with this toll increase, is discussed in the following sections under Potential Revenue Sources.

MTC also has legislative authority to increase the gas tax regionally, and has explored this option in the past, but has not proceeded with any such proposal due to limited public support. Lastly, regional fund sources include portions of federal funding retained by MTC and distributed via grants that meet regional policy benefits.

TAM distributes limited funds of approximately \$350,000 annually from the Bay Area Air Quality Management District (BAAQMD), and is eligible to compete for additional competitive grants on behalf of local projects that can show quantifiable air quality improvements.

STATE SOURCES

Funding for transportation from state sources includes funding from a statewide gas tax. State funding comes from the California State Transportation Improvement Program (STIP), Highway Safety Improvement Program (HSIP), and State Highway Operations and Protection Program (SHOPP). These sources provide funding to a variety of capital improvement projects, including highway, transit, local roadway, and bike/pedestrian projects. Marin County has relied on STIP funding as a funding source for the development of highway improvement projects, however recent deficits in this funding program have delayed project delivery and put this funding stream's long-term sustainability for local transportation projects in doubt.²⁷ The SHOPP is responsible for all highway operations and maintenance improvements and is administered solely by Caltrans.

State funds from recently passed SB1 funding legislation restores some capacity for highway projects, although the major focus of this legislation is to support a fix-it first strategy for maintaining our local roads and highways, and some funding for our transit services. This legislation doubled the amount of funding for local streets and roads distributed directly to cities and towns (referred to as gas tax subventions), and increased the amount of money distributed to transit providers for operations and maintenance through the Transportation Development Act (TDA). State sources also include a variety of grant programs, such as the Cap and Trade Program, with programs benefiting housing and equity policy goals.

27 Weigel, Samantha. "Congestion Cash Crunch: Transportation Projects Facing Program Cuts." The San Mateo Daily Journal, April 21, 2016. <http://www.smdailyjournal.com/articles/news/2016-04-21/congestion-cash-crunch-transportation-projects-facing-program-cuts/1776425162106.html>.

GETTING AROUND MARIN

FEDERAL SOURCES

TAM receives its apportionment of federal gas taxes from MTC on a multi-year cycle. Marin County receives approximate \$10 million over a 5-year cycle from the federal Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ) program. The Metropolitan Transportation Commission (MTC) administers the STP/CMAQ funding through its One Bay Area Grant (OBAG) grant program, which provides funding to counties based on a formula of population and regional housing growth and production. As a slow-growth county, Marin is at risk of losing these funds under future OBAG cycles. In addition, 50% of these funds are required to support Priority Development Area's (PDAs) of which Marin has two:

1. The San Rafael Transit Center
PDA in downtown San Rafael
2. The Marin County Unincorporated US 101
Corridor, which contains the neighborhoods of Marin City and California Park

OBAG funds are distributed by the TAM board, and support a wide variety of investments in Marin County including bike and pedestrian projects, transit investments, road rehabilitation and other locally defined needs.

Federal funds are distributed through a formula from the Federal Transit Administration (FTA) to local transit operators for operations and maintenance needs, and include \$1.4 million annually for Marin Transit. Additional funding sources are available for regional bus and ferry services.

An overview of the local funds for transportation is presented in Figure 23.

Figure 23 Funding and Revenue Allocation Overview

FUNDING TYPE	FUNDING SOURCE	PROJECT TYPES	ESTIMATED REVENUE GENERATED ANNUALLY
Local (Countywide)	Half-Cent Transportation Sales Tax	<ul style="list-style-type: none"> Local transit Safe Routes to Schools Major roads Local roads Highway 101 HOV Gap Closure Project 	\$25,000,000
Local (Countywide)	\$10 Vehicle Registration Fee	<ul style="list-style-type: none"> Local road maintenance Senior mobility services Programs to reduce congestion and pollution Transit Operations and Maintenance Transit Capital 	\$2,300,000
Local (Countywide)	Property Tax	<ul style="list-style-type: none"> Transit O&M Transit Capital 	\$3,000,000
Local (Municipalities)	Sales Tax	<ul style="list-style-type: none"> Funding availability varies by jurisdiction, often used for local road maintenance 	\$4,000,000 (Range varies based on local voter approval)
Local (Municipalities)	Parcel Tax	<ul style="list-style-type: none"> Funding availability varies by jurisdiction, typically used for local road maintenance or local transportation projects 	\$4,000,000 (Range varies based on local voter approval)
Regional	Transportation Fund for Clean Air	<ul style="list-style-type: none"> Transportation projects that meet clean air requirements Bike, pedestrian, and employer/employee support programs 	\$350,000
Regional	Bridge Tolls (including possible Regional Measure 3)	<ul style="list-style-type: none"> Projects that provide a nexus to improvements in Bridge Toll Corridors 	0 (\$100,000,000 would be generated for \$1 bridge toll increase) (20 year bond estimate)
State	Gas Tax Subventions	<ul style="list-style-type: none"> Funding directly to local jurisdictions Used for local road maintenance 	\$8,500,000 (\$16,500,000 including SB1)
State	State Transportation Improvement Program (STIP) – Distributed by Caltrans	<ul style="list-style-type: none"> Capital projects (all modes) 	\$0 until 2024
State	Transportation Development Act Article 3	<ul style="list-style-type: none"> Bike, pedestrian, roadway, and employer/employee support projects 	\$250,000
State	Transportation Development Act and State Transit Assistance	<ul style="list-style-type: none"> Transit operations and maintenance 	\$4,000,000 (\$7,000,000 under SB 1 for Golden Gate Transit and Marin Transit)
Federal (Regional Distributed)	Gas Tax – One Bay Area Grant (OBAG) Program	<ul style="list-style-type: none"> Various projects that meet federal eligibility requirements and regional policy goals 	\$10,000,000 for 2017-2022 (\$2,000,000 annually)
Federal	FTA Formula Funds	<ul style="list-style-type: none"> Transit operations and maintenance Transit capital projects 	\$1,400,000 for Marin Transit

GETTING AROUND MARIN

POTENTIAL REVENUE SOURCES

In order to achieve the vision, increases in funding will be required above current levels. Cities and towns have the ability to pass local sales and parcel taxes, and these funds have historically been used for local road maintenance within the jurisdiction and specified local needs.

As the half-cent countywide transportation sales tax sunsets in 2024, there may be an opportunity to augment the sales tax by an additional quarter cent. Augmenting the sales tax to a three-quarter cent tax would require legislation, should the TAM board choose to present voters with a ballot measure to extend and augment the existing transportation sales tax. An additional quarter cent sales tax would generate approximately \$12 million a year for needs identified through an expenditure planning process.

There remains ongoing shortfalls in all of Marin's transportation needs. Highway expansion funds not being available to Marin until 2024, a number of major road corridors are still in need of repair and rehabilitation, and there is an on-going shortfall in funding for local crossing guards and yellow school bus services. Over the life of the regional transportation plan, \$890 million is identified as necessary for bringing our roadways up to a State of Good Repair and maintaining that level for the 24-year period from 2017 through the Plan Bay Area forecast year of 2040. Transit operating shortfalls over the life of this plan are estimated at \$960 million for local and regional transit services. Maintaining our system remains a challenge.

SENATE BILL 1

The state passed its first transportation revenue increase in 27 years early in 2017 through SB 1, the Road Rehabilitation and Accountability Act. This much needed transportation bill includes funding for local road maintenance, transit operations and state highway maintenance and improvements. With this major commitment from the state, local funds become an essential source of matching funds to attract and leverage state funding for improvements beyond these ongoing maintenance and operational needs.

Formula funds from SB 1 are expected to go towards:

- Local road maintenance (through gas tax subventions to local jurisdictions)
- Highway maintenance (SHOPP Program)
- State transit assistance funding
- Intercity and commuter rail programs
- State and local partnership funding (50% or this funding is only eligible for counties with local sales tax for transportation, and supports leveraging local dollars)

Competitive Programs under SB 1 will require Marin to compete for funding with other projects around the state, and local funds are essential for competing for these grant programs. These funds, among others, include:

- Active Transportation Planning: Bike and pedestrian projects can compete for these funds.
- Congested Corridors Program: Funds for multimodal highway corridors may provide state funding for projects like Marin Sonoma Narrows if local matching funds are identified.
- State and Local Partnership Funding: 50% is a grant program administered by the State.

REGIONAL MEASURE 3

In 2016, MTC announced that they would consider requesting voter approval for increasing the fees paid on the Bay Area Toll Bridges, including the Richmond-San Rafael Bridge. As a fee, over 50% of Bay Area voters would be required to approve any potential measure. In 2017, the TAM board adopted a series of candidate projects for inclusion on any ballot item including the following projects:

- Bettini Transit Center Relocation
– Permanent Facility
- Marin Sonoma Narrows HOV lane completion
- Highway 101/Interstate-580 Direct Connector
- Highway 37 – Sea Level Rise Adaptation
Project environmental clearance

Identified in the Vision as “large projects”, these projects are of regional and statewide importance and require significant amounts of funding to complete. Locally raised funds are a key portion of any statewide or federal funding eligibility, indicating project support from local agencies. As regionally significant projects, these facilities move large numbers of users per day, and would contribute significantly to the achievement of our local transportation Vision.

Federal funding sources are unclear at the moment. Speculation around the federal funding bills is likely to include support for public-private partnerships, likely requiring local funding commitments.

Path Forward

Navigating a path forward to achieve this Vision will rely on all of Marin’s transportation agencies to deliver projects and services that rise to our current challenges. Our transportation agencies must also plan ahead for future challenges and opportunities to maximize local dollars and commitments. As future revenue discussions look to address portions of this vision, close attention to the trade-offs and opportunities to address other needs will require input from all of Marin’s transportation partners and operators. Transportation in Marin County need not be a zero-sum game of “winner takes all,” but rather a systematic approach to delivering an effective and efficient transportation system.

Innovation will remain a close topic of interest in transportation plans and projects in the future. Now, it is still too preliminary to assess the impact of these services on Marin’s local plans and projects. Monitoring the regulations, policies, and potential impacts of these technologies will allow Marin County an opportunity to pilot new technologies and solutions in a low-cost and environmentally sensitive way.

Investments to Support the Vision

“ In order to implement the Vision, Marin County will need to continue investing beyond our existing local sales tax, regional toll programs, or state funds. Addressing our transportation challenges will require a range of mobility solutions including transit operations and maintenance, transit capital, local roadways, highways, active transportation, senior mobility, innovation programs, and employer/employee support programs. These supporting investments are outlined below.



TRANSIT OPERATIONS AND MAINTENANCE

Transit service is vitally important to achieving the Vision of providing strong neighborhood, local, and countywide multimodal connections. Expanding Marin Transit and supporting Golden Gate Transit services is integral to all of the strategies identified in Chapter 4, and support the Economic, Equity and Environmental Strategies of Marin County's Vision for transportation.

- **Regional transit services** support a strong economy by improving essential job access networks and expanding mobility for residents, visitors and workforce. Providing regional transit connections can encourage higher-occupancy use of our highways for Marin's workers. SMART, regional bus services, and ferry services are likely to capture “choice” transit riders. Providing transit service that connects and enhances these investments are key to the success of transit in the future. Higher-frequency regional ferry services out of Larkspur and capital investments on Highway 101, such as finishing the HOV lane between Marin and Sonoma, are likely to ease congestion on Highway 101 and provide reliable transit services for Marin workers and residents.
- **Local transit services** throughout the County also contribute to the strategies outlined in the Vision. Higher service frequency on major roadway corridors can further attract riders who currently may not view transit as

an option for many trips. Supporting higher-frequency services on the major roadway corridors and near employment centers would be complemented with enhancing existing local community transit services, which are a lifeline for the transit-dependent. Services to low-density areas of the county can be costly, and innovative models to reduce costs, such as shared mobility pilots like TAM's Lyft Partnership program, will continue to be considerations for the future. To the extent that electric buses can reduce fuel costs, and autonomous vehicles or shared mobility services can reduce driver costs, these innovations will be monitored closely to further understand their impacts on the transportation system.

- **Rural transit services** have been successfully implemented in Marin County, and maintaining these successes are important as a lifeline service in the county. Recreational trip management to Muir Woods will require additional management and mobility options to mitigate traffic impacts and sustain the economic benefits from Marin's recreation areas.
- **School bus transportation services** are provided at different levels throughout the county, with yellow school bus services in place in San Rafael and West Marin. Local supplemental school trips on transit services may support high schools. However, elementary and middle schools throughout the County have identified yellow school bus as a local important need to address school safety and congestion levels at schools. The impacts of these services are likely to vary significantly based on site-specific considerations and travel markets, though these locally identified services are an important congestion relief option for many communities in Marin.

- **Senior mobility services** in Marin are increasingly in demand. Marin's senior mobility needs will increase significantly in the short term, as the County's share of population over the age of 62 is expected to reach 39% by 2030, from about 23% in 2015²⁸. Marin Access Paratransit has seen a 26% increase in ridership between 2008 and 2014, underscoring this trend. Marin Transit's Volunteer Driver and Catch-a-Ride programs, which deliver paratransit service to older adults through nonprofit and private taxi operators, have seen similar ridership growth. Expansion of these services will be necessary to providing mobility options accessible to a growing sector of our population, especially those who are transit-dependent.
- **Ferry Feeder Services and SMART Feeder Services** allow for intermodal transfers in Marin County, encouraging transit usage and access to regional job centers. Providing additional transit connections will allow Marin residents and employees to access regional job centers while minimizing traffic and parking concerns at these locations. Feeder services are an opportunity to innovatively address access challenges, and microtransit and shared mobility services may provide a low-cost alternative to vehicle ownership.



The Bettini Transit Center in Downtown San Rafael

28 State of California Department of Finance Population Projections, <http://www.dof.ca.gov/Forecasting/Demographics/Projections/>

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TRANSIT CAPITAL

In addition to transit operations and maintenance, new transit capital facilities are integrated in every strategy supporting Marin's Vision. These facilitate a range of small improvements, including: increasing ADA service at bus stops, providing real time travel information for transit riders, as well as larger capital improvements like the relocation of the Bettini Transit Center and bus on shoulder facilities on Highway 101. Transit capital improvements in the vision include:

- Expanding transit operations services in the county by creating a local operations and maintenance facility and additional parking for yellow school bus service. Currently many transit and yellow school bus service yards are located in the East Bay and in further locations in the North Bay, limiting contractors and driving higher costs of services. Locating these facilities in Marin will increase the productivity and reduce the costs of these services resulting in the ability for further expansion.
- Fleet replacement is an ongoing cost associated with transit services, and a major capital expense for many transit agencies. Currently, TAM has been providing funding to Marin Transit to test electric buses to reduce long-term fueling costs. As technology like electric buses and automated buses progress, managing the costs of fleet replacement will remain an important consideration. Fleet replacement should include the shift of local transit vehicles to hybrid and electric-only propulsion.

- Increasing access to bus stops, through safe walking and biking paths to transit stops on Highway 101 and SMART stations will support current transit riders and encourage more people to take transit. Additionally, improving the transit stops themselves with new shelters and passenger amenities that enhance the passenger experience are key ways of attracting and retaining transit ridership, including meeting the needs of people with disabilities. Transit technology like real-time bus arrival information can attract "choice riders" who might otherwise choose to drive alone.
- Transit capital projects that provide a travel time savings can also attracting "choice riders" that would otherwise choose to drive alone. These improvements can include bus-on-shoulder facilities in northern Marin, and other improvements throughout the county.
- Relocating the Bettini Transit Center, which serves 9,000 daily riders, is a high-priority need to accommodate the SMART extension to Larkspur. This facility is the largest transit center in Marin County, and serves all transit operators in the county.
- Enhancing Marin's park-and-ride facilities along Marin's highways can increase transit usage. In northern Marin, facilitating usage of these underutilized sites, including capital improvements to serve these locations with transit more efficiently is included in the vision. Potentially encouraging their use for technology providers like micro-transit and carpool services will also support higher occupancy use of our highways. Protecting facilities from sea level rise is a current challenge in some locations, such as the Manzanita Park-and-Ride, and is likely to continue into the future.



HIGHWAYS

Throughout Marin, Highway 101 serves as the primary north-south interregional roadway and as the primary arterial link between many Marin communities. Improvements to Marin's highways provide significant benefits to travelers in Marin due to the high volumes and its use for local trips. Improvements specifically on Highway 101 will benefit from a holistic approach, with the understanding that no single project or program will resolve the travel challenges for all users of the facility. Rather, each program works together with every other program with support from transit and employer/employee support programs to manage demand on the system. Identified in the vision include:

- Finish the Marin Sonoma Narrows, by providing an HOV lane on Highway 101 between Novato and Petaluma. This HOV lane addition project represents a long-standing commitment to completing the HOV lane through Marin County, and supports transit riders and higher-occupancy usage on our roadways. The HOV lane addition project also includes bike and pedestrian facilities along the entire corridor, completing a key gap in the regional bike system.
- Consider widening Highway 37 to a full 4-lane facility, and protect Highway 37 from sea level rise with improvements that raise the roadway and encourage environmental restoration of the North Bay.

- Improve access to the Richmond-San Rafael Bridge, via Sir Francis Drake Boulevard improvements and improvements to the flow of vehicles getting off Highway 101 and then on Interstate-580 at Bellam Boulevard in San Rafael. These access improvements serve as shorter-term opportunities; while ultimately a Highway 101/Interstate-580 Direct Connector will be required.
- Provide ramp metering across the county. Ramp metering can improve traffic flow on our highways and reduce travel times by reducing bunching of vehicles loading on to the highway. Advance detection to avoid backup on to local roads is included as part of this project.
- Interchange modernization, can serve as multimodal improvements that enhance our communities and connect users of all modes. Highway 101 bisects many of our communities and limits Bike and pedestrian connections across communities and to Regional bus stops located on highway 101. Improvements to these facilities may include, among others, Tiburon Boulevard / East Blithedale Avenue, Tamalpais Drive, improvements at Merrydale Avenue, Freitas Parkway, and Lucas Valley Road.
- Bus-on-shoulder facilities, as discussed in the transit capital section above, are a major highway capital improvement that can help manage demand on our highways and provide travel time reductions for commuters on the highway. This project can take advantage of existing regional bus stops on the highway, providing additional travel time benefits that attract additional riders.



Marin Sonoma Narrows

GETTING AROUND MARIN



ROADWAYS

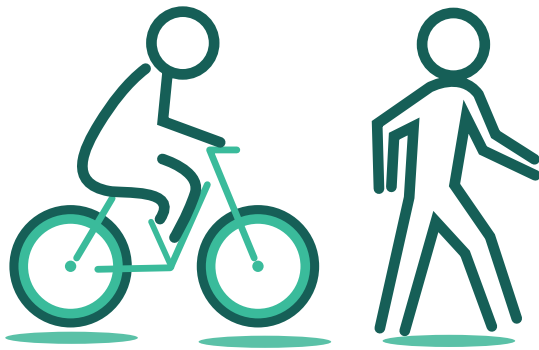
Roadway projects are of paramount importance to achieving the Vision because Marin's roadways comprise the County's most essential transportation connections that affect nearly all travel modes. A well-maintained roadway network is an essential component of an effective, efficient transportation system that offers mobility options to all types of road users.

- Maintaining and repairing our local roads is a critical component of the Vision for Marin. Roads in good repair, including multimodal facilities, benefit all users of the system and make it easier for people to get to work and other places they want to be. In addition to our current challenges of maintaining our roadways, flooding and sea level rise is a growing risk for many communities, especially critical in areas of limited access and egress like Marin City. Projects that improve drainage or protect from bay incursion will maintain access across key segments of Marin County's road network and reduce risks from flooding and erosion, especially on roads located on steep slopes.

- Improving our major road corridors in the county that serve local communities can enhance local communities and travel of all users in Marin. These projects can improve safety and access for all Marin residents, especially those who travel without a private vehicle and rely extensively on pedestrian and bicycle facilities.
- Modernizing and improving intersections can provide a key benefit to current challenges of travel time, safety and mobility. This effort can prepare Marin for future challenges associated with autonomous vehicles and the need for vehicle communication with infrastructure. These improvements may include adaptive signal technology to optimize traffic flow in major corridors, new Wi-Fi-enabled controller equipment to speed up transit travel times through transit signal priority systems, and improved roadway geometry to increase safety of all users of the facilities.



School Bus Service on the Tiburon Peninsula



ACTIVE TRANSPORTATION

Active transportation projects – including bike, pedestrian, and Safe Routes to Schools (SRTS) improvements – are essential to the Strategic Vision Plan’s core objective to make multimodal trips easy and safe. Investments in pedestrian, bike, and SRTS improvements provides Marin residents with mobility options other than driving and makes it easier to choose bicycling or walking over a vehicle for a variety of trip purposes. SRTS projects and programs are intended to reduce school trip-related congestion by increasing the share of school trips made with non-driving modes. The Vision for this mode includes:

- Expand bike and pedestrian connections to improve access to transit by providing safe and accessible facilities for users of all skill level and capabilities. Good access to regional transit stops located along Highway 101, SMART stations and transit facilities throughout the county can promote a reduction in vehicle trips and support access to those without private vehicles.

- Create local bike paths that connect residents to commercial areas, schools and downtown businesses to improve mobility choices for Marin residents and support local economies.
- Improve regional bike path improvements to connect our communities along the SMART bike/pedestrian trail and the Bay Trail system to invite people to bike longer distances on safe facilities separated from vehicle traffic. These regional facilities include access through downtown San Rafael, and portions of the Bay Trail in southern Marin. These gap closures provide safe access and connectivity for all users.
- Increase the share of green trips to schools through education and outreach, and safety improvements like safe pathways and crossing guards by continuing to invest in the SRTS program.



A student participating in TAM's Safe Routes to Schools Program

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INNOVATION PROGRAMS

Knowing that the transportation world is quickly shifting, TAM has embarked on a pilot program with Lyft to test shared mobility solutions to support transit ridership on SMART. TAM is also looking into the future to try to understand how future technologies in the transportation industry will support travel in Marin. The Vision has developed these innovation concepts into transit, roadway, and employer/employee-oriented strategies; however, a dedicated innovation program is also included in this Vision to explore how Marin County can advance and attract technological solutions to our challenges. Many of the opportunities that could be explored are determined by the opportunities under which the private sector would be a viable partner. These opportunities may include new signal technologies that coordinate with autonomous vehicles to allow communication even in low-visibility settings, “connected” corridors to improve traffic flow, and shared mobility services and autonomous vehicle testing. Marin County has the second-highest electric vehicle adoption rate in California, and these technologies can support further advancement of electric vehicle adoption.



EMPLOYER/EMPLOYEE SUPPORT

Providing additional travel supply through additional capital and service investments is a critical part of the Vision. However, managing demand is of equal importance in the development of the Vision. Employer/employee support programs are designed to encourage a shift from single-occupancy vehicle trips to other modes, reducing trips that contribute significantly to traffic congestion. Employer/employee support programs thereby support the Vision objective to make it easy, safe and convenient to travel in Marin. By addressing countywide vehicle trip reduction, employer/employee support programs improve job access, expand mobility choices, and reduce transportation related pollution.

- Support transit through programs that address first- and last-mile connections to fixed-route transit to make it easier for people to choose transit over driving alone, even when buses and trains do not provide door-to-door service. These employer/employee support services can provide new mobility options through technology applications and shared mobility services. Additionally, employer/employee support programs such as transit incentives and marketing programs can encourage transit use.

- TAM currently provides an Emergency Ride Home program, providing “insurance” for commuters who do not drive alone to work. This transit support program is effective at providing peace of mind to many commuters in Marin.
- Many employer/employee support programs focus on employer-sponsored commute programs and peak hour trip reduction. These programs can support transit, vanpool, carpool, and rideshare mode choices for individual employees, and mitigate peak hour traffic for those who continue to drive alone.
- Encourage parking management strategies. Parking management is a crucial component of employer/employee support and most of Marin’s parking supply is managed by private owners and granted by local approvals. Therefore, facilitating partnerships or incentives with major employers or retail districts to implement parking management strategies is key to reducing demand for parking and increasing ridesharing, transit ridership, walking, and biking.



TAM funded electric vehicle charging station at Marin Civic Center

Conclusion

Implementing the projects and programs that contribute to Marin's Vision will take a holistic and strategic approach to addressing our needs. One project in isolation will not resolve the myriad of challenges we face in traveling around the County, but incremental changes will contribute towards achieving our Vision. Marin's existing and future challenges will require a comprehensive multimodal strategy that expands transportation choices for all residents, commuters and visitors. Innovation is likely to help shape our future transportation network, and TAM is working towards addressing Marin's needs while keeping transportation planning and our local transportation funding working on long range goals that contribute to Marin's quality of life.

The Vision laid out in this report expands upon TAM's three core principles of economy, equity, and environmental health and safety to advance an effective transportation system that provides efficient travel overall between key destinations, by addressing congestion, while also ensuring an equitable allocation of travel options to provide efficient access regardless of one's mode of travel.

Fiscal support will be required to make this Vision a reality and the Strategic Vision Plan's projects and programs depend upon ongoing funding commitments from a variety of local, regional, state, and federal sources. While Marin County's Transportation sales tax provides the bulk of our local support to an effective and efficient system, additional revenues will be needed to support a resilient, world-class transportation system that supports our residents, workforce and visitors.

The transportation system Marin County envisions is one that makes it convenient, easy, and safe to travel in Marin, regardless of one's mode of travel. Defining targeted investments in mobility improvements to adapt to our increasing and ongoing challenges offers an opportunity for TAM and partner agencies to implement innovative, 21st-Century infrastructure improvements. TAM will continue to work towards this future and is committed to improving Marin's Transportation System.

