

## MEMORANDUM

To: CHAIR AND COMMISSIONERS  
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: March 25, 2020

From: STEVEN KECK, Chief Financial Officer

Reference Number: 4.34, Informational Item

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Subject: **REVISED REPORTING FOR FIX 500 ADDITIONAL BRIDGES FOR PERFORMANCE REQUIREMENTS UNDER SENATE BILL 1**

### **ISSUE:**

The California Transportation Commission (Commission) requested the California Department of Transportation (Department) to present revised 2018/19 performance for the Senate Bill 1 (SB 1) “fixed bridge” metric reflecting the Commission revised criteria.

### **BACKGROUND:**

SB 1 includes a performance requirement to “Fix no less than an additional 500 bridges” over a 10-year period ending in 2027. To capture and track this new metric, the Department developed criteria for what activities constitute a bridge fix in 2017. This criteria has been used by the Department to track and report progress toward this metric since 2017.

The Commission adopted the Department’s 2017 criteria at the October 2019 Commission Meeting. The Commission subsequently adopted a revised criterion at the December 2019 Commission Meeting, eliminating the bridge rail safety upgrades from the criteria.

The elimination of the bridge rail safety criterion impacts all prior Performance Benchmark Reports in two ways. In order to determine the “additional bridges fixed” the Department had to establish a pre-Senate Bill 1 baseline for the number of fixes; eliminating the bridge rail safety projects from the criterion effectively reduces the baseline previously submitted by the Department. The second impact from the Commission’s action is a reduction of previously reported fix bridge counts to eliminate the bridge rail safety locations.

The revised 2018/19 fix bridge excerpt from the 2018/19 Performance Benchmark Report is shown on the following pages.

*“Provide a safe, sustainable, integrated and efficient transportation system  
to enhance California’s economy and livability”*

# Fix an Additional 500 Bridges

## Overview

SB1 includes a performance requirement to fix not less than an additional 500 bridges over a 10-year period ending in 2027. Projects that improve the condition of the bridge from a lesser condition to a better condition, mitigate seismic or scour vulnerabilities, or address operational limitations are counted towards this goal. Prior to the passage of SB1, Caltrans was fixing an average of 114 bridges per year. For the purpose of counting towards the additional 500 bridges which should be fixed, Caltrans is reporting bridges fixed in excess of the baseline of 114 bridges. To satisfy the provisions of SB1, Caltrans need to fix at least 1640 bridges between 2018 and 2027.

## Current and Projected Number of Bridges Fixed

The number of bridges fixed in the current and last fiscal years is determined from an analysis of bridge project records and an estimate of when the work was effectively complete, referred to as the Expected Construction Work Complete (ECWC) date.

Table 1 presents the number of bridges fixed in FY 2017/18 and 2018/19. Table 2 presents the breakdown of the counts of bridges in each fiscal year by the primary type of fix.

### Expected Construction Work Complete (ECWC)

The point in time when performance credit is taken is defined by the Expected Construction Work Complete (ECWC) date. This is the date when construction work is effectively complete, the project limits are open to traffic, and benefits are realized by the travelling public. The ECWC is estimated to be 2/3rds the time between the contract award date and the Construction Contract Acceptance (CCA) date.

**Table 1 – Fix an Additional 500 Bridges**

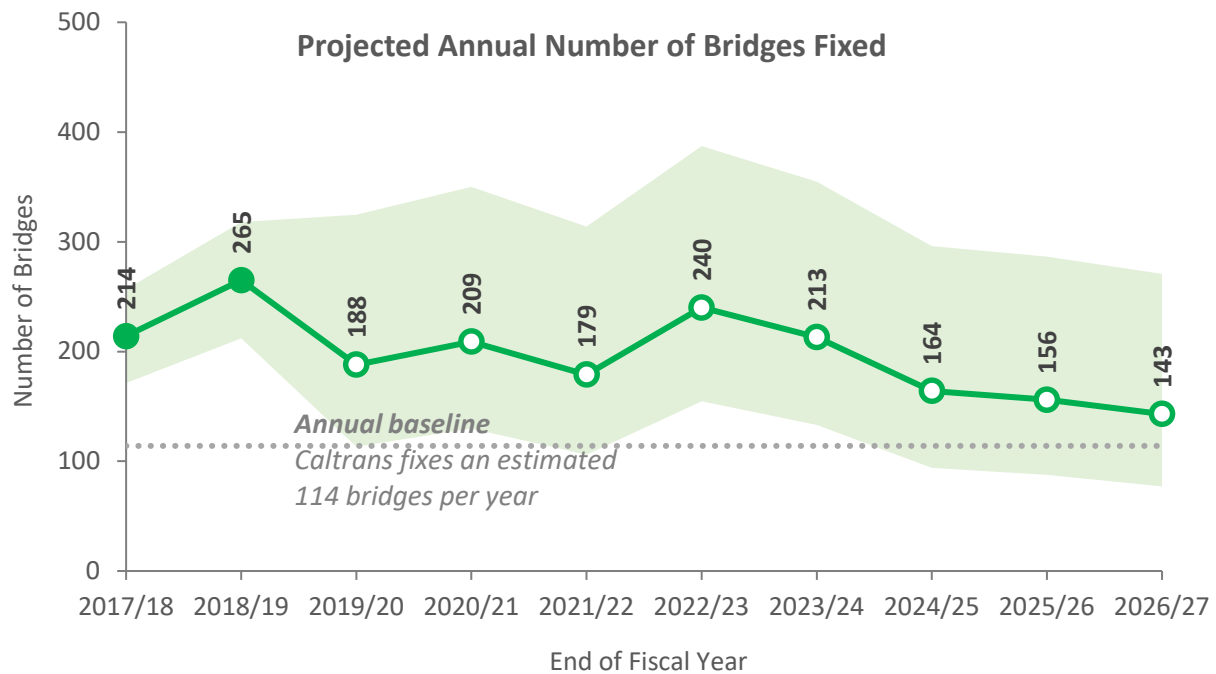
<b>Fix Bridges</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
<b>Baseline</b>	114	114
<b>Additional</b>	100*	151
<b>Total</b>	<b>214</b>	<b>265</b>

\*Adjusted from previous reporting to reflect ECWC dates

**Table 2 – Count of Bridges by Type of Fix**

<b>Fix Bridges</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
<b>Health</b>	202	242
<b>Scour</b>	2	11
<b>Seismic</b>	9	12
<b>Goods Movement</b>	1	-
<b>Total</b>	<b>214</b>	<b>265</b>

A 10-year projection of bridges fixed is presented in Figure 1. The chart shows the total number of bridges anticipated to be fixed each year over the 10-year period through FY 2026/27. Bridges fixed through the SHOPP are based on projects defined in the SHOPP Ten Year Project Book. For bridges fixed through the Highway Maintenance (HM) Program, the first two years are based on projects in a currently approved HM workplan. For HM projects in the remaining 8 years, the minimum of the first two years is used to estimate the number of bridges fixed in subsequent years.

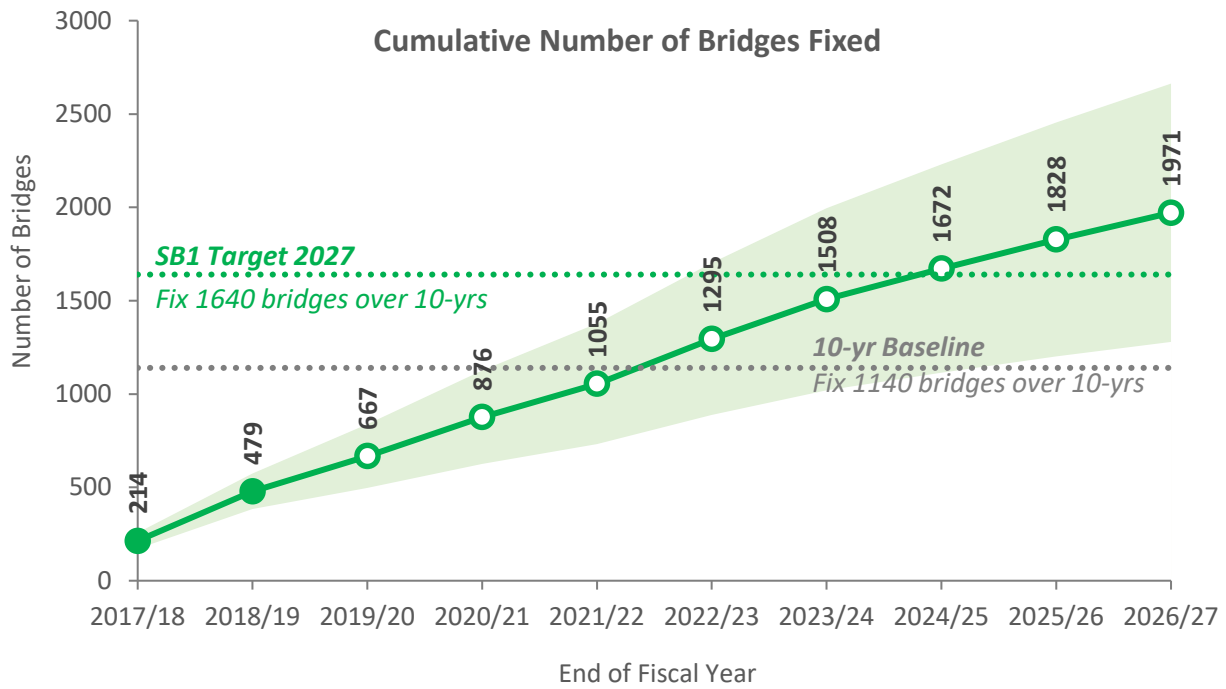


**Figure 1 – Projected Number of Bridges Fixed Each Year**

The assessed conditions for fiscal years 2017/18 and 2018/19 are presented in the chart with a solid fill symbol.

The shaded area in the chart represents an upper and lower boundary, quantifying two primary uncertainties from assumptions used in the analysis. First, delays in delivery of bridge projects are common but difficult to predict and could account for a shift of up to 20% of the projected fixed bridges in any given year. Second, programming levels for Highway Maintenance (HM) work and fluctuations in annual HM funding can be a significant source of additional uncertainty.

Caltrans is expected to fix an additional 500 bridges beyond the established baseline of 1140 bridges over the 10-year period (114 bridges/year on average), for a total of 1640 bridges. Figure 2 presents the cumulative total number of bridges fixed, including the uncertainty band to account for project delays and HM programming. Based on the projection and modeling assumptions, it is possible that the SB1 target could be achieved earlier than 2027.



**Figure 2 – Projected Cumulative Total Number of Bridges Fixed Above the Baseline**