

## How the FTIP Addresses Federal Requirements for Performance Measures

### Background

Federal rules require that the Federal Transportation Improvement Program (FTIP) “be designed such that once implemented, it makes progress toward achieving the performance targets established under § 450.306(d).” Also, the FTIP “shall include, to the maximum extent practicable, a description of the anticipated effect of [the FTIP] toward achieving the performance targets identified in the metropolitan transportation plan, linking investment priorities to those performance targets.”<sup>i</sup>

The Moving Ahead for Progress in the 21st Century Act (MAP-21, 2012) established new requirements for metropolitan planning organizations (MPOs) to coordinate with transit providers, set performance targets, and integrate those performance targets and performance plans into their planning documents by specified dates. The most recent federal transportation legislative package, the Infrastructure Investment and Jobs Act of 2021 (IIJA), carries forward these performance-based planning requirements. Beginning in 2018, federal rules required that state departments of transportation and MPOs implement federally defined transportation system performance measures. In response, FHWA and FTA worked with state, regional, and transit agencies to identify performance measures that meet the requirements.

In California, Caltrans is directly responsible for submitting statewide performance targets and periodic progress reports to federal agencies. MPOs are required to establish targets for the same performance measures for their respective metropolitan planning areas within 180 days after the state establishes each target. MPOs may elect to support the statewide targets, establish alternative quantitative targets specific to their region, or use a combination of both approaches. Furthermore, each MPO must incorporate these short-range performance targets into their planning and programming processes, including the regional transportation plan (RTP) and FTIP.

### FHWA Performance Measures

The federal performance measures defined by the Federal Highway Administration (FHWA) are categorized into three performance management (PM) focus areas. Each focus area includes an associated set of metrics for which statewide and regional targets must be set.

#### PM 1: Transportation Safety

##### *Motor Vehicle Collisions*

- Number of motor vehicle collision fatalities
- Rate of motor vehicle collision fatalities per 100 million VMT
- Number of motor vehicle collision serious injuries
- Rate of motor vehicle collision serious injuries per 100 million VMT

##### *Non-Motorized Fatalities and Serious Injuries*

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- Number of non-motorized fatalities and serious injuries

### PM 2: National Highway System (NHS) Pavement and Bridge Condition

#### *NHS Pavement Condition*

- Percentage of Interstate System pavement in 'good' condition
- Percentage of non-interstate NHS pavement in 'good' condition
- Percentage of Interstate System pavement in 'poor' condition
- Percentage of non-interstate NHS pavement in 'poor' condition

#### *NHS Bridge Condition*

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

### PM 3: NHS Performance, Interstate System Freight Movement, and CMAQ Program Performance

#### *NHS Performance*

- Percent of Interstate System mileage reporting reliable person-mile travel times
- Percent of non-interstate NHS mileage reporting reliable person-mile travel times

#### *Interstate Freight Movement*

- Percent of Interstate system mileage reporting reliable truck travel times

#### *CMAQ Program Performance*

- Annual hours of peak-hour excessive delay per capita
- Total emissions reduction by criteria pollutant (PM10, PM2.5, Ozone, CO)
- Percent of non-single occupancy vehicle (SOV) travel

## FTA Performance Measures

In addition to the three PM focus areas defined by FHWA, the Federal Transit Administration (FTA) established performance measures and reporting requirements for transit asset management (TAM) and transit safety.

Performance metrics for TAM focus on the maintenance of our regional transit system in a state of good repair. Transit safety performance monitoring is focused on assessment of the number of transit incidents resulting in fatalities or serious injuries and transit system reliability.

FTA issued the TAM Final Rule (49 CFR §625 et seq.), effective October 1, 2016, to implement MAP-21 transit asset management provisions. This final rule mandates a National TAM System, defines 'State of Good Repair' (SGR), and requires transit providers to develop TAM plans. The Metropolitan Transportation Planning Final Rule (23 CFR §450.206) outlines the timelines and processes by which states, MPOs, and transit providers must coordinate in the target setting process.

The FTA PM focus areas and associated metrics are as follows:

### Transit Asset Management (TAM)

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- Equipment: Share of non-revenue vehicles that meet or exceed useful life benchmark
- Rolling Stock: Share of revenue vehicles that meet or exceed useful life benchmark
- Infrastructure: Share of track segments with performance restrictions
- Facilities: Share of transit assets with condition rating below 3.0 on FTA Transit Economic Requirements Model (TERM) scale<sup>ii</sup>

### Transit Safety

- Number of transit-related fatalities
- Number of transit-related injuries
- Number of transit system safety events
- Transit system reliability

### Public Transit Agency Safety Plan

On July 19, 2018, the FTA published the Public Transportation Agency Safety Plan (PTASP) Final Rule (49 CFR §673.15) regulating how Chapter 53 grantees would have to implement federally mandated safety standards. The rule's effective date was July 19, 2019, and the compliance date was initially set for July 20, 2020. Considering the extraordinary operational challenges presented by the COVID-19 public health emergency, FTA issued a Notice of Enforcement Discretion effectively extending the PTASP compliance deadline from July 20, 2020 to December 31, 2020. The MPO's initial transit safety targets are to be set within 180 days of receipt of the safety performance targets from the transit agencies. The MPO then revisits its targets based on the schedule for preparation of its system performance report that is part of the RTP. The first RTP or FTIP update or amendment to be approved on or after July 20, 2021, is required to include the MPO's transit safety targets. See FTA's COVID-19 FAQs page for more information about the Notice.<sup>iii</sup>

The final rule specifically requires transit agencies receiving federal funds to develop a safety plan and annually self-certify compliance with that plan. The National Public Transportation Safety Plan identifies four performance measures that must be included in the transit agency safety plans: number of fatalities, number of injuries, safety events, and system reliability. Each transit agency must make its safety performance targets available to MPOs to assist in the planning process and to coordinate, to the maximum extent practicable, with the MPO in selecting regional transit safety targets.

## How Tahoe Regional Planning Agency Addresses Each Performance Management Focus Area

### Transportation Safety (PM 1)

#### **Part 1: Identify and describe the targets.**

Caltrans set safety performance targets in August 2021 for the 2022 calendar year as shown in Table 1 below.

Safety Performance Targets – Table 1

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Performance Measure	Data Source	5-Yr. Rolling Average Target for 2022	Annual Percentage Change for 2022
Number of Fatalities	FARS	3,491.8	-3.61%
Rate of Fatalities (per 100M VMT)	FARS & HPMS	1.042	-2.00%
Number of Serious Injuries	SWITRS	16,704.2	1.66%
Rate of Serious Injuries (per 100M VMT)	SWITRS & HPMS	4.879	1.66%
Number of Non-Motorized Fatalities and Non-Motorized Severe Injuries	FARS & SWITRS	4,684.4	-3.61% for Fatalities and 1.66% for Serious Injuries

*Note: The targets highlighted in gray are set in coordination with Office of Traffic Safety (OTS).*

The TRPA chose to accept the State’s Targets.

Transportation Safety (PM1) Targets

Performance Measure	Data Source	5-Year Rolling Average Target	Percent Reduction Target
Number of Fatalities	FARS	3,491.8	3.61%
Rate of Fatalities per 100 Million VMT	FARS & HPMS	1.042	2.00%
Number of Serious Injuries	SWITRS	16,704.2	1.66%
Rate of Serious Injuries per 100 Million VMT	SWITRS & HPMS	4.879	1.66%
Number of non-motorized fatalities and serious injuries	FARS & SWITRS	4,684.4	3.61/1.66%

Many of the projects programmed in the FTIP serve to improve transportation safety to some extent. For some projects, safety is the primary objective, and for others, safety may be a single component of a more expansive scope.

In 2019 Tahoe adopted a Regional Safety Strategy. TRPA received funds from Nevada DOT and Caltrans to conduct systemic safety analyses for the public roadways within the Tahoe Region. TRPA used the funds to conduct the analysis as part of an effort to develop a regionwide safety strategy in collaboration with its fifteen partner agencies. The Safety Strategy supports the goals of and is aligned with direction of the Tahoe Region established in the 2017 Linking Tahoe: Regional Transportation Plan and newly established federal performance measures. The plan can be found online at the following address: [Tahoe-Safety-Plan- Final 02-20-2019 reduced size.pdf \(trpa.org\)](https://trpa.org/Portals/0/Tahoe-Safety-Plan-Final-02-20-2019-reduced-size.pdf). TRPA is currently seeking \$200,000 in Safe Streets and Roads for All (SS4A) competitive grant program funds to complete an

update to the Lake Tahoe Region Safety Strategy. This will ensure that TRPA and local agencies within the region are eligible for future implementation grants to complete safety projects.

Three statewide funding programs dedicated to transportation safety are employed by Tahoe Regional Planning Agency including:

1. Active Transportation Program (ATP)
2. Highway Safety Improvement Program (HSIP)
3. State Highway Operations & Protection Program (SHOPP) Collision Reduction

#### ATP

The ATP provides funding for bicycle and pedestrian projects. Since people are more vulnerable to safety risk while walking or biking as compared to traveling in a motor vehicle, any project that promotes the safe use of bicycling or pedestrian modes is likely to generate safety benefits. The ATP further emphasizes safety by allotting points for project applications that specifically seek to reduce the rate or number of pedestrian and bicyclist fatalities and injuries.

#### HSIP

The HSIP directly addresses transportation safety. The program's stated purpose is to "achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal land." Successful project applications specifically seek to reduce collision related fatalities and injuries. The program is designed to focus local investments to locations and corridors that demonstrate the greatest need for safety improvement to implement lower cost countermeasures.

#### SHOPP Collision Reduction

SHOPP is the State Highway System's "fix-it-first" program that funds roadway repairs and preservation, emergency repairs, safety improvements, and some highway operational improvements on the State Highway System (SHS). SHOPP funding is limited to capital improvement projects that do not add new roadway capacity (no new highway lanes) to the SHS, though some new auxiliary lanes may be eligible for SHOPP funding.

The Collision Reduction program is one of eight categories that make up the SHOPP, and its objective is to reduce the number or severity of collisions. The SHOPP Collision Reduction category consists of two sub-programs:

- *201.010 - Safety Improvements*: Reactive approach based on analysis of collision history
- *201.015 - Collision Severity Reduction*: Proactive approach targeted to reduce the potential for traffic collisions based on past performance of roadway characteristics

#### *201.010 – Safety Improvements*

The SHOPP Collision Reduction Safety Improvements sub-program is designed to reduce the number or severity of collisions on the SHS. Projects with a safety index above 200 qualify as a safety improvement project. Projects may be individual locations where the collision history indicates a pattern potentially correctable by a targeted safety improvement, such as unsafe traffic (school zone signals included), wet pavement corrections, curve corrections, shoulder widening, left-turn channelization, etc. All proposed

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projects will be verified by the Caltrans Office of Traffic Safety Programs in the Division of Traffic Operations before being certified as a safety improvement project.

This program also provides funding for safety improvements at sites identified in regional monitoring programs for the reduction of motor vehicle collisions, such as locations at high risk for wrong-way, multilane, cross-median, cross-centerline, and run-off-the-road collisions. The program also provides funding for non-motorized safety improvements, such as pedestrian and bicycle facilities.

The Safety Improvements program does not provide funding for relocating existing highways or projects that would add new through lanes or upgrade existing highways to a higher classification, such as conventional to expressway, regardless of the safety benefits. This program also does not include projects where the prime purpose is reducing congestion.

Highway improvement projects along an existing alignment to improve standards of width, grade, alignment, or other geometric improvements, are considered new highway construction and are included in the Caltrans STIP programs.

### *201.015 - Collision Severity Reduction*

This sub-program is focused on upgrading existing highway safety features within the roadbed's clear recovery area to reduce the number and severity of collisions. Eligible projects may include new guardrail end treatments and crash cushions, rumble strips, glare screen, rock fall mitigation, overcrossing pedestrian fencing, crosswalk safety enhancements, and improvements that prevent roadway departure.

The Collision Severity Reduction program is designed to be proactive in enhancing safety on the State Highway System. As such, this program is not subject to a safety index analysis but will define projected collision severity reduction performance quantitatively. Projects will be prioritized based on the projected collision severity reduction benefits provided.

### *2022 SHOPP Collision Reduction Numbers (Statewide)*

A total of 733 projects are included in the 2022 SHOPP that was adopted by the CTC in March 2022. The 2022 SHOPP is valued at \$17.9 billion, which includes reservation amounts for several programs, including the Collision Reduction Program. The SHOPP Collision Reduction Program currently has 116 programmed safety projects totaling \$1,447,532,000. The SHOPP reserves \$1,188,000,000 for the 201.010 Safety Improvement program. The reserved amount will address future safety improvements as they are identified.

A Call for Projects is announced when federal funding is available through the Regional Grant Program (RGP). The RGP was created to support the implementation of the Regional Transportation Plan goals, policies, and projects by creating better transportation options and enhancing the transportation system to provide safe, multi-modal, social, and environmental improvements. The program seeks to bundle funding sources when possible and leverage grant funds to increase success and effectiveness of project implementation. The goals and criteria for the Regional Grant Program may include four different funding sources: Surface Transportation Block Grant (STBG), Active Transportation Program (ATP), Congestion Mitigation and Air Quality (CMAQ), and Nevada Transportation Alternative Program (TAP). The RGP goals and criteria and the individual fund source guidelines can be found online at, <https://www.trpa.gov/transportation/funding/regional-grant-program/>.

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The next Call for Projects for the RGP is anticipated in Winter 2023, soliciting projects for annual apportionments for Congestion Mitigation and Air Quality Program (CMAQ), Surface Transportation Block Grant (STBG), and Nevada Transportation Alternative Program (TAP) funding. Additionally, this next Call will include new IJA sources. The project selection process, the RGP evaluation criteria, and performance assessment determines how the funding is awarded to projects.

### Summary of Safety Projects in the 2023 FTIP

Category	Number of Projects	% of Projects	Total Project Cost	% of Total Project Cost	Funding in the 4-Year Element	% of Funding in the 4-Year Element
Primarily Safety Projects	5	29.41%	\$38,133,000	23%	\$29,361,000	21%
Other Projects with Safety Components (optional)	5	29.41%	\$57,702,00	35%	\$52,013,000	38%
Non-Safety Projects	7	41.18%	\$69,571,000	42%	\$56,430,000	41%
Total FTIP Investments	17	100%	\$165,406,000	100%	\$137,804,000	100%

### Safety Funding Programs (Optional)

Fund	Number of Projects	% of Projects	Total Project Funding (All Years)	% of Total Project Funding	Funding in the 4-Year Element	% of Funding in the 4-Year Element
Active Transportation Program (ATP)	1	5.88%	\$4,023,000	2.43%	\$1,130,000	0.82%
Highway Safety Improvement Program (HSIP)	2	11.76%	\$3,621,000	2.19%	\$3,571,000	2.59%
State Highway Operations & Protection Program (SHOPP)	2	11.76%	\$30,489,000	18.43%	\$24,660,000	17.89%
Total Safety (ATP, HSIP, SHOPP)	5	29.41%	\$38,133,000	23.05%	\$29,361,000	21.31%
Other Programs	12	70.59%	\$127,273,000	76.95%	\$108,443,000	78.69%
Total	17	100%	\$165,406,000	100%	\$137,804,000	100%

### Safety Project Highlights

The following are some of the projects within the FTIP worth highlighting that will help further the region in meeting these targets to promote safety and reduce congestion through the implementation of investments in transportation projects.

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### Kings Beach Western Approach

Multi-benefit project improving the mobility, walkability, water quality improvements and sustainability at the SR 267/SR 28 intersection. The existing signalized intersection at State Route (SR) 267 and SR 28 in Kings Beach limits vehicular flow during higher traffic volume periods. The project would convert the intersection to a roundabout considered to be an improvement in mobility, safety and efficiency, and LOS. Includes enhanced public transit access, sidewalks, bike lanes (Class II ) connection. Project components will include acquisition of private ROW to meet goals and objectives.

Funding includes Surface Transportation Block Grant making up about 47.8% of the project planning and design, local sources providing the remainder.

### SHOPP Collision US 50 / SR89 to Pioneer Trail

In South Lake Tahoe, from US 50/Route 89 to Pioneer Trail. Install lighting, pedestrian signals at mid-block crossings, signs, and green bike lane treatment to improve safety for pedestrian and bicyclists. Completion 2027. EA 4H890

Before: google image



After: intersection to have full signal with crosswalks on two of the three intersection legs.





## National Highway System (NHS) Pavement & Bridge Condition (PM 2)

TRPA opted to support the state’s targets for pavement and bridge condition. The following are some of the projects within the FTIP worth highlighting that will help further the region in meeting these performance targets to promote maintaining and upgrading of bridges and preservation of existing resources through the implementation of investments in transportation projects. Projects often have multiple benefits like Pioneer Trail Safety Improvements in the Project Highlight section has upgrades to signing and striping as well as a safety component. The Echo Summit Bridge Replacement was most certainly related to safety as well.

### NHS Pavement and Bridge Condition (PM 2) Targets

Performance Measure	Target
Percentage of Interstate System pavement in ‘Good’ condition	N/A
Percentage of non-interstate NHS pavement in ‘Good condition	.20%
Percentage of Interstate System pavement in ‘Poor’ condition	N/A
Percentage of non-interstate NHS pavement in ‘Poor’ condition	9.40%
Percentage of NHS bridges in ‘Good’ condition	N/A
Percentage of NHS bridges in ‘Poor’ condition	N/A

\*No NHS Interstate System or locally maintained NHS Bridges in the Tahoe MPO region. Caltrans maintains bridges on US50.

Many of the projects programmed in the FTIP serve to improve or maintain pavement and bridge condition. The following section describes the funding sources and programs that have been used to fund PM 2 related projects in the TRPA region.

### Local Funds

Cities and counties spend billions of dollars each year maintaining local roads and bridges. Funding for these efforts is derived from a myriad of sources. In a survey of California jurisdictions, for local funds alone, there are more than a hundred different sources of taxes and fees reported that are used on pavement improvement projects.<sup>iv</sup> Some examples of local funding sources include:

- Local sales taxes
- Development impact fees
- General funds
- Various assessment districts – lighting, maintenance, flood control, special assessments, community facility districts
- Traffic impact fees
- Traffic safety/circulation fees
- Utilities (e.g., stormwater, water, wastewater enterprise funds)
- Transportation mitigation fees
- Parking and various permit fees
- Flood control districts
- Enterprise funds (solid waste and water)
- Investment earnings

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- Parcel/property taxes
- Indian reservation roads
- Indian gaming funds
- Vehicle registration fees
- Vehicle code fines
- Underground impact fees
- Transient occupancy taxes
- Capital Improvement Program (CIP) reserves/capital funds

Local Funds are typically used for non-regionally significant road maintenance, safety, and bridge projects. Even so, some of the PM 2 projects in the [FTIP](#) are funded through Local Funds.

### State Funds

#### *HUTA*

The Highway Users Tax Account (HUTA), more commonly known as the state gas tax, is still the single largest funding source for cities and counties.

#### *SB 1*

California doubled down on PM 2 when it approved Senate Bill 1 on April 28, 2017. SB 1 increased several taxes and fees to raise more than \$5 billion annually in new transportation revenues. Moreover, SB 1 provides for inflationary adjustments, so that purchasing power does not diminish as it has in the past. SB 1 prioritizes funding towards maintenance, rehabilitation, and safety improvements on state highways, local streets and roads, and bridges and to improve the state's trade corridors, transit, and active transportation facilities.

Many SB 1 funds are not captured in the [FTIP](#) because this document focuses on federally funded and regionally significant projects, while SB 1 is a non-federal fund source that tends to pay for non-regionally significant road maintenance, safety, and bridge projects. Even so, some of the PM 2 projects in the [FTIP](#) are funded through SB 1.

### Federal Funds

#### *HBP*

The Highway Bridge Program (HBP) provides federal aid to local agencies to replace and rehabilitate deficient, locally owned, public highway bridges. The HBP is intended to remove structural deficiencies, the Bipartisan Infrastructure Law (BIL) revises the terminology to "classified in poor condition," from existing local highway bridges to keep the traveling public safe.<sup>v</sup> The HBP provides about \$288 million annually for bridge projects. Off-system bridges are usually funded at 100% HBP, while on system bridges are funded at 88.53% HBP. An exception to the federal participating rate is "high-cost" bridges, in which sponsors enter into agreements with Caltrans Local Assistance and agree on a federal participating rate which may not equal 100% or 88.53%.

#### *BFP*

Bridge Formula Program (BFP) is a new program established under the Bipartisan Infrastructure Law (BIL) to provide funding to replace, rehabilitate, preserve, protect, and construct bridges. It is a complement to the discretionary Bridge Investment Program (see below). The Bridge Formula Program

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under BIL provides 4.25 Billion to the State of California, of which States are required to reserve 15 percent of their formula funds under this program for use on off-system bridges. For funds used on locally owned off-system bridges, the Federal share is 100%.

### SHOPP

The SHOPP was described in the section above under PM 1. Two of the eight categories of the SHOPP that address PM 2 are Bridge Preservation and Roadway Preservation.

Although the SHOPP is a program, it is often thought of as a fund source as well. The [FTIP](#) lists the fund source for most SHOPP projects as “SHOPP Advance Construction.” Caltrans blends funds from HUTA, SB 1, and federal highway funds into SHOPP, and the “SHOPP Advance Construction” designation serves as a placeholder for what may be federal or state funds.

#### *SHOPP Roadway Preservation*

The SHOPP Roadway Preservation category includes the following programs:

- 201.120 – Roadway Rehabilitation
- 201.121 – Pavement Preservation
- 201.122 – Pavement Rehabilitation
- 201.150 – Roadway Protective Betterments
- 201.151 – Drainage System Restoration
- 201.170 – Signs and Lighting Rehabilitation

The 2022 SHOPP has 306 Roadway Preservation projects totaling \$9,874,173,000 which includes future need/contingency dollars. The SHOPP does not have a reservation for Roadway Preservation.

#### *SHOPP Bridge Preservation*

The SHOPP Bridge Preservation category includes the following programs:

- 201.110 – Bridge Rehabilitation and Replacement
- 201.111 – Bridge Scour Mitigation
- 201.112 – Bridge Rail Replacement and Upgrade
- 201.113 – Bridge Seismic Restoration
- 201.119 – Capital Bridge Preventative Maintenance Program
- 201.322 – Transportation Permit Requirements for Bridges

The 2022 SHOPP has 117 Bridge Preservation projects totaling \$2,422,402,000 which includes future need/contingency dollars. The SHOPP does not have a reservation for Bridge Preservation.

Summary of NHS Pavement and Bridge Condition Programs & Projects in the 2023 FTIP

Category	Number of Projects	% of Projects	Total Project Cost	% of Total Project Cost	Funding in the 4-Year Element	% of Funding in the 4-Year Element
Pavement Condition Projects	2	12%	\$52,407,000	32%	\$49,087,000	36%
Bridge Condition Projects	1	6%	\$16,791,000	10%	\$16,791,000	12%
Total Pavement and Bridge Condition Projects	3	18%	\$69,198,000	42%	\$65,878,000	48%
Non-Pavement and Bridge Condition Projects	14	82%	\$96,208,000	58%	\$71,926,000	52%
Total FTIP Investments	17	100%	\$165,406,000	100%	\$137,804,000	100%

Pavement and Bridge Condition Project Highlights

The following are some of the projects within the FTIP worth highlighting that will help further the region in meeting these performance targets to promote maintaining and upgrading of bridges and preservation of existing resources through the implementation of investments in transportation projects. Projects often have multiple benefits like the SHOPP projects below that includes upgrades to Americans with Disabilities Act (ADA) standards that benefit safety performance as well.

SHOPP Pavement Preservation - SR28/89 Junction to Nevada State Line

On SR 28 near Tahoe City and Kings Beach, from SR 89 to NV/CA State line. Rehabilitate pavement, rehabilitate drainage systems, and upgrade facilities to Americans with Disabilities Act (ADA) standards. EA 0J010.

Pre project shown in the image clearly shows poor condition of pavement and lack of ADA appropriate surface indicators on SR28.



Pavement Resurfacing on US50 from Blue Lake Road to CA/NV State Line

Rehabilitate pavement and drainage systems, upgrade facilities to ADA standards and replace Transportation Management System (TMS) elements. EA 0J480.

## NHS Performance, Interstate System Freight Movement, and CMAQ Program Performance (PM 3)

Performance Measure	Target
<b>NHS Performance</b>	
Percent of Interstate System mileage reporting reliable person-mile travel times	N/A
Percent of non-Interstate NHS mileage reporting reliable person-mile travel times	74.00%
<b>Interstate Freight Movement</b>	
Percent of Interstate system mileage reporting reliable truck travel times	N/A
<b>Interstate Freight Movement</b>	
Annual hours of peak-hour excessive delay per capita	N/A
Total emissions reduction by criteria pollutant (PM10, PM2.5, Ozone, CO)	N/A
Percent of non-single occupancy vehicle (SOV) travel	N/A

\*No NHS interstate System or Interstate Freight Movement in the Tahoe MPO region.

TRPA opted to support the adopted California Department of Transportation Highway System Performance Measure Targets below. There are three projects in the FTIP identified in the Project Highlight section below that improve air quality by improving travel time reliability for autos and trucks by creating more non-auto options, building ‘complete’ and safe streets for all modes and realigning roadways to create more pedestrian and bike friendly town centers that include large employers, tourist accommodation and recreation facilities.

Many of the projects programmed in the FTIP serve to improve NHS performance and CMAQ program performance.

The following are funding sources and programs that help fund Non-Interstate and Interstate improvement projects:

### SHOPP Mobility

The SHOPP Mobility category includes following three programs:

201.310 – Operational Improvements

201.315 – Transportation Management Systems

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### 201.321 – Weigh Stations & Weigh-In-Motion Facilities

### 201.310 – Operational Improvements

The primary purpose of this program element is to improve traffic flow on existing State highways by reducing congestion and operational deficiencies at spot locations. Operational improvement projects do not expand the design capacity of the system.

Examples of Operational Improvements projects include, but are not limited to:

- Interchange modifications (not to accommodate traffic volumes significantly larger than what the existing facilities were designed for)
- Ramp modifications (acceleration - deceleration/weaving)
- Auxiliary lanes for merging or weaving between adjacent interchanges
- Curve corrections/improve alignment
- Signals and/or intersection improvements
- Two-way left-turn lanes
- Channelization
- Turnouts
- Shoulder widening

### 201.315 – Transportation Management Systems

The primary purpose of this program element is to improve traffic flow on existing State highways by addressing system-wide congestion through system management techniques. Transportation Management Systems facilitate the real time management of the State highway system by providing accident and incident detection, verification, response, and clearance. These systems provide State highway system status information to travelers.

Examples of Transportation Management System projects include, but are not limited to:

- Traffic sensors
- Changeable message signs
- Close circuit television cameras
- Ramp meters
- Communications systems
- Highway advisory radio
- Traffic signal interconnect projects
- Traffic management systems housed in Transportation Management Centers (TMCs), including the necessary software and hardware (excluding facilities)
- TMC interconnect projects

### 201.321 – Weigh Stations & Weigh-in-Motion Facilities

The primary purpose of this SHOPP Mobility program element is to provide for Commercial Vehicle Enforcement Facilities (commonly called Weigh Stations) and Weigh-in-Motion (WIM) systems. The Weigh Stations are needed to support the Commercial Vehicle Enforcement Plan; Truck safety, size and weight regulations are enforced by the California Highway Patrol reducing truck related accidents or incidents and protection our highways from premature damage. The WIM sites provide data for federally required data systems and special studies, design and maintenance strategies, size and weight policies, enforcement and planning strategies, and the traffic and truck volumes publications.

The 2022 SHOPP features 65 Mobility projects programmed totaling \$1,748,406,000 which includes future need/contingency dollars. The SHOPP does not have a reservation for Mobility.

### **SB 1 Trade Corridor Enhancement Program (Including National Highway Freight Program)**

The purpose of the Senate Bill 1 (SB 1) Trade Corridor Enhancement Program (TCEP) is to provide funding for infrastructure improvements on federally designated Trade Corridors of National and Regional Significance, on California's portion of the National Highway Freight Network as identified in California Freight Mobility Plan, and along other corridors that experience high volumes of freight movement. The Trade Corridor Enhancement Program also supports the goals of the National Highway Freight Program, the California Freight Mobility Plan, and the guiding principles in the California Sustainable Freight Action Plan.

This statewide, competitive program will provide approximately \$300 million per year in state funding and approximately \$515 million in National Highway Freight Program funds if the federal program continues under the next federal transportation act.

Eligible applicants apply for program funds through the nomination of projects. All projects nominated must be identified in a currently adopted regional transportation plan (RTP). The Commission is required to evaluate and select submitted applications based on the following criteria:

- Freight System Factors – Throughput, Velocity, and Reliability
- Transportation System Factors – Safety, Congestion Reduction/Mitigation, Key Transportation Bottleneck Relief, Multi-Modal Strategy, Interregional Benefits, and Advanced Technology
- Community Impact Factors – Air Quality Impact, Community Impact Mitigation, and Economic/Jobs Growth
- The overall need, benefits, and cost of the project
- Project Readiness – ability to complete the project in a timely manner
- Demonstration of the required 30% matching funds
- The leveraging and coordination of funds from multiple sources
- Jointly nominated and/or jointly funded

### **Truck Travel Discussion**

While Tahoe does not have an intense amount of truck travel we still receive goods and services every day. Ensuring our roads minimize congestion benefits autos as well as truck travel. Tahoe US50 is often an alternate to I-80 when snowstorms close the interstate. Keeping Tahoe moving is important for everyone.

### **CMAQ**

The Congestion Mitigation and Air Quality (CMAQ) program supports improving air quality and relieving roadway congestion. The purpose of the CMAQ program is to fund transportation projects or programs that will contribute to attainment or maintenance of the National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide (CO), and particulate matter (both PM10 and PM2.5).

**Summary of the NHS Performance, Interstate System Freight Movement, and CMAQ Program Performance Projects in the 2023 FTIP**

Category	Number of Projects	% of Projects	Total Project Cost	% of Total Project Cost	Funding in the 4-Year Element	% of Funding in the 4-Year Element
Interstate Reliability Projects	0	0%		0%		0%
Non-Interstate Reliability Projects	0	0%		0%		0%
Truck Travel Time Projects	0	0%		0%		0%
CMAQ Projects	3	18%	\$17,932,000	11%	\$13,863,000	10%
<b>Total PM 3 Projects</b>	<b>3</b>	<b>18%</b>	<b>\$17,932,000</b>	<b>11%</b>	<b>\$13,863,000</b>	<b>10%</b>
Non-PM 3 Projects	14	82%	\$147,474,000	89%	\$123,941,000	90%
<b>Total FTIP Investments</b>	<b>17</b>	<b>100%</b>	<b>\$165,406,000</b>	<b>100%</b>	<b>\$137,804,000</b>	<b>100%</b>

**PM 3 Project Highlights**

The following are some of the projects within the FTIP worth highlighting that will help further the region in meeting these performance targets that improve air quality with ensuring reliable travel times and non-auto travel options.

[Lake Tahoe Boulevard Class 1 Bicycle Trail \(Viking Way to South Wye\) CA –](#)

Design and construct Class 1 bike trail, ADA compliant ramps, and pathway lighting along the 0.6 mile section of Lake Tahoe Blvd. from the Intersection of Viking Way (D-Street) to the intersection of State





Hwy 89 and US Highway 50 (South Y). Note: Project name was updated from "Viking Way to Lake Tahoe Blvd. Class 1 Bike Trail" on 11/23/16 for consistency with the name CSLT used to apply for CMAQ funds.



[Pioneer Trail/US Highway 50 Intersection Safety Improvement Project \(roundabout\)](#)

Construct a roundabout with pedestrian and bicycle crossings, separated travel lane approaches, curb, gutter, sidewalk, traffic signs, stripes and pavement markings in the community of Meyers. Original project downsized to complete this critical component that will improve travel times and air quality by replacing a poorly functioning signal.

Highway Safety Improvement Funds will help fund construction.

[North Tahoe Regional Bike Trail](#) - Dollar Hill Multi-use Trail with the North Tahoe Regional Park in Tahoe Vista

Construction of approximately 7 miles of Class 1 bike trail that will link the Dollar Hill Multi-use Trail with the North Tahoe Regional Park in Tahoe Vista. Project will be planned and implemented in phases. The current phase being planned is Segment 1, approximately 1.9 miles from the North Tahoe Regional Park to Carnelian Bay Ave. North Tahoe Regional Bike Trail (NV) - Class 1 bike trail that will link the Dollar Hill Multi-use Trail with the North Tahoe Regional Park in Tahoe Vista.

Funding source for this project includes Highway Improvement Program and Surface Transportation Block Grant with local funding from TOT.

## Transit Asset Management (TAM)

The table below provides a summary of the performance measures designated for Transit Asset Management (TAM).

<i>Transit Asset Management Performance Measures</i>		
<b>Asset Category</b>	<b>Performance Measurement</b>	<b>Asset Class Examples</b>
Rolling Stock - (revenue service vehicles) (Age)	Percentage of revenue vehicles within a particular asset class that have met or exceeded useful life benchmark (ULB).	40-foot bus, 60-foot bus, vans, automobiles, locomotives, rail vehicles
Equipment – (non-revenue) service vehicles (Age)	Percentage of vehicles that have met or exceeded their ULB.	Cranes, prime movers, vehicle lifts, tow trucks, vans, automobiles
Infrastructure-rail fixed-guideway track, signals, and systems (Condition)	Percentage of track segments, signal, and systems with performance restrictions.	Signal or relay house, interlockings, catenary, mechanical, electrical and IT systems
Stations/Facilities (Condition)	Percentage of facilities within an asset class, rated below 3 on the Transit Economic Requirements Model scale.	Stations, depots, administration, parking garages, terminals, shelters

The TAM targets provided below were produced collaboratively with transit agencies based on their agency TAM plans and local targets. In developing the targets, Tahoe Regional Planning Agency reviewed and considered the various local and regional transit operators’ TAM plans (including identified goals, objectives, measures, and targets), thereby incorporating them into the metropolitan planning process.

This section presents the TAM performance measures and targets adopted by the Tahoe Transportation District (TTD) and the Tahoe Truckee Area Regional Transit (TART) in the Tahoe region.

<b>Asset Category</b>	<b>Performance Measure</b>	<b>Estimated Current % (TART)</b>	<b>Estimated Current % (TTD)</b>	<b>Regional Target for 2020 RTP Cycle</b>
<b>ROLLING STOCK</b>				
<b>Bus (BU)</b>	Percentage of buses that exceed ULB of 12 years	36%	38%	42%
<b>Cutaway bus (CU)</b>	Percentage of cutaway buses that exceed ULB of 7 years	100%	0%	100%
<b>Small Cutaway/Van (VN)</b>	Percentage of small cutaway buses and vans that exceed ULB of 5 years	N/A	58%	80%

## Appendix D: California Performance Measures and Targets Support Summary

<b>EQUIPMENT</b>				
<b>Automobile (AO)</b>	Percentage of automobiles that exceed ULB of 8 years	0%	0%	50%
<b>Other rubber tire vehicles</b>	Percentage of other rubber tire vehicles that exceed ULB of 10 years	0%	33%	50%
<b>FACILITIES</b>				
<b>Administrative and maintenance facilities</b>	Percentage of administrative and maintenance facilities rated less than 3.0 on the TERM scale	0%	N/A	0%
<b>Passenger facilities</b>	Percentage of passenger facilities rated less than 3.0 on the TERM scale	16%	22%	30%

The two public transportation reporting entities provided their targets to Tahoe Regional Planning Agency as shown in Table above. The regional targets are presented in tabular form to account for the differences in targets and standards among the providers of public transportation. Targets represent the thresholds for the maximum percentage of assets at or exceeding acceptable standards. In most cases for the target-setting process, providers set targets that were approximately equivalent to their current performance. In future years, staff will work with the providers of public transportation to collate performance.

The Tahoe Regional Planning Agency will continue to work with the region's transit operators and county transportation commissions to seek ways to improve the methodology, data collection, and analysis for future RTP updates, and to continue engaging in a regional discussion about transit state of good repair and the need for additional funding. An update to the TAM plan is expected at the end of this fiscal year.

TTD and TART in the Tahoe region developed and adopted the existing TAM plans and targets, which are available from the transit agencies. TAM category projects may also be supported by state, local, and other federal funding sources (e.g., FTA Section 5337 State of Good Repair, FTA 5307, FTA 5339 formula funds, and FHWA flexible funds such as CMAQ and STBG). The funding and the program of projects in the FTIP will enable TTD and TART to work towards achieving their respective transit asset management performance targets.

### Summary of Transit Asset Management Projects in the [2023 FTIP](#)

Category	Number of Projects	% of Projects	Total Project Cost	% of Total Project Cost	Funding in the 4-Year Element	% of Funding in the 4-Year Element
Transit Asset Projects	2	12%	\$12,753,000	8%	\$8,641,000	6%
Non-Transit Asset Projects	15	88%	\$152,653,000	92%	\$129,163,000	94%
Total FTIP Investments	17	100%	\$165,406,000	100%	\$137,804,000	100%

\*Please note that some projects identified for TAM may also benefit PTASP target. Footnote these as appropriate so that it is clear as totals may exceed.

There are 2 projects in the 2023 FTIP with \$12.7M in FTA funds

5307	5339	5310	LCtOP	TDA	LNEV	Local	TOTAL
\$ 4,669,307	\$ 1,697,339	\$ 315,310		\$ 470,000		\$ 967,000	\$ 2,125,000
							\$ 2,525,000

\$1M in CMAQ funds that support the maintenance or replacement of transit assets for transit agencies.

Local sources are vital in paying for transit operations. The Tahoe Regional Planning Agency is working with local sectors to encourage additional local contributions such as those shown here for TART.

### Transit Asset Management Project Highlights

The FTIP includes funding from multiple FTA sources for projects that support TAM and maintaining a state of good repair. Examples of these projects include rural and urban capital assistance programs, rolling stock acquisition, maintenance, and overhauls, bus fleet rehabilitation and replacement, track and rail yard maintenance and improvements and maintenance of passenger facilities. For the Tahoe Regional Planning Agency key project that address TAM includes the purchase of new electric vehicles for the TTD System. This project not only replaces buses that exceed ULB they will also achieve many state and local air quality targets. Additional benefit is the three rack bike rack which are not on every bus in circulation.

### Public Transportation Agency Safety Plans (PTASP)

Transit safety targets must be set every four years and be included in the MPO Regional Transportation Plan (RTP). The goals, objectives, performance measures, and targets from the transit providers’ safety plans must also be integrated into the RTP, either directly or by reference.

The National Public Transportation Safety Plan identifies four performance measures that must be included: fatalities, injuries, safety events, and system reliability. Definitions for transit safety performance measures are as described in the NTD Safety and Security Manual.

Transit providers may choose to establish additional targets for safety performance monitoring and measurement. The following table documents existing performance targets set by transit operators in the Tahoe Regional Planning Agency region.

Appendix D: California Performance Measures and Targets Support Summary

Public Transportation Agency Safety Plan (PTASP) Targets							
Mode of Service	Fatalities	Fatalities (per 10 million VRM)	Injuries	Injuries (per 10 million VRM)	Safety Events	Safety Events (per 10 million VRM)	System Reliability
Rail Transit	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bus Transit	0	0	6/5	x/.22	63.67/2	.011/.09	24095/10000
ADA/Para transit *	0	0	.67/1	x/.0013	3.67/1	.0078/.0013	21202/10000
Vans/Autos (Other specify)	0	0	0	0	0	0	0
<b>TART / TTD Service</b> *agencies to do not currently differentiate							

In contrast with the FHWA performance measures which are generally developed by the State DOT and shared with the MPOs (top down), the transit performance targets are developed by the transit agencies and MPOs and sent to the state DOT (bottom-up).

TTD recently completed a [Safety Plan](#). The adopted 2022 safety performance targets are reviewed and updated during the annual review. The specific performance targets are based on the safety performance measures established under the National Public Transportation Safety Plan and any additional performance goals set by TTD. These targets are specific numerical targets set by TTD and must be based on the safety performance measures established by FTA in the National Public Transportation Safety Plan. TART has also recently adopted a Transit Safety Plan and targets as noted below.

TART, in conjunction with Placer County Transit on the western slope of their county, prepared a [plan in March of 2020](#). Additionally, they developed safety performance targets that are reviewed and updated annually. The specific safety performance targets are based on the safety performance measures established under the National Public Transportation Safety Plan and the safety performance goals set by Caltrans based on the past three (3) Calendar years of data. The Safety Performance Targets for Placer County Transit and Tahoe Truckee Area Regional Transit for the year 2020 is expected to stay within 1% +/- of previous three years data pertaining to fatalities, injuries, safety events, and system reliability.

Performance-based programming establishes clear linkages between the targets set through the collaborative process between transit agencies, MPOs, and the State, investments made and their expected outputs and outcomes. While each transit agency may approach the plan and update process differently it is clear that targets result from a collaborative and comprehensive approach.

Summary of Transit Safety Projects in the 2023 FTIP

Category	Number of Projects	% of Projects	Total Project Cost	% of Total Project Cost	Funding in the 4-Year Element	% of Funding in the 4-Year Element
Transit Safety Projects	2	12%	\$12,753,000	8%	\$8,641,000	6%
Non-Transit Safety Projects	15	88%	\$152,653,000	92%	\$129,163,000	94%
Total FTIP Investments	17	100%	\$165,406,000	100%	\$137,804,000	100%

There are two transit projects in the 2023 FTIP that specify transit safety improvements. TTD’s Transit Capital project that includes bus purchases with ADA improvements and safety and security enhancements and the Placer County Transit Capital project including bus stop improvements and safety enhancements. The FTIP also has several projects that benefit safety that are primarily on the regions transit routes. As mentioned previously mentioned the state highway system is our main street network for pedestrians, bikes and those traveling by bus. Improvements to key corridors like US50 in the south shore, SR28 improvements on the north shore will heavily benefit our transit system with improved crossings, lighting and ADA ramps.

Transit Safety Project Highlights

The FTIP includes funding from multiple FTA sources for projects that support transit assets and operations. These key projects will benefit transit safety given they are on mainline transit routes:

- Kings Beach Wester Approach – *intersection conversion to roundabout with pedestrian bulb outs, improved crossings for peds and bikes*, - RSTP, ATP and Local Funds
- US50 Safety and Lighting – *In South Lake Tahoe, from Route 89 to Park Avenue. Install lighting, pedestrian signals at mid-block crossings, signs, and green bike lane treatment to improve safety for pedestrian and bicyclists*, - SHOPP Funding
- Pioneer Trail Ped Project Phase II – *construction of pedestrian sidewalks, lighting and transit stops with class II bike lanes*, CMAQ, HIP, STBG and Local Funds
- Sr89/Fanny Bridge Community Revitalization Project – replacement of the Fanny Bridge with a new, single span Bridge to be a complete street – FLAP, RSTP and Local Funds

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Footnotes

<sup>i</sup> [23 CFR § 450.326 \(c, d\)](#)

<sup>ii</sup> The TERM scale is a measure of condition used in the National Transit Database (NTD). This is the five-point scale that agencies use to report the condition of their facility assets. An asset is deemed to be in good repair if it has a rating of 3, 4, or 5 on this scale.

<sup>iii</sup> MPO Frequently Asked Questions, Public Transportation Agency Safety Plan Final Rule, FTA <https://www.transit.dot.gov/regulations-and-programs/safety/public-transportation-agency-safety-program/mpo-frequently-asked#SPTQ4>

<sup>iv</sup> California Statewide Local Streets and Roads Needs Assessment, October 2018, pg. 39. <https://www.savecaliforniastreet.org/wp-content/uploads/2018/10/2018-Statewide-Final-Report-1.pdf>

<sup>v</sup> Chapter 6 Highway Bridge Program, January 2019.

<https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/lapg/g06.pdf>

Additional resources that may be helpful in developing the narrative for the FTIP:

- FTA TAM Final Rule [Fact Sheet](#)
- FTA TAM Performance Measures [Fact Sheet](#)
- General [FTA FAQs on TAM](#) – specifically the last Q&A on the page about the frequency with which MPOs must update their TAM targets
- MPO Specific [FAQs on TAM](#) – this resource outlines what exactly the MPOs are responsible for per the TAM Rule which was finalized in 2016 (Also includes guidance for PTASP at the bottom).
- FTA Performance-Based Planning [Timeframe Overview](#)
- FTA TAM and Public Transit Agency Safety Plan (PTASP) Webinar – Focus especially on slides here are 27-31 for detailed information on when reporting for safety targets must begin
- FTA Safety Final Rule [Fact Sheet](#)
- FTA Safety Performance Targets [Guide](#)

## Other Performance-Based Plans

FHWA FAQ - <https://www.fhwa.dot.gov/tpm/faq.cfm#plan>

**Q.** How much detail must the State or MPO include in the STIP/TIP to discuss "to the maximum extent practical" the effect of the STIP/TIP on the achievement of targets in order to meet the requirements of 23 CFR 450.218(q) for States and 23 CFR 450.326(d) for MPOs?

**A.** States must describe in the STIP how the program of projects in the STIP contributes to achievement of the performance targets identified in the LRSTP or other State performance-based plan(s), linking investment priorities to those targets. Similarly, MPOs must describe in the TIP how the program of projects contributes to achieving the MPO's performance targets in the MTP, linking investment priorities to those targets. This assessment should be a written narrative included in the documents.

Appendix D: California Performance Measures and Targets Support Summary

The narrative descriptions in the STIPs and TIPs should include a description of how the other performance-based planning and programming documents are being implemented through the STIP and TIPs. For example, the narrative should describe how the objectives, investment strategies, performance measures and targets from the asset management plans, strategic highway safety plan (SHSP), highway safety improvement program (HSIP), freight plan, Congestion Mitigation and Air Quality (CMAQ) Performance Plan(s) [23 U.S.C. 149(l)], Congestion Management Process (CMP), and other performance based plans are being implemented through the program of projects in the STIP or TIP. The narrative should specifically describe these linkages and answer these questions:

- 1) Are the projects in the STIP and TIPs directly linked to implementation of these other (performance based) plans?
- 2) How was the program of projects in the STIP/TIP determined?
- 3) Does the STIP/TIPs support achievement of the performance targets?
- 4) How does the STIP/TIP support achievement of the performance targets?
- 5) Are the STIP/TIPs consistent with the other performance-based planning documents (asset management plans, SHSP, HSIP, freight plan, CMAQ Performance Plan, CMP, etc.)?
- 6) How was this assessment conducted?
- 7) What does the assessment show?

Name of Plan/Program	Developed By	Comments
<i>Required</i>		
<a href="#">California Freight Mobility Plan (CFMP)</a>	Caltrans	PM 3
<a href="#">California Transportation Plan (CTP)</a>	Caltrans	All federal performance measures
<a href="#">California Transportation Asset Management Plan (TAMP)</a>	Caltrans	PM 2
<a href="#">California Strategic Highway Safety Plan (SHSP)</a>	Caltrans	PM 1
<a href="#">Highway Safety Improvement Program (HSIP)</a>	Caltrans	PM 1
Congestion Mitigation and Air Quality (CMAQ) Improvement Program and Performance Plan	MPO	PM 3 (N/A)
<a href="#">Metropolitan/Regional Transportation Plan (MTP/RTP)</a>	MPO	All federal performance measures
<a href="#">Congestion Management Plan/Process (CMP)</a>	MPO	PM 3
Transit Asset Management Plan(s)	Transit Agency (or sponsor)	MPOs to refer to the TAM Plans developed by the transit operator(s) in their respective region
Public Transportation Agency Safety Plan(s) (PTASP)	Transit Agency	MPOs to refer to the PTASPs developed by the transit operator(s) in their respective region
<i>Optional</i>		



Appendix D: California Performance Measures and Targets Support Summary

MPO Project Selection Criteria	MPO	MPOs should integrate the federal performance measures into their project selection process
ITS Plan	MPO	PM 3
Studies (e.g. corridor studies, Vision Zero policy/plan)	MPO	All federal performance measures
Emergency Events – 23 CFR 515 and 23 CFR 667	MPO and Caltrans	PM 2
<a href="#">Fiscal Year 2021 HSIP Implementation Plan</a>	Caltrans	Caltrans was required to develop this plan as a result of not achieving or making significant progress towards the federal performance targets for safety (PM 1)
<a href="#">State Highway Operation and Protection Program (SHOPP)</a>	Caltrans	PM 1 and PM 2
<a href="#">California Highway Safety Plan</a>	OTS	PM 1
<a href="#">State Highway System Management Plan</a>	Caltrans	PM 2