

Marin Countywide Transportation Plan 2050 Draft

A long-term vision for a safe, equitable, and sustainable transportation system in Marin County

October 2024



Table of Contents

1. Introduction.....	1
Purpose of the CTP and CBTP.....	1
Relationship to State, Regional, and other Local Plans.....	2
Plan Development.....	2
2. A Vision for the Future.....	6
A Vision Towards Safe Transportation.....	6
A Vision Towards Equitable Transportation.....	7
A Vision towards Sustainable Transportation.....	9
3. Today’s Planning Context.....	11
Transportation Authority of Marin (TAM).....	11
Relevant Transportation Plans and Legislation.....	13
Marin Transportation History.....	16
Existing and Planned Projects and Programs.....	18
4. Emerging Challenges and Opportunities.....	25
Demographics.....	25
Land Use & Development.....	28
Road Safety.....	33
Travel Patterns.....	36
Climate Change.....	37
Vehicle Technology.....	43
Funding Opportunities.....	47
5. Strategies and Implementation.....	48
Approach to Strategy Development.....	48
CTP Strategies.....	49
Implementation Plan.....	74
What Lies Ahead.....	76
6. Measuring Performance.....	78
Development of a Data and System Management Program.....	80

Appendices (Under Separate Cover)

1. Outreach Summary Report
2. Key Transportation Partners
3. Guiding Legislation and Plans
4. Transportation Equity Mapbook

1. Introduction

Purpose of the CTP and CBTP

CTP 2050 brings together two comprehensive planning efforts for Marin County – the Marin Countywide Transportation Plan (CTP) and the Countywide Community Based Transportation Plan (CBTP).

CTP PURPOSE: The purpose of CTP 2050 is to define a strategic, long-term vision and shared direction for Marin County's transportation systems in alignment with broader social, economic, and environmental goals in the county, region, and state.

The CTP sets the course for the development, delivery, and operation of a multimodal transportation network that effectively serves all community members of Marin County. It sets a 2050 Transportation vision, establishes goals, defines overarching strategies, and identifies specific actions to make progress toward the goals. This framework maps out TAM's investment strategy for future project, funding, and policy decisions.

The CBTP process directly involved community members to identify mobility needs and solutions for lower-income, physically vulnerable, non-driver, and other underserved communities throughout the county. CBTPs were previously prepared for the City of San Rafael's Canal Neighborhood, Marin City, and Novato. The Countywide CBTP builds on that previous work and establishes a holistic approach towards transportation equity on a countywide scale. The CBTP is fully integrated into the CTP and the two will generally be referred to together throughout the remainder of this document as CTP 2050.

This document and the direction contained within are an important outcome of the planning process, but the planning process itself is an equally valuable investment of staff, stakeholder, and community time. Furthermore, this document is not intended to sit on a shelf; and future use of this document for implementation purposes is the final reason that TAM invested in CTP 2050. Key outcomes include:

Process Outcomes	Report Outcomes	Implementation Outcomes
<ul style="list-style-type: none">• Broaden understanding of community transportation goals and existing inequities• Identify emerging areas and future transportation needs• Co-create solutions with community members in underserved communities• Convene partner agencies and organizations to strengthen partnerships needed to deliver the plan	<ul style="list-style-type: none">• Set 2050 Transportation Vision and Goals• Define transportation equity, safety, and sustainability• Document strategic priorities and implementation actions• Illustrate geographic focus areas and priority networks• Align strategic priorities and implementation actions with federal, state, and regional funding criteria	<ul style="list-style-type: none">• Guide future decision-making of TAM• Secure federal, state, and regional funding that aligns with CTP strategic priorities• Regularly connect with plan partners to advance CTP progress• Develop data-driven planning capabilities• Monitor progress toward Vision and Goals using objective performance metrics

Relationship to State, Regional, and other Local Plans

The CTP process is a collaborative effort with the county, towns/cities, transit operators, regional and state partners, and other stakeholders to align with and reflect local, regional, and state policies and priorities. Identifying areas of alignment with Metropolitan Transportation Commission (MTC) policies, strengthens regional/state/federal grant funding competitiveness. MTC has developed CTP Guidelines¹ to support a “common planning framework” between CTPs, the Bay Area’s Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS, also referred to as “[Plan Bay Area](#)”) and the state’s transportation, climate, and equity goals. Public participation is a fundamental requirement, as is advancing equity through investments and policies that improve mobility options for residents of Equity Priority Communities (EPC) and other historically disadvantaged populations included in Community-Based Transportation Plans (CBTPs). The 2050 CTP planning process and this report are consistent with MTC’s CTP and CBTP Guidelines.

In addition to following MTC Guidelines, this plan highlights relevant regulations and plans at the state, regional, and local levels. This is covered in greater detail in Chapter 3.

Plan Development

This report is the culmination of over a year of engagement with plan-specific working groups, the TAM board, Marin residents and workers, and TAM staff. Each of the groups engaged in the CTP 2050 planning process were selected to represent the partners across the county, region, and state that TAM will work with to implement the Plan’s vision, goals, and strategies.

TAM Board of Commissioners

TAM’s Board of Commissioners is the governing organization of TAM and is made up of 16 total commissioners: 11 members who are public officials and are appointed by each of Marin County’s cities and town councils, as well as 5 members from the County Board of Supervisors. The Board was engaged in CTP 2050 via informational discussions and three interactive workshops. All Board discussions and workshops were open to the public and included well-utilized time for public comment. The discussions were incorporated into regular board meetings held at the Marin County Civic Center while the workshops were held at the Marin Commons Business Center.

TAM Board Ad-Hoc Committee

To allow for lengthier discussion of CTP 2050 topics and create a forum for the team to hear from Marin’s policy makers, the planning team formed a Board Ad-Hoc committee comprised of 5 members of the TAM Board: Board Chair and San Anselmo Council Member, Brian Colbert, Supervisor Stephanie Moulton-Peters, Supervisor Dennis Rodoni, Novato Council Member Rachel Farac, and San Rafael Mayor, Kate Colin. The Ad Hoc Committee provided feedback on the key elements of the plan as they were being developed. The Board Ad Hoc committee met in-person at TAM’s office in downtown San Rafael.

Technical Advisory Committee

The Technical Advisory Committee (TAC) was assembled specifically for CTP 2050 and included public agency staff involved with transportation in Marin County. The TAC met in a hybrid format with some members joining in-person at TAM’s office in downtown San Rafael and some joining virtually. The TAC included:

- Marin Managers Association (2 members, plus 1 alternate)
- Marin Public Works Association (2 members, plus 1 alternate)
- Marin County Planning Directors (2 members, plus 1 alternate)
- County Health and Human Services
- Marin County Parks
- Marin Transit

¹ <https://mtc.ca.gov/digital-library/6781-guidelines-countywide-transportation-plans>

- Sonoma Marin Area Rail Transit (SMART)
- Golden Gate Bridge, Highway, and Transportation District (GGBHTD)
- Marin County Office of Education
- Marin County Office of Equity
- Metropolitan Transportation Commission (MTC)
- Caltrans

Equity Working Group

The Equity Working Group or EWG was assembled specifically for CTP 2050 and included staff representing community organizations throughout Marin County, each serving a geographic area or demographic population in Marin County that the CTP 2050 planning team identified as historically underserved by planning or transportation services. The EWG met virtually, and included invited representatives from:

- Canal Alliance
- Federated Indians of Graton Rancheria
- Marin Center for Independent Living
- Marin City CDC
- Marin County Office of Equity
- Marin Transit
- Marin Villages
- Marin Youth Commission
- Multicultural Center of Marin
- North Marin Community Services
- Novato Federation of Teachers
- Performing Stars of Marin
- Vivalon
- West Marin Community Services
- West Marin Fund

County, Community, and Advocacy Groups

In addition to the plan-specific stakeholder groups, TAM staff met with the TAM Bike and Pedestrian Advisory Committee and with the TAM Community Oversight Committee in public meetings and a range of community and advocacy groups throughout the planning process to provide updates and gather feedback on draft content. The TAM Community Oversight Committee, also known as the Citizens' Oversight Committee, (COC) is an advisory body composed of members who are private citizens residing in Marin County. The committee consists of representatives from and nominated by:

- Central Marin Planning Area
- Northern Marin Planning Area
- Ross Valley Planning Area
- Southern Marin Planning Area
- West Marin Planning Area
- Bicyclist and Pedestrian Groups
- Environmental Organizations
- League of Women Voters
- Marin County Paratransit Coordinating Council
- Marin Major Employers
- School Districts
- Taxpayer Groups

Additionally, many of the following groups were instrumental in shaping the policy framework and crafting the implementation plan, including:

- Cool the Earth
- League of Women Voters
- Marin Coalition
- Marin Conservation League
- Marin County Bicycle Coalition
- Marin Wildfire Prevention Authority
- Marin Mobility Association
- Marin Managers Association
- Marin Public Works Association
- Marin Planning Directors
- Marin Sonoma Transit Coordination (MASCOTS)
- WTB TAM

Public Engagement

TAM staff and the CTP 2050 consultant team engaged the public throughout the first half of 2024 to understand transportation needs and desires in Marin County. Outreach consisted of 1) four focus groups to engage various demographics, 2) five pop-up tabling events at locations throughout the county and, 3) a survey presented in both English and Spanish, available online and on paper for residents and transit users to participate in. High-level summaries of these activities are provided below, and a full Outreach Summary Report can be found in Appendix 1.

Focus Groups

Two online focus groups were conducted with (1) bicycle and environmental advocates and (2) business community leaders. Additionally, two in-person focus groups were held with West Marin community leaders at the Marin Agricultural land trust (MALT) at Point Reyes Station and with seniors and individuals with disabilities at Vivalon in San Rafael. All sessions introduced the Countywide Transportation Plan and discussed current transportation challenges and priorities for the transportation system in alignment with CBTP guidance.

Community Input Survey

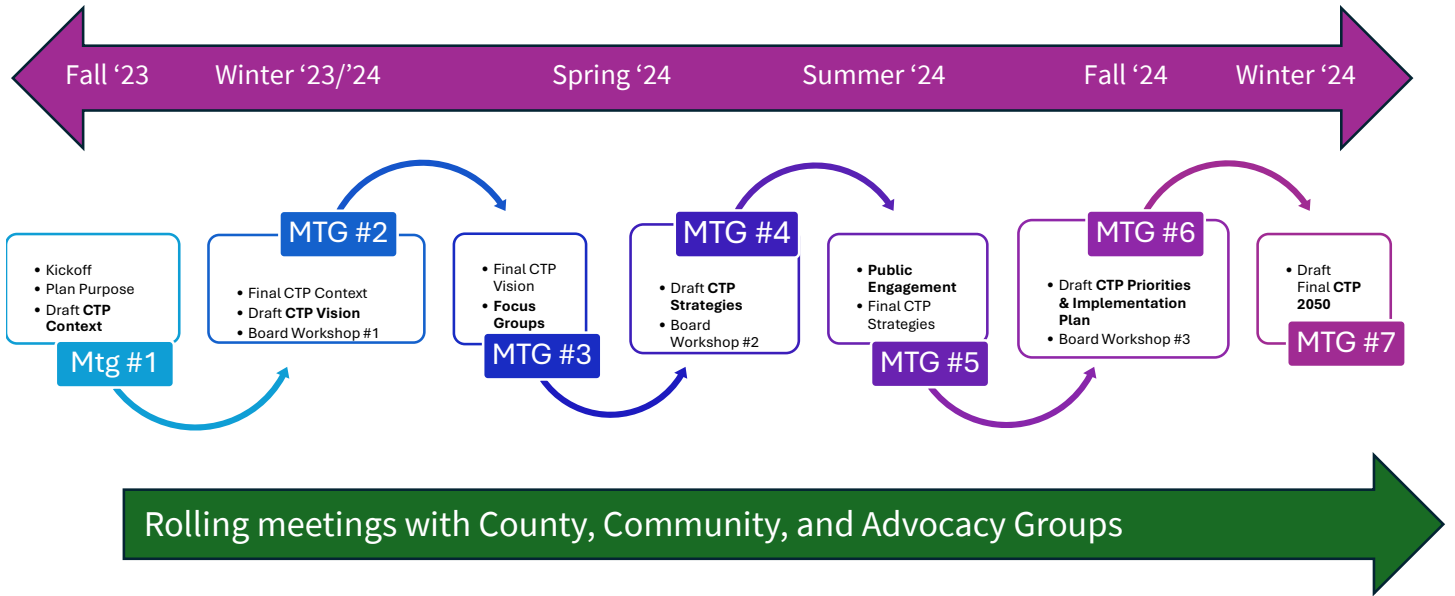
An online survey was conducted in Spring 2024 to gather public feedback from county residents and transit users to help inform decisions around the Countywide Transportation Plan. Questions focused on gathering information about current transportation patterns and gauging support on the draft CTP 2050 Goals and Strategies. Basic demographic information was also collected. The final tally of complete surveys came to 425 English and 23 Spanish.

Community Outreach Pop-Up Events

TAM and its consultant team held five public pop-up events in April and May 2024. The events were held at various locations throughout the county to reach different demographics, with a focus on underserved communities. The purpose of these events was to support the community input survey efforts and inform the community about the Countywide Transportation Plan. Each pop-up contained poster boards in English and Spanish, paper and electronic surveys in both English and Spanish, comment cards, and a children's activity sheet.

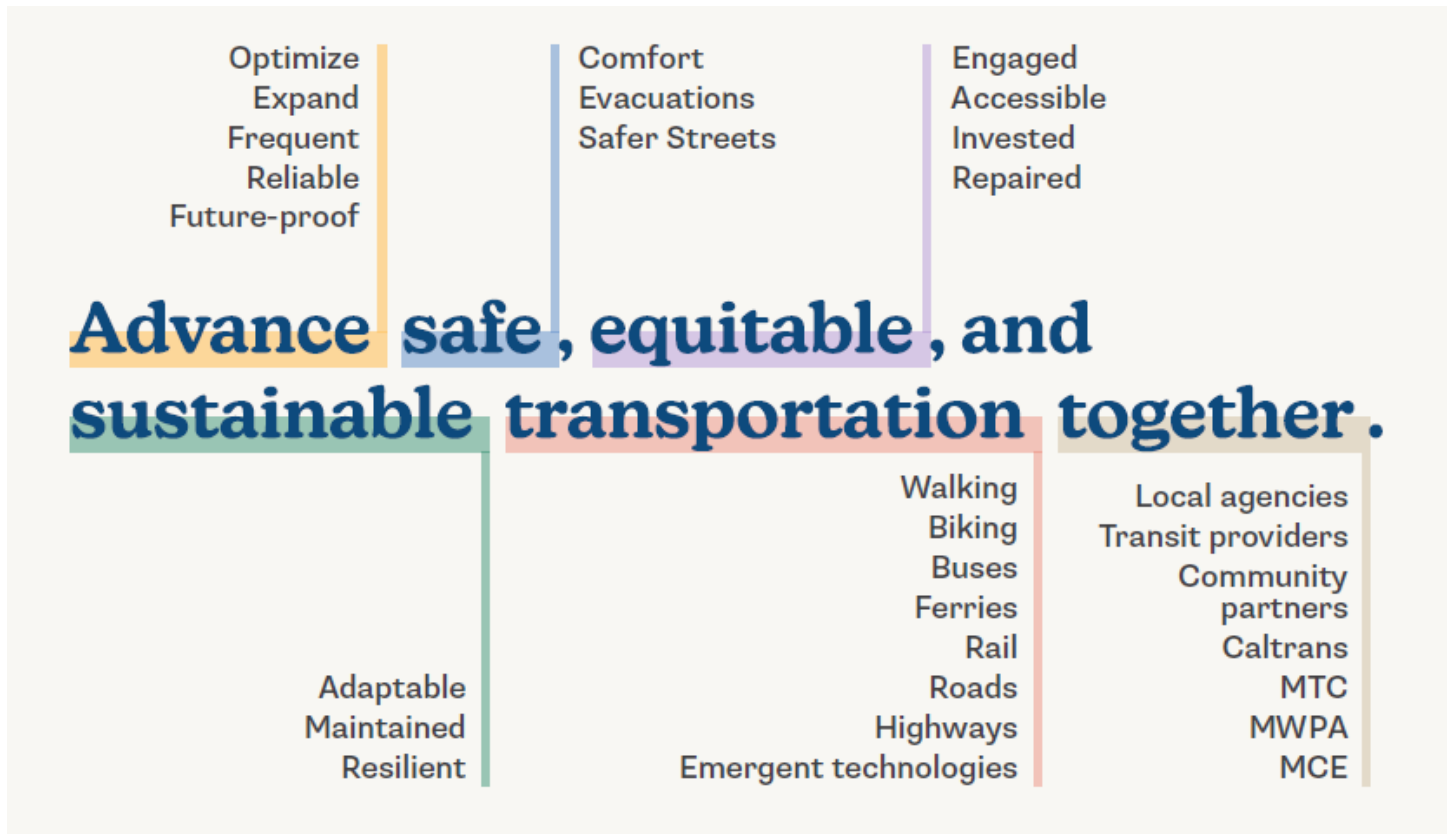
Plan Development Process

The CTP was developed starting with the Vision, followed by Goals and Strategies. The Implementation Plan brought all three items together into an actionable framework. The three plan-specific working groups – TAC, EWG, and Ad Hoc – met at the same cadence throughout the development of the plan. All three groups met a total of seven times, with each meeting coming after the development of a key interim or final deliverable, identified in bold.



2. A Vision for the Future

Building on previous planning processes, the CTP 2050 has refined and focuses the vision for Marin County’s transportation system to the following:



The vision statement and accompanying elaboration sets the focus of the CTP and the transportation system.

Each of the three adjectives are explored further below. “Together” is a key element of the vision statement, illustrating that collaborative decision making and strengthened partnerships across the community are needed to advance transportation improvements.

A Vision Towards Safe Transportation

According to the US Department of Transportation, more than 42,939 people were killed in motor vehicle crashes in the US in 2021, of which 7,388 were people walking. The total number of fatalities has climbed steadily over the past decade, increasing by over 30 percent. Traffic crashes are a leading cause of death for teenagers in America.

The California Office of Traffic Safety (OTS) provides crash rankings² to compare crash statistics for counties and cities in California. The latest rankings are provided for the 2021 calendar year and summarized below to show where Marin County ranks relative to all 58 counties in the state. A #1 ranking is the highest or “worst.”

- Marin County is ranked #1 for Bicyclists <15 – Crashes in which there were victims killed or injured and a bicyclist under age 15 was involved.

² The OTS crash rankings are based on the Empirical Bayesian Ranking Method, which adds weights to different statistical categories including observed crash counts, population and vehicle miles traveled. The crash counts reflect the aggregated impacts of all influential factors containing even the unrecognized or unmeasurable ones (e.g. level of enforcement), and the population and vehicle miles traveled represent the important traffic exposure factors that affect crash occurrence. The weights are assigned to the three components in a way that maximizes the precision of estimated Bayesian crash counts.

- Marin County is ranked #4 for Bicyclists – Crashes in which there were victims killed or injured and a bicyclist was involved.
- Marin County is ranked #4 for Pedestrians 65+ – Crashes in which there were victims killed or injured and a pedestrian age 65 and older was involved.
- Marin County is ranked #25 for Pedestrians – Crashes in which there were victims killed or injured and a pedestrian was involved.

GOAL: A Safe Network with Multimodal Solutions

Develop Marin’s pedestrian, bicycle, bus, ferry, rail, and road network in ways that improve safety, efficiency, connectivity, and public health.

A Vision Towards Equitable Transportation

CTP 2050 defines transportation equity for Marin County:

Transportation equity is achieved through proactive and community-centered removal of travel barriers and transportation-related disparities for historically and systemically marginalized and excluded populations.

Equality means that everyone gets treated the same.

Equity means that everyone gets what they need based on their own situation.

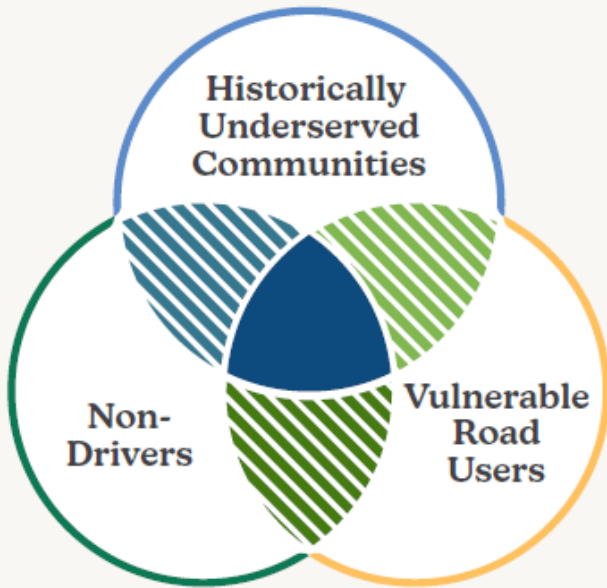
The term *equity* is most often associated with low-income, disability, and racial minority populations, and it is true that many individuals in these populations encounter travel barriers and burdens more often than many individuals in higher income, non-disabled, and white populations. And yet, these are not the only populations in Marin County that have been systemically de-prioritized by land use and transportation planning.

As is true across the United States, Marin’s transportation planning process has prioritized mobility for cars over mobility for people with a particular emphasis on moving commuters or workers. The resulting transportation system puts non-drivers at a disadvantage, creates a safety and comfort disparity between fast-moving vehicles and people walking and biking, and is particularly impactful on our oldest, youngest, and other vulnerable road users. CTP 2050 expands TAM’s focus of equity to encompass a wider range of communities who need more attention due to these factors.

To frame future transportation equity actions, Marin’s equity populations fall within three categories – historically underserved, vulnerable road users, and non-drivers. There is significant overlap between these categories, but they are distinct and experience different transportation barriers. The image includes three boxes that list primary and secondary transportation barriers that are most prevalent for each equity category.

Even with overlap, these equity populations likely total about 50% of the county’s population. These populations are not static, and the goal is that, over time, these lists and maybe even entire categories can be addressed through changes to the transportation system.

Equity Populations and Travel Disparities



Top Disparities/Barriers

- Access
- Non-Driving Access
- Roadway Safety

Secondary Disparities/Barriers

- Facility Maintenance, Roadway Safety, Traffic and Emissions Exposure, Climate Change Vulnerability, Travel Cost, User Outreach and Education
- Roadway Safety
- Security and Comfort, Traffic and Emissions Exposure

Historically Underserved Communities

- Equity Priority Communities (geographic)
 - MTC EPC map: Marin City, Canal, Los Ranchitos area neighborhoods
- Low-income residents and workers
- Black, Hispanic, Indigenous, Asian population, incl. non-English speakers
- People with disabilities
- Rural residents and workers

Vulnerable Road Users

- Seniors 65+
- Youth 15-
- People with disabilities
- Unhoused individuals
- Bicyclists and pedestrians

Non-Drivers

- Legal reasons
 - <16, undocumented residents, DL suspension
- Financial or physical reasons
 - some people with disabilities or very low incomes
- Choice or comfort reasons
 - aging seniors, new drivers, other reasons

GOAL: An Equitable System Accessible and Affordable for All

Provide reliable travel choices for people of all ages, abilities, and income levels.

A Vision towards Sustainable Transportation

In this new era of climate change, sustainability in transportation planning refers both to the desire to mitigate environmental degradation (air, noise, and light pollution, carbon emissions, habitat destruction, etc.) locally while also accepting the global reality of a changing planet and the need to adapt infrastructure and system operations to account for more extreme temperatures, storm events, fire risk, and sea level rise. A sustainable transportation system is a resilient transportation system.

The transportation sector is the largest source of greenhouse gases emissions (GHGs) in the county, resulting from land use, infrastructure, and mobility choices. The state GHGs reduction targets require 100% of new vehicle sales be EVs by 2035 plus a reduction in automobile use to meet the aggressive goals. Marin's historic transportation decisions showcase the county's commitment to environmental stewardship and GHG reduction: completion of a continuous carpool lane on Highway 101 from southern Marin to north of Santa Rosa, investments in bike and pedestrian infrastructure, developing the safe routes to schools national model that resulted in a high level of green trips to many schools, and dedicated funding for local transit and the SMART train. However, these investments alone will not accomplish state, regional, and local goals of achieving carbon neutrality, and CTP 2050 will need to include new strategies to reduce transportation-related emissions and adapt to a changing climate.

Marin County includes many of the first areas of the bay to flood in rising seas. Currently, areas of Marin County experience regular flooding that will be exacerbated by sea level rise including Marin City, East San Rafael, Sausalito, Corte Madera, coastal areas in western Marin, and State Route 37.

Wildfires are growing in size and intensity. In California, 9 of the 20 largest wildfires occurred in the past five years. Marin has an elevated risk of wildfire events and challenges associated with evacuating residents, employees, and visitors. Approximately 60,000 acres in Marin County (18 percent of the county land area) fall within the Wildland Urban Interface (WUI) where homes and structures are adjacent to or intermixed with open space and wildland vegetation.³ Because of the mix and density of structures and natural fuels combined with limited access and egress routes, pre-fire preparation and evacuation planning are more complex. In Marin County, many of the access and egress roads within the WUI are narrow and winding and often on hillsides with overgrown vegetation, making it even more difficult and costly to reduce fire hazards and prepare for evacuation in these areas.

Climate change has also amplified wildfire behavior as extreme weather events cause high winds (e.g., offshore Diablo winds) that result in very rapid fire spread. The Marin Wildfire Prevention Authority (MWPA), authorized through Measure C in March 2020, is tasked with vegetation management, defensible space and fire-resistant structure evaluations, local and specific wildfire prevention efforts, wildfire detection, and evacuation planning and alerts in most of Marin County.

Most of the land in Marin is protected as nearly 85 percent of the county consists of open space, watersheds, tidelands, parks, and agricultural lands. Most of the limited land available for development is located in or near the cities and towns. Focusing development in these areas supports natural land protection and the enjoyment of natural spaces. Locating housing development projects near transit, in areas with a high degree of walkability, and near bike facilities provides their residents with sustainable transportation options that reduce effects on both climate and traffic.

³ *Literature Review of the State-of-the-Science in Wildfire Evacuation*, Marin Wildfire Prevention Authority, October 7, 2022.

Marin also has a strong economic backbone based on environmental protections and visitor travel to coastal areas in West Marin, Mt. Tam and the surrounding Marin Hills, and Bayside communities. Visitors travel to parks, cultural, and commercial destinations mostly by car causing effects on both climate and traffic. Muir Woods National Monument manages visitor access by requiring reservations for all vehicles and providing shuttle service from the Larkspur Landing ferry terminal parking lot on weekends. Ferry access to Sausalito, Tiburon, and Larkspur Landing provides another sustainable transportation option for visitors.

GOAL: A Sustainable Future Built on Innovation and Resilience

Actively partner to implement transportation strategies to support climate resiliency, environmental protection, and economic development throughout Marin's communities.

3. Today's Planning Context

Transportation Authority of Marin (TAM)

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

TAM is the County Transportation Agency and transportation sales tax authority of Marin. TAM works with towns, cities, transportation agencies, and community groups to identify and prioritize transportation needs, plan improvements, and distribute local transportation funds. TAM is governed by a Board of Commissioners made up of 16 members, including the five members of the County Board of Supervisors and an elected official from each of the 11 city and town councils in Marin County. Each member serves a four-year term.

Funding Sources

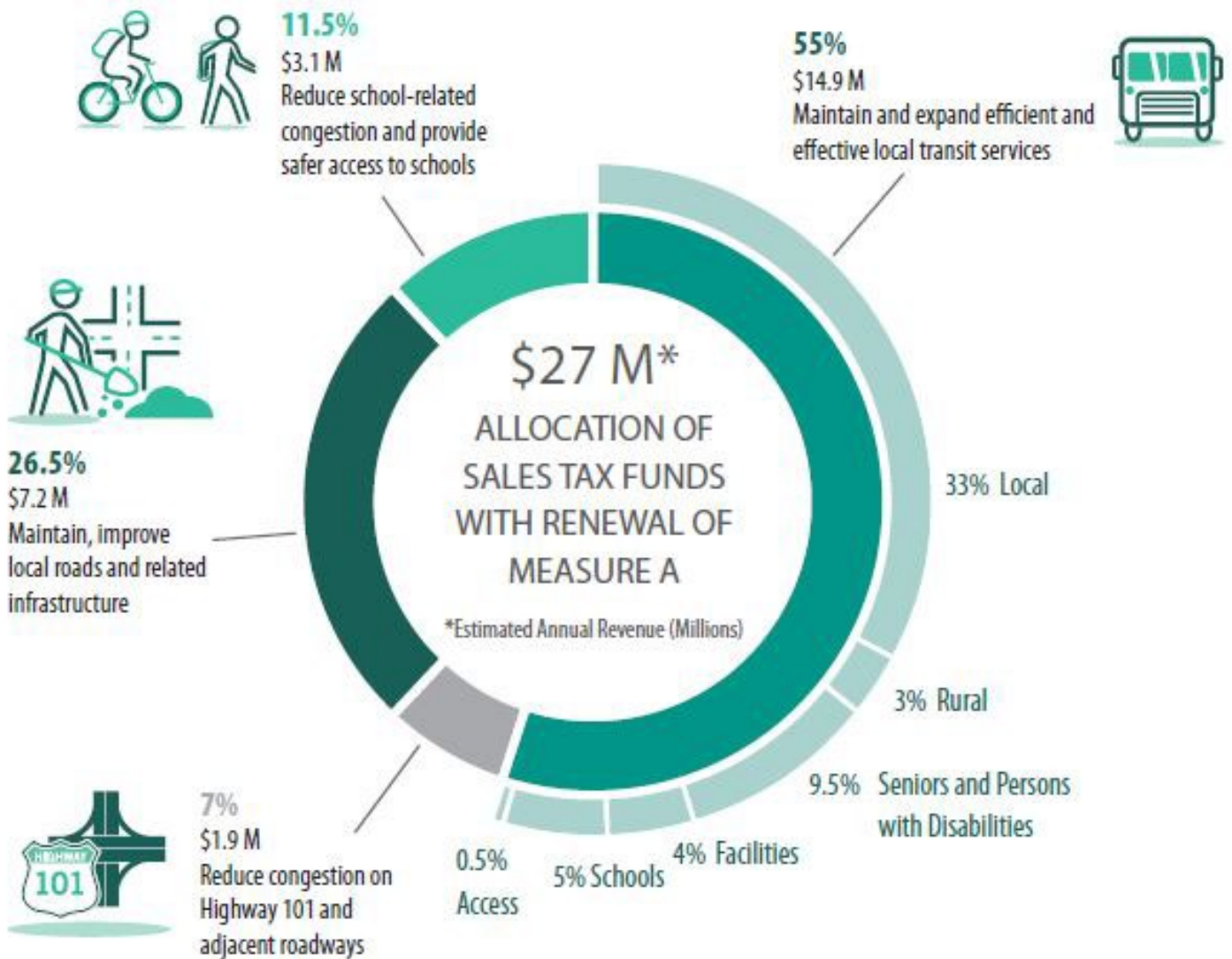
TAM was formed in 2004 when 72% of local voters approved a countywide ½ cent transportation sales tax. Three years of extensive deliberation and broad community engagement, as expressed in *Moving Forward: A 25-year Vision for Marin County*, preceded the election. In 2018, 77% of Marin County Voters elected to renew the Transportation Sales Tax as measure AA in 2018.

VOTER SUPPORT: Over 3/4ths of Marin County voters approved the extension of the Countywide Transportation Sales Tax. This funding source allows Marin to provide local bus transit, safe routes to schools programs and maintain and improve our local roads and highways.

The following are the Measure AA expenditure plan categories and estimated annual funding allocation:

- 55% – maintain and expand efficient and effective local transit services
- 26.5% – maintain, improve, and manage local roads and related infrastructure
- 11.5% – reduce school-related congestion and provide safer access to schools
- 7% – reduce congestion on Highway 101 and adjacent roadways

The following image provides more details about how the funding in these four major categories are allocated.



In 2010, local voters approved Measure B, authorizing \$10 to be added to vehicle registration fees annually.

The Marin County Vehicle Registration Fee (VRF), approved by voters as Measure B in November 2010, dedicates an estimated \$2.3 million annually in VRF revenues to transportation projects and programs in Marin. The original Measure B Expenditure Plan directed staff to develop a Measure B Strategic Plan, which was adopted in July 2011.

The following are the Measure B expenditure plan categories and estimated annual funding allocation.

- 35% – maintain local streets
- 35% – improve transit for seniors and people with disabilities
- 25% – reduce congestion and pollution
- 5% – maintain Class I bike/pedestrian pathways

Combined revenue from these local sources currently exceeds \$35 million annually. Local funding allows Marin to secure regional, state, and federal grants that require a local funding contribution as a match.

In addition to these local funding sources, federal, state, and regional funding sources are critical to maintain and improve the county transportation system. These funding sources generate more available revenue than local taxes, and are raised through fuel taxes, fees, and federal and state general fund contributions. MTC distributes Federal Highway Administration (FHWA) funding and Federal Transit Administration (FTA) funding through various

funding programs including the One Bay Area Grant (OBAG) program. These funding programs further the goals set in Plan Bay Area. Marin’s local jurisdictions also receive state funding directly for local streets and roads, a funding source that has grown with the passage of Senate Bill 1 (SB1).

TAM has significantly benefitted from MTC’s Regional Measure 2 (RM2) and Regional Measure 3 (RM3). These programs, each funded with a one-dollar toll increase on State-owned bridges, have supported active transportation projects, San Rafael Transit Center, SMART, Marin-Sonoma Narrows, State Route 37 and the US 101/580 Multimodal and Local Access Project.

TAM’s Current Planning Efforts

In 2018, TAM approved *Getting Around Marin, Strategic Vision Plan*. The Plan refined TAM’s earlier vision, *Moving Forward: a 25-year Vision for Marin County* foreseeing a transportation system that would enhance Marin’s scenic environment, provide equality for all users, and strengthen economic opportunity for residents, visitors, and the workforce. This plan guided revenue discussions in advance of the development of local, regional and state revenue measures. The report acknowledged that 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.

TAM’s current and ongoing efforts include planning and delivery of highway and interchange work, biking and walking improvements, school access, bus, paratransit, alternative community mobility programs. More recently TAM has initiated studies to assess sea level rise adaptation, road safety, active transportation, and other emerging transportation needs, including Mobility Hubs and measuring transportation impacts from land use decisions.

TAM’S PARTNERS: TAM works in partnership with other public agencies to maximize the outcomes it is working toward. Participating in regional and state technical work groups helps ensure Marin’s perspectives are reflected in planning and funding programs. In addition, TAM staff work with local Planning and Public Works Departments in each city, town, and the County. Where communities have identified Priority Development Areas and Station Area Plans requiring additional land use and transportation coordination, TAM supports these processes and implementation of projects. In areas where TAM is not leading efforts, such as emergency evacuation and sea level rise, staff meet regularly with the agencies that are advancing these initiatives. A summary of TAM’s Key Transportation Partners is provided in Appendix 2.

Relevant Transportation Plans and Legislation

CTP 2050 charts a new course for Marin County’s Transportation System in part by referencing and responding to plans and policies at the federal, state, and regional level. The following plans and policies were influential in the development of this plan. Additional guiding legislation and foundational plan documents are summarized in Appendix 3.

Marin County

General Plans & Housing Elements

Since 1969, State housing and planning laws require all California cities and counties include in their General Plan a Housing Element that establishes objectives, policies, and programs in response to community housing conditions and needs. The Housing Element is the primary tool used by the State to ensure local governments are appropriately planning for and accommodating enough housing across all income levels, including individuals with special housing needs. The Housing Element is required to be updated every eight years. Current Housing Elements cover the period of 2023-2031.

Transit Agency Short-Range Transit Plans (SRTPs)

To effectively execute regional planning and programming responsibilities, MTC requires that each transit operator in its region that receives federal funding prepare, adopt, and submit to MTC a Short-Range Transit Plan (SRTP). SMART, Marin Transit, and Golden Gate Transit each have an SRTP that combines data, financial resources, and performance targets to plan for their respective public transit services. The plan guides transit investments into the future and balances projected costs and revenues over the next five years. The Short-Range Transit Plan also provides a 10-year outlook for revenues and needs for each transit operator.

SMART Strategic Plan 2019

SMART's Strategic Plan guides the strategic direction of the organization and focuses on four strategic objective areas: Ridership, Pathways, Extensions, and Freight. The Plan is built on the foundation of the Vision and Mission statements adopted by the Board in 2022 and identifies short term actions and direction for the agency.

GGBHTD Strategic Plan

In response to ongoing fiscal challenges resulting from the pandemic and recovery period, in April 2024, the Golden Gate Bridge Highway and Transportation District's Board of Directors approved a Draft Strategic Plan to define a path forward regarding the District's future activities and finances. The plan prioritizes financial and operational commitments that would provide resources and services, while ensuring the District's long-term financial sustainability. The plan focuses on four areas: customer service improvements; sustainability and climate responsibility; addressing financial shortfalls; and operational excellence. The plan incorporated hundreds of comments into forty individual strategies, weighing implementation timing and fiscal impacts, and provides a strong basis for expanded study and implementation of measures. As one result of the strategic plan process, the Marin Sonoma Coordinated Transit Service Planning (MASCOTS) is now underway assessing travel markets and potential service changes across all transit operations in the two counties.

Regional

Plan Bay Area 2050 (2021)

Plan Bay Area (PBA) 2050 is a joint MTC / ABAG long-range regional transportation plan covering four interrelated elements of growth: housing, economy, transportation and the environment. It meets both federal and state statutory requirements, including California's SB375, the Sustainable Communities and Climate Protection Act.

The Current PBA, *Plan Bay Area 2050*, includes 35 strategies, comprising public policies and investment types that can be implemented in the Bay Area at the city, county, regional or state level over the next 30 years. The plan guides regional funding and policy decisions to address regional and local transportation needs.

Among the plan policies, the plan demonstrates the regional approach towards meeting state climate and housing goals, through coordinating housing and transportation planning. To meet the current 19% VMT reduction target, Priority Development Areas (PDAs) and other geographies are identified to guide development of new housing and jobs near public transit, thereby reducing dependency on personal auto usage. The plan and the policy elements guide regional funding and policy decisions.

Transit-Oriented Communities Policy (2022)

In 2022, MTC developed its TOC Policy to align its previous transit-oriented development policies with PBA 2050. TOCs enable people to access and use transit more often for more types of trips by centering housing, jobs, services, shopping, and gathering spaces around public transit. They are places where people of all ages, abilities, and income levels can live, work and thrive. In Marin County, the TOC Policy applies to locations within a half mile of existing and planned SMART stations and ferry terminals.

Since they are in places with existing transit infrastructure nearby, TOCs make the most of public investments and limit development impacts on established neighborhoods and the environment. TOC policy requirements address the following:

- Minimum residential and commercial office densities for new development;
- Affordable housing production, preservation and protection, and stabilizing businesses to prevent their displacement;
- Parking management; and
- Transit station access.

State

California Transportation Plan 2050 (2021)

The *California Transportation Plan 2050* (CTP 2050) provides Caltrans' policy direction to align state climate, safety, equity and transportation goals for state transportation across all modes of travel. Despite unprecedented challenges from climate change and the effects of the COVID-19 pandemic on transit, the Plan defines a transportation system that is equitable, safe, sustainable, integrated, and efficient for all. The Plan calls for an integrated, statewide rail and transit network, centered around the existing California State Rail Plan, investing in networks of safe and accessible bicycle and pedestrian infrastructure, adding connected facilities for walking and bicycling, emergency evacuations, first/last-mile connections to transit, and investments in zero-emission vehicle (ZEV) infrastructure. The plan also prioritizes safety through a multidisciplinary approach for speed management, such as road diets, conversion of intersections to roundabouts, and signal coordination to slow speeds.

Climate Action Plan for Transportation Infrastructure (CAPTI) (2021)

Because the transportation sector is the largest contributor to California's GHG, reducing emissions from transportation is central to the state's commitment to aggressively address the climate crisis. CAPTI aligns state transportation investments with state climate, health, and social equity goals identified in the California Transportation Plan 2050. It defines a suite of needed changes to project planning, scoping, programming, and mitigation activities to align with the CAPTI investment Strategy. Investments seeking state funding are expected to demonstrate consistency with CAPTI and state goals.

Regional Housing Needs Allocation (RHNA)

Since 1969, California has required all local governments (cities and counties) to adequately plan to meet the housing needs of everyone in the community. This process starts with the California Department of Housing and Community Development (HCD) determining both the existing and projected housing need at a variety of affordability levels for each region in the state.

In the Bay Area, ABAG develops a methodology to allocate that housing need to local governments. California's local governments then adopt Housing Elements included in local General Plans, to show how the jurisdiction will meet local housing needs. It includes an inventory of sites where housing could be proposed. Current Housing Elements cover an eight-year planning period from January 31, 2023 through January 31, 2031.

The State can impose fines if jurisdictions do not meet their targets. The total number of new units assigned to Marin County, including all cities and towns, is 14,405 units. That represents 3.2% of the region's allocation. It represents a 12.7% increase in the number of housing units in Marin as of 2020, or an average of 1.6% per year. This compares with less than 1% annual growth for the past 20 years. Of the 9 Bay Area counties, Marin holds the lowest rental and homeowner vacancy rates, which further exacerbate the difficulty in accessing housing, and especially affordable housing. In 2024, a household of four earning \$156,650 annually or less in Marin County is considered low-income and would qualify for most affordable housing.

Federal

Infrastructure Investment and Jobs Act (IIJA) (2023)

In 2023, President Biden signed the Infrastructure Investment and Jobs Act (IIJA), a \$1.2 trillion investment in transportation and other types of infrastructure (including energy, water, and broadband). The foundation of the IIJA is a new five-year authorization of the federal Surface Transportation Program to replace the recently expired Fixing

America’s Surface Transportation (FAST) Act. Approximately 90 percent of federal-aid highway program funds are apportioned to states by formula through various core programs.

The IIJA authorizes a \$475 billion five-year surface transportation program, an increase of 48 percent above FAST Act baseline spending levels. California will receive a total of \$29.96 billion in apportionments over the life of the bill. The Bay Area will receive about \$4.5 billion in “guaranteed” funding through the highway, bike/pedestrian and transit formula funds that MTC distributes via a mix of competitive programs and dedicated transit funding.

The IIJA largely preserves FAST Act core formula programs with modifications to better address sustainability, resiliency, safety, and equity. In addition, the law authorizes some \$140 billion in over two dozen competitive grants that could help fund transportation priorities.

Marin Transportation History

Marin County’s transportation history has been shaped both by nature and innovation. As the Bay Area began to boom during the 1849 Gold Rush, the bay isolated Marin from the rest of the region. The economy was predominantly agricultural. Early roads skirted the wetlands, and villages formed along creeks, between steep hills that acted as natural borders.

Cities and towns sprouting around the San Francisco Bay pursued mobility solutions that fueled economic opportunity, technological innovation, environmental stewardship, thriving art scenes and potent social justice movements. Today, the region is recognized for its trend-setting problem-solving. This CTP draws from earlier imagination, dedication, and success to chart a future direction that best serves Marin County residents, businesses, and visitors.

19th Century

Ferries

Crossing the San Francisco Bay by ferry dates back to 1850 when ferryboats operated between San Francisco and Oakland. In 1868, the Sausalito Land and Ferry Company purchased waterfront land in Sausalito and proceeded to layout streets and subdivide the central waterfront into view lots. They also began to operate ferry service between Sausalito and San Francisco, in part as a promotion for real estate development. In 1875, the North Pacific Coast Railroad purchased the ferries.

Rail

In the late 1870s, rail lines began to link private ferries with Marin’s villages, each stop serving or spawning a distinct neighborhood as new tracks were laid. Today’s Hub in San Anselmo was the confluence for several rail lines until a new crossing through bay lands created a direct link to San Rafael. In 1903, Marin pioneered a national trend when private rail operators converted from diesel to electric propulsion. Rail’s major transit role ended in 1941, and another innovative transportation feat, the opening of the Golden Gate Bridge, combined with increasingly affordable auto ownership, decimated ridership.

20th Century to Current

US-101

US-101 is a Caltrans-managed federal facility. In 1929, work began on the nation’s westernmost federal-aid highway. In Marin, it replaced a more circuitous route by placing the roadway on top of an elevated berm running through marshlands. In 1931, Redwood Bridge, a redwood-timbered span over Richardson Bay, was the final section to open. Tidal waters sometimes rose on both sides of the roadway, as they do today.

In 1939, the California Legislature passed legislation establishing the freeway model, which led to elevating of US-101 through San Rafael in 1942. Throughout the 1950s, Highway 101 was widened and access restricted by constructing modified cloverleaves in many locations such as the East Blithedale/Tiburon exit.

Richmond-San Rafael Bridge/I-580

The 4.5-mile Richmond-San Rafael Bridge was originally completed in 1956. The bridge operated with all three lanes in both directions open to traffic after the lower deck was completed in 1957. A water pipeline installed during a drought in 1977 was placed in the third lane. When it was removed, the third lane was restriped as a shoulder. A project implemented by the Bay Area Toll Authority (BATA) reopened a third eastbound lane in 2018 on the lower deck for evening commutes and installed a protected bike and pedestrian path on the upper deck of the bridge in 2019. In May 2024, BATA approved a proposal to remove the protected bike and pedestrian path on the upper deck Mondays through Thursdays, freeing the shoulder to use in emergencies.

State Route 1 (Shoreline Highway)

SR 1 is owned and managed by Caltrans. It was built piecemeal in various stages, following a large expansion of the state highway system in 1933. Construction was funded through federal and state bonds. Portions of the route had different names and numbers until 1963, when the state legislature approved renumbering the entire route as SR 1 and simultaneously authorized Marin's portion to be referred to as "Shoreline Highway." Most of the Marin County section of SR1 lies away from the coastline, though portions of the roadway at Bolinas Lagoon and along Tomales Bay have been identified as vulnerable to rising seas and increased flooding.

State Route 37

State Route 37 follows 21 miles along the northern shore of San Pablo Bay linking US 101 in Novato, Marin County with Interstate 80 (I-80) in Vallejo, Solano County. It serves as a vital connection between Marin, Sonoma, Solano and Contra Costa and the Central Valley. It is the northernmost non-mountainous east-west link between US 101 and I-5 (via I-80 and I-505) in the State. SR 37 is protected by a complex system of interconnected levees which makes the corridor vulnerable to Sea Level Rise inundation and flooding now and in the future. In 2015, TAM along with Napa, Solano and Sonoma County Transportation Agencies agreed to form a partnership through a Memorandum of Understanding (MOU) to develop an expedited funding, financing and project implementation strategy for the reconstruction of SR 37 to withstand rising seas and storm surges while improving mobility and safety along the route. This partnership and MOU have since grown to include SMART, MTC, Caltrans as well as state and federal resource agencies.

Ferry Service

In 1937, soon after the Golden Gate Bridge opened, private ferries ceased service. Over thirty years passed before increasing commute congestion on the bridge motivated the Bridge District to seek authorization allowing their agency to provide ferry services from Marin County. In 1970, Sausalito ferry service began, followed by the opening of the Larkspur Ferry Terminal in 1976. Forty more years passed before the Bridge District expanded ferry services again, commencing weekday commute ferry service between Tiburon and San Francisco.

Ferry service has proven to be a resilient mobility benefit. In 1982, after days of heavy rain, Highway 101 was cut off by landslides for two days. Larkspur Ferry carried a record number of commuters by quickly dispatching charter vessels to help match the need. In 2002, the Bridge District added direct ferry service to the San Francisco Giants baseball stadium. Additional private ferry services operate in Marin County, including Blue-and-Gold ferry, and Angel Island ferry services.

Bus Services

Marin County Transit District (MCTD) was formed by a vote of the people of Marin County in 1964 to provide local transit service. The agency is now called Marin Transit and still has responsibility for providing local transit service. Golden Gate Transit was established in 1970 and initially operated feeder shuttle service under a contract with MCTD. Golden Gate Transit initiated transbay bus service in 1972. With the passage of the Countywide Transportation Sales Tax in 2004, MCTD has grown its services and operations, and provides over 13 million annual passenger miles traveled.

Rail Services

In 2008, Marin and Sonoma Voters approved Measure Q providing a ¼-cent sales tax to develop a commuter rail service in the two counties, along with a multi-use path. In 2015, SMART operations began on an initial operating segment, followed by the Larkspur station opening in 2017, and downtown Novato station in 2019. SMART has successfully secured regional, state and federal funding to advance its capital needs, and extensions are under construction to connect Windsor in the north. Healdsburg extensions are also currently partially funded. Measure Q expires in 2029, and a voter renewal of the measure was unsuccessful in 2020.

Active Transportation

The North-South Greenway (NSGW) (generally following the historic Northwest Pacific Railroad right of way) and Cross Marin Bikeway (CMB) corridors are integral to Marin County’s local transportation system, along with routes such as the Bay Trail, and their completion will mark a major milestone in the region’s push towards creating an extensive active transportation network. In 2023, TAM developed a status report that illustrates the progress on the two primary bicycle/pedestrian corridors in Marin County running north-south and east-west, respectively. Over the years, TAM and other agencies have contributed significant resources to plan, fund, and deliver infrastructure improvements at various locations throughout these corridors. While major milestones have been celebrated in recent years, such as the completion of the Central Marin Ferry Connector Bridge across Sir Francis Drake Boulevard and the NSGW Project Over Corte Madera Creek, there are still major gaps within the two corridors. The status report was developed in close coordination with local jurisdictions and bike advocacy groups to take a closer look at what efforts are underway to build out these important facilities, and what gaps remain in the network.

The Great Redwood Trail being advanced in Humboldt and Eureka Counties overlaps with portions of the North south greenway along the SMART Multi-Use Path, to terminate in Larkspur. This trail network would provide a continuous 300 mile+ active transportation facility connecting Marin to the North Coast of California.

Existing and Planned Projects and Programs

Road & Highway Projects

Marin’s major roads are organized in a ladder: Highway 1 and US-101 are the north-south spines connected by a series of twisty, east-west, two-lane roadways including Panoramic Highway, Sir Francis Drake Boulevard, Lucas Valley Road, and Novato Boulevard. To the northeast, east, and south, Marin is connected via major regional roadways and bridges that connect travelers to Sonoma County (SR 37), Contra Costa and Alameda counties (San Rafael-Richmond Bridge), and San Francisco County (Golden Gate Bridge), respectively.

Local Roads Projects

Local roads are an essential part of our overall transportation system and help connect our neighborhoods, schools, and business districts. Each year TAM distributes local funding to the 11 cities and towns and the County of Marin based on the miles of roadway lanes and population of each jurisdiction. These local funds augment state funding provided directly to cities and towns from SB1 and help advance pavement and local asset maintenance needs. All local projects are required to comply with TAM’s Complete Streets requirements and consider all modes of travel on local roadways. Under previous funding programs, major road funding for local jurisdictions resulted in the development of significant corridor improvement projects.

Highway Projects

State Route 131

Caltrans District 4 (Bay Area) is in the environmental phase of the State Route 131 (SR-131) Capital Preventive Maintenance Project in the town of Tiburon. The purpose of the project is to improve serviceability and ride quality on SR-131 and restore existing drainage systems to reduce the potential for highway flooding and to increase the safety for the public. In addition, the project will support active modes of transportation by bridging a gap in the

transportation network and improving bicycle access throughout the area. The location is approximately 1,000 feet west of US-101 interchange to the Tiburon Boulevard/Main Street intersection.

As illustrated in **Figure 1**, TAM is currently advancing four major highway projects:

Marin-Sonoma Narrows: The Narrows are a stretch of US Highway 101 between Novato and Petaluma where traffic is reduced from three lanes to two, and there is consistently congestion due to slow traffic, and traffic jams. The Narrows Gap Closure Project has been a significant, multi-phase decades long effort, and the final segment is nearing completion. It will add carpool lanes, as well as new interchanges and frontage roads to improve safe access from private properties and local roads and ensure that it meets current freeway standards. The project also includes continuous Class I and Class II bikeways between Novato and Petaluma.

State Route 37: State Route 37 (SR 37) runs along the northern shore of San Pablo Bay, linking US 101 in Novato with Interstate 80 in Vallejo. This 21-mile corridor connects Solano County cities and some of the most affordable housing in the Bay Area with jobs in Napa, Marin and Sonoma counties. It also serves as a vital connection between Marin, Sonoma, Solano and Contra Costa and the Central Valley.

The low-lying corridor experiences several challenges, including chronic traffic congestion, vulnerability to flooding that will increase with sea level rise, and potential impacts on highly sensitive wetlands. A coalition of local, regional, state and federal transportation and resource agencies are advancing near term improvements, interim improvements and longer-term projects to address the needs of the corridor.

US-101 Interchange Improvement Projects: Accessing Highway 101 in Marin is a major source of congestion on local roads, which reduces the connectivity of communities across Marin. Some of the interchanges have long-standing visions for improvements that have not yet been planned in detail. The interchanges vary in age; many of them were built in the 1950s and 1960s and have not been altered in meaningful ways to meet current and future demands of vehicles, transit, bicyclists, and pedestrians. The purpose of the study is to identify a program of near- and long-term projects for twelve selected interchanges that will improve the operation and safety of these interchanges for all users, allowing smoother travel to, from and across Highway 101 and local roads. Based on results of the study, three interchanges located in south, central, and north Marin County are being advanced to the Project Initiation Phase for detailed design, environmental clearance, and permitting: SR 131 Tiburon Boulevard/East Blithedale Avenue, Manuel T. Freitas Parkway/Civic Center Drive, and Alameda del Prado/Nave Drive. Additional interchange improvements are also advancing through Caltrans Internal processes, and include Tamalpais Drive, and near-term improvements at Manual T Freitas Parkway.

Northbound US-101 to I-580 Connection: Currently, drivers who wish to access the Richmond-San Rafael Bridge (I-580) from northbound US 101 in Larkspur must either exit the freeway and travel on East Sir Francis Drake Boulevard, in Larkspur, or exit the freeway at Bellam Boulevard in San Rafael. The objective of the US 101/I-580 Multimodal and Local Access Improvement Project is to improve traffic flow and reduce back-ups on northbound US 101 and Bellam Boulevard ramps by improving Bellam Boulevard and potentially separating regional pass-through traffic from local traffic on a new freeway-to-freeway connector. In a near term improvement, TAM and Caltrans are advancing short term project to improve operations at the Bellam Boulevard intersection.

Existing Transit & Future Plans

Marin County voters have approved high levels of Measure AA transit funding to support local transit. This funding is used both for regular operations and for capital improvements to bus stops, shelters, fleet upgrades, and operator and maintenance facilities.

As shown in **Figure 2**, there are four public transit providers in Marin County:

- **Marin Transit** operates local bus service, including supplemental school routes, east-west cross county service, and paratransit service.

- **Golden Gate Transit** operates regional service along US-101 between Sonoma, Marin, and San Francisco counties as well as one route on I-580 between San Rafael and El Cerrito del Norte BART station.
- **Golden Gate Ferry** operates service from Larkspur, Sausalito, Tiburon, and Angel Island to San Francisco.
- **SMART** operates train service between Larkspur and the Santa Rosa area with Marin County stops in Novato and San Rafael.

TAM is working with these transit partners on service planning and capital improvements. TAM is also studying part-time transit lanes to US-101 north of I-580 and enhanced transit service on SR-37.

Active Transportation

Marin County has long commitments to improving routes for bicyclists and pedestrians with the goal of connecting people and communities with safe, healthy, active, and fun transportation choices.

Figure 3 highlights Marin’s three major regional bikeway visions and the sections that are complete:

- **Cross-Marin Bikeway:** connecting downtown San Rafael to Point Reyes Station, this is a popular recreational route on the weekends.
- **Bay Trail:** part of the vision for a trail ringing the entire San Francisco Bay, Marin’s sections skirt the shoreline before shifting inland north of San Rafael.
- **North-South Greenway:** generally following US-101, the greenway would connect the Golden Gate Bridge to the Sonoma County line and use the SMART multi-use path for much of the route north of Larkspur.

Multimodal Programs

Safe Routes to Schools

Established in 2000, Marin County’s Safe Routes to Schools (SR2S) Program is an award-winning program designed to reduce congestion around schools while instilling healthy habits in children and creating a safer and cleaner environment for all. The program consists of education classes, encouragement events, infrastructure improvements, and other strategies that aim to increase the number of active green (walking and rolling programs) and green trips (carpooling, school bus, and transit) to and from schools.

Crossing Guards

TAM’s Crossing Guard Program provides trained crossing guards at key intersections to make it safer for more students throughout Marin County to walk or bike to school. TAM’s crossing guard program was first implemented in 2006 with 54 crossing guards and has grown to over 100 locally funded crossing guards.

Marin Commutes

The Marin Commutes Program is a comprehensive Transportation Demand Management (TDM) program that aims to reduce traffic congestion, improve air quality, and promote sustainable transportation. The Marin Commutes Program includes public outreach, workplace outreach and evaluation, along with ongoing, seasonal, and targeted campaigns. MarinCommutes.org serves as an information hub, outreach platform, and focal point for commute options, promotions, and localized information for those living and working in Marin County.

Alternative Fuels

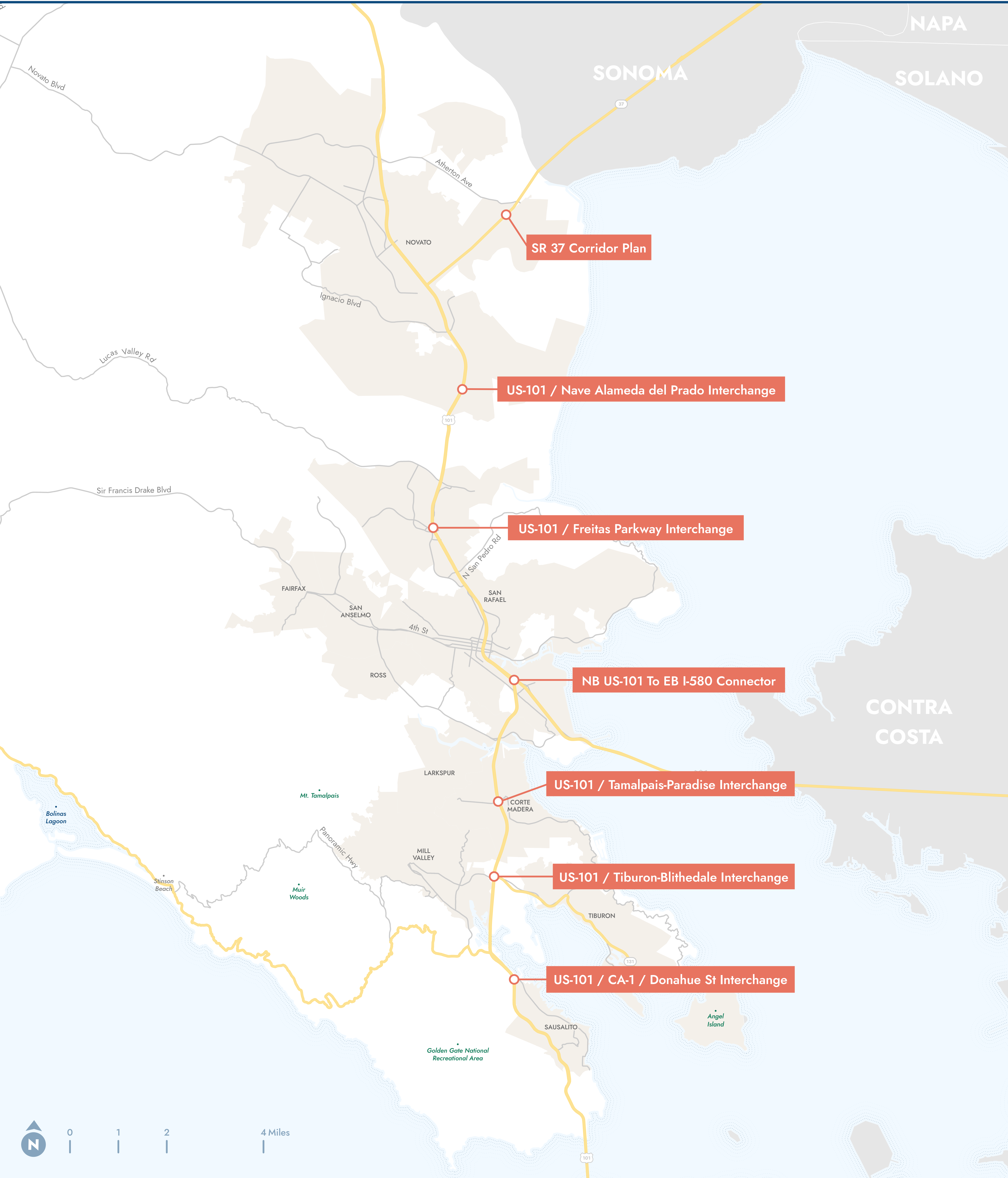
Marin County was an early adopter of electric vehicles and Marin EV sales continue to trend well above the state and national average. TAM’s Alternative Fuels Program advances the transition from fossil-fuel based transportation to more sustainable zero emission vehicles. TAM has conducted extensive outreach to increase awareness and supports public agencies with funding and technical assistance to increase community charging opportunities and transition to clean fleets. The ongoing rebate program supports public agencies in the transition to EVs and has resulted in approximately 450 rebates for EV chargers and 45 rebates for converting to alternative fuel vehicles.

Bike Share Pilot

TAM and the Sonoma County Transportation Authority (SCTA) are launching the Bike Share Pilot Program 'Redwood Bikeshare' to expand bicycle access and facilitate multimodal transportation in collaboration with transit and other regional bike share operators. Parking hubs for e-bikes will be placed at SMART train stations and key sites in each designated city, including Santa Rosa, Rohnert Park, Petaluma, Cotati, Novato, San Rafael and Larkspur. The program, known as Redwood Bikeshare will initially offer 300 e-bikes and 60 parking hubs within the seven Sonoma and Marin County cities.

MARIN COUNTYWIDE TRANSPORTATION PLAN

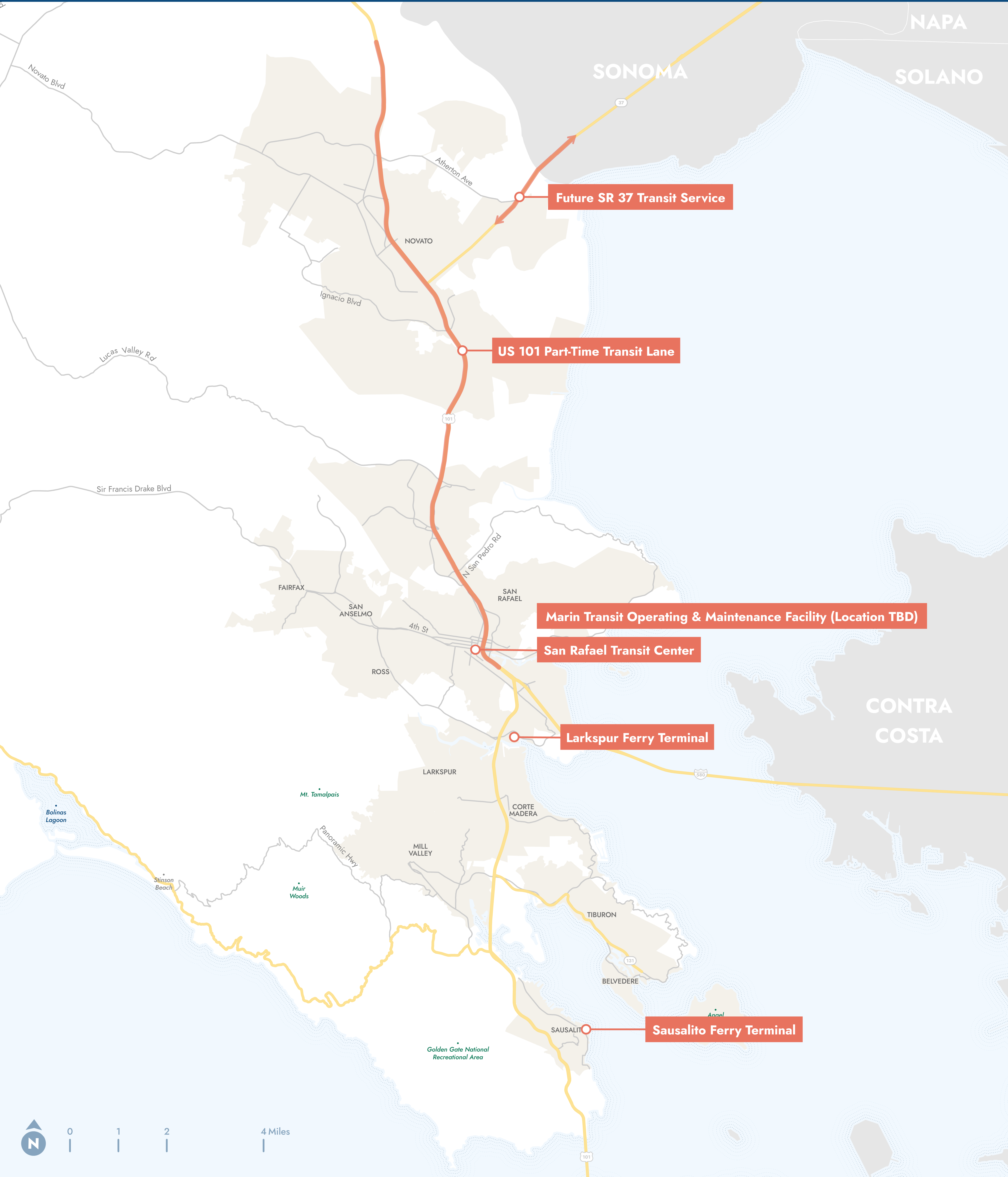
Highway Projects in Planning Stage



Transit Projects & Programs in Planning Stage

Programs in Planning Stage

- Bus Stop Improvements
- Transfer Connector Improvements
- Major Corridor Improvements
- Zero Emission Bus Infrastructure
- Fare Collection
- Clean Bus / Ferry Vehicles

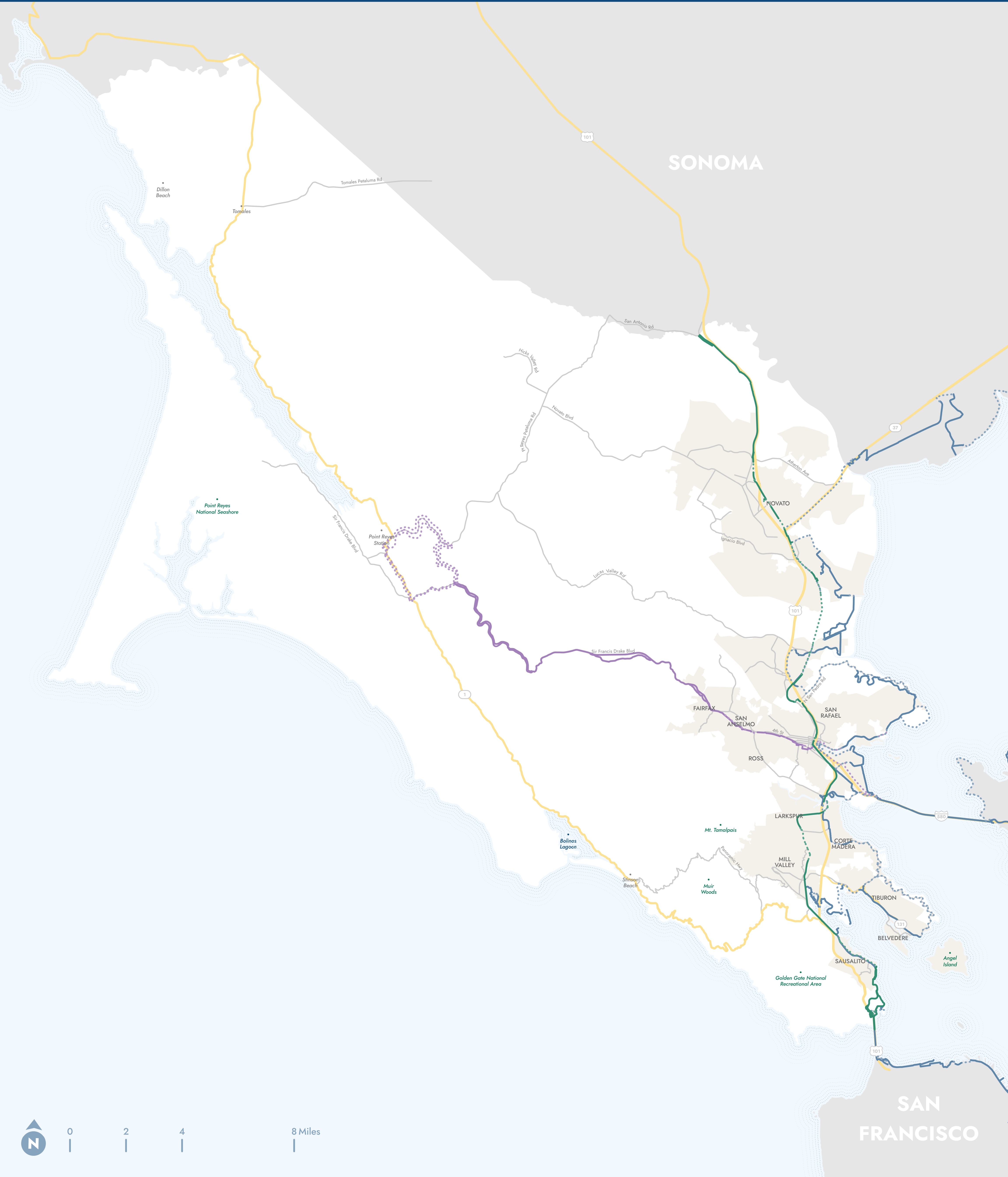


Status of Regional Bikeways

Cross Marin Bikeway, Bay Trail & North-South Greenway / SMART Multi-Use Path

Bikeway Status

Cross Marin Bikeway	Bay Trail	North-South Greenway / SMART Multi-Use Path
Complete	Complete	Complete
Proposed Improvement	Proposed Improvement	Proposed Improvement



4. Emerging Challenges and Opportunities

This chapter documents emerging challenges and opportunities revealed through data analysis and conversations with plan stakeholders.

Demographics

According to the US Census, the total county population estimate for 2022 is 256,000, down slightly from the 2020 population of 262,000 but higher than the 2010 population of 252,000. By comparison, the nine-county Bay Area population increased from 7.15 million in 2010 to 7.77 million in 2020 but declined to 7.56 million in 2022.

Age demographics affect transportation patterns by shifting the number of people commuting, the number of children traveling to and from school, and the number of retirees slowly aging out of driving.

An Aging Population

Marin is the oldest county in the Bay Area and getting older. Over a third of Marin residents (38%) are over 60 as of the last census and according to the California Department of Finance, that percentage is expected to rise to 42% by 2041. In 2041 Marin's average age is projected to peak at 50.3. Based on conversations with members of the Equity Working Group and the focus group participants, many elderly residents in Marin County struggle to get around due to a combination of factors including physical mobility challenges, retirement of their drivers' licenses (both voluntary and involuntary), and visual impairments that make driving uncomfortable. Lack of reliable access to medical appointments is one of the most concerning issues facing Marin's older adult population, but aging residents, particularly those who cannot drive, are challenged by a whole range of essential and non-essential trips to the point that they forego many trips altogether.

School Children and School Trips

Marin's aging population is part of the reason that Marin's school-age population is shrinking, and enrollment has decreased each of the last five school years according to the California Department of Education for a total decrease of approximately 3,500 students as of the 2023-2024 school year. Enrollment declines may not be equal across all school districts, but some districts will likely explore school closures in the coming years and enrollment decisions that may decrease the ability to walk and bike to schools. Some schools are more difficult for parents and students to access, particularly using "green trip" modes like walking and biking, which are encouraged by TAM's Safe Routes to Schools (SRTS) program. Matching SRTS investments (such as crosswalk improvements or yellow school bus routes), with school sites must be managed thoughtfully as student populations shift. **Figure 4** maps county schools and which ones currently participate in the SRTS Program.

Figure 4: School Transportation (Countywide)

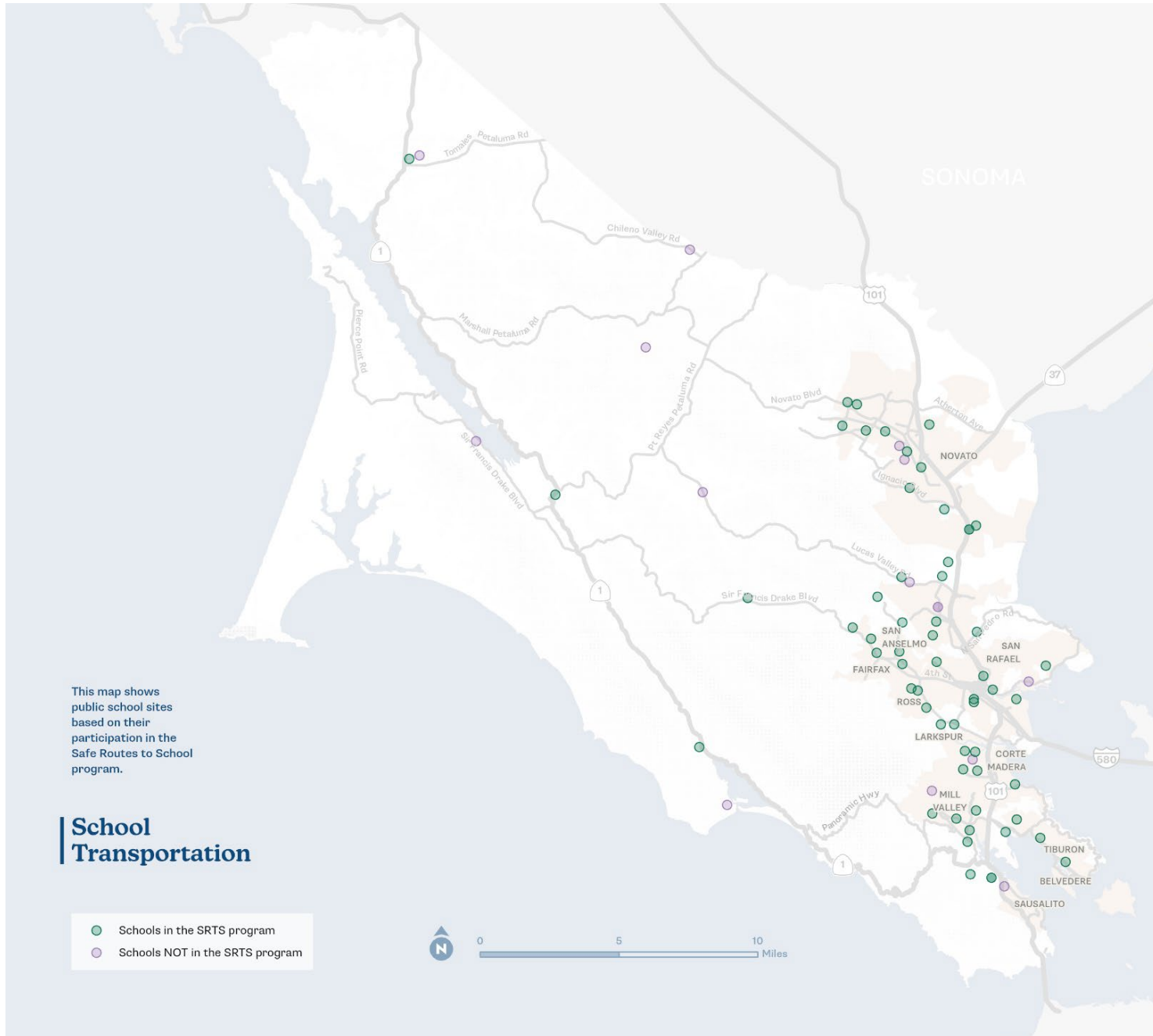
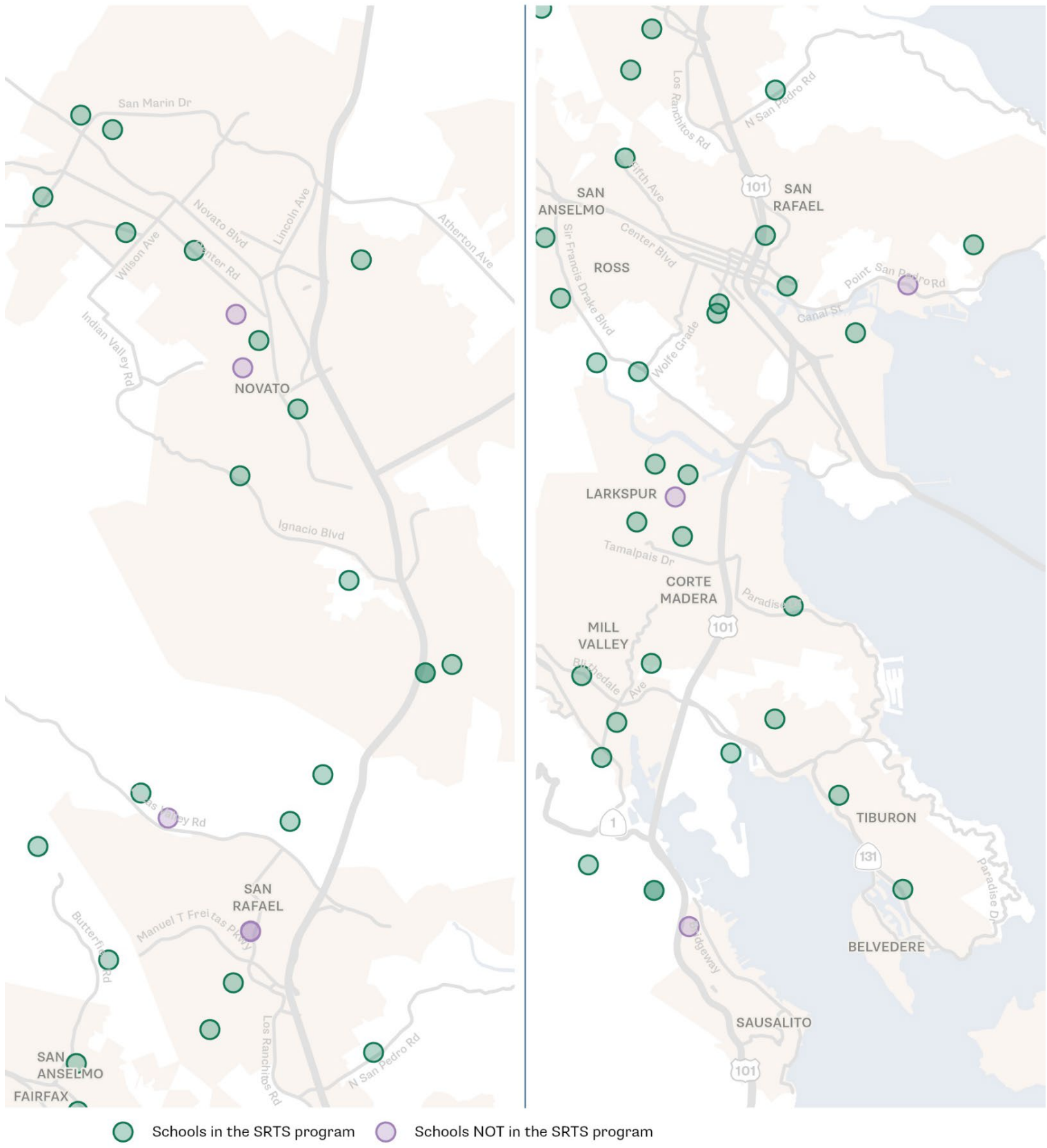


Figure 4: School Transportation (Highway 101 corridor)



Land Use & Development

By 2050, the best estimates suggest the Bay Area's population will grow to just over ten million residents, and that the number of jobs within the nine counties will climb to more than five million. The region and local agencies are required to plan for where these 2 million new people will live and work.

An appropriate balance is commonly thought to be 1.5 jobs for every one housing unit. A better spatial balance between jobs and employed residents can help reduce commute distances, GHG emissions, freeway congestion, and fuel consumption as well as improve air quality. Between 2010-2020, Bay Area jobs rose by about 20 percent while during the same period, there was a seven percent increase in housing. The ratio of new jobs to new housing permits over the decade was 3.6 to 1. This ongoing imbalance has exacerbated the shortage of housing, particularly affordable housing. Lack of affordable housing is consistently ranked as a major issue for residents.

Local Housing elements have identified locations for accommodating planned growth through their housing element updates. The RHNA Allocation Plan for the San Francisco Bay Area (2023-2031) adopted in November 2022 identifies the total number of housing units, separated into four affordability levels, that every local government in the Bay Area must plan to accommodate for the period from 2023 to 2031. For all Marin County jurisdictions, a total of 14,405 new housing units are allocated through 2031.

Some of the new housing sites are in regional priority growth areas: Connected Community Priority Development Areas (PDAs), Transit-Rich PDAs, Priority Sites, or High Resource Areas. Development in these locations proximate to transit can support ridership on transit systems, reduce GHG emissions, and align with local community needs.

- **Priority Development Areas**⁴ are places near public transit that are planned for new homes, jobs, and community amenities. PDAs are identified and planned by local governments. Cities and counties nominate areas to ABAG for adoption. Through PDA Planning and Technical Assistance Grant programs, cities across the region have adopted plans for roughly 110,000 new homes and 200,000 jobs within walking distance of frequent transit service. Local communities may also seek infrastructure funding for improvements within PDAs through the regional OBAG funding program and other sources.
- In 2022, MTC/ABAG established a **Priority Sites** program to advance public land, aging mall, and office park reuse strategies. Priority Sites are places planned for mixed-income and affordable housing, complemented by on-site or nearby essential services and served by frequent transit.
- **High Resource Areas** are areas with at least basic bus service located in a jurisdiction that has nominated less than 50% of its eligible PDA area.

Figure 5 shows current PDAs, Priority Sites, new designated housing sites with 100 or more units, and all new housing sites identified in recent Housing Element updates. **Figure 6** shows current transit service overlaid with the new housing sites. **Figure 6** also includes a table in the upper left corner with the number of added housing units (including buffers) identified in recent Housing Element Updates that reflect the RHNA Allocation Plan as well as a blue icon showing MTC priority sites and a green icon showing other projects with 100 units or more.

Mobility Hubs

Serving as a community anchor, a mobility hub is a welcoming environment that enables travelers to access multiple transportation options and supportive amenities. This includes public transit, micromobility (bikeshare, scooters, etc.), shared rides (vanpools, carpools, on-demand services, etc.), and technology (electric vehicle chargers, information kiosks, etc.) Caltrans has embraced development of Mobility Hubs concept at its Park-and-Ride facilities on major commute corridors in suburban and urbanized areas. In Marin County, Caltrans has 11 park and ride facilities, and Caltrans has developed plans to support select locations in their conversion to mobility hubs. In 2024, MTC approved a grant to TAM to develop Mobility Hub Plans for Marin's rail and ferry stations.

⁴ <https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=485e374221e84074b7e577ad381f6fce>

Figure 5: Priority Development Areas (PDAs) and New Housing Sites (Countywide)

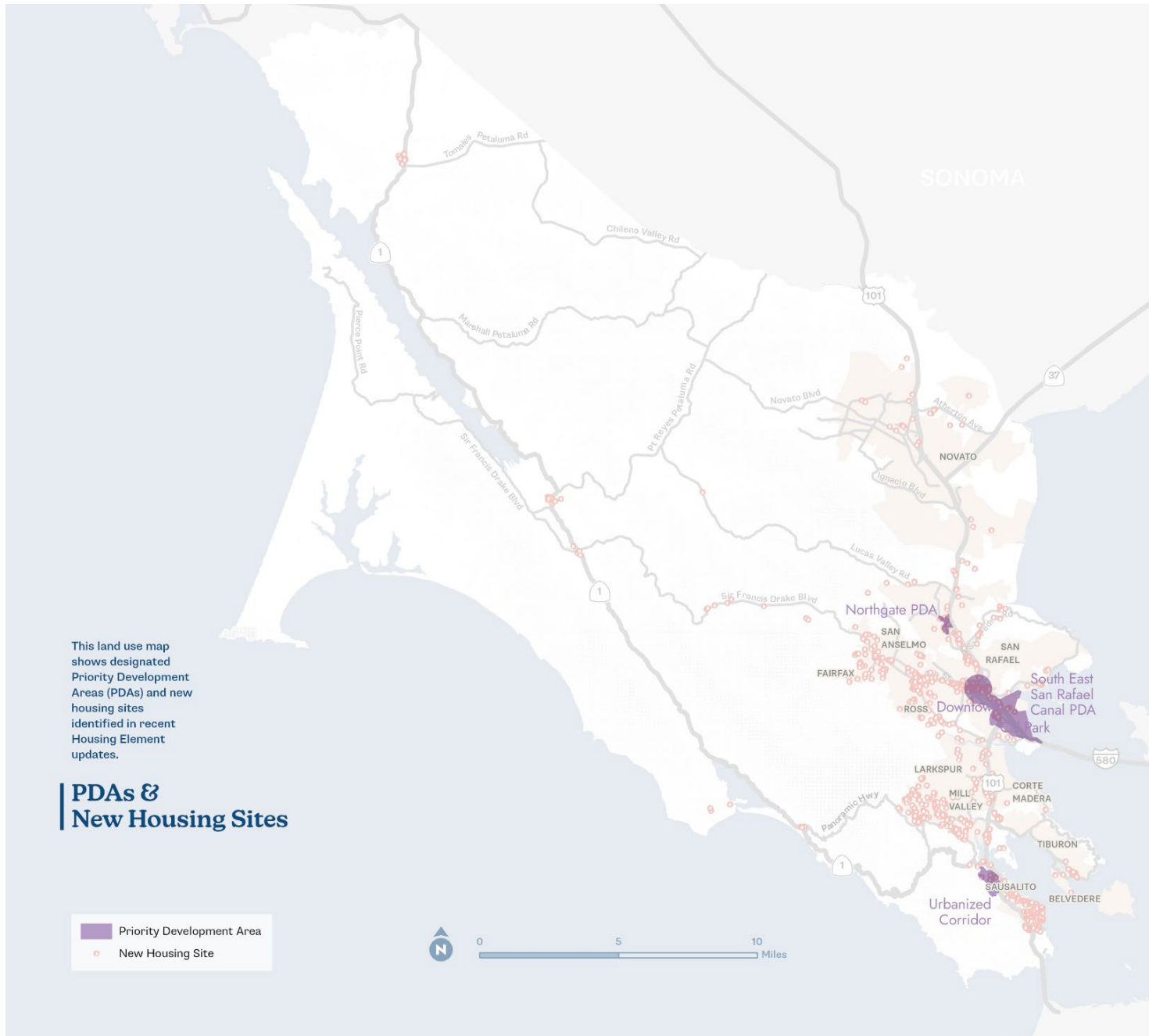


Figure 5: Priority Development Areas (PDAs) and New Housing Sites (Highway 101 corridor)

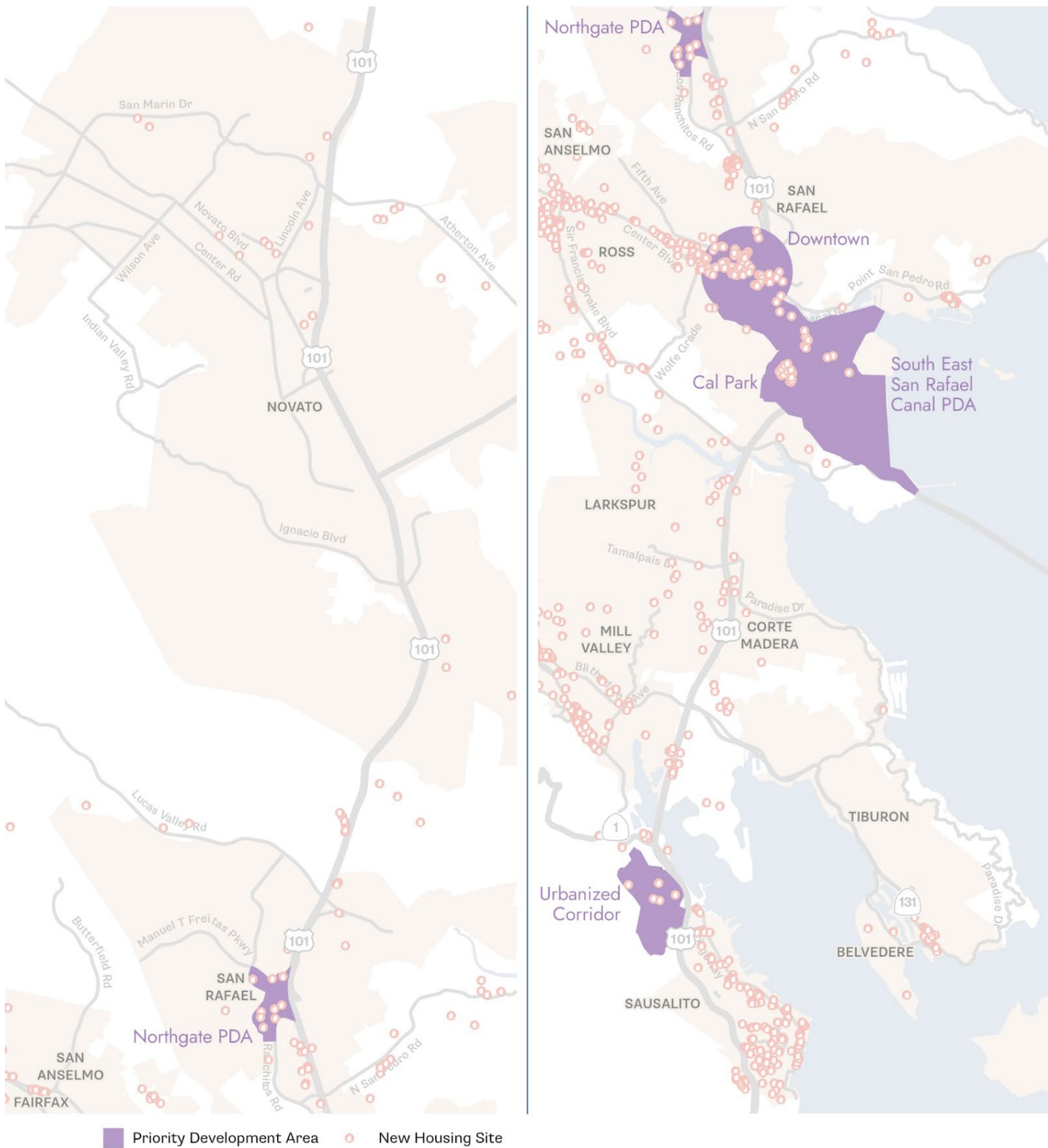


Figure 6: Transit Service and New Housing Sites (Countywide)

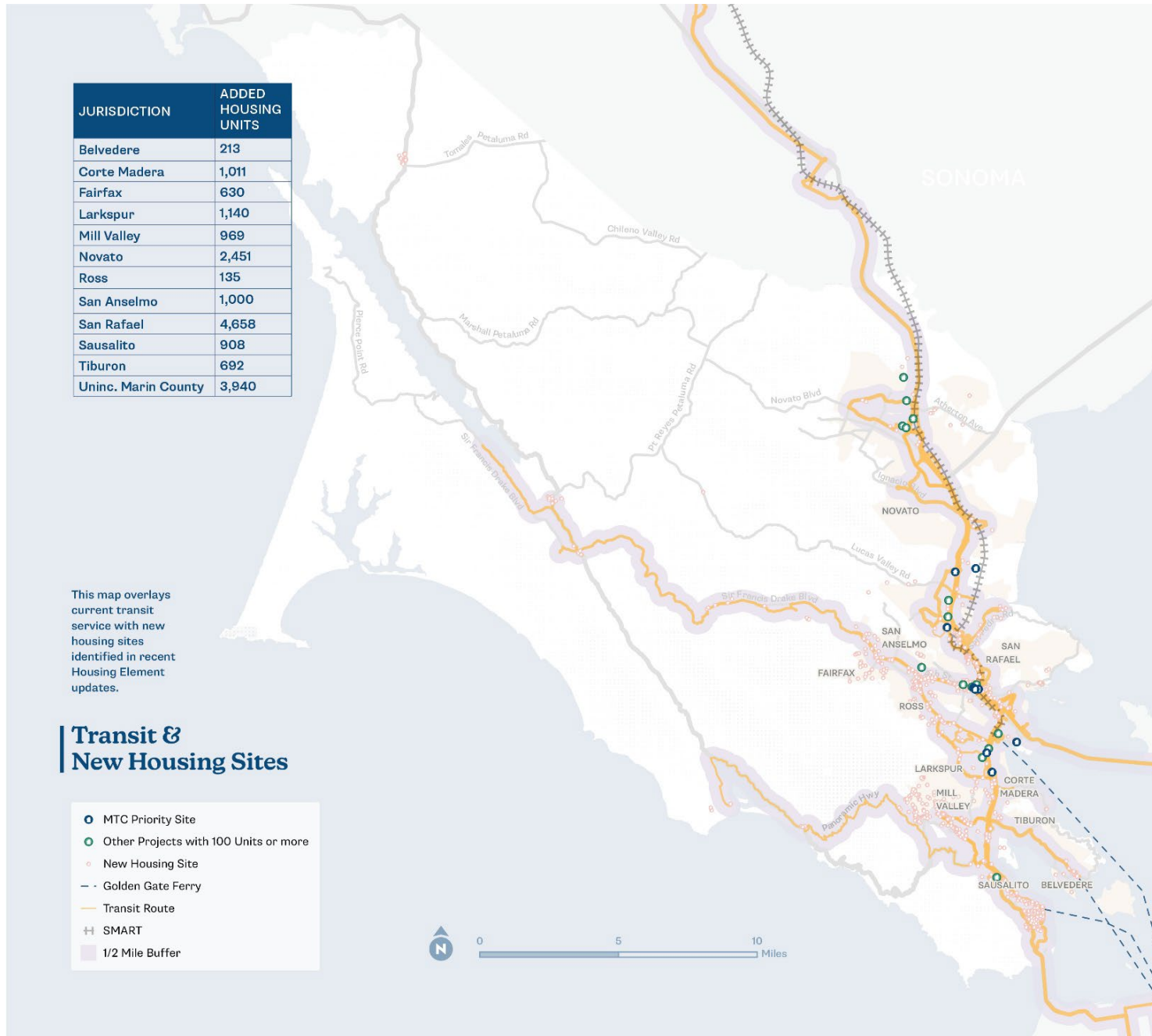
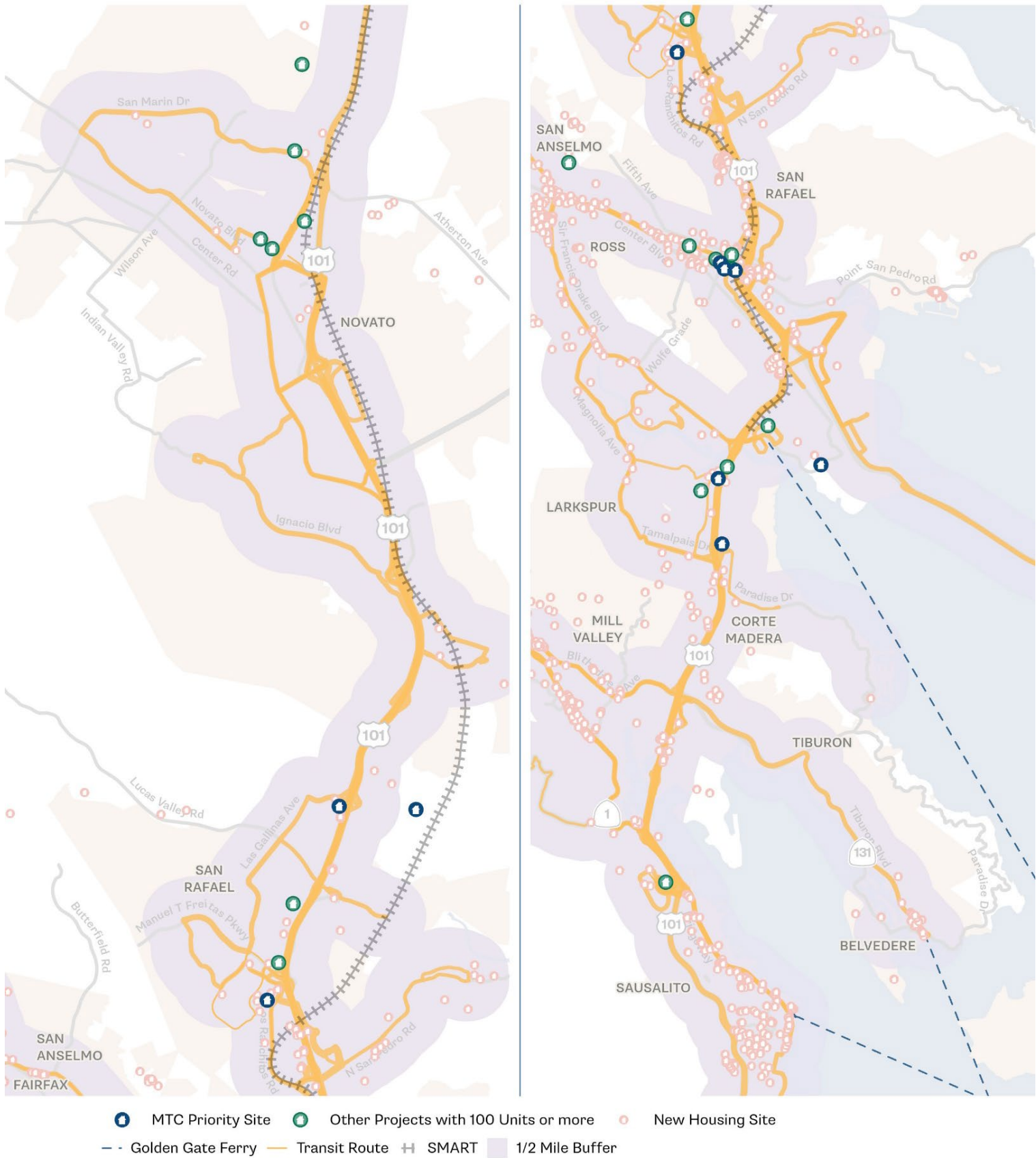


Figure 6: Transit Service and New Housing Sites (Highway 101 corridor)



Road Safety

Collision Trends

The **Marin County Local Road Safety Plan** was adopted in February 2024. The LRSP makes use of reported collision data to identify trends, pinpoint needs, and develop strategies to address road user safety in Marin County. Analyses were conducted using 2017-2021 data from SafeTREC's Transportation Injury Mapping System (TIMS), the most recent full year of data available. Only collisions resulting in an injury or fatality and occurring on non-state route arterials and collectors were included in the analysis: local, residential roads were not considered as they typically have fewer collisions. Collision trends were analyzed at the county level as well as at the level of each individual jurisdiction. **Figure 7** shows fatal and injury crash locations for Marin County for 2019 and 2022.

From 2017-2021, a total of 2,164 collisions resulting in an injury or fatality were reported to occur on Marin County's non-state arterial and collector roadways. This includes 28 fatality collisions (1.3%) and 199 severe injury collisions (9.2%), which are collectively classified as "KSI collisions," indicating collisions in which a victim was Killed or Seriously Injured.

Vulnerable road users made up a disproportionate amount of the severe injuries and fatalities in Marin County. Pedestrians were involved in 14% of countywide collisions but 22% of KSI collisions; bicyclists were involved in 19% of collisions but 34% of KSI collisions; and motorcyclists were involved in 7% of collisions but 13% of KSI collisions. Over one quarter (26%) of collisions were a result of unsafe speeds, while improper turning was responsible for 17% of collisions and automobile right-of-way violations resulted in 13% of collisions.

A High Collision Network (HCN) was developed for Marin County, including intersections and road segments with high collision rates. HCN locations were confirmed through coordination with representatives from each of the jurisdictions and unincorporated Marin County. The County's HCN includes 70 road segments and 90 intersections spread throughout its jurisdictions and unincorporated areas. San Rafael, Novato, and Unincorporated Marin County were the highest-represented jurisdictions in the HCN.

Safe System Approach



The U.S. DOT recently adopted a Safe System Approach as the guiding paradigm to address roadway safety. The Safe System Approach has been embraced by the transportation community as an effective way to address and mitigate the risks inherent in our enormous and complex transportation system. It works by building and reinforcing multiple layers of protection to both prevent crashes from happening in the first place and minimize the harm caused to those involved when crashes do occur. It is a holistic and comprehensive approach that provides a guiding framework to make places safer for people.

This is a shift from a conventional safety approach because it focuses on both human mistakes AND human vulnerability and designs a system with many redundancies in place to protect everyone. A Safe System Approach prioritizes the elimination of crashes that result in death and serious injuries.

U.S. DOT's National Roadway Safety Strategy and the Department's ongoing safety programs are working towards a future with zero roadway fatalities and serious injuries. In support of this approach, safety programs are focused on infrastructure, human behavior, responsible oversight of the vehicle and transportation industry, and emergency response.

Figure 7: Fatal and Injury Crash Locations for Marin County for 2019 and 2022



Travel Patterns

Congestion Hot Spots

Congestion levels declined dramatically in the months after the beginning of the COVID-19 Pandemic, with the lowest total number of monthly Vehicle Miles Traveled (VMT) occurring nationally in April of 2020 according to the Federal Highway Administration (FHWA). At a national level, VMT increased steadily over 2021 and returned to pre-pandemic levels by early 2022.

Congestion on highways and major arterials occur at locations throughout the county including northbound US 101 from Richardson Bay to I-580 in the afternoon and southbound US 101 from Rowland Boulevard to Downtown San Rafael in the morning, eastbound SR 37 in the afternoon and westbound SR 37 in the morning, and on the Golden Gate and Richmond-San Rafael bridges (although these backups occur primarily outside of Marin County) has been chronic and recurring. SR 37 and portions of US 101 are susceptible to flooding exacerbated by sea level rise. Major east-west arterials in Marin County such as Sir Francis Drake, 2nd and 3rd Streets in Downtown San Rafael, Blithedale Avenue, and Tiburon Boulevard are the most congested segments of the local road network. Congestion occurs around weekday commute traffic, school traffic, weekend recreation traffic, incidents, events, and construction/maintenance activities. School traffic causes localized congestion during the morning and mid-afternoon periods on collector and residential streets. These factors influence the location, directionality, and extent of congestion.

Recurring congestion on Highway 101 due to commute traffic tends to occur most frequently on the Marin-Sonoma Narrows in the PM period as well as in the morning on southbound Highway 101 from Rowland Boulevard to downtown San Rafael and in the late afternoon on northbound Highway 101 from Mill Valley to the Highway 101/I-580 junction.

Recurring congestion on the Golden Gate and Richmond-San Rafael bridges due to commute traffic tends to occur most frequently in the morning for inbound traffic to Marin County on the Richmond-San Rafael Bridge and in the evening for inbound traffic to Marin County on the Golden Gate Bridge. Congestion levels on the Golden Gate Bridge due to commute trips have declined since the start of the pandemic due to the significant increase in work from home that has reduced commute traffic to and from jobs in San Francisco.

Congestion due to weekend and holiday recreational traffic tends to be highly directional as residents from San Francisco and the East Bay travel to coastal areas, the wine country, and parks in the North Bay. Recreational travel primarily impacts northbound Highway 101 at the beginning of recreational travel periods and southbound Highway 101 at the end of those periods. East-west arterials that are most affected by recreational travel include State Route 1 through Tam Junction, Sir Francis Drake Boulevard, 2nd and 3rd Streets through Downtown San Rafael, the Miracle Mile, Lucas Valley Road, and Novato Boulevard. Alexander Avenue and Bridgeway in Sausalito are affected by both bicycle and auto recreational trips.

Shifting Commute Patterns

Changes in travel behavior that occurred during the pandemic, primarily changing work trends and home delivery levels, have had a substantial effect on travel. Overall VMT is similar if not higher in many areas to pre-pandemic conditions as office-based commute travel has declined but commute travel for essential workers has remained stable and local travel for school, shopping, and other travel purposes have increased. The pandemic also had substantial effects on transit ridership due to increased work from home, job shifts, and transit reluctance due to health and security concerns. Transit agencies that primarily serve commute trips to San Francisco, such as Golden Gate Transit and Golden Gate Ferry (as well as BART and Caltrain), have seen large declines in ridership and are currently at about 50 percent of pre-pandemic ridership. Transit agencies that serve primarily local travel markets such as Marin Transit and SMART have seen substantial ridership recovery. Developing and implementing

strategies to increase transit ridership levels are important to meeting future climate goals and providing affordable and convenient travel options for the Marin County workforce and low-income residents.

Changing work trends include the effect of increased work from home levels during the pandemic and other employment shifts in the region on future travel demands. According to analysis conducted by the Marin Economic Forum, prior to the pandemic, Marin County was a leading county for people working from home, with the U.S. Census Bureau reporting a rate of 12.4% in 2019. Fast forward to 2022 and the most recent Census Bureau data shows the figure more than doubled to 25.9%. Marin has the second highest rate of people working from home in the State (Trinity County is #1) and almost double the average for California, which is 13.6%. The work from home data for Marin County and the State of California is consistent with national office occupancy trends that are highlighted below.

Visitor Travel Management

A key need identified by leaders in the West Marin community is for visitor management and related transportation solutions. Overcrowding during peak tourist times poses safety and infrastructure challenges. Strategies identified during a West Marin focus group include implementing reservation systems for parking, transit options like shuttles, incentives for tourists and employees to use efficient and sustainable transportation options, and real-time communication about road conditions and parking availability to enhance visitor experience and safety.

The Muir Woods National Monument has an active visitor travel management program with parking and shuttle reservations system. The Muir Woods Shuttle brings visitors from off-site locations to the park and back. It serves Larkspur Landing on weekends and holidays from April through October. Visitors with a shuttle reservation do not need a parking reservation. Parking fees range from \$9.50 for a standard vehicle to \$45 for a large vehicle. Shuttle reservations are \$3.75 per adult round trip and free for children 15 years and younger. The park entrance fee is \$15 per adult and free for children 15 years and younger.

Climate Change

Promoting a healthy environment is one of the objectives of the 2017 Strategic Vision Plan. The effects of climate change have caused the state to adopt more aggressive emission reduction targets in recent years. New strategies identified by CARB in December 2022 include reducing VMT by 25 percent below 2019 levels by 2030 and 30 percent by 2045. These VMT reduction levels are significantly higher than the 15 percent reduction adopted by CARB just a few years ago.

Locally, Marin Climate & Energy Partnership develops Climate Action Plans, that inventory GHG Emissions, develop priorities for reducing emissions, and track progress towards meeting these goals. Transportation emissions are the largest source of local GHG emissions, resulting from land use and built environment decisions. TAM has worked with MCEP to develop EV acceleration strategies that local jurisdictions can adopt to further support the transition to zero emission vehicles.

However, local climate actions alone will not change the pace of changing climate conditions. Other challenges exacerbated by climate change include the effects of sea level rise (SLR) and an increased number and intensity of wildfires.

Marin County currently has several sea level rise projects in the works including the Collaboration: Sea-level Marin Adaptation Response Team (C-SMART), the Marin Bay Waterfront Adaptation Vulnerability Evaluation (BayWAVE), and Stinson Adaptation and Resilience Collaboration (Stinson ARC) projects. In 2023, TAM initiated a sea level rise adaptation planning effort focused on Marin County's transportation system's vulnerability to sea level rise. The study is identifying vulnerable areas, potential solutions to the threats that sea-level rise poses to Marin's transportation assets, and governance options for implementation of adaptation strategies.

This creates a need to develop and implement strategies to protect transportation infrastructure such as Highway 101, State Route 37, and State Route 1 from sea level rise as well as to develop evacuation plans/routes and implement evacuation strategies for wildfires and other hazards.

Figure 8 shows sea level rise vulnerability zones based on long-term forecasts of sea level rise of 60 inches and the addition of a 100-year storm surge event.

The Marin Wildfire Prevention Authority (MWPA) was established and authorized through approval of Measure C, a special parcel tax with a ten-year horizon, by approximately 71 percent of voters in March 2020. The revenues raised by the tax are used solely to prevent and mitigate wildfires in Marin County. MWPA leads the development of fire adapted communities using sound scientific, financial, programmatic, ecological practices, vegetation management, community education, evacuation and warning systems with the support of its member and partner agencies.

Figure 9 shows wildfire evacuation routes and wildland urban interface boundaries where human development meets or intermingles with undeveloped wildland and vegetative fuels that are both fire-dependent and fire-prone.

Figure 8: Sea Level Rise Vulnerability Zone (Countywide)

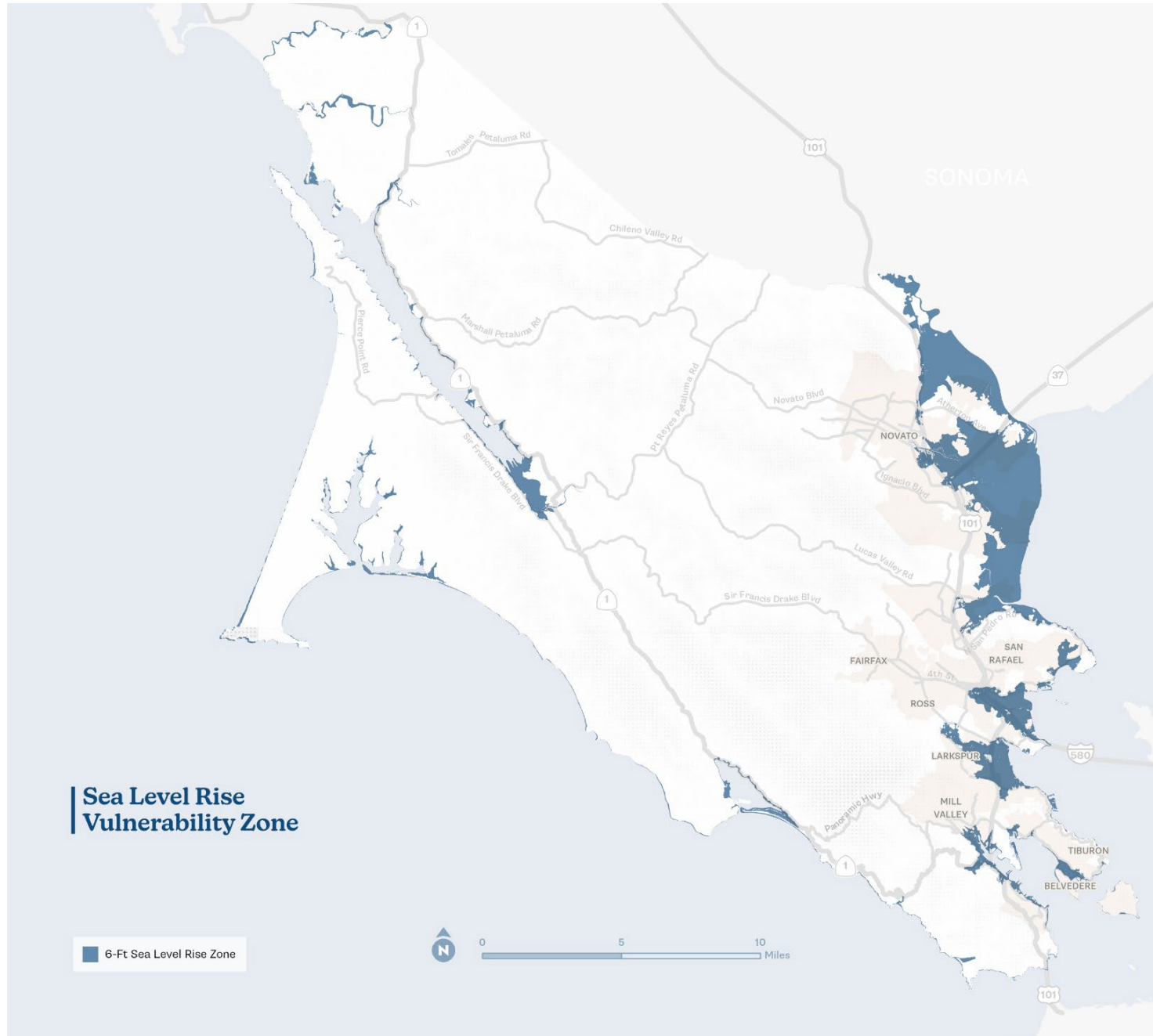


Figure 8: Sea Level Rise Vulnerability Zone (Highway 101 corridor)

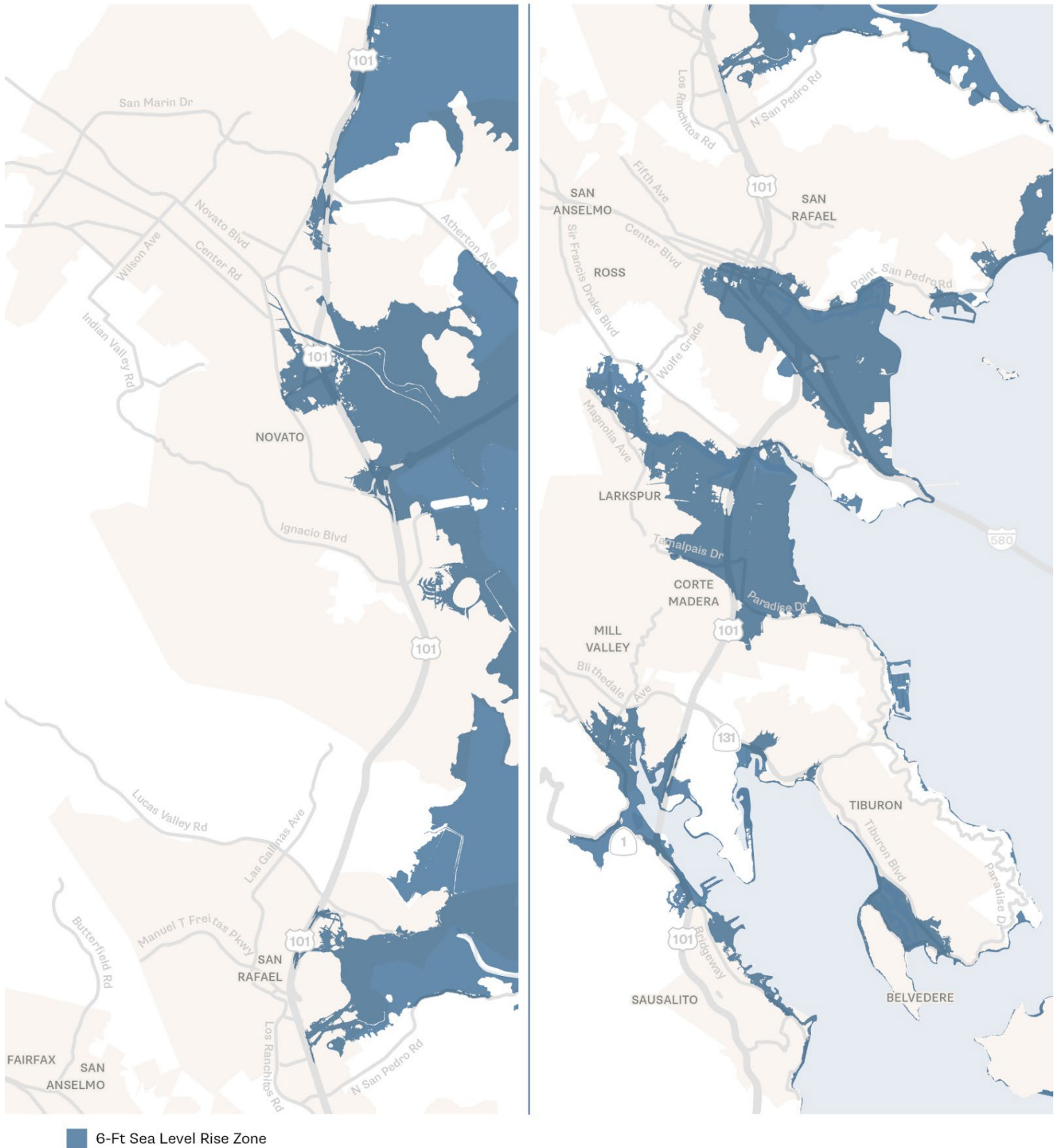


Figure 9: Wildfire Evacuation Routes & Wildland Urban Interface (Countywide)

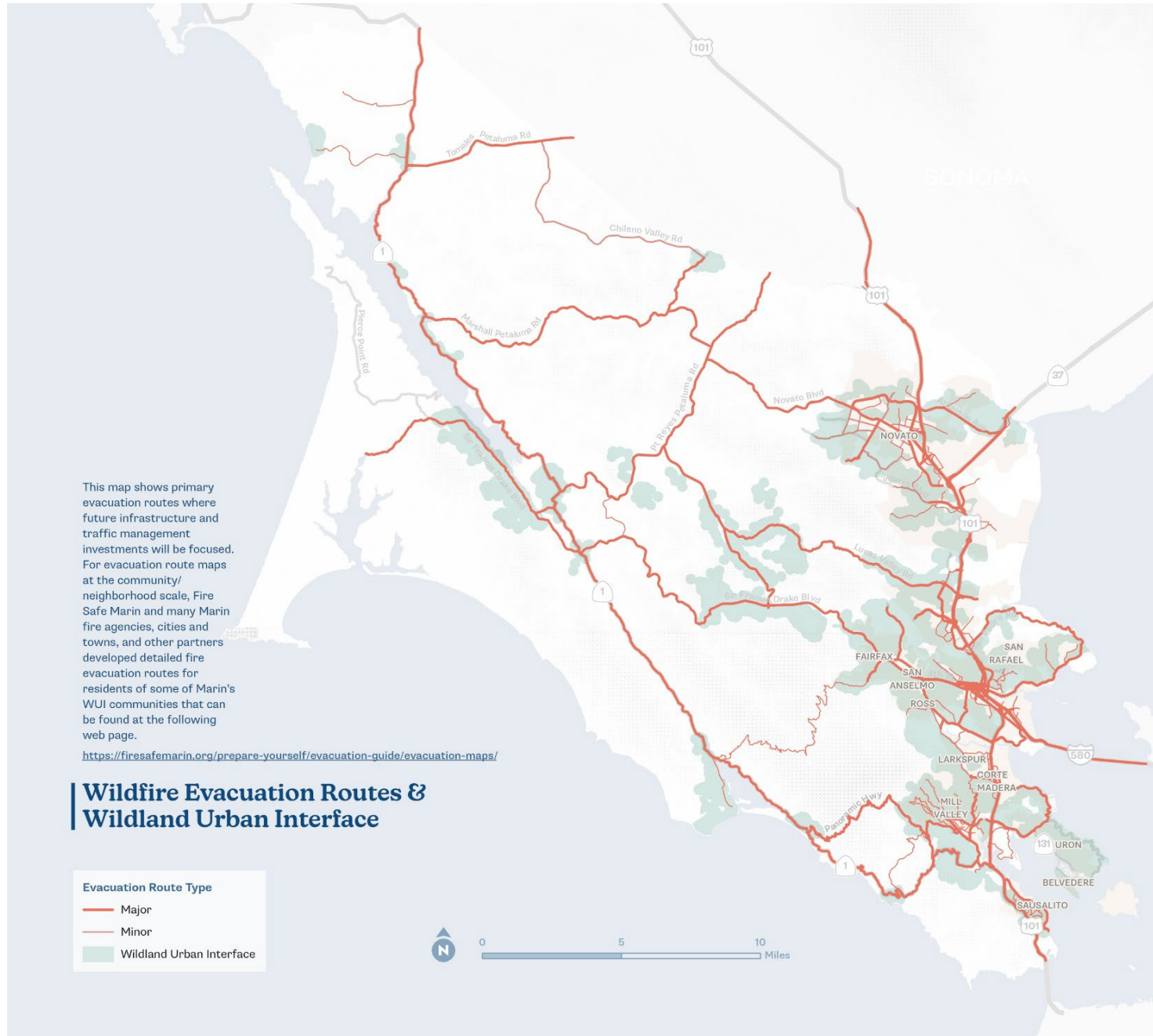


Figure 9: Wildfire Evacuation Routes & Wildland Urban Interface (Highway 101 corridor)



Vehicle Technology

Electric Vehicles and Devices

There are over 30,000 plug-in electric vehicles (EV) in the Bay Area and 50 percent of California's EV purchase rebates are used in the Bay Area. Santa Clara, Alameda and Marin County have the highest rates of new ZEV sales, with Marin County approaching 40% of new vehicle sales as ZEVs⁵. Based on data from 2023, Marin County has the highest use of electric vehicles in the Bay Area at 1,942 EV miles driven per 1,000 residents.⁶ Marin County is home to over 1,000 EV chargers as of May 2024⁷. **Figure 10** shows current public EV charging locations.

There has been a significant rise in e-bike usage in Marin County over the past five years. This provides a new opportunity for people to travel in Marin County as an alternative to cars. It also creates new challenges including how e-bikes share roads and paths. E-bike safety has also become a subject of increasing concern across Marin County, particularly for younger riders. Marin youth ages 10-15 years old are at more than five times higher risk of serious e-bike injury than any other age group⁸. In response to the recent increase in injuries, Superintendent of Schools John Carroll, Health Officer Dr. Matt Willis, and Police Chiefs' Association Chief Rick Navarro issued a letter⁹ to Marin parents, outlining local e-bike safety measures and inviting Marin parents to be part of the solution.

Shared Mobility Options

According to the Shared-Use Mobility Center, shared mobility is defined as transportation services and resources that are shared among users, either concurrently or one after another. The services are grouped into five different shared mobility typologies:

- Bikesharing/Scooter-sharing
- Carsharing
- Ridesharing/Ridehailing
- Public Transit
- Microtransit/Shuttles

Traditional ridesharing includes carpooling, vanpooling, and real-time matching of drivers and passengers through mobile apps in which the passenger pays a share of the trip cost. These services have evolved from traditional taxis and limos services and numerous companies provide these services in Marin County.

Ridehailing providers such as Uber and Lyft use online platforms to connect passengers with drivers who use personal, non-commercial, vehicles. TAM and Marin County has been a leader in shared mobility space operating shared mobility pilots connected to transit. In 2017, TAM partnered with Lyft for shared rides to address first /last mile connections to SMART, and Marin Transit has partnered with app based Micro transit operators. Pre-pandemic these programs merged, with Uber Transit connections available through joint TAM and Marin Transit partnership program. In 2024, SMART launched its first Microtransit Pilot at the Larkspur SMART station. Additionally in 2024, TAM/SCTA are launching a bikeshare pilot program to provide an additional mobility option at SMART stations. The

⁵ <https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/new-zev>

⁶ <https://www.axios.com/local/san-francisco/2023/12/04/electric-vehicle-use-statistics>

⁷ <https://www.marincounty.gov/departments/cda/sustainability/electrify-marin/electric-transportation/evs#:~:text=10%20fun%20facts%20about%20EVs&text=Fast%20chargers%20can%20charge%20a,type%20for%20almo st%20any%20lifestyle.>

⁸ <https://www.marincounty.gov/departments/cda/sustainability/electrify-marin/electric-transportation/micromobility/ebike-safety?lang=en#:~:text=Marin%20youth%20age%2010%2D15,on%20campus%20to%20be%20registered.>

⁹ chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://resources.finalsite.net/images/v1723232252/marinschoolsorg/v4ax0nfkw6259gd bf0pg/ebikesafetyparentsletterV4final.pdf

300 GPS enabled e-bikes bikeshare bikes will provide SMART riders with an alternative for the “last mile” of their journey beginning in 2024.

The Marin Airporter and Groome Transportation (formerly Sonoma County Airport Express) provide service between Marin County and the San Francisco International and Oakland airports. The Western Eagle Shuttle provides service from Marin County to all major Bay Area airports, Amtrak Emeryville, Oakland train stations, and the Port of San Francisco cruise ships.

Emerging Technologies

Connected vehicle (CV) technologies are equipment, applications, or systems that use vehicle-to-everything (V2X) communications to address safety, system efficiency, or mobility on the transportation network. The CV concept uses data from short-range communication broadcasts and peer-to-peer exchanges to “sense” what other travelers (vehicles, bicyclists, pedestrians, wheelchairs, motorcycles, buses, trucks, and others) are doing and identify potential hazards.

After receiving approval by the California Public Utilities Commission (CPUC) in August 2023, autonomous or self-driving cars are being operated like taxis full-time in San Francisco by General-Motors-owned Cruise and Google-owned Waymo. The CPUC action expands the availability and use of driverless vehicles. They will now compete with Uber, Lyft, taxis, and other mobility providers. This includes provide full service into parts of San Mateo County. The approval by the CPUC lays the groundwork for potential deployment of self-driving taxis in other California cities.

Industry developers of air taxis or electric vertical take-off and landing (eVTOL) aircraft are working with the Federal Aviation Administration (FAA) to certify their aircraft¹⁰. The air taxi developers are backed by companies including Boeing, Delta Air Lines, Toyota, and United Airlines. Air taxis could begin operating between airports and downtown areas between 2025 and 2029, when the FAA anticipates the aircraft will be operating at scale. To support this new technology, local agencies would need to identify locations for and approve new vertiport¹¹ infrastructure and any needed access improvements to the facilities.

¹⁰ <https://www.smartcitiesdive.com/news/air-taxis-flying-major-us-cities-evtol-joby-archer-vertiport/692749/>

¹¹ <https://www.smartcitiesdive.com/news/flying-taxis-eVTOL-air-mobility-cities-need-vertiports/648841/>

Figure 10: Public EV Charging Sites (Countywide)

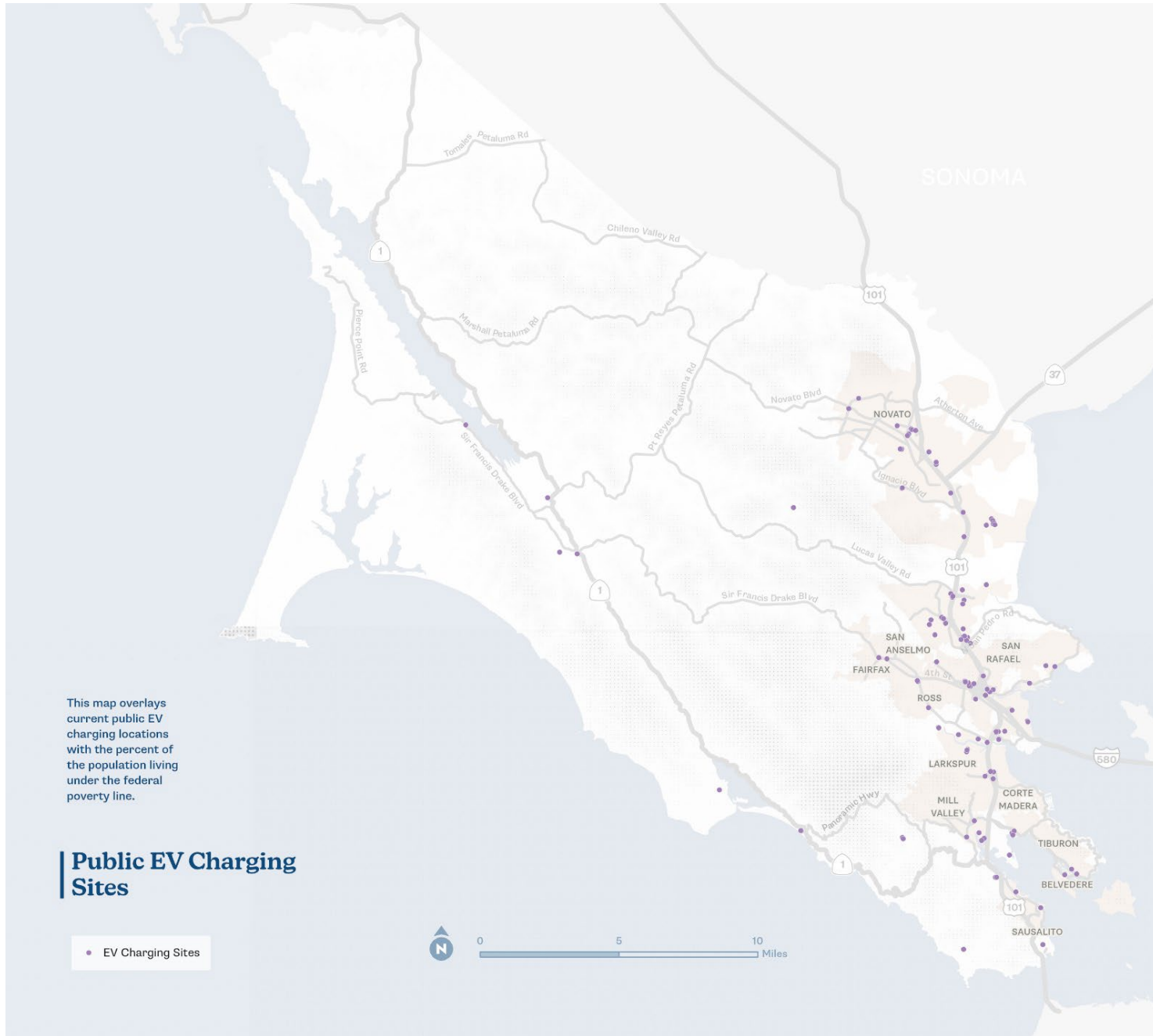


Figure 10: Public EV Charging Sites (Highway 101 corridor)



Funding Opportunities

Marin is fortunate to have strong voter support for local transportation funds through local sales taxes, and vehicle registration fees. These funds are critical to support the transportation system in Marin and provide ongoing formula funding for local streets and roads, local transit systems and safe routes to schools programs along with key highway improvements. As formula funding, these local funds can be aligned with local needs and policy direction and are reviewed on a periodic basis.

As housing elements have identified new housing locations in the county, there are opportunities to support both local affordable housing development, and advance transportation plans and projects. Local areas that have local proximity to transit can increase their competitiveness for regional state and federal funding by designating PDAs or demonstrating compliance with MTCs Transit Oriented Communities policy.

Marin County's safety data indicates increased opportunity for regional, state, and federal grants to improve local road conditions. Local jurisdictions who advance local road safety policies such as vision zero and adopt the local streets and roads plan may compete more favorably than other jurisdictions for competitive funding.

New funding programs and priorities at the federal, state, and regional levels provide opportunities to obtain funding resources to address transportation equity needs. Marin County is uniquely positioned to pursue grant funding for climate adaptation based on work done on sea level rise adaptation by Marin County and TAM as well as the wildfire evacuation risk assessment conducted by MWPA. Success in obtaining grant funding and implementing adaptation strategies will require collaboration among multiple agencies including the County Office of Emergency Management, the County Adaptation Planning team, local Public Works and Planning staff, and Fire Department staff.

Revenue levels generated by transportation funding sources have changed over the past decade. At federal and state levels, planning has been under way for years to study a potential transition from a gas tax to a VMT tax structure. Local sales tax revenues have trended upwards while gas tax revenue has been on a steady decline. It should be noted that local sales tax revenues are dedicated to specific programs, over 70 percent specified for ongoing formula funds, through local street and road maintenance or transit services.

5. Strategies and Implementation

The purpose of this chapter is to describe the CTP 2050 Strategies and Implementation Plan. The CTP 2050 Strategies can be thought of as topics of focus for TAM's next 25 years and the Implementation Plan is the roadmap for ensuring that these topics are advanced throughout the county.

Key messages

- The CTP strategies are structured to meet the CTP vision of a safe, equitable, and sustainable transportation system.
- The CTP strategies were identified through an extensive stakeholder process with input received through three Board workshops, three dedicated CTP committees (Board Ad Hoc, Technical Advisory Committee, and Equity Working Group), four focus groups, community pop-ups, an online survey, presentations to TAM standing committees (Citizen's Advisory Committee) and other agencies/organizations.

Approach to Strategy Development

Since its creation, TAM has embraced a multimodal and multi-faceted approach to transportation system improvements and management. In recent years, however, this approach has been refined to more proactively embrace projects and programs that enhance transit, bicycle, and pedestrian options by shifting drivers out of their personal vehicles. This is illustrated by the following excerpt from the Executive Summary of the TAM Strategic Vision Plan (2017).

The updated Vision supports...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 significant opportunities for substantial increases in roadway capacity, operational enhancements and managing demand through multimodal travel options will be effective in enhancing mobility, both on Highway 101 and on local connector roads.

Historically, TAM's multimodal partnerships have resulted in the following efforts already in place.

- US 101 carpool lanes that support travel by buses and high occupancy vehicles
- SMART commuter rail
- Golden Gate ferry service
- Local & regional bus service
- Safe Routes to School and resulting student green trips
- Local Complete Streets incorporated in roadway maintenance projects
- Major roadway projects such as Miller Avenue and Sir Francis Drake
- School bus transportation services
- Interchange improvements to provide for safe travel by pedestrians and cyclists
- Transportation demand management services to support non-auto travel options
- Bicycle and pedestrian improvements


The CTP 2050 Strategies were developed based on extensive public input, stakeholder and committee input to reflect the wide array of transportation needs in the county. The Strategies are structured to work together to open more travel options to a wider range of travelers, including non-drivers and vulnerable road users such as people walking, using a mobility device, or riding a bicycle. This vision for a more multimodal transportation future was raised in all four focus groups and supported by the Ad Hoc Committee, Equity Working Group, and Technical Advisory Committee.



CTP Strategies

To advance the CTP 2050 Vision, 15 strategies have been identified to guide transportation improvements in Marin County. The Strategies reflect a consensus developed through the CTP on the county transportation needs, and are grouped into the following categories:

- Local Focus Strategies - typically locally planned and implemented
- Regional Focus Strategies - often require multi-jurisdictional coordination
- System Management Strategies - require a high level of partnering and in some cases a high degree of information sharing

Table 1: CTP 2050 Strategies

ICON	STRATEGY
LOCAL	
	Fix it First (and Better) – operate and maintain existing streets, transit systems, and the regional pedestrian and bikeway network while making changes over time to keep up with planning and engineering best practices.
	Easy and Safe School Travel – collaborate with schools to establish an ongoing process to coordinate provision of safe school travel programs and projects that fit the needs of each school location and student population.
	Safe Travel for All – implement the new national Safe System Approach encompassing safer road users, safer vehicles, safer speeds, safer roads, and post-crash care to reach the zero deaths vision.
	Accessible & Walkable Communities – a connected, accessible, and high-quality active transportation environment within a half mile of SMART stations, transit hubs, activity centers, and commercial districts.
	Equity Community Investments – champion community-informed investments in transportation accessibility, affordability, and comfort for historically and systemically marginalized and excluded groups.
REGIONAL	
	Regional Connectivity – support a coordinated system of regional freeway, bridge, rail, and ferry connections supporting multiple modes of travel to surrounding counties.
	Complete Active Transportation Network – advance a continuous primary bikeway network of pedestrian and bicycle facilities linking activity centers.
	Higher Quality Transit – prioritize street space for a coordinated, convenient, reliable, and accessible transit system.
	Connected & Complete Community Corridors – reconnect communities with complete streets and safe crossings that include context-sensitive, community-informed solutions for US-101, major and minor arterials, and major hubs.
	Flexible Ride Programs – coordinate public and private ride services for seniors, people with disabilities, and other non-drivers.
SYSTEM MANAGEMENT	
	Travel Education and Assistance Programs – collaborate with community partners to develop and distribute travel education materials and incentives to expand travel options for all travelers and increase mobility for non-driver populations.
	Zero Emission Vehicles – support GHG emission reductions via a network of charging/fueling stations and agency fleet transitions.
	Adaptation to Climate Change – limit environmental damage and address the effects of sea level rise, flooding, wildfires, heat, and other climate change-induced stressors on the transportation system.

ICON	STRATEGY
	Visitor Travel Management – improve the visitor experience and reduce the negative effects of visitor traffic and parking.
	Transportation Data & System Management – develop a county travel data approach to monitor travel patterns and changes to the network, and support management of new technologies including the introduction of connected and autonomous vehicles.

Strategy Descriptions

The strategies are intended to meet the needs of Marin County through 2050. These will require a level of investment and agency staffing above what is available today. The roles, partners, policy topics, and funding sources for each strategy are subject to refinement as implementation occurs.

Each of the strategies are described in more detail on the following pages.

Local Strategies

Fix It First (and Better)

Operate and maintain existing streets, transit systems, and the regional pedestrian and bikeway network while making changes over time to keep up with planning and engineering best practices.

- **TAM’s current role:** provide formula funding, support grant applications
- **Key partners:** cities/towns, county, transit agencies
- **New roles needed to advance CTP 2050:** planning coordination for multi-jurisdiction transformational projects, and technical guidance on how to future-proof investments
- **Policy topics to consider:**
 - Design standards that adapt to extreme temperatures, weather events, and sea level rise
 - Incorporating equity, safety and sustainability in prioritization of maintenance projects
 - Reporting requirements on Local Streets and Roads funding
 - Dedicated funding source for multi-jurisdictional rehabilitation projects
- **Specific near-term actions:**
 - Measure AA Review: Explore options to address safety, equity, and sustainability best practices in formula funds
 - Complete the *Marin Sonoma Coordinated Transportation Study (MASCOTS)* assessing transit service levels in Marin and Sonoma counties
 - Traffic Signal Modernization Study and Implementation
- **Funding opportunities:**
 - Local streets and roads funds (existing Measure AA and State Funding)
 - Local jurisdiction voter approved measures
 - Local impact fees
 - Identify new discretionary funding program for multi-jurisdiction rehabilitation projects
- **Example projects:**
 - Transit Operations & Maintenance
 - Marin Transit O&M Facility
 - Transit Fleet conversion to Zero Emission Buses
 - Road and Bike/Pedestrian Path Maintenance
 - The Hub Improvement Project
 - Novato Boulevard Improvement Project
 - Bolinas – Fairfax Road Improvement Project
 - Sir Francis Drake Rehabilitation in Fairfax
- **Performance measure(s):**

- Improvement in road pavement and primary bike network pavement conditions (scored using Pavement Condition Index (PCI))

Easy and Safe School Travel

Collaborate with schools to establish an ongoing process to coordinate provision of safe school travel programs and projects that fit the needs of each school location and student population.

- **TAM's current role:** Manage Safe Routes to School Program and Crossing Guard Program, provide funding for yellow school bus and supplemental school bus services, provide grant funding for safe pathways to schools, and support grant applications
- **Key partners:** Marin County Office of Education, School Districts, Marin Transit, cities/towns, county
- **New roles needed to advance CTP 2050:** Comprehensive coordination of school transportation planning
- **Policy topics to consider:**
 - Coordination with school district transportation related policies, e.g. bell schedules or enrollment changes
 - Advancing equity within school programs
- **Specific near-term actions:**
 - Update to Coordinated Countywide School Transportation Study
- **Funding opportunities:**
 - Measure AA
 - Local Streets and Roads
 - SS4A
- **Example projects:**
 - Safe Routes to School (existing)
 - Crossing Guard Program (existing)
 - Safe Pathways (existing)
 - Yellow School Bus (existing)
 - Yellow School Bus Facility
- **Performance measure(s):**
 - School transportation coordination process implemented with school districts, MCOE, Marin Transit, and TAM
 - Percent of students making green trips
 - Percent of school funding going to schools in areas meeting federal childhood poverty thresholds

Safe Travel for All

Implement the new national Safe System Approach encompassing safer road users, safer vehicles, safer speeds, safer roads, and post-crash care to reach the zero deaths vision. **Figure 11** shows the High Collision Network identified in the 2024 Marin County Local Road Safety Plan.

- **TAM's current role:** Managed Marin County Local Road Safety Plan (LRSP)
- **Key partners:** cities/towns, county, transit agencies, Caltrans
- **New roles needed to advance CTP 2050:** Technical guidance and monitoring of best practice inclusion in planning, funding decisions, and project and program delivery
- **Policy topics to consider:**
 - Local jurisdiction policy adoption advancing safe system approaches
 - Proactive safety planning that addresses root causes instead of reacting to individual collisions
 - Advancing projects and funding for proven safety countermeasures
 - Investment policy & priorities related to local road operations, high collision network, and local safety projects
- **Specific near-term actions:**

- Project Planning & Development
- **Funding opportunities:**
 - Competitive regional, State and Federal funding
- **Example projects:**
 - Local road projects on the high collision network
 - Local Jurisdiction Policy Adoption of LRSP or Vision Zero
 - Safety improvement projects – capital improvements, reduced speed limits, traffic signal and signage improvements
- **Performance measure(s):**
 - Fatal and injury crashes on High Collision Network (HCN) identified in Marin County Local Roadway Safety Plan (LRSP)
 - California Office of Traffic Safety (OTS) countywide rankings

Figure 11: High Collision Network (Countywide)



Figure 11: High Collision Network (Highway 101 corridor)



Accessible and Walkable Communities

Create a connected, accessible, and high-quality active transportation environment within a half mile of SMART stations, transit hubs, activity centers, and commercial districts. **Figure 12** shows major activity hubs – transit centers, SMART stations, and commercial districts – with a ½ mile buffer.

- **TAM’s current role:** Grant assistance and lead on first/last-mile services
- **Key partners:** cities/towns, downtown BIDs, Caltrans, transit agencies, MTC
- **New roles needed to advance CTP 2050:** Land use and transportation policy support and lead on multi-jurisdictional/discipline planning projects
- **Policy topics to consider** for Activity Hubs:
 - Local Land use decisions including zoning and parking, and relationship to transportation funding
 - Curb management, including parking for bikes/bikeshare and high-quality bus stops
- **Specific near-term actions** for Activity Hubs:
 - Countywide Active Transportation Plan
 - MTC TOC Policy Compliance
 - Complete Specific Plans to maintain existing PDAs
 - Local Jurisdictions to Adopt/Update Transportation Impact Analysis Guidelines
 - Work with cities to identify new PDAs and support access to regional planning and project funding
- **Funding opportunities:**
 - MTC PDA Planning Program
 - Local Formula Funding
 - Competitive Regional, State and Federal Funds
 - Local Transportation Impact Fees
- **Example projects:**
 - Parking management projects
 - Pedestrian and bicycle circulation projects
 - Downtown streetscape and wayfinding improvements
 - Mobility hubs and shared services, such as Redwood Bikeshare Pilot Program
 - Increased transit service and capital investments
- **Performance measure(s):**
 - Percent of population within 15-minute walk of high-quality transit service
 - Percent of major transit station areas compliant with each of the four areas of MTC TOC Policy
 - Percent of overall housing units planned and permitted within PDAs or TPAs

Figure 12: Activity Hubs (Countywide)

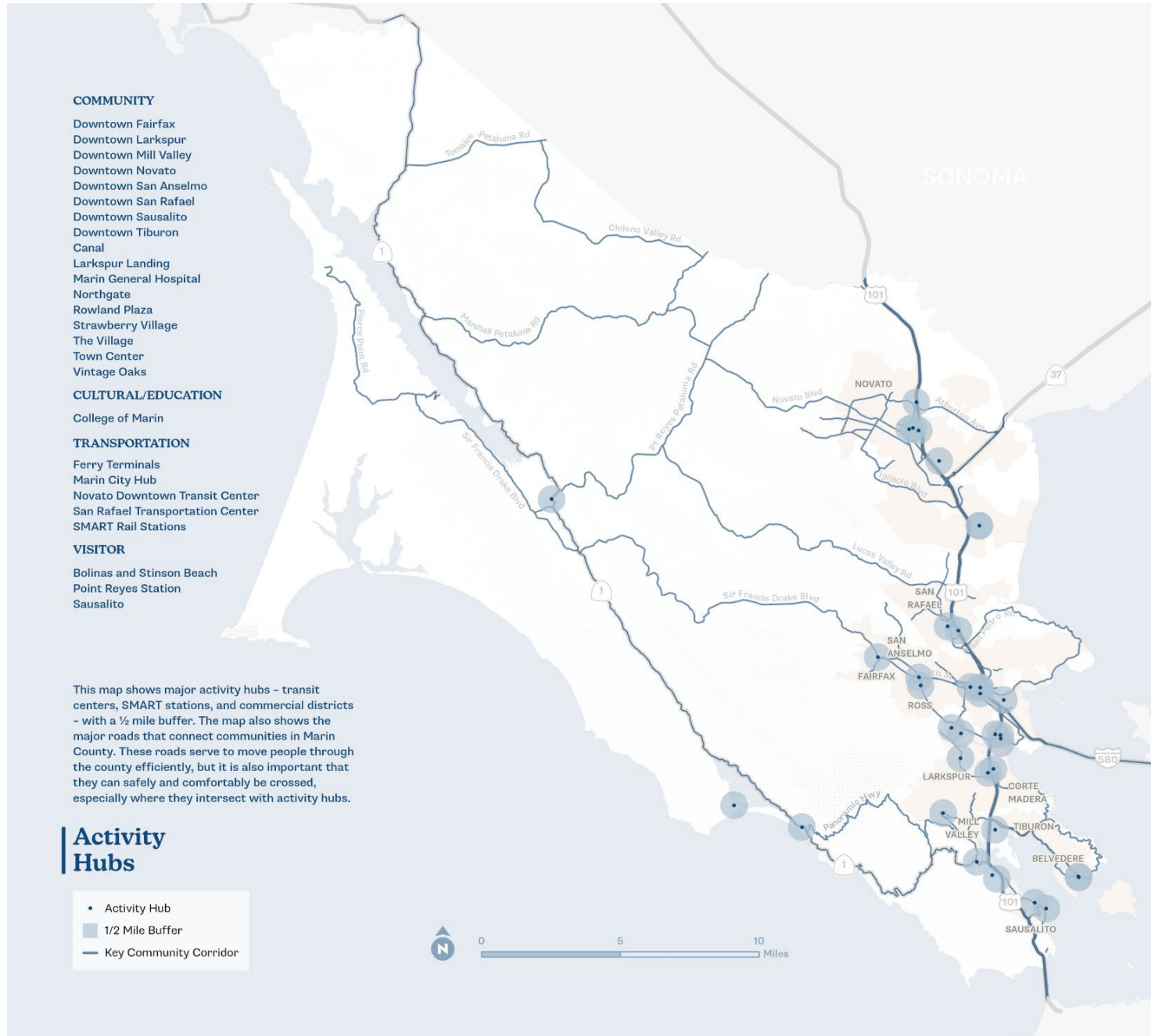
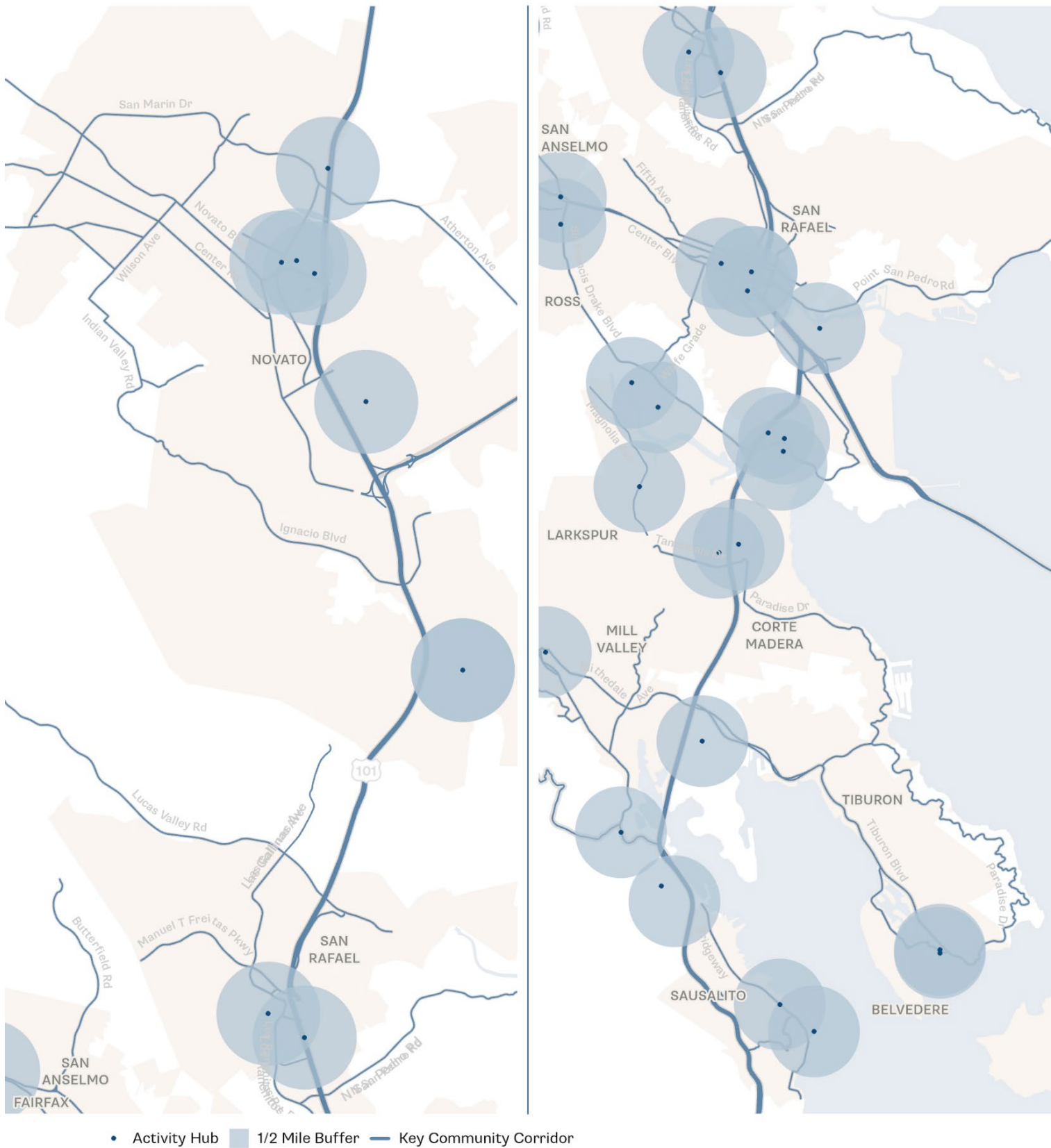


Figure 12: Activity Hubs (Highway 101 corridor)



Equity Community Investments

Champion community-informed investments in transportation accessibility, affordability, and comfort for historically and systemically marginalized and excluded groups.

- **TAM's current role:** manage CBTP program; support funding for CBTP Improvements; support grant applications
- **Key partners:** cities/towns, County, transit agencies, Caltrans, community organizations
- **New roles needed to advance CTP 2050:** Broader equity technical guidance and monitoring of best practice inclusion in planning, funding decisions, and project and program delivery
- **Policy topics to consider:**
 - Participatory Budgeting processes for CBTP Implementation
 - Dedicated funding for equity community investments
- **Specific near-term actions:**
 - Project Planning & Development using the CTP 2050 Equity Definition and Equity Mapbook (Appendix 4)
 - TAM Equity Action Plan
- **Funding opportunities:**
 - Competitive Regional, State and Federal Grants
- **Example projects:**
 - Implement recommendations in the Canal, Marin City, and Novato CBTPs such as:
 - Bike/walk swing bridge connecting 3rd Street and Canal Street (Canal, San Rafael)
 - First/Last mile connectivity with Manzanita Park and Ride and Transit Services
 - Projects that remove travel barriers for historically underserved, vulnerable road user, or non-driver populations inside or outside of Equity Priority Communities (EPCs)
- **Performance measure(s):**
 - Progress in implementing Community Based Transportation Plan (CBTP) projects and programs
 - Number of projects that remove travel barriers for historically underserved, vulnerable road user, or non-driver populations

Regional Strategies

Regional Connectivity

Support a coordinated system of regional freeway, bridge, rail, and ferry connections supporting multiple modes of travel to surrounding counties. **Figure 13** shows regional transportation connections and services including highways, SMART rail, ferries, buses, and bikeways.

- **TAM's current role:** project planning, project delivery, and coordination
- **Key partners:** Caltrans, MTC, cities/towns, county, transit agencies
- **New roles needed to advance CTP 2050:** none
- **Policy topics to consider:**
 - Support on regional transit funding measures
 - Role of regional transit connections over vehicle capacity enhancements
- **Specific near-term actions:**
 - Complete the *Marin Sonoma Coordinated Transportation Study (MASCOTS)*, a comprehensive service plan focused on the Highway 101 corridor that is a collaboration of Transit Agencies in Marin and Sonoma Counties
 - Complete Marin-Sonoma Narrows Project and close HOV gap on US-101
 - Coordinate with BATA on Richmond San Rafael Bridge Forward suite of corridor improvements
- **Funding opportunities:**
 - Competitive regional, state and federal funding

- Local transportation funds
- **Example projects:**
 - SR 37 improvements
 - US 101/I-580 Multimodal Access and local Improvement project
 - Larkspur Ferry Terminal Service Expansion and Parking Project
 - First/last mile connections to SMART stations, ferry terminals, and transit hubs
- **Performance measure(s):**
 - Transit System Ridership & Service Levels for Regional Routes
 - Reliability of travel times on US 101: average hours of delay on US 101 and variation in best and worst average hours of delay

Figure 13: Regional Connections (Countywide)



Complete Active Transportation Network

Advance a continuous primary bikeway network of pedestrian and bicycle facilities linking activity centers. **Figure 14** shows a primary active transportation network that will provide a core system of connected and continuous active transportation facilities where future investments would be prioritized. Secondary segments that may be longer-term projects are also identified to enhance and expand the network. The network is based on existing and planned facilities in the county, and on the NS Greenway and Cross Marin bikeway status report. The Alto Tunnel is part of the secondary network until further project development can be conducted to determine the viability of the project.

This map only includes routes of countywide significance; cities, towns, and the unincorporated county will designate priorities for local bicycle routes that connect into this countywide network.

- **TAM's current role:** Project delivery of RM2-funded projects; grant support for regional, state and federal funding
- **Key partners:** cities/towns, county, SMART, Community Partners
- **New roles needed to advance CTP 2050:** Lead on multi-jurisdiction transformational projects on the CTP 2050 Primary Active Transportation Network
- **Policy topics to consider:**
 - All ages and abilities infrastructure policy
 - Maintenance funds and responsible parties
 - Planning for e-assist devices (bicycles, scooters, powerchairs)
 - Dedicated funding for Active Transportation Projects
- **Specific near-term actions** for the Primary Active Transportation Network:
 - Launch Redwood Bikeshare Program
 - Countywide Active Transportation Plan
 - Develop coordinated grant application approach
- **Funding opportunities:**
 - ATP Program
 - HSIP
 - Regional Measure 3
 - Measure AA/B
 - SS4A
- **Example projects:**
 - Completion of segments of the CTP Primary Active Transportation Network
 - First/last mile connections to SMART stations, ferry terminals, and transit hubs
 - Pedestrian-scale amenities: lighting, benches, emergency call buttons
 - Data Collection equipment: in-ground counters/automated detection
- **Performance measure(s):**
 - Percent of countywide CTP primary bike network completed
 - Increase in Class 1, protected and/or separated multi-use paths

Figure 14: Primary Active Transportation Network (Countywide)

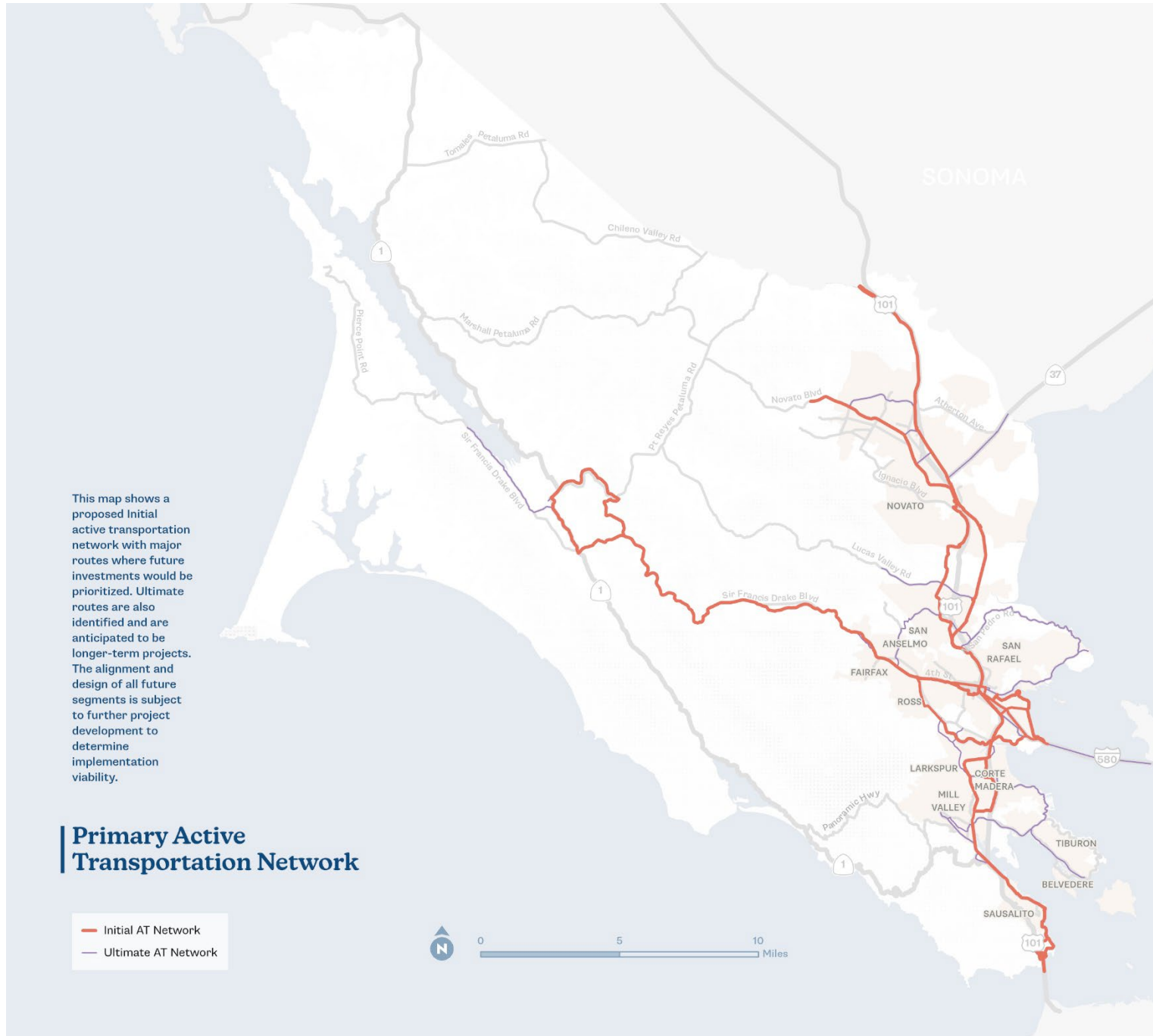
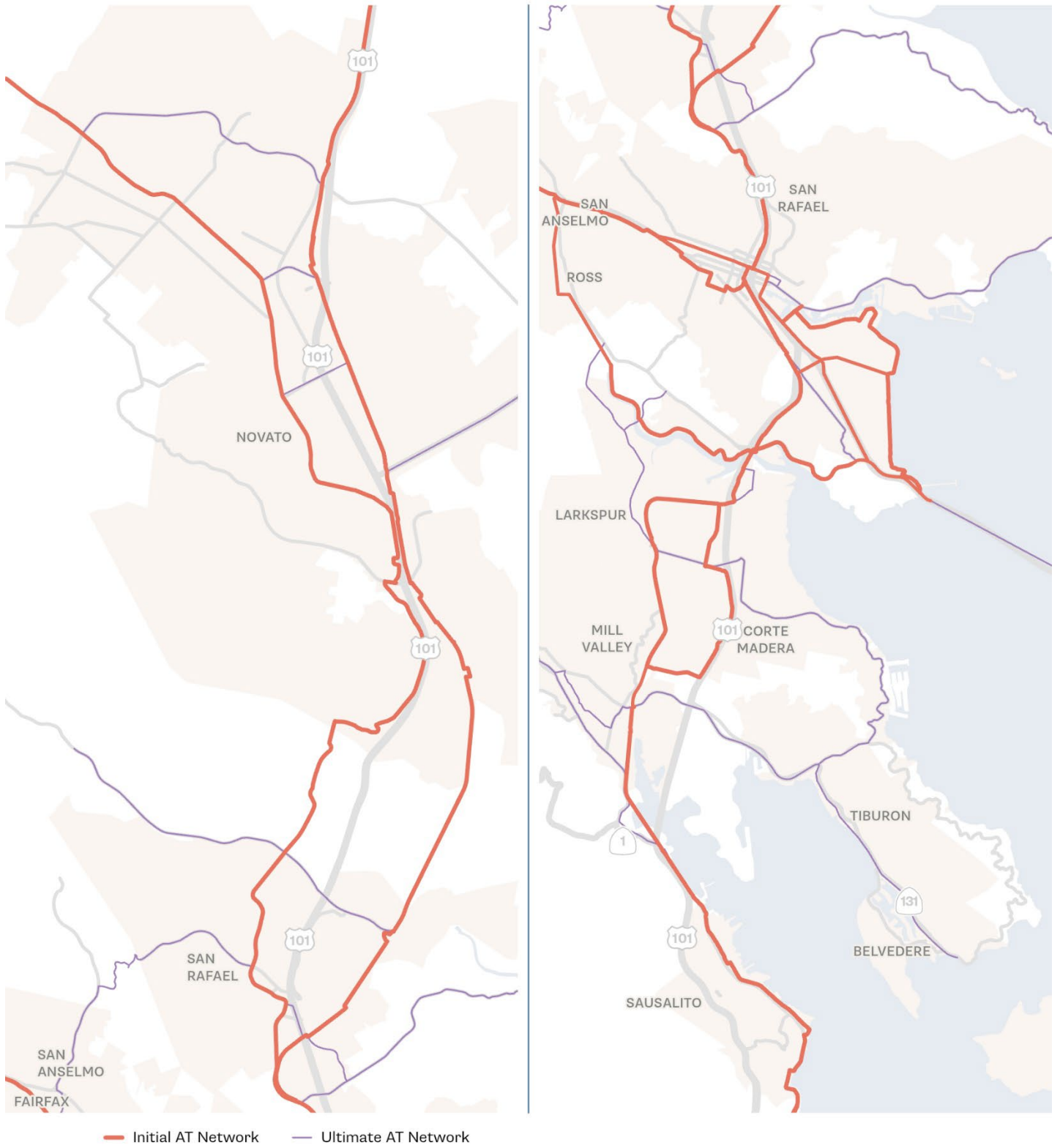


Figure 14: Primary Active Transportation Network (Highway 101 corridor)



Higher Quality Transit

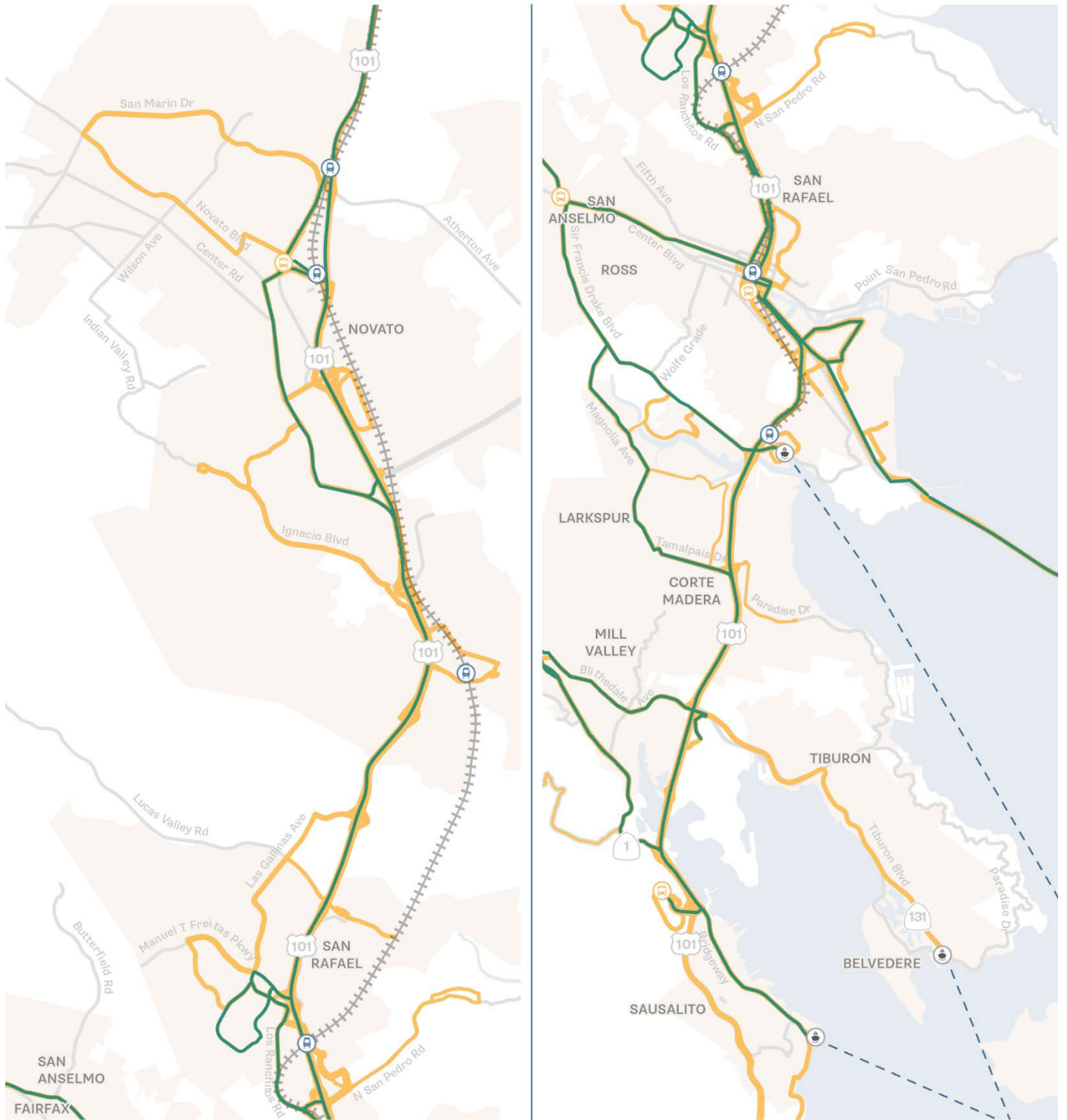
Prioritize street space for a coordinated, convenient, reliable, and accessible transit system. **Figure 15** shows a network of transit priority corridors (in green) where transit would be prioritized, and treatments implemented to improve transit operations, and/or avoid a deterioration in service that would otherwise occur.

- **TAM's current role:** provide formula funding to Marin Transit; coordination with local and regional partners
- **Key partners:** transit agencies, cities/towns, county, Caltrans, MTC
- **New roles needed to advance CTP 2050:** lead multi-jurisdictional corridor improvement planning efforts and monitor consideration of the CTP 2050 Transit Priority Network in planning and implementation
- **Policy topics to consider:**
 - Support of regional, state, and federal transit recovery efforts
 - Coordination on regional and state transit priority policy development for local roads and highways
 - Curb Management and transit priority
 - Transit coordination in local development review process
- **Specific near-term actions:**
 - Advancement of Part Time Transit Lanes on Highway 101
 - Development of Marin Transit Operations & Maintenance Facility
 - Local jurisdiction compliance with MTC TOC Policy
 - Advance Mobility Hubs
- **Funding opportunities:**
 - Regional Transit Measures
 - Measure AA transit funds
 - Local Streets and Roads
- **Example projects:**
 - Transit Speed and Reliability Improvements on CTP Transit Priority Route segments
 - San Rafael Transit Center
 - Larkspur & Sausalito Ferry Terminal Access/Mobility Hubs
 - US 101 Part Time Transit Lane
 - Marin Transit Operating & Maintenance Facility
- **Performance measure(s):**
 - Transit System Ridership
 - Percent of population within 15-minute walk of high-quality transit service
 - Number of major transit station areas compliant with MTC TOC Policy
 - Percent of overall housing units planned and permitted within Priority Development Areas (PDA) or Transit Priority Areas

Figure 15: Transit Priority Routes (Countywide)



Figure 15: Transit Priority Routes (Highway 101 corridor)



- Ferry Terminal
- SMART Train Station
- Bus Hubs
- Bus Transit Priority Corridor
- Bus Service
- Golden Gate Ferry
- SMART

Connected and Complete Community Corridors

Reconnect communities with complete streets and safe crossings that include context-sensitive, community-informed solutions for US-101, major and minor arterials, and major hubs. See the **Figure 12** Activity Hubs map, which also shows the major corridors that connect communities in Marin County. These roads serve to move people through the community efficiently, but it is also important that they can be safely and comfortably crossed, especially when they intersect with activity hubs.

- **TAM's current role:** Managed US 101 Interchanges Study; previously led major roads projects
- **Key partners:** cities/towns, county, Caltrans, MTC
- **New roles needed to advance CTP 2050:** grant assistance/project management for multi-jurisdiction transformational projects on major roads and highways, especially near CTP 2050 Activity Hubs
- **Policy topics to consider:**
 - Safe System Approach
 - Land use development review and transportation coordination
 - Land use decisions and transportation funding
 - Dedicated funding source for connected and complete community corridors
- **Specific near-term actions:**
 - Traffic Signal Modernization Study and Implementation
- **Funding opportunities:**
 - Competitive Regional, State and Federal Grants
- **Example projects:**
 - First/last mile connections to SMART stations, ferry terminals, and transit hubs
 - TAM 101 Interchange Projects with improved crossings for people walking and biking (including Alameda del Prado, Freitas Parkway, and Tiburon Blvd/East Blithedale interchanges)
 - Caltrans Southern Marin US 101/Highway 1 Improvement Project
 - Caltrans Tamalpais Drive Interchange Improvements
 - Bellam Boulevard Improvements
- **Performance measure(s):**
 - Fatal and injury crashes on High Collision Network in Countywide Local Roadway Safety Plan
 - Number of projects implemented that add connectivity or improve the safety and comfort of existing connections for communities disconnected by major roads and freeways

System Management Strategies

Travel Education and Assistance Programs

Collaborate with community partners to develop and distribute travel education materials and incentives to expand travel options for all travelers and increase mobility for non-driver populations.

including Flexible Ride Programs

Coordinate public and private ride services for seniors, people with disabilities, and other non-drivers.

including Commute Alternatives

Support employers in developing and implementing Travel Demand Management programs.

- **TAM's current role:** lead Travel Education Program, provide dedicated funding for travel navigators, and support grant applications
- **Key partners:** Marin Transit, cities/towns, county, community organizations
- **New roles needed to advance CTP 2050:** coordinate, advertise, and provide greater levels of funding to support for flexible ride programs
- **Policy topics to consider:**
 - Countywide wayfinding program

- Local Land use and VMT policy adoption
- **Specific near-term actions:**
 - VMT Toolkit and VMT Policy Adoption
 - Mobility Hubs
- **Funding opportunities:**
 - Measure AA/B
 - Public-Private Partnership
 - VMT Mitigation Banking or Fees
- **Example projects:**
 - Travel Navigators (existing)
 - Marin Commutes (existing)
 - Emergency Ride Home Program (existing)
 - Vanpool Program (existing)
 - Fleet and grant support for community organizations that run flexible ride programs
- **Performance measure(s):**
 - Total riders using flexible ride services (i.e., paratransit and private providers as data is available)
 - Overall participation in Marin Commutes Program

Zero Emission Vehicles

Support GHG emission reductions via a network of charging/fueling stations and agency fleet transitions.

- **TAM's current role:** Technical guidance and grant assistance, local funding support for EV charging and fleet rebates
- **Key partners:** Transit agencies, cities/towns, county, PG&E
- **New roles needed to advance CTP 2050:** Electrical Grid and Demand Management Planner
- **Policy topics to consider:**
 - Transition of program from early adoption support to established market forces
 - Equitable access to EV adoption
 - Rising program support and funding from non-local sources
 - Operations and Maintenance of charging network
 - CARB ZEV mandates and transition to ZEVs
- **Specific near-term actions:**
 - Support funding opportunities for Marin
- **Funding opportunities:**
 - Competitive Regional, State and Federal Grants
 - MCE & PGE Funding
- **Example projects:**
 - Redwood Bikeshare Pilot Program
 - ZEV Fleet Maintenance needs and Vehicle Transition
 - Yellow School Bus and first responder vehicle Electrification
 - School EV Charging Installations
- **Performance measure(s):**
 - Number of fleets in Marin County that are compliant with CARB ZEV fleet requirements
 - Number of public EV chargers in Marin County

Adaptation to Climate Change

Limit environmental damage and address the effects of sea level rise, flooding, wildfires, heat, and other climate change-induced stressors on the transportation system.

- **TAM's current role:** Support or lead exploration of system adaptation needed for wildfire, flood, and sea level rise
- **Key partners:** cities/towns, County, transit agencies, Caltrans, MWPA, BCDC
- **New roles needed to advance CTP 2050:** Technical guidance and monitoring of best practice inclusion in planning, funding decisions, and project and program delivery
- **Policy topics to consider:**
 - Design standards that adapt to extreme temperatures, weather events, and sea level rise
 - Governance of sea level rise adaptation
 - "Future Proofing" existing O&M funding
 - Funding priority for projects that reduce reliance on GHG and/or make the system more resilient to extreme weather and climate events
 - Advancing pilots and demonstration projects for climate adaptation
- **Specific near-term actions:**
 - Complete Sea Level Rise Study
 - Project Planning & Development
 - Land Use Planning
- **Funding opportunities:**
 - Measure AA
 - Competitive Regional, State and Federal Grants
 - Public-Private Partnership
- **Example projects:**
 - Marin Wildfire Evacuation Projects/Pilots
 - Parking management during red flag wildfire events
 - Bay Trail/Joint Sea Level Rise Adaptation projects
 - Southern Marin US 101/Highway 1 improvement Project addressing SLR
 - Cool Street Projects / Green Street Projects
- **Performance measure(s):**
 - Number of projects that mitigate or directly address SLR risk; number of transportation projects that improve wildfire evacuation
 - Number of Green/Cool streets or innovative climate treatments in local streets and roads projects

Visitor Travel Management

Improve the visitor experience and reduce the negative effects of visitor traffic and parking. **Figure 16** shows the Muir Woods shuttle stops, ferry terminals, recreational roads, and major recreational bike routes including the Bay Trail and routes in West Marin, and National, State, and County parks.

- **TAM's current role:** provide formula funding and grant assistance
- **Key partners:** cities/towns, county, National Parks, County Parks, One TAM, Marin Convention & Visitors Bureau, transit agencies
- **New roles needed to advance CTP 2050:** Facilitate countywide collaborative on visitor travel
- **Policy topics to consider:**
 - Management of vehicle access and parking
 - Advancement of rural funding strategies
 - Increased local shuttle services for busiest visitor parks and hospitality workforce
- **Specific near-term actions:**
 - Facilitate establishment of Marin Visitor Travel Collaborative
- **Funding opportunities:**
 - Competitive Regional, State and Federal Grants
 - Federal Parks funding
 - County Transit Funding
- **Example projects:**
 - West Marin Transit Services
 - Visitor/Traveler information systems
 - Traffic and parking management programs for tourist areas
- **Performance measure(s):**
 - Visitor travel coordination process implemented with Marin Visitor Travel Collaborative

Figure 16: Visitor and Recreation Routes and Services (Countywide)

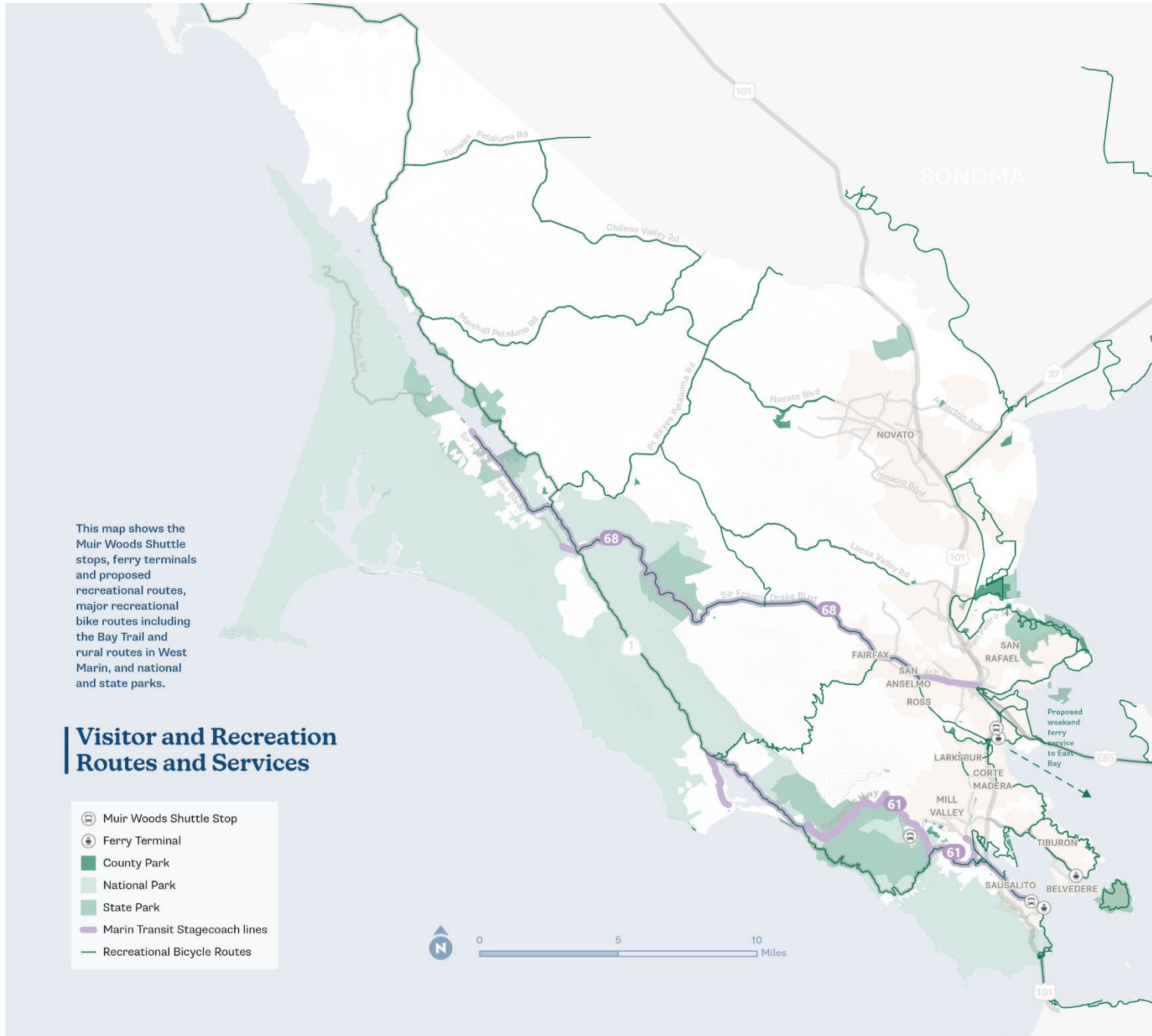


Figure 16: Visitor and Recreation Routes and Services (Highway 101 corridor)



-  Ferry Terminal
-  Muir Woods Shuttle Stop
-  County Park
-  National Park
-  State Park
-  Recreational Bicycle Routes
-  Marin Transit Stagecoach lines

Transportation Data & System Management

Develop a county travel data approach to monitor travel patterns and changes to the network, and support management of new technologies including the introduction of connected and autonomous vehicles.

- **TAM's role:** lead work and coordination for Data Management Program, maintain TAM Demand Model, manage innovative system management pilots
- **Key partners:** cities/towns, County, MTC, MarinMap, transit agencies
- **New roles needed to advance CTP 2050:** Facilitate countywide collaborative on data and system management
- **Policy topics to consider:**
 - Dedicated ongoing funding for data collection and system management
 - Project reporting requirements and policy tracking
 - Autonomous vehicle and connected vehicle readiness
- **Specific near-term actions:**
 - Strategic Data Plan
- **Funding opportunities:**
 - Measure AA
 - Local Transportation funds
- **Example projects:**
 - Data collection program for CTP performance measures
 - TAM Demand Model (updates every 4 years coincident with regional MTP/SCS updates)
 - System Monitoring Program
- **Performance measure(s):**
 - Percent of agencies reporting that their process for identifying projects and developing maintenance strategies/plans incorporate equity, safety, and sustainability considerations
 - Regular update of the CTP 2050 metrics

Implementation Plan

Implementing the CTP 2050 Vision, Goals, and Strategies will require new financial and staff resources, and for various county agencies to establish new roles and partnerships. TAM will play multiple roles in the future including convener, facilitator, funding strategist, technical support, project delivery support, and grant funding application support. TAM will focus staff resources on multi-jurisdictional projects and programs that serve multiple communities.

Instrumental to successful implementation of the CTP will be establishment and execution of partnerships with multiple agencies and non-governmental organizations. One way to form these connections would be to formalize the Technical Advisory Committee (TAC) and Equity Working Group (EWG), first convened for the CTP, into groups that meet on a regular basis to discuss progress on the CTP Vision, Goals, and Strategies.

Implementation Framework

The 15 strategies are each advanced through one of three implementation pathways:

Thematic Strategies

Thematic strategies align with CTP 2050 Goals and TAM's commitment to data-driven planning. These strategies will not be accomplished through one-off programs or projects but instead must be woven and implemented through all TAM programs, projects, planning efforts, and funding.

- Safe Travel for All
- Equity Community Investments
- Adaptation to Climate Change
- Transportation Data & System Management

Network Strategies

Network strategies may include programmatic elements, but they primarily define specific geographic priority networks for a variety of transportation topics throughout the county. Some of the priority networks are defined in the CTP, while others are more locally defined and will continue to be locally prioritized.

- Fix It First (and Better)
- Accessible and Walkable Communities
- Regional Connectivity
- Complete Active Transportation Network
- Higher Quality Transit
- Connected and Complete Community Corridors

Programmatic Strategies

Programmatic strategies may require a combination of information curation and promotion, digital platform and/or tool development, agency coordination, and physical infrastructure investments. All programmatic strategies will be most effective if managed on a countywide scale and will require dedicated staff time at TAM, partner agencies, or a combination of the two.

- Easy and Safe School Travel
- Travel Education and Assistance Programs
 - Including Flexible Ride Programs
 - Including Commute Alternatives
- Zero Emission Vehicles
- Visitor Travel Management

Local Corridor Case Study for using the Implementation Framework:

The CTP serves as a foundational document for transportation planning in the county. As project sponsors seek to develop projects, the CTP serves as a reference for identifying needs of the system. Project sponsors should review CTP networks and strategies for applicability to each project, and coordinate project scoping meetings with relevant partner agencies identified in relevant CTP strategies, prior to application of any local, regional, state or federal grants or funding decisions. Once a project concept is developed, stakeholder engagement should continue to address identified needs and implementation actions.

As an example, Bridgeway in Sausalito is identified as part of the CTP transit priority network, a segment of the primary active transportation network, a segment of the High Collision Network, a route that serves an equity priority community (i.e., Marin City), a major evacuation route, and located in a sea level rise vulnerability zone. Development of a comprehensive corridor plan for Bridgeway should involve consultation with multiple agencies including TAM, Marin Transit, Golden Gate Bridge Highway and Transit District, Marin Wildfire Prevention Authority, adaptation planners, Caltrans and others. This collaboration and development of a corridor plan that provides co-benefits to address the range of needs and strategies would not only address the CTP vision and goals and thereby future proof the investments, but also make the corridor plan more competitive for federal, state, and regional grant programs.

Funding Strategy

While TAM manages important local sales tax funding, including Measure AA and Measure B, and provides significant direction to the region for other funding recommendations, there continues to be the need to tap into federal and state grant programs to ensure that local dollars can be leveraged to implement the important programs and projects that would help address TAM's CTP Strategies.

However, to access some highly competitive grant programs with projects that will address the CTP Vision, it will be important to develop plans, policies and partnerships that support the county's funding strategies. In most cases, federal and state grant programs also require a level of project readiness that must be also addressed so that when grants become available, the county is not hampered by lack of data or prior planning.

Partnerships

To be competitive in oversubscribed federal and state grant programs, it may be necessary to look beyond TAM's historical role in the county and assemble project partners that can expand TAM's reach into the federal and state funding programs. These partnerships not only help engender a spirit of cooperation but also help address regional connectivity at a very local level by bringing the needs of the project sponsors together to solve a county or regional need.

For example, several county MPOs and CMAs have been successful in obtaining Transit and Intercity Rail Program (TIRCP) funding by partnering with adjacent counties and transit operators to develop a program of projects that address the goals of TIRCP while meeting their own county transportation needs. Sonoma County Transportation Authority (SCTA) partnered with both their own county's transit providers along with adjacent county transit providers in Marin and Mendocino counties and was awarded \$24 million for a coordinated program of projects to improve local connectivity to the SMART rail service.

As another example, Affordable Housing Sustainable Communities (AHSC) grants have also been utilized to advance affordable housing goals and transit capital projects and can be coordinated with local affordable housing developers.

In such cases, the grant funds can assist the local transit operators expand their local service offerings as well as provide passenger improvements, improved transit facilities and on-street operational improvements. This approach could be used for several priority programs within the CTP with a variety of different partners.

Planning

While partnerships prove that coordination can be successful, the success was supported by long term planning processes that 1) evaluated potential project elements and their impacts, 2) included estimated project costs and benefits that could be used to support future grant application process, and 3) provided a forum for local agencies to address local issues with a broader lens. Transportation planning funds are often limited, and competitive. Agencies seeking to compete for funding to address local transportation challenges are often viewed through land use, equity, safety or other regional/state goals, and the CTP serves as a guide for both future planning efforts and project development.

California Environmental Quality Act (CEQA)

CEQA Guidelines exempt countywide transportation plans from CEQA (i.e., CEQA Guidelines section 15378(b)(4)), as well as the very next subpart (i.e., 15378(b)(5)). Those sections exempt from the definition of a CEQA “project” the “creation of government funding mechanisms” as well as other “organizational or administrative activities” of governments that “will not result in direct or indirect physical changes in the environment.”

What Lies Ahead

TAM’s actions over the next 25 years will greatly shape current and future residents’ lives, even as outside forces like climate change, new technologies and political uncertainty impact everyday life. As TAM proceeds, several priorities identified in CTP 2050 can be successfully delivered within TAM’s available and anticipated funding. Other important challenges identified during the Plan’s development can be advanced incrementally with available funds, while emerging programs can be more sharply defined for future consideration.

To achieve the greatest benefit from this CTP, the following actions will be useful:

- Maintain progress on meeting TAM’s commitment to safety, equity, and sustainability in its governance, planning and investments
- Invest in the TAM organization and staff to support evolution into a data-based decision-making agency
- Describe projects that are compatible with CTP goals to synchronize with state and regional mobility, land use, and social equity guidance
- Develop policies to maximize the effectiveness of limited local transportation dollars
- When TAM reviews the Measure AA Expenditure Plan in 2025, ensure funding criteria advance the CTP Vision and Goals.
- Establish a permanent Technical Advisory Committee and more actively collaborate with other public agencies to deliver climate change adaptation, safety best practices, regional trails, and a range of transformative transit programs.

Table 2 below provides a list of next steps for implementation.

Table 2: CTP 2050 Next Steps for Implementation

DRAFT CTP 2050 IMPLEMENTATION ACTIVITY	LEAD	KEY PARTNERS
Early Actions		
TAM Technical Advisory Committee (TAC)	TAM	Local Jurisdictions & Transit Operators
TAM Equity Working Group (EWG)	TAM	Community partners
Evaluation of existing programs & CTP Alignment	TAM	Local Jurisdictions & Transit Operators
Measure AA Review	TAM	Local Jurisdictions & Transit Operators
Advancing Work in Progress (apply key CTP 2050 priorities)		
Transportation Project Planning & Development	TAM, Local Jurisdictions, Transit Operators	MTC, Caltrans
Land Use Planning & Development	Local Jurisdictions	TAM, ABAG, Transit Operators
Marin Sonoma Coordinated Transportation Study (MASCOTS)	Transit Operators	TAM, SCTA, MTC
Sea Level Rise Study	TAM	Local Jurisdictions, BCDC, Caltrans
MTC TOC Policy Compliance, Specific Plans for existing PDAs	TAM	Local Jurisdictions, MTC
Marin-Sonoma Narrows Project and closure of HOV gap on US-101	TAM	Caltrans, Transit Operators. MTC
Advancement of Part-Time Transit Lanes on US-101	TAM	Caltrans, Transit Operators, MTC
Richmond San Rafael Bridge Forward suite of corridor improvements	BATA	TAM, CCTA, Golden Gate Transit, Caltrans
Redwood Bikeshare Pilot	TAM, SCTA	Local Jurisdictions
Local Road Safety Plan Adoption & Vision Zero Implementation	Local jurisdictions	TAM, Caltrans
TAM Equity Action Plan	TAM	EWG
Initiate New Efforts (organize around CTP 2050 Vision, Goals, and Strategies)		
Traffic Signal Modernization Study and Implementation	TAM	TAC
Update to Coordinated Countywide School Transportation Study	TAM, Marin Transit, and MCOE	TAC, School districts, EWG
Countywide Active Transportation Plan & Coordinated Grant Approach	TAM	TAC, EWG
Identify new PDAs	Local Jurisdictions	TAM, MTC
Advance Mobility Hubs	TAM, Local Jurisdictions, Transit Operators	TAC, EWG
VMT Toolkit Development	TAM	Local Jurisdictions, TAC, EWG
VMT Policy Adoption and Transportation Impact Analysis Guidelines	Local Jurisdictions	TAM, TAC
Explore future of Flexible Transit Services for non-drivers, including seniors and people with disabilities	MTC/MTCD	TAM, Transit Operators
Support ZEV Funding Opportunities	MCE	TAM, Local Jurisdictions
Establish New Processes (organize around CTP 2050 Vision, Goals, and Strategies)		
Establish Data Management Program	TAM	Local Jurisdictions & Transit Operators
Establish School Transportation Committee	TBD	TAM, MCTD, MCOE and School Districts
Establish Marin Visitor Travel Collaborative	TBD	TAM, County, Transit Operators, NPS, Caltrans, Marin Convention & Visitors Bureau

6. Measuring Performance

Marin County has a history of innovation and success with data collection and analyses for local efforts including Safe Routes to Schools programs, wildfire evacuation planning, and Travel Model development and update programs. TAM was one of the first county transportation agencies in the San Francisco Bay Area to develop an activity-based travel model, have a system monitoring program that provides a historical data set on system usage, complete a robust origin-destination travel report in 2018, and partner with technology companies (e.g., Uber and Lyft) to gather ridership data through innovative first/last mile programs. TAM supports local agencies with travel data through traditional and big data sets such as Inrix (i.e., speed and travel time data from private data provider) and PeMS (i.e., freeway speed and volume data from Caltrans monitors), and partner with agencies such as the Marin Wildfire Prevention Authority to develop robust evacuation data sets to support decision makers.

The CTP 2050 is a data-driven and performance-based plan, and implementation of the plan will be monitored over time to determine how effective the strategies are in accomplishing the plan Vision and Goals, as well as what changes should be made to adjust to emerging trends and technologies.

Table 2 below shows the CTP 2050 performance measures and their relationship to the CTP goals.

Table 2: CTP 2050 Performance Measures

CTP 2050 PERFORMANCE MEASURES		GOAL 1 Equitable, Accessible, & Affordable System	GOAL 2 Safe and Complete Multimodal Network	GOAL 3 Sustainable, Innovative & Resilient Future
	Unit			
1. Percent of population within 15-minute walk of high-quality transit service (defined as all rail and ferry stations as well as fixed route bus service with intervals no longer than 15 minutes)	%	✓	✓	✓
2. Transit System Ridership: total riders using fixed route services, total riders using regional routes, and total riders using flexible ride services (i.e., paratransit and private providers as data is available)	#, Annual Ridership	✓	✓	✓
3. Percent of countywide CTP primary bike network completed	%	✓	✓	✓
4. Fatal and injury crashes on High Collision Network (HCN) identified in Marin County Local Roadway Safety Plan (LRSP)	#, 5-Year Average of Collisions	✓	✓	✓
5. California Office of Traffic Safety (OTS) countywide rankings	Ranking	✓	✓	✓
6. School transportation coordination process implemented with School districts, Marin Transit, and TAM	Yes / No / Partial	✓	✓	✓
7. Percent of students making green trips	%	✓	✓	✓
8. Percent of school funding going to schools in areas meeting federal childhood poverty thresholds	%	✓	✓	✓
9. Progress in implementing Community Based Transportation Plan (CBTP) projects and programs (% of action plans that are complete)	%	✓	✓	✓
10. Increase in Class 1, protected and/or separated multi-use paths	#, Total Lane Miles	✓	✓	✓

CTP 2050 PERFORMANCE MEASURES		GOAL 1 Equitable, Accessible, & Affordable System	GOAL 2 Safe and Complete Multimodal Network	GOAL 3 Sustainable, Innovative & Resilient Future
	Unit			
11. Number of projects that mitigate or directly address SLR risk; number of projects that improve wildfire evacuation	#, Total Projects		√	√
12. Number of Green/Cool streets or innovative climate treatments in local streets and roads projects	#, Total Projects		√	√
13. Percent of public fleets in Marin County that are compliant with CARB ZEV fleet requirements	%			√
14. Number of public EV chargers in Marin County	#			√
15. Improvement in road pavement conditions (scored using Pavement Condition Index (PCI))	#, Average PCI		√	√
16. Percent of agencies with SB 743 VMT reduction policies	%		√	√
17. Average hours of delay on US 101 and variation in best and worst average hours of delay	#, Daily Time			√
18. Number of projects implemented that add connectivity or improve the safety and comfort of existing connections for communities disconnected by major roads and freeways	#, Total Projects	√	√	
19. Number of projects that remove travel barriers for historically underserved, vulnerable road user, or non-driver populations	#, Total Projects	√	√	
20. Percent of major transit station areas compliant with MTC TOC Policy	%	√	√	√
21. Percent of overall housing units planned and permitted within Priority Development Areas (PDA) or Transit Priority Areas (TPA)	%	√	√	√
22. Visitor travel coordination process implemented with Marin Visitor Travel Collaborative	Yes / No / Partial	√	√	√
23. Overall participation in Marin Commutes Program	#, participating companies	√	√	√
24. Describe how TAM Board actions would support accomplishing CTP 2050 vision, goals, strategies, in future staff reports. Present an update on CTP 2050 metrics to the TAM Board every year.	Yes / No / Partial	√	√	√
25. Percent of agencies reporting that their process for identifying projects and developing maintenance strategies/plans incorporate equity, safety, and sustainability considerations	%	√	√	√
26. Regular update of the CTP 2050 metrics	Yes / No / Partial	√	√	√

Development of a Data and System Management Program

TAM measures existing programs and projects (e.g. Crossing guards, safe Routes to schools, TDM, alt fuels), and supports all modes of travel in the county across multiple owners and operators. With the development of the CTP, there is an opportunity to align existing data collection efforts, with the needs and priorities established as part of the CTP. Data and system management has two major areas of focus, data on travel behaviors, and data on investments with partner agencies. Both sets of data will be needed to monitor investment trends and the resulting community benefits, and strong partnerships will be required to develop and monitor investment performance. This program will require dedicated resources and partnerships with agencies and private data providers.

The purpose of a data and system management program is to:

- Develop a county travel data portal to monitor travel patterns and progress of planned changes to the network and travel programs,
- Collect and document data from partner agencies including project/program status and data obtained through real-time monitoring stations,
- Provide information to the public on available travel options,
- Inform the need to refine policies and strategies,
- Inform how to refine future investment priorities, and
- Support management of existing and new technologies such as connected and autonomous vehicles.
- Determine ongoing resources needed to carry out a program.

TAM is preparing a concurrent Strategic Data Plan that is a multi-year plan designed to obtain, manage, and distribute data for multiple goals including:

- Monitoring progress in meeting the vision and goals of the 2050 CTP,
- Implementing 2050 CTP strategies and informing future updates of the 2050 CTP,
- Informing investment decisions by the TAM Board,
- Assisting partner agencies in project development and network management activities,
- Supporting future grant funding applications,
- Updating the countywide travel demand model, and
- Providing travel information to the general public.

The Plan will look at the opportunity for ongoing monitoring through local field monitors and through normal planning, design, and maintenance activities. The Plan will also define appropriate intervals for reporting and data visualization.

[Closing Statement: From the development of the 1973 Countywide Plan, multiple generations of creative and determined endeavors in Marin County have set the building blocks for our community and its mobility. This CTP provides a data driven blueprint for how TAM and the community of diverse stakeholders it serves can add to that amazing history by concentrating on what matters most and striving for excellence in the outcomes it delivers.]

Companion Documents/Appendices

1. Outreach Summary Report
2. Key Transportation Partners
3. Guiding Legislation and Plans
4. Transportation Equity Mapbook