



STAFF REPORT

MEETING DATE:	October 20, 2020
SUBJECT:	Update on Safety, Pavement and Bridge Condition, and System Performance Targets for the Shasta Region
AGENDA ITEM:	5-6
STAFF CONTACT:	Daniel Wayne, Senior Transportation Planner

SUMMARY:

As part of the federal Performance-Based Planning and Programming mandate, SRTA is required to adopt two- and four-year performance targets for Safety (PM1), Pavement and Bridge Condition (PM2), and System Performance (PM3). SRTA recently submitted the two-year Mid-Performance Period Progress Reports to Caltrans. Staff will provide an update on progress toward targets.

STAFF RECOMMENDATION:

It is recommended that the board of directors receive an update on targets for federal performance measures.

DISCUSSION:

Background - States and metropolitan regions receiving federal highway and transit funding are required to participate in performance-based transportation planning and programming. Through a series of rulemakings, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have established national performance measures for safety (PM1); pavement and bridge condition (PM2); and system performance (PM3). States and metropolitan regions must develop and adopt numerical performance targets that support these federal policy priorities. SRTA may adopt statewide targets developed by Caltrans or develop and justify region-specific targets. SRTA must show how investment priorities in the Regional Transportation Improvement Program (RTIP) are linked to the federal performance measures.

In December 2017, the board of directors adopted statewide performance measure targets for PM1, PM2, and PM3 and authorized the executive director to reaffirm these performance targets annually so long as there are no substantive changes to statewide targets and no compelling reason to develop region-specific targets.

Mid-Performance Period Progress Reports – The following updates are provided for informational purposes:

- **Safety (PM1)** – Statewide safety targets adopted by Caltrans are based on an aspirational vision without being tied to specific investments, policies, and strategies. Based on the five-year averages for 2014-2018, California did not meet or make significant progress toward achieving these targets (see Table 1). To remedy this, Caltrans is tying the target setting process to the Highway Safety Improvement Program (HSIP) Implementation Plan and is considering requiring regional transportation planning agencies such as SRTA to develop Regional Safety Plans. The content of these plans would be developed in consultation with SRTA and other regional transportation planning agencies throughout the state.

Table 1: California Safety Performance Target Achievement Determination Summary

Performance Measure	2014-2018 Target	2014-2018 Outcome	Met Target?
Number of Fatalities	3,590.8	3,554.6	Yes
Rate of Fatalities	1.029	1.044	No
Number of Serious Injuries	12,823.4	13,301.0	No
Rate of Serious Injuries	3.831	3.900	No
Number of Non-Motorized Fatalities and Serious Injuries	4,271.1	4,122.8	Yes

On February 3, 2020, SRTA re-elected to support the 2020 Caltrans Statewide Safety Performance Management Targets. The Shasta Region represents a statistically small portion of statewide measures and has limited resources; however, SRTA staff will continue to coordinate with Caltrans and other regional agencies, and to work within available resources, to support realization of the statewide safety performance targets.

- **Pavement and Bridge Condition (PM2)** – Only pavement and bridges located on the non-interstate, non-state highway portion of the National Highway System (NHS) are included in the assessment. For the Shasta Region, PM2 standards only apply to nine lane-miles and three bridges on Cypress Avenue between State Route 273 and Churn Creek Road. The performance period is four years, from 1/1/2018 to 12/31/2021.
 - Pavement Condition – The performance target for pavement in “good” condition on applicable portions of Cypress Avenue is 29.9%. According to baseline data collected by Caltrans in 2016, 13.3% of the roadway segment was in good condition. Since this time, pavement in good condition fell by 13.3% to 0%. This is 29.9% below the target for the four-year (2018-2021) performance period.

The city of Redding uses Pavement Condition Index (PCI) (a numerical index between 0 and 100) to evaluate pavement condition. Pavement preservation projects are then prioritized based on a combination of PCI, safety, operational issues, and traffic volumes. The city is looking into the percent change in PCI over the last two years for Cypress Avenue and will inspect the pavement for any significant defects or maintenance needs.

- Bridge condition – The performance target for bridges in “good” condition on the three applicable Cypress Avenue bridges is 70.5%. According to baseline data collected by Caltrans in 2017, 94.1% of the bridge deck area was in good condition. Since this time, bridge deck area in good condition fell by 91.5% to 2.6%. This is 67.9% below the target for the four-year (2018-2021) performance period.

The city of Redding tracks bridge maintenance based on the Caltrans Bridge Inspection Reports. The most recent report for East Cypress Avenue Bridge, dated 3/20/18, noted no defects and no maintenance recommendations. Likewise, reports for the two culvert bridges, located just west of Athens Avenue, noted no defects or maintenance recommendations. Larger cracks on the bridge decks (greater than 0.05 inch in width) received a polymer treatment in 2012, but are required to remain on record. The bridge

deck also has smaller cracks (less than 0.03 inch in width) that are untreated. Overall, the bridge decks are in fair to satisfactory condition. Caltrans and the city will continue to inspect the bridge decks on a regular basis and schedule maintenance as appropriate.

- **System Performance (PM3)** – For smaller regions like Shasta, system performance is measured solely by network reliability (i.e. travel time consistency). The following targets are applicable to the Shasta Region:

Table 2: California Statewide System Performance Targets Applicable to the Shasta Region

Performance Measure	Baseline (2017)	2-Year Target (2017-2018)	4-Year Target (2019-2020)
Percent of reliable person-miles traveled on the interstate	64.6%	65.1% (+0.5%)	65.6% (+1%)
Percent of reliable person miles traveled on the non-interstate NHS	73.0%	N/A	74.0% (+1%)
Percentage of interstate system mileage providing reliable truck travel time (Truck Travel Time Reliability Index)	1.69	1.68 (-0.01)	1.67 (-0.02)

Since the statewide system performance targets are based on more congested urban areas, staff finds the targets to be reasonable and achievable for the Shasta Region. Given recent and ongoing improvements to mainline Interstate 5, travel times on the interregional network in the Shasta Region are projected to be meet statewide targets. Since there is no two-year target and the four-year performance period ends on December 31, 2021, SRTA is not required to report on PM3 progress at this time.

ALTERNATIVES:

This is an informational item. The board of directors may request additional information for presentation at the next board meeting.

OTHER AGENCY INVOLVEMENT:

Caltrans headquarters worked with metropolitan planning organizations across the state during the development of performance measures and has provided the underlying data and methodology used to arrive at state targets. Staff works with Caltrans and applicable local jurisdictions to track and report system performance data.

FISCAL IMPACT:

SRTA and local agencies may allocate regional and local funds as they see fit and continue to apply for federal and state funds. Should the state not meet its performance targets, there may be reduced flexibility in how Caltrans and the California Transportation Commission administer state funds – possibly reprioritizing future funds to programs where targets are not being met.



Daniel S. Little, AICP, Executive Director