

2027 TIP Federal Performance Report

Introduction

Performance-Based Planning and Programming

The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012, established performance management requirements for state departments of transportation (DOTs), metropolitan planning organizations, and transit agencies. Performance-based planning and programming is intended to improve the efficiency and effectiveness of transportation investments, support informed decision-making, and increase accountability and transparency.

MAP-21 and subsequent federal legislation require DOTs, MPOs, and transit agencies to establish performance targets for the following national goal areas:

- Safety
- Infrastructure Condition
- System Reliability
- Freight Movement and Economic Vitality
- Congestion Reduction
- Environmental Sustainability

Under the federal performance management rules, the Metropolitan Transportation Commission (MTC) is responsible for establishing regional targets and incorporating them into its planning and programming processes, including the Transportation Improvement Program (TIP) and the long-range transportation plan.

TIP Requirements

Federal regulations require MTC to demonstrate that the TIP:

1. Makes progress toward achieving adopted performance targets; and
2. Includes, to the maximum extent practicable, a description of the anticipated effect of TIP investments on those targets (23 CFR §450.326).

To meet these requirements, MTC evaluates whether the package of investments included in the TIP is expected to advance regional performance goals and, where feasible, quantifies the anticipated effects of those investments.

The following documents help support MTC's compliance with these requirements:

- **Federal Performance Report:** This report reflects all of the federally required performance targets and quantifies anticipated impacts to the greatest extent practicable while maintaining consistency across projects and performance measures.

- **2027 TIP:** The Bay Area’s 2027 TIP covers the four-year period of federal fiscal year (FY) 2026-2027 through FY 2029-2030 and includes more than 400 transportation projects and programs representing \$13.8 billion in committed funding. For the 2027 TIP, MTC collected data from project sponsors to complete this analysis.

Plan Requirements

Federal regulations require MTC to report on the condition and performance of the transportation system relative to adopted performance targets as part of each update to its long-range plan (23 CFR §450.324). MTC fulfills this requirement through the System Performance Report included in the Plan Bay Area 2050+ Performance Report

(<https://planbayarea.org/digital-library/final-plan-bay-area-2050-plus-performance-reportpdf>).

Reporting

In addition to assessing progress through the TIP and long-range plan, MTC is required to report regional targets to Caltrans. To support this effort, MTC publishes federal performance targets and progress through its Vital Signs performance-monitoring program

(<http://www.vitalsigns.mtc.ca.gov/targets>) and on MTC’s federal performance website

(<https://mtc.ca.gov/our-work/plans-projects/major-regional-projects/federal-performance-targets>).

2027 TIP Federal Performance Report Structure

This report is organized by federal goal area and includes the following elements:

- **Goal and Performance Measure Background:** An overview of each national goal area, including the federally required performance measures, information on the target-setting process, and updates on state and regional targets.
- **Regional Policies and Project Selection Procedures:** A discussion of regional policies, strategies, and project selection procedures that guide investments toward achievement of performance goals. This section also identifies which Plan Bay Area 2050+ strategies led to the TIP investments related to each federal goal area.

While Plan Bay Area 2050+ includes many strategies to guide transportation and land use development in the Bay Area, the strategies listed in Table 1 most directly support federally required transportation performance measures and are referenced throughout this report.

Table 1. Plan Bay Area 2050+ Strategies Supporting Transportation Performance Targets

Reference	Strategy Title
T1	Operate and maintain the existing system
T2	Improve the rider experience through transit network integration

T5	Implement pricing strategies to manage demand
T6	Modernize freeways and interchanges
T7	Expand freeways and mitigate impacts
T8	Advance other regional programs and local priorities
T9	Build a Complete Streets network
T10	Advance a regional Vision Zero policy through street design and reduced speeds
T11	Enhance transit frequency, capacity, and reliability
T12	Expand transit services throughout the Region
EN8	Expand clean vehicle initiatives
EN9	Expand transportation demand management initiatives

Further information about the individual strategies may be found in Chapter 4 of *Plan Bay Area 2050+* (Developing the Plan – Strategies for the Bay Area) and the *Plan Bay Area 2050+* supplemental performance report, available online at <https://planbayarea.org/technical-resources/plan-bay-area-2050-plus>.

- **2027 TIP Investments:** A summary of performance-related information collected from project sponsors for the 2027 TIP. For each goal area and performance measure, this section presents:
 - Investments in projects that the goal area as a primary purpose; and
 - Anticipated performance benefits from all TIP projects regardless of primary purpose.

Each section concludes with an assessment of the anticipated effect of the 2027 TIP on achieving performance targets, along with a discussion of ongoing and future efforts related to the goal area.

Safety

Federal performance management regulations establish two transportation safety goal areas: roadway safety and transit safety. Roadway safety measures focus on fatalities and serious injuries resulting from traffic collisions, including collisions involving pedestrians and bicyclists, while transit safety measures address fatalities, injuries, safety events, and system reliability. The overall goal of the transportation safety performance area is to reduce fatalities and injuries and improve the safety of the transportation system for all users.

Road Safety

Goal: Significantly reduce traffic fatalities and serious injuries on all public roads.

Performance Measures

Five performance measures are used to monitor safety trends and assess progress towards reducing traffic-related fatalities and serious injuries on public roads:

- Number of fatalities
- Rate of fatalities per 100 million vehicle miles traveled (VMT)
- Number of serious injuries
- Rate of serious injuries per 100 million VMT
- Number of non-motorized fatalities and non-motorized serious injuries

All measures are based on a 5-year rolling average on all public roads.

Performance Targets

State DOTs are required to establish annual targets for each roadway safety measure. MPOs may either support the statewide targets or establish quantifiable regional targets on a measure-by-measure basis.

Table 2. 2026 Statewide and Regional Roadway Safety Targets

Roadway Safety Performance Measures	Caltrans Statewide Targets 2022-2026 Average	Bay Area Regional Targets 2022-2026 Average	Average Annual Reduction
Fatalities – total	3,933.2	468.2	2.84%
Fatalities – per 100 million VMT	1.2	0.826	4.61%
Serious Injuries – total	16,016.9	2,326	3.69%
Serious Injuries – per 100 million VMT	5.205	4.33	3.69%
Non-motorized fatalities + serious injuries – total	4,402.5	751.6	2.84% (F) 3.69% (SI)

Notes: Caltrans uses data from the Fatality Analysis Reporting System (FARS) for fatalities, Statewide Integrated Traffic Records System (SWITRS) for injuries, and Highway Performance Monitoring System (HPMS) from California Public Road Data for traffic volume. Targets rely on observed and projected data.

MTC adopted regional roadway safety targets for the 2022-2026 performance period that are consistent with the statewide Safety Performance Management targets established by Caltrans. These targets align with the California Strategic Highway Safety Plan and reflect annual reductions of 2.84% in fatalities and 3.69% in serious injuries. At the same time, MTC continues to support Vision Zero as the region's long-term aspirational goal, with annual performance targets serving as interim milestones toward the elimination of traffic fatalities and serious injuries.

Regional Policies and Project Selection Procedures

Improving safety for all roadway users has long been a regional priority for MTC. In 2020, the Commission reaffirmed this commitment through the adoption of a [Regional Safety/Vision Zero](#) policy, which supports achievement of the region's safety performance targets. In 2022, MTC updated its longstanding regional [Complete Streets](#) policy, further advancing the Plan Bay Area 2050+ strategies to build a regional Complete Streets network and promote Vision Zero principles through safer street design and reduced vehicle speeds (Strategies T9 and T10).

This commitment to safety is also reflected in the funding programs that support projects included in the 2027 TIP. Several regional programs, including the One Bay Area Grant (OBAG) program, the Active Transportation Program, and the Regional Transportation Improvement Program (RTIP), require project sponsors to adopt a local Complete Streets policy or a circulation element that incorporates Complete Streets principles as a condition of receiving funding. In addition, both the OBAG and ATP programs require project sponsors seeking discretionary funding to have adopted a Local Road Safety Plan or comparable safety plan.

Safety considerations are also incorporated into project selection criteria. For example, Cycle 6 of the regional ATP awarded additional points to projects that advance Vision Zero objectives. Similarly, the OBAG 3 County and Local Program provides additional scoring consideration for projects that support federal safety performance measures and are consistent with the Regional Safety/Vision Zero Policy.

Beyond project selection requirements, OBAG 3 includes several targeted investments to advance regional safety goals. These include funding for implementation of the Regional Safety/Vision Zero Policy, including development of a regional safety data system and technical assistance for local safety planning and project development. OBAG 3 also maintains a \$25 million investment target for Safe Routes to School programs and establishes a \$200 million investment target for active transportation projects, further supporting safer travel options throughout the region.

2027 TIP Investments

In the 2027 TIP, approximately \$1.8 billion in federal, state, regional and local funds are directed to projects whose primary purpose is improving roadway safety (Table 3). Funding for safety-

focused projects account for 13% of the dollars in the 2027 TIP, and nearly one-third of all projects.

Table 3. TIP Projects with the Primary Purpose to Improve Road Safety

County	Safety Investments \$, in millions	% of TIP Investments	Safety Projects	% of TIP Projects
Alameda	\$517	4%	46	11%
Contra Costa	\$92	1%	19	5%
Marin	\$4	0%	1	0%
Napa	\$30	0%	2	0%
San Francisco	\$460	3%	5	1%
San Mateo	\$83	1%	15	4%
Santa Clara	\$197	1%	22	5%
Solano	\$15	0%	6	1%
Sonoma	\$58	0%	10	2%
Regional/ Multi-County	\$317	2%	5	1%
	\$1,772	13%	131	32%

Note: Project purpose data provided by project sponsors through the 2027 TIP. Project totals include one or more “grouped listings,” which combine numerous projects into a single listing in the TIP.

These investments include \$300 million programmed through two state-funded safety programs: the State Highway Operation and Protection Program (SHOPP) Collision Reduction Program and the SHOPP Mandates Program. In addition to the state safety investments directed to projects throughout the region, other significant road safety investments in the 2027 TIP include:

- \$351 million for San Francisco’s Hunters Point Shipyard & Candlestick Point Local Roads
- \$78 million for Caltrain’s Rengstorff Grade Separation in Mountain View
- \$59 million for ACTC’s Rail Safety Enhancement Program, Phase A
- \$32 million for San Jose’s Story Keyes Complete Streets

Transportation projects that are primarily focused on other non-safety objectives, such as congestion reduction or operational improvements, may also contribute to a safer roadway environment. For example, the Oakland-Alameda Access Project has \$119 million programmed in the 2027 TIP. Although the project’s primary purpose is congestion reduction, it is also expected to improve multimodal safety and reduce vehicle-pedestrian conflicts between Oakland and Alameda.

As shown in Table 4, 200 projects representing nearly \$4 billion in programmed investments are expected to have a moderate or significant benefit for roadway safety, regardless of their primary purpose. These projects account for nearly one-half of all TIP projects and approximately 29% of TIP funding.

Table 4. Reduction in the Number and Rate of Fatalities and Serious Injuries

County	Safety Investments \$ in millions	% of TIP Investments	Projects	% of TIP Projects
Alameda	\$854	6.2%	77	19%
Contra Costa	\$482	3.5%	32	8%
Marin	\$105	0.8%	9	2%
Napa	\$0	0.0%	0	0%
San Francisco	\$474	3.4%	7	2%
San Mateo	\$265	1.9%	18	4%
Santa Clara	\$256	1.9%	28	7%
Solano	\$0	0.0%	0	0%
Sonoma	\$71	0.5%	12	3%
Regional/ Multi-County	\$1,370	9.9%	10	2%
	\$3,945	28.5%	200	49%

Note: Table 4 indicates the anticipated effect of projects on road safety provided by project sponsors through the 2027 TIP.

Transit Safety

Goal: Improve the safety of public transportation systems by reducing fatalities, injuries, and safety events, while improving system reliability.

Performance Measures

The National Public Transportation Safety Plan establishes 14 performance measures that transit operators and MPOs are required to track and report. These measures are used to monitor safety performance, identify trends, and evaluate progress toward reducing fatalities, injuries, safety events, and equipment-related failures. Performance is reported separately by transit mode, such as bus, heavy rail, commuter rail, and demand-response service.

The transit safety performance measures are:

- Major events
- Major Events Rate
- Collision Rate
- Pedestrian Collision Rate

- Vehicular Collision Rate
- Fatalities
- Fatality Rate
- Transit Worker Fatality Rate
- Injuries
- Injury Rate
- Transit Worker Injury Rate
- Assaults on Transit Workers
- Rate of Assaults on Transit Workers
- System Reliability

Performance Targets

The Public Transportation Agency Safety Plan (PTASP) rule requires transit operators to develop and implement agency safety plans that include annual safety performance targets. In coordination with the region's transit operators, MTC establishes annual regional transit safety performance targets for each of the required measures. MTC adopted its most recent regional transit safety targets in June 2026.

MTC developed the 2026 regional targets by aggregating operator targets using a revenue vehicle mile (RVM)-weighted methodology. MTC also worked closely with operators to ensure that the resulting targets reflected local operating conditions and planned safety improvement efforts.

The PTASP rule does not specify whether targets or baseline performance should be reported using a single year of data or a rolling average of multiple years of data. MTC uses a three-year rolling average of the latest available data from the National Transit Database (NTD) to measure baseline performance. This approach reduces the impact of year-to-year fluctuations and provides a more stable basis for evaluating regional safety trends and progress toward performance targets.

Table 5. Regional Transit Safety Targets

Measure	Mode	Baseline (2023-2025)**	Targets (2026)
Major events	N/A	407	411
Major event rate	Bus	2.97	3.27
	Cable Car	29.50	29.11
	Heavy Rail	0.96	1.39
	Hybrid Rail	0.58	1.01
	Light Rail	11.65	9.32
	Monorail	0.00	4.33
	Paratransit/ Demand Response	0.43	0.90
	Streetcar	21.48	14.11
	Trolleybus	5.48	3.57
Collision rate*	Bus	2.00	N/A
	Cable Car	26.15	N/A
	Heavy Rail	0.15	N/A
	Hybrid Rail	0.00	N/A
	Light Rail	4.65	N/A
	Monorail	0.00	N/A
	Paratransit/ Demand Response	0.43	N/A
	Streetcar	15.16	N/A
	Trolleybus	1.57	N/A
Pedestrian collision rate*	Bus	0.21	N/A
	Cable Car	1.68	N/A
	Heavy Rail	0.05	N/A
	Hybrid Rail	0.00	N/A
	Light Rail	1.20	N/A
	Monorail	0.00	N/A
	Paratransit/ Demand Response	0.04	N/A
	Streetcar	2.49	N/A
	Trolleybus	0.56	N/A
Vehicular collision rate*	Bus	1.66	N/A
	Cable Car	19.16	N/A
	Heavy Rail	0.00	N/A
	Hybrid Rail	0.00	N/A
	Light Rail	2.93	N/A
	Monorail	0.00	N/A
	Paratransit/ Demand Response	0.36	N/A
	Streetcar	6.33	N/A
	Trolleybus	0.72	N/A
Fatalities	N/A	12.67	8.34
Fatalities rate	Bus	0.04	0.01
	Cable Car	0.00	0.00
	Heavy Rail	0.12	0.11
	Hybrid Rail	0.00	0.00
	Light Rail	0.26	0.09
	Monorail	0.00	0.00
	Paratransit/ Demand Response	0.00	0.00
	Streetcar	0.00	0.00
	Trolleybus	0.00	0.00

Measure	Mode	Baseline (2023-2025)**	Targets (2026)
Transit worker fatality rate*	Bus	0.00	N/A
	Cable Car	0.00	N/A
	Heavy Rail	0.01	N/A
	Hybrid Rail	0.00	N/A
	Light Rail	0.00	N/A
	Monorail	0.00	N/A
	Paratransit/ Demand Response	0.00	N/A
	Streetcar	0.00	N/A
	Trolleybus	0.00	N/A
Injuries	N/A	877	497
Transit worker injury rate*	Bus	0.67	N/A
	Cable Car	3.35	N/A
	Heavy Rail	0.60	N/A
	Hybrid Rail	0.00	N/A
	Light Rail	0.56	N/A
	Monorail	0.00	N/A
	Paratransit/ Demand Response	0.08	N/A
	Streetcar	2.49	N/A
	Trolleybus	1.90	N/A
Assaults on transit workers*	N/A	36	N/A
Rate of assaults on transit workers*	Bus	0.38	N/A
	Cable Car	0.00	N/A
	Heavy Rail	0.02	N/A
	Hybrid Rail	0.00	N/A
	Light Rail	0.31	N/A
	Monorail	0.00	N/A
	Paratransit/ Demand Response	0.00	N/A
	Streetcar	1.21	N/A
	Trolleybus	1.33	N/A
System reliability**	Bus	17,296	47,611
	Cable Car	767	718
	Heavy Rail	272,965	182,553
	Hybrid Rail	104,905	38,062
	Light Rail	9,380	7,868
	Monorail	28,001	13,000
	Paratransit/ Demand Response	88,749	87,754
	Streetcar	2,909	2,790
	Trolleybus	9,786	3,537

1* Indicates new performance measures from the April 2024 PTASP update. Regional targets have not yet been established for these measures; baseline values are provided for reference.

** Actual performance for system reliability is compared with performance from two years prior because data for system reliability is on a two-year lag.

Regional Policies and Project Selection Procedures

While relatively few projects included in the 2027 TIP are designed specifically to address the transit safety performance measures, many TIP investments support transit safety outcomes indirectly. In particular, state-of-good-repair projects, which replace, rehabilitate, or maintain vehicles, facilities, and infrastructure, are among the types of investments most likely to

influence transit safety outcomes. Maintaining transit assets in a state of good repair can help reduce equipment failures, improve system reliability, and lower the risk of certain safety events.

Because many of the transit safety performance measures are affected by factors beyond the scope of the TIP, including operating practices, workforce training, and day-to-day safety management, the relationship between TIP investments and safety outcomes is not always direct. Nevertheless, investments that preserve and modernize transit assets play an important supporting role in helping transit operators maintain safe and reliable service. Further discussion of regional policies and project selection procedures that support these investments is provided in the Transit Asset Management section below.

2027 TIP Investments

The 2027 TIP programs approximately \$176 million for projects whose primary purpose is improving transit safety (Table 6).

Table 6. 2027 TIP Projects with the Primary Purpose to Improve Transit Safety

Bay Area	Safety Investments <i>\$ in millions</i>	% of TIP Investments	Safety Projects	% of TIP Projects
Regional total	\$176	<1%	19	1%

An additional \$5 billion of 2027 TIP investments are anticipated to improve performance on one or more transit safety measures, regardless of overall project purpose (Table 7). This accounts for more than one-third of the investments included in the 2027 TIP. Most of these investments are transit asset rehabilitation, replacement, and expansion projects that are expected to improve performance on one or more transit safety measures, particularly system reliability and safety-event rates.

Table 7. 2027 TIP Projects Anticipated to Result in Transit Safety Benefits

Bay Area	Safety Investments <i>\$ in millions</i>	% of TIP Investments	Safety Projects	% of TIP Projects
Regional total	\$5,067	37%	40	10%

Examples of projects expected to provide transit safety benefits include:

- \$88 million for LAVTA Atlantis Facility Construction and Bus Replacement
- \$14 million for VTA's Safety Enhancements at Grade Crossings
- \$11 million for SMART's Rail and Pathway Phase 2

Infrastructure Condition

The maintenance and preservation of existing transportation infrastructure are critical to providing a safe, reliable, and efficient transportation system. The goal of the Infrastructure Condition performance area is to maintain transportation assets in a state of good repair by improving the condition of the region's pavements, bridges, and transit assets.

Pavement Condition

Goal: Maintain the condition of highway infrastructure assets in a state of good repair

Performance Measures

Four performance measures are used to monitor pavement conditions and assess progress toward maintaining the Interstate System and non-Interstate National Highway System (NHS) in a state of good repair:

- Percentage of pavements on the Interstate in good condition
- Percentage of pavements on the Interstate in poor condition
- Percentage of pavements on the non-Interstate NHS in good condition
- Percentage of pavements on the non-Interstate NHS in poor condition

All four performance measures are based on the number of lane miles.

Performance Targets

State DOTs are required to develop a Transportation Asset Management Plan that includes long-range investment strategies for assets on the NHS, including pavement condition. The plan establishes 10-year performance goals and interim two- and four-year performance targets to monitor progress. MPOs are required to establish four-year targets and may choose to adopt the statewide target or adopt quantifiable regional targets.

Caltrans adopted its current statewide two- and four-year targets for pavement condition in May 2022. In February 2023, MTC chose to support state targets for the four-year performance period.

Table 8. Regional Pavement Asset Management Targets

Performance Measure <i>Percentage of system total</i>	Statewide Baseline Condition <i>2019</i>	Statewide 2- Year Targets <i>2023</i>	Statewide 4-Year Targets <i>2025</i>	Regional 4-Year Targets <i>2025</i>
Interstate in good condition	47.9%	47.2%	49.2%	Support State Targets
Interstate in poor condition	1.9%	1.9%	1.7%	Support State Targets
Non-Interstate NHS in good condition	23.8%	21.7%	28.2%	Support State Targets
Non-Interstate NHS in poor condition	9.9%	10.5%	9.0%	Support State Targets

Regional Policies and Project Selection Procedures

MTC has long maintained a Fix-it-First approach to transportation investment, prioritizing the preservation and maintenance of existing infrastructure before expansion. This commitment is reflected in the region’s plans, funding programs, and project selection policies.

A key component of this effort is MTC’s development and ongoing support of the StreetSaver® pavement management system, which helps jurisdictions identify the most cost-effective pavement preservation strategies and target limited resources where they will have the greatest benefit. MTC also reviews and certifies local Pavement Management Programs (PMPs) to ensure they meet regional standards. Certification of a PMP is a prerequisite for receiving certain regional discretionary funds.

Consistent with this longstanding policy, *Plan Bay Area 2050+* prioritizes maintaining and operating the existing system (Strategy T1). As part of the plan development process, MTC conducted an asset management needs assessment and dedicated approximately three-quarters of forecast transportation revenues to system operations, maintenance, and rehabilitation, including pavement preservation investments.

Although achievement of federal pavement performance targets on the Interstate System and NHS is driven largely by investments delivered through the state-managed SHOPP, regional funding programs also support progress toward these targets. For example, jurisdictions seeking OBAG County Program funds must maintain a certified PMP, and pavement preservation projects proposed for OBAG funding must be justified through the needs analysis contained in that PMP. These requirements help ensure that regional investments are guided by data-driven asset management practices and directed toward the highest-priority pavement preservation needs.

2027 TIP Investments

The 2027 TIP programs approximately \$1.8 billion for projects whose primary purpose is improving pavement condition on the NHS (Table 9). Of this amount, approximately \$936 million is programmed through the SHOPP Roadway Preservation Program.

Table 9. 2027 TIP Projects with Primary Purpose to Improve Pavement Condition on the NHS

Bay Area	Pavement Investments \$ in millions	% of TIP Investments	Pavement Projects	% of TIP Projects
Regional total	\$1,833	13%	5	1%

Note: Project purpose data provided by project sponsors through the 2027 TIP. Project totals include the SHOPP Roadway Preservation “grouped listing,” which combines numerous projects into a single listing.

In total, approximately \$2.3 billion is programmed to projects expected to improve pavement conditions on the Interstate System or non-Interstate NHS. These investments are anticipated to bring approximately 420 lane-miles of Interstate pavement and 121 lane-miles of non-Interstate NHS pavement into good condition (Table 10). However, the ultimate effect on regional performance measures will also depend on future pavement deterioration and additional preservation investments that occur outside the TIP.

Table 10. 2027 TIP Improvements in Pavement Condition on the NHS in Lane Miles

Performance Measure	From Fair to Good	% of Regional Total	From Poor to Good	% of Regional Total	Total Improved to Good	% of Regional Total
Interstate System	59.9	2.7%	359.6	16.1%	419.5	18.8%
Non-Interstate NHS	37.2	< 1%	83.6	1.4%	120.8	2.0%

Note: Pavement condition improvements data provided by project sponsors through the 2027 TIP.

Bridge Condition

Goal: Maintain the condition of bridge assets in a state of good repair.

Performance Measures

Two performance measures are used to monitor bridge conditions and assess progress toward maintaining NHS bridges in a state of good repair:

- Percentage of NHS bridges classified in good condition
- Percentage of NHS bridges classified in poor condition

Both performance measures are based on deck area square meters.

Performance Targets

State DOTs are required to develop a Transportation Asset Management Plan that includes long-range investment strategies for assets on the NHS, including bridge condition. The plan establishes 10-year performance goals and interim 2- and 4-year performance targets. MPOs are required to set four-year targets and may choose to adopt the statewide target or adopt quantifiable performance targets for the region.

Caltrans finalized its current statewide bridge condition targets in May 2022. In February 2023, MTC chose to support state targets for the four-year performance period.

Table 11. Regional Bridge Condition Targets

Performance Measure <i>Percentage of system total</i>	Statewide Baseline Condition <i>2019</i>	Statewide 2-Year Targets <i>2023</i>	Statewide 4-Year Targets <i>2025</i>	Regional 4-Year Targets <i>2025</i>
NHS bridges in good condition	48.5%	49.1%	47.3%	Support State Targets
NHS bridges in poor condition	5.4%	5.9%	4.4%	Support State Targets

Regional Policies and Project Selection Procedures

As with pavement asset management, MTC's longstanding Fix-it-First policy guides regional plans, programs, and funding decisions related to bridge preservation and maintenance. This commitment is reflected in Plan Bay Area 2050+, which prioritizes maintaining and operating existing transportation assets through the "operate and maintain the existing system" strategy (Strategy T1).

MTC also directly supports bridge preservation and condition improvements through its role as the Bay Area Toll Authority (BATA). A significant share of toll revenues collected on the region's seven state-owned toll bridges is dedicated to the operation, maintenance, rehabilitation, and replacement of those facilities. Similarly, the Golden Gate Bridge Highway and Transportation District GGBHTD uses toll revenues to support the ongoing maintenance and preservation of the Golden Gate Bridge. These investments help preserve bridge assets and support progress toward federally required bridge condition performance targets.

In addition to locally generated toll revenues, substantial state and federal resources are invested in bridge preservation throughout the region. The most significant sources of funding are the Highway Bridge Program (HBP) for locally owned bridges and the SHOPP for state-owned bridge assets. Together, these programs provide the primary funding for projects that maintain bridge conditions and support achievement of federal bridge performance targets on the NHS.

2027 TIP Investments

The 2027 TIP includes \$1.2 billion in projects whose primary purpose is improving bridge conditions on the NHS (Table 12).

The largest investment in bridge assets in the 2027 TIP is the BATA Toll Bridge Rehabilitation program, which accounts for approximately \$951 million of programmed funding.

Table 12. 2027 TIP Projects with Primary Purpose to Improve Bridge Condition on the NHS

Bay Area	Bridge Investments \$ in millions	% of TIP Investments	Bridge Projects	% of TIP Projects
Regional total	\$1,185	9%	9	2%

Note: Project purpose data provided by project sponsors through the 2027 TIP. Project totals include the SHOPP Bridge Preservation and Local HBP “grouped listings,” which combines numerous projects into a single listing.

These investments are anticipated to bring 312,543 square meters of bridge deck area, or approximately 0.5% of the regional total, into good condition (Table 13). However, the precise impact of these investments on performance will be affected by ongoing deterioration of bridge conditions throughout the TIP period as well as other locally funded bridge projects not captured in the TIP.

Table 13. 2027 TIP Improvements in Bridge Condition on the NHS by Bridge Deck Area

Performance Measure	From Fair to Good	% of Regional Total	From Poor to Good	% of Regional Total	Total Improved to Good	% of Regional Total
Bridge Deck Area (in square meters)	308,276	0.5%	4,267	<0.1%	312,543	0.5%

Note: Bridge condition improvements data provided by project sponsors through the 2027 TIP.

Transit Asset Management

Goal: Maintain the condition of public transit assets in a state of good repair

Performance Measures

Four performance measures are used to monitor the condition of public transit assets and assess progress toward maintaining those assets in a state of good repair.

- Percentage of revenue vehicles that have met or exceeded their useful life benchmark (*by asset class*)
- Percentage of facilities with a condition rating below fair (*by asset class*)
- Percentage of guideway directional route-miles with performance restrictions
- Percentage of non-revenue vehicles that have met or exceeded their useful life benchmark

Performance Targets

Transit operators and MPOs are required to establish annual targets for each transit asset management performance measure.

For rolling stock and facilities, the performance measures are reported by asset class. Regional targets are developed by aggregating targets established by individual transit operators. These operator targets reflect anticipated asset replacements, rehabilitation activities, and available funding during the upcoming fiscal year.

MTC adopted its latest regional transit asset management targets in April 2026. The targets generally anticipate modest improvements in the condition of several revenue vehicle classes as replacement vehicles enter service. In contrast, the condition of non-revenue vehicle fleets is expected to decline modestly due to existing asset age and currently available funding levels. Table 14 summarizes the regional targets for each required performance measure.

Table 14. Regional Transit Asset Management Targets

Performance Measures	Mode	Baseline Condition 2025	MTC Target 2026
Revenue Vehicles – percent exceeding useful life benchmark	Articulated bus	3%	2%
	Automated guideway vehicle	0%	0%
	Automobile	91%	100%
	Bus	17%	21%
	Cable car	72%	79%
	Commuter rail – locomotive	0%	0%
	Commuter rail – passenger car	0%	0%
	Commuter rail – self-propelled passenger coach	0%	0%
	Cutaway bus	23%	38%
	Double decker bus	0%	0%
	Ferryboat	30%	30%
	Heavy rail	0%	0%
	Light rail	7%	12%
	Minivan	98%	8%
	Over-the-road bus	0%	0%
	Trolley bus	0%	0%
	Van	28%	19%
	Vintage trolley	100%	100%
Facilities – percent with condition rating below fair	Administrative and maintenance facilities	10%	4%
	Passenger facilities	14%	15%
Guideway directional route-miles – percent with performance restrictions	Rail Fixed-Guideway	3%	3%
Non-Revenue Vehicles – percent exceeding ULB	All	38%	44%

Regional Policies and Project Selection Procedures

Like other infrastructure condition performance areas, Transit Asset Management investments in the Bay Area are guided by MTC's longstanding Fix-it-First philosophy, which prioritizes preserving and maintaining existing assets before expanding the system. As a result, transit state-of-good-repair investments are a core component of Plan Bay Area 2050+'s "operate and

maintain the existing system" strategy (Strategy T1), alongside investments in pavement, bridges, and other transportation infrastructure.

Recognizing that a reliable transit system is essential for achieving the region's interconnected goals, MTC has also prioritized transit asset preservation through programs such as the Transit Core Capacity Challenge Grant Program, which supports efforts to maintain transit assets in a state of good repair within the region's urban core.

This emphasis on asset preservation is further reflected in regional programming policies. After meeting debt-service obligations, projects that replace, rehabilitate, or otherwise preserve transit assets receive the highest funding priority through the Transit Capital Priorities (TCP) Program. The TCP Program guides the allocation of key federal, state, and regional funding sources, including FTA Section 5307 Urbanized Area Formula funds, FTA Section 5337 State of Good Repair funds, FTA Section 5339 Bus and Bus Facilities Formula funds, STP and CMAQ funds programmed for transit purposes, and regional revenues directed to transit through the CCCGP. By prioritizing state-of-good-repair investments, these funding programs support progress toward regional Transit Asset Management goals and federally required performance targets.

2027 TIP Investments

The 2027 TIP programs approximately \$6.0 billion for transit rehabilitation, replacement, and expansion projects that are expected to provide transit asset management benefits (Table 15). Rehabilitation and replacement projects improve asset conditions directly by reducing the share of assets that have exceeded their useful life benchmarks. Expansion projects may also improve asset condition measures by adding new assets to the inventory and increasing the share of assets in a state of good repair.

Table 15. 2027 TIP Projects Anticipated to Result in Transit Asset Management Benefits

Bay Area	Investments \$ in millions	% of TIP Investments	Projects	% of TIP Projects
Regional total	\$5,983	43%	109	27%

Some of the largest investments in transit assets, including expansion projects, in the 2027 TIP include:

- \$4.7 billion for Caltrain Downtown Extension, Phase 2
- \$290 million for BART Transbay Core Capacity Improvements
- \$86 million for AC Transit Vehicle Procurement
- \$64 million for SFMTA Motor Coach Mid-Life Overhaul

Rail transit accounts for the majority of transit asset investments in the 2027 TIP. The Caltrain Downtown Extension, Phase 2 project alone represents approximately 80% of the TIP funding programmed for transit asset investments.

The impact of these transit investments on annual performance will depend on the condition of existing assets, the pace of ongoing wear and tear, and additional state-of-good-repair investments made by transit operators outside of the 2027 TIP.

Congestion Reduction

Goal: Achieve a significant reduction in congestion on the NHS

Performance Measures

Two performance measures are used to monitor congestion on the NHS and assess progress towards reducing traffic congestion in urbanized areas.

- Annual hours of peak-hour excessive delay per capita by urbanized area
- Percent of non-single occupancy vehicle (non-SOV) travel by urbanized area

Performance Targets

Federal regulations require MPO targets for congestion reduction and non-SOV travel to be coordinated with and consistent with statewide targets established by Caltrans. MTC worked closely with Caltrans and other MPO partners to develop the current targets that reflect regional travel patterns, expected transportation investments, and long-term planning objectives.

For the current performance period, targets were established for two federally required measures: annual hours of peak-hour excessive delay per capita and the percentage of travel made using non-single-occupant vehicle (non-SOV) modes. Consistent with prior target-setting efforts, MTC established targets that seek to reduce delay while increasing the share of travel made by transit, bicycling, walking, carpooling, and other non-SOV modes.

The Bay Area contains five urbanized areas subject to congestion performance reporting requirements: San Francisco-Oakland, San Jose, Concord, Santa Rosa, and Antioch. The current regional targets for peak-hour excessive delay and non-SOV travel are shown in Table 16 and Table 17.

Table 16. Annual Peak Hour Excessive Delay per Capita Targets

Performance Measure	Baseline Condition	2-Year Targets	4-Year Targets
Urbanized Area (UZA)	2021	2023	2025
San Francisco-Oakland UZA	18.3 hours	17.9 hours	17.6 hours
San Jose UZA	13.7	13.4	13.2
Concord UZA	16.0	15.7	15.4
Santa Rosa UZA*	6.6	6.5	6.3
Antioch UZA*	6.5	6.4	6.2

Table 17. Percent Non-SOV Travel Targets

Performance Measure <i>Urbanized Area</i>	Baseline Condition <i>2021</i>	2-Year Targets <i>2023</i>	4-Year Targets <i>2025</i>
San Francisco-Oakland UZA	49.8%	50.8%	51.8%
San Jose UZA	33.5%	34.5%	35.5%
Concord UZA	39.5%	40.5%	41.5%
Santa Rosa UZA	25.1%	26.1%	27.1%
Antioch UZA	31.2%	32.2%	33.2%

Regional Policies and Project Selection Procedures

MTC takes a multimodal approach to reducing congestion and improving mobility. While strategic roadway improvements can help address specific congestion bottlenecks, the region's long-term approach emphasizes providing viable alternatives to driving alone and improving the efficiency of the existing transportation system. This approach recognizes that roadway capacity expansion alone may not provide lasting congestion relief and can increase vehicle travel over time.

Many of MTC's regional policies and programs support achievement of the federally required congestion reduction performance measures by increasing non-SOV travel and reducing VMT. Consistent with this approach, Plan Bay Area 2050+ includes numerous strategies that improve transit service, expand active transportation options, encourage travel demand management, and implement pricing strategies to manage demand on the transportation network. By reducing reliance on single-occupant vehicle travel and improving transportation system efficiency, these strategies support progress toward both non-SOV travel and peak-hour delay targets.

Several regional policies reinforce these objectives. MTC's Complete Streets Policy promotes investments that improve conditions for people walking, bicycling, and taking transit. The Regional Transit Expansion Program, Transit Core Capacity Challenge Grant Program, and Transit Sustainability Project support investments that improve transit capacity, reliability, and the overall rider experience. In addition, MTC's Major Project Advancement Policy (MAP) guides future decisions regarding regionally significant highway and transit investments.

Regional funding programs also support achievement of congestion reduction targets. The OBAG Program directs funding to projects that improve multimodal connectivity, including the Safe and Seamless Mobility Quick-Strike and Mobility Hubs programs. OBAG also funds Climate Initiatives that encourage the use of alternative transportation modes. The ATP supports

improvements for walking and bicycling, while the TCP Program helps ensure that transit remains a competitive alternative to driving.

Other regional and state programs focus more directly on reducing traffic delay and improving system efficiency. OBAG funds roadway operational improvements identified through the Bay Area Forward initiative, while the RTIP requires major freeway projects to incorporate Transportation Operations System (TOS) elements that improve traffic flow. Similarly, the Caltrans SHOPP Mobility Program invests in projects that address congestion and improve travel-time reliability on the state highway system.

Plan Bay Area 2050+ contains numerous strategies that support achievement of the region's congestion reduction targets. Many of these strategies seek to reduce VMT, increase travel by non-SOV modes, improve transportation system efficiency, or manage demand on the roadway network (Table 18).

Table 18. Plan Bay Area 2050+ Strategies Supporting Achievement of Congestion Reduction Targets

Reference	Strategy Title
T2	Improve the rider experience through transit network integration
T5	Implement pricing strategies to manage demand
T6	Modernize freeways and interchanges
T7	Expand freeways and mitigate impacts
T8	Advance other regional programs and local priorities
T9	Build a complete streets network
T11	Enhance local transit frequency, capacity, and reliability
T12	Enhance transit services throughout the region
EN9	Expand transportation demand management initiatives

Note: Unlike many strategies that support congestion reduction by reducing VMT or shifting travel to non-SOV modes, Strategy T7 focuses on targeted freeway improvements in specific corridors with significant congestion challenges. As part of a balanced multimodal approach, these investments can help reduce excessive delays and improve system performance while accompanying mitigation measures help address potential environmental and community impacts.

2027 TIP Investments

The 2027 TIP programs approximately \$2.8 billion for projects expected to provide a moderate or significant reduction in roadway congestion (Table 19). These investments include roadway operational improvements, managed lanes, interchange improvements, transit projects, and other projects intended to improve travel-time reliability and reduce peak-period delay.

Table 19. 2027 TIP Congestion Reduction Projects

Congestion Reduction	Investments \$ in millions	% of TIP Investments	Projects	% of TIP Projects
Moderate or significant improvement	\$2,818	20%	130	32%

Note: Anticipated effect of projects on congestion provided by project sponsors through the 2027 TIP. Project totals include one or more “grouped listings,” which combine numerous projects into a single listing in the TIP.

Examples of projects expected to reduce congestion or improve travel-time reliability include:

- \$251 million for I-680/SR 4 Interchange Reconstruction, Phases 2a and 4
- \$219 million for SR 27 Interim Project, Sears Point to Mare Island
- \$96 million for US 101 Managed Lanes North of I-380
- \$31 million for BART Berryessa to San Jose Extension

Achievement of the non-SOV travel performance measure depends largely on the availability and attractiveness of alternatives to driving alone. As a result, many investments that support transit, walking, bicycling, and shared mobility contribute to progress toward this target.

In the 2027 TIP, approximately \$7.2 billion is programmed to projects whose primary mode is transit, bicycle, pedestrian, or another non-auto mode (Table 20). These investments expand transportation choices and support achievement of the region's non-SOV travel targets.

Table 20. 2027 TIP Projects with Primary Mode other than Auto

County	Investments (in \$ millions)	% of TIP Investments	Projects	% of TIP Projects
Alameda	\$918	7%	71	17%
Contra Costa	\$199	1%	41	10%
Marin	\$84	1%	14	3%
Napa	\$30	0%	2	0%
San Francisco	\$4,988	36%	15	4%
San Mateo	\$120	1%	19	5%
Santa Clara	\$435	3%	58	14%
Solano	\$24	0%	10	2%
Sonoma	\$31	0%	11	3%
Multiple Counties	\$349	3%	14	3%
	\$7,176	52%	255	63%

Note: Primary mode information provided by project sponsors through the 2027 TIP.

System Reliability, Freight Movement, and Economic Vitality

Goal: Improve the efficiency of the surface transportation system and the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development

Performance Measures

Three performance measures are used to monitor system reliability and freight movement on the NHS:

- Percentage of person-miles traveled on the Interstate System that are reliable
- Percentage of person-miles traveled on the non-Interstate NHS that are reliable
- Truck Travel Time Reliability (TTTR) Index on the Interstate System

Performance Targets

State DOTs are required to establish two-year and four-year targets for passenger travel reliability on the Interstate System and non-Interstate NHS, as well as freight reliability on the Interstate System. MPOs may either support the statewide targets or establish quantifiable regional targets for each measure.

Caltrans established its current reliability and freight movement targets using data from the National Performance Management Research Data Set (NPMRDS). The statewide targets anticipate modest improvements in passenger travel reliability while maintaining current levels of freight reliability. These targets reflect expected benefits from ongoing state, regional, and local investments in transportation system management, operations, maintenance, and strategic capacity improvements.

As shown in Table 21, reliability on Bay Area highways generally trails statewide performance on both the non-Interstate NHS and freight reliability measures, although reliability on the Bay Area portion of the Interstate System slightly exceeded the statewide average in 2021. Given the regional and statewide nature of the highway network and the consistency of the statewide targets with regional goals, MTC elected to support the state-established targets for the current performance period.

Table 21. Regional System Reliability, Freight Movement, and Economic Vitality Targets

Performance Measure	Statewide Baseline 2021	Statewide 2-Year Targets 2023	Statewide 4-Year Targets 2025	Regional Baseline 2021	Regional 2- Year Targets 2023	Regional 4- Year Targets 2025
Reliable person-miles traveled on Interstate system (<i>Percentage of system total</i>)	73.8%	74.3%	74.8%	76.3%	Support State Targets	Support State Targets
Reliable person-miles traveled on non-Interstate NHS (<i>Percentage of system total</i>)	83.7%	84.2%	84.7%	82.0%	Support State Targets	Support State Targets
Truck travel time reliability index	1.6	1.6	1.6	1.9	Support State Targets	Support State Targets

Regional Policies and Project Selection Procedures

MTC undertakes a variety of planning, operational, and capital investment activities to improve the reliability of passenger and freight travel on the NHS. These efforts are reflected in multiple Plan Bay Area 2050+ strategies that support more reliable movement of people and goods throughout the region.

Table 22. Plan Bay Area 2050+ Strategies Supporting Achievement of System Reliability Targets

Reference	Strategy Title
T1	Operate and maintain the existing system
T5	Implement pricing strategies to manage demand
T6	Modernize freeways and interchanges
T7	Expand freeways and mitigate impacts
T8	Advance other regional programs and local priorities
T11	Enhance transit frequency, capacity, and reliability

Many of these strategies focus on improving transportation system operations, reducing the effects of recurring congestion, and minimizing delays associated with traffic incidents. Because TOS play an important role in achieving these objectives, MTC developed the Bay Area Regional Broadband Communications Strategic Investment Plan, which provides a framework for expanding the communications infrastructure necessary to support coordinated traffic management and Intelligent Transportation Systems (ITS) throughout the region.

Improvements in travel-time reliability benefit both passenger travel and goods movement by allowing travelers and freight operators to better predict travel times and reduce unexpected delays.

MTC also supports freight reliability through regional goods movement planning efforts. The San Francisco Bay Area Goods Movement Plan identifies strategies and investments to improve the efficiency and reliability of freight movement throughout the region. Building on this work, MTC developed the Goods Movement Investment Strategy to identify priority freight projects and potential funding sources that support implementation of the Plan.

Regional and state funding programs help implement these planning priorities by directing investments toward projects that improve system reliability and freight mobility. The OBAG 3 Multimodal Systems Operations and Performance program prioritizes projects such as 511 traveler information services, incident management systems, traffic management centers, and ITS improvements. Similarly, MTC requires major freeway projects funded through the RTIP to incorporate TOS elements that improve traffic flow and traveler information.

State-administered programs also contribute to the achievement of federal reliability targets. Projects funded through the SHOPP Mobility Program improve travel-time reliability through operational and corridor improvements, while projects funded through the SHOPP Collision Reduction Program help reduce non-recurring congestion associated with traffic incidents. Together, these investments support more reliable passenger and freight movement on the region's highway network.

2027 TIP Investments

The 2027 TIP programs substantial investments in projects expected to improve travel-time reliability for both passenger and freight movement. Approximately \$2.2 billion is programmed for projects anticipated to improve reliability on the Interstate System (Table 23), while approximately \$2.6 billion is directed toward improvements on the non-Interstate NHS (Table 24).

Table 23. 2027 TIP Projects Anticipated to Improve Interstate System Reliability

Bay Area	Investments \$ in millions	% of TIP Investments	Projects	% of TIP Projects
Significant improvement	\$807	6%	20	5%
Moderate improvement	\$1,375	10%	35	9%
	\$2,182	16%	55	14%

Note: Anticipated effect of projects on reliability provided by project sponsors through the 2027 TIP. Project totals include one or more “grouped listings,” which combine numerous projects into a single listing in the TIP.

Table 24. 2027 TIP Projects Anticipated to Improve Non-Interstate NHS Reliability

Bay Area	Investments \$ in millions	% of TIP Investments	Projects	% of TIP Projects
Significant improvement	\$456	3%	29	7%
Moderate improvement	\$2,130	15%	59	14%
	\$2,586	19%	88	22%

Note: Anticipated effect of projects on reliability provided by project sponsors through the 2027 TIP. Project totals include one or more “grouped listings,” which combine numerous projects into a single listing in the TIP.

Reliable movement of people and goods supports regional economic vitality by improving access to jobs, markets, suppliers, and customers throughout the Bay Area and beyond. Freight movement is a critical component of the regional economy, and many projects that improve passenger travel reliability also support more reliable truck travel. The 2027 TIP includes approximately \$1.8 billion in projects anticipated to improve the Truck Travel Time Reliability (TTTR) Index (Table 25).

Table 25. 2027 TIP Projects Anticipated to Improve Truck Travel Time Reliability

Bay Area	Investments \$ in millions	% of TIP Investments	Projects	% of TIP Projects
Significant improvement	\$632	5%	21	5%
Moderate improvement	\$1,171	8%	20	5%
	\$1,803	13%	41	10%

Note: Anticipated effect of projects on reliability provided by project sponsors through the 2027 TIP. Project totals include one or more “grouped listings,” which combine numerous projects into a single listing in the TIP.

Examples of projects in the 2027 TIP that are expected to improve passenger and freight travel reliability include:

- \$251 million for I-680 / SR 4 Interchange Reconstruction, Phases 2a and 4
- \$180 million for US 101 / SR 92 Interchange Direct Connector
- \$100 million for various projects in the SHOPP Mobility Program

While these investments are expected to improve highway and freight reliability, the precise impact on performance outcomes will depend on future travel demand, incident rates, economic activity, freight movement patterns, and other factors that influence conditions on the transportation network. Collectively, however, the operational, mobility, freight, and infrastructure investments included in the 2027 TIP are expected to support progress toward the region's system reliability and freight movement performance targets.

Environmental Sustainability

Goal: Enhance the performance of the transportation system while protecting and enhancing the natural environment

Performance Measures

One performance measure is used to assess the air quality benefits of projects funded through the Congestion Mitigation and Air Quality Improvement (CMAQ) Program:

- Total emissions reductions from CMAQ-funded projects, by pollutant

Performance Targets

State DOTs and MPOs are required to set 2- and 4-year numerical targets for the emissions reduction measure for each applicable pollutant. MPOs have the option of supporting State targets or setting their own region-specific numerical targets on a target-by-target basis.

MTC established is current regional targets based on the anticipated emissions reductions associated with CMAQ-funded projects expected to receive funding during the two- and four-year performance periods. To support target development, MTC updated its methodology for estimating project-level emissions reductions using tools tailored to specific project types, including FHWA's CMAQ Emissions Calculator Toolkit, the Atlanta Regional Commission's CMAQ Calculator Tool, and California Air Resources Board's Methods to Find the Cost-Effectiveness of Funding Air Quality Projects Tool. Because the current targets are based on a revised methodology, direct comparisons with baseline performance may be limited (Table 26) .

Over time, MTC expects the emissions reduction benefits attributable to CMAQ-funded projects to become more difficult to achieve as the vehicle fleet becomes cleaner and emissions from individual vehicles decline. As a result, future CMAQ investments may generate smaller quantified emissions reductions than similar projects implemented in previous years, even as overall regional air quality continues to improve.

Table 26. Total Regional Emissions Reduction from CMAQ-Funded Projects Targets

Performance Measure <i>Pollutants</i>	Regional Baseline* <i>2018-2021</i>	Regional 2- Year Targets <i>2022-2023</i>	Regional 4- Year Targets <i>2022-2025</i>
Fine particulate matter – PM2.5 (kg/day)	101.35	0.23	0.46
Particulate matter – PM10 (kg/day)	207.9	0.07	0.15
Carbon monoxide – CO* (kg/day)	14,916.98	23.14	37.96
Volatile organic compounds – VOCs (kg/day)	1,258.04	3.49	5.94
Nitrogen oxide – NOx (kg/day)	1,823.99	5.33	8.00

Note: Targets represent the estimated average daily emissions reductions attributable to CMAQ-funded projects expected to obligate funds during the applicable performance period. Baseline emissions reductions were estimated using prior methodologies based on Transportation Control Measures (TCMs) included in state plans.

Regional Policies and Project Selection Procedures

OBAG governs the programming of CMAQ funds in the Bay Area and serves as the primary mechanism for directing CMAQ investments included in the 2027 TIP. Consistent with federal CMAQ program objectives, the OBAG program prioritizes projects that reduce transportation-related emissions through strategies such as VMT reduction, travel demand management, transit and active transportation improvements, alternative-fuel vehicles and infrastructure, traffic flow improvements, and incident management.

These priorities support broader regional climate and air quality goals established through Plan Bay Area 2050+ (Table 27), which emphasizes reducing transportation-related emissions through a combination of cleaner vehicles, expanded transportation options, and more efficient operation of the transportation system. By directing CMAQ funds to projects with measurable emissions benefits, OBAG helps support achievement of the region's CMAQ emissions reduction performance targets.

Table 27. Plan Bay Area 2050+ Strategies Supporting Achievement of Environmental Targets

Reference	Strategy Title
N8	Expand clean vehicle initiatives
EN9	Expand transportation demand management initiatives
T2	Improve the rider experience through transit network integration
T9	Build a Complete Streets network
T11	Enhance transit frequency, capacity, and reliability
T12	Expand transit services throughout the region

2027 TIP Investments

Emissions reduction estimates are calculated for each CMAQ-funded project prior to project selection and programming. Under federal performance management requirements, only projects that obligate CMAQ funds for the first time during the current performance period may be credited toward the CMAQ emissions reduction measure. Projects that received CMAQ funding in prior years may continue to contribute to regional air quality benefits, but those benefits cannot be counted toward current-period CMAQ emissions reduction targets.

The 2027 TIP includes 46 projects that are expected to obligate approximately \$125 million in CMAQ funds for the first time during the current performance period. Collectively, these projects are anticipated to generate substantial emissions reductions across all federally tracked pollutants (Table 28).

Table 28. 2027 TIP Total Emissions Reductions from CMAQ Funded Projects

Pollutant	KG/Day Reduction
Fine particulate matter – PM2.5	4.32
Particulate matter – PM10	2.44
Carbon monoxide – CO	190.74
Volatile organic compounds – VOCs	16.54
Nitrogen oxide – NOx	25.07

Note: Based on latest available emissions reduction calculations for new CMAQ projects; calculated by MTC. Does not include emissions from projects already credited in prior years.

The CMAQ-funded projects in the 2027 TIP with the largest emissions reductions for one or more pollutants include:

- \$3.8 million for Daly City BART Station Mobility Hub
- \$3.1 million for Bay Bridge Forward: I-80, SFOBB, and Carquinez Bridge
- \$2 million for Silverado Trail Five-Way Intersection Improvements
- \$2 million for CC I-680 Adaptive Ramp Metering
- \$1 million for SR 4 Adaptive Ramp Metering

Although the federally required CMAQ measure focuses only on emissions reductions attributable to newly funded CMAQ projects, many other investments included in the 2027 TIP support environmental sustainability goals through transit expansion, active transportation improvements, transportation demand management, and vehicle electrification. Together, these investments are expected to contribute to improved air quality and reduced transportation emissions throughout the Bay Area.