



## Independent Office of Audits and Investigations

---

January 31, 2022

Transmitted via email

Mr. Cory Binns, Deputy Director  
Maintenance and Operations  
California Department of Transportation

### **Final Report – Audit of SB 1 Performance Measures and Targets – Bridges**

Attached is the Independent Office of Audits and Investigations' (IOAI) final audit report of the California Department of Transportation (Caltrans) bridges performance measures and targets. Senate Bill 1 (Beall, Chapter 5, Statutes of 2017) requires Caltrans to “fix not less than an additional 500 bridges” over a 10-year period ending in 2027.

Caltrans' response to the draft report is included in this final audit report. The final audit report is a matter of public record and will be posted on [IOAI's website](#).

A Corrective Action Plan (CAP) addressing the recommendations is due from Caltrans 60 days from receipt of this letter. The CAP should include milestones and target dates as applicable. Subsequent to the submission of the 60-day CAP, updated CAPs will be due every six months until all recommendations have been implemented.

We appreciate Caltrans' assistance and cooperation. If you have any questions, please contact Juanita Baier, Audit Chief, at (916) 764-4609, or Jose Camacho, Audit Manager, at (916) 764-8197.

Sincerely,


### **ORIGINAL SIGNED BY**

DIANA C. ANTONY, CPA  
Acting Inspector General

Enclosure

c: Elissa Konove, Acting Secretary, California State Transportation Agency  
Toks Omishakin, Director, Caltrans  
Mitch Weiss, Executive Director, California Transportation Commission  
Michael Keever, Chief Deputy Director, Caltrans  
Steven Keck, Chief Financial Officer, Finance, Caltrans  
Nabeelah Abi-Rached, Acting Chief Engineer, Caltrans  
Sergio Aceves, Division Chief, Division of Maintenance, Caltrans  
Michael B. Johnson, State Asset Management Engineer, Caltrans  
Erol Kaslan, Deputy Division Chief, Structures Maintenance  
and Investigations, Caltrans  
John Gillis, Bridge Asset Management, Caltrans  
Angel Pyle, SBI Program Manager, Caltrans  
Ben Shelton, Chief Internal Auditor, Risk and Strategic Management,  
Caltrans

File: P3010-0658



**California Department of Transportation**  
**SB 1 – Bridges Performance**  
**Measures and Targets**

**FINAL AUDIT REPORT**

**P3010-0658**

**JANUARY 2022**



**PREPARED BY:**

Independent Office of Audits and Investigations – MS 2

Post Office Box 942874

Sacramento, California 94274-0001

<https://ig.dot.ca.gov>

**AUDIT TEAM:**

Juanita Baier, Audit Chief, Finance and Operations Unit

Jose Camacho, Audit Manager

Edgar M. Diaz, Auditor-in-Charge

Lin Zhang, Auditor

P3010-0658

## Table of Contents

<b>SUMMARY .....</b>	<b>1</b>
<b>BACKGROUND .....</b>	<b>2</b>
<b>OBJECTIVES .....</b>	<b>5</b>
<b>SCOPE .....</b>	<b>6</b>
<b>METHODOLOGY .....</b>	<b>6</b>
<b>RESULTS, FINDINGS, AND RECOMMENDATIONS.....</b>	<b>8</b>
<b>RESULTS.....</b>	<b>8</b>
<b>FINDING 1 - Milestone Dates Used to Report a Fixed Bridge Resulted in Overstated Accomplishments in Early Years .....</b>	<b>8</b>
<b>FINDING 2 - Duplicate Bridge Fixes Reported Under SHOPP .....</b>	<b>14</b>
<b>APPENDIX A - COMMON ACRONYMS .....</b>	<b>16</b>
<b>APPENDIX B - CALTRANS RESPONSE .....</b>	<b>17</b>

## **SUMMARY, BACKGROUND, OBJECTIVES, SCOPE, AND METHODOLOGY**

### **SUMMARY**

The Independent Office of Audits and Investigations (IOAI) completed an audit of the California Department of Transportation's (Caltrans) bridges performance measures and targets. Senate Bill 1 (SB 1) (Beall, Chapter 5, Statutes of 2017) requires Caltrans to “fix not less than an additional 500 bridges” over a 10-year period ending in 2027. The purpose of the audit was to determine whether Caltrans has an established process and documentation to support the baseline of 114 bridge fixes per year and annual accomplishments reported to achieve SB 1 requirements.

Caltrans is responsible for planning, maintaining, and operating 13,209 bridges on the State Highway System (SHS) and inspecting over 13,000 bridges owned by cities and counties. Prior to SB 1, Caltrans did not have a “fixed bridge” performance metric. As a result, Caltrans collaborated with the California Transportation Commission (Commission) to define a “fixed bridge” metric and methodologies to report accomplishments. In general, a fixed bridge was defined as any project that improved the condition of the bridge from lesser condition to better condition, updated seismic retrofit elements, addressed scour vulnerabilities, or addressed operational limitations to goods movement. Caltrans reports progress towards achieving SB 1 performance targets in the Performance Benchmark Report presented annually to the Commission.

The audit determined that while Caltrans defined a “fixed bridge” performance metric, specific project milestones were not identified to calculate the baseline nor to report annual accomplishments. As a result, this led to inconsistencies in reporting. Additionally, the number of fixed bridges reported in the annual Performance Benchmark Reports were overstated in early years. For example, reports may reflect projects with contract award or under construction, but not yet completed. Further, due to the milestones used, the audit identified 34 bridge fixes included in the baseline were also included in the annual benchmark reports.

While the findings do not affect Caltrans ability to meet the SB 1 target by 2027, Caltrans has an opportunity to adopt performance measurement best practices and implement process improvements to increase reporting accuracy and transparency.

Caltrans agreed with the results of the audit and stated they will evaluate the recommendations as part of their commitment of continuous process improvements. For a copy of the complete response, please see Appendix B.

## **BACKGROUND**

Caltrans is responsible for planning, maintaining, and operating the State Highway System (SHS). The SHS includes a wide variety of physical assets, including the four primary assets: pavement, bridges, drainage, and transportation management systems. These four primary asset classes represent a significant portion of California's annual transportation investments. Because of the importance of the four primary asset classes, federal legislation considers them a priority and the Commission adopted them as primary assets. This audit focused on bridges, one of the primary assets.

Caltrans is responsible for the maintenance of 13,209 bridges on the SHS and inspections on approximately 13,000 bridges owned by cities and counties. On an annual basis, a percentage of bridge assets in good condition deteriorates to fair condition, while a percentage of assets in fair condition deteriorates to poor condition. Caltrans is required to report bridge asset data to the Federal Highway Administration (FHWA) and reports an inventory of bridges in the State Highway System Management Plan (SHSMP). FHWA also requires that a state's Transportation Asset Management Plan (TAMP) includes pavement and bridges on the National Highway System. Caltrans prepares a robust TAMP to guide transportation investments through the State Highway Operation and Protection Program (SHOPP) to achieve performance targets. Caltrans uses FHWA's established measurements of bridge condition as either good, fair, or poor to describe condition, set targets, and analyze performance gaps of bridges.

Federal and state regulations also require Caltrans to prepare a progress assessment against annual benchmarks associated with the four primary asset classes for the 10-year period 2018 through 2027. In addition to the federal requirements, SB 1 includes a performance requirement to "fix not less than an additional 500 bridges" over a 10-year period ending in 2027. Caltrans reports progress towards achieving SB 1 performance targets in the Performance Benchmark Report annually to the Commission.

### **Bridge Projects Under Highway Maintenance and SHOPP**

Caltrans conducts bridge work under two primary programs as noted below.

- Highway Maintenance (HM) Program – Caltrans executes HM projects through contracts managed by the Division of Maintenance. HM bridge projects address work designed to extend the life of the bridge and delay rehabilitation or replacement. HM projects do not upgrade or replace bridges. The Commission does not have oversight over HM projects.

- SHOPP – Project Delivery is responsible for facilitating the delivery of SHOPP projects on the SHS. SHOPP bridge projects are more complex capital construction projects and address more significant rehabilitation or replacement of bridges. The Commission has direct responsibility to adopt SHOPP projects and to approve all scope, schedule, and cost changes. Additionally, the Commission sets asset performance targets to ensure SHOPP investments are achieving desired statewide transportation outcomes.

The Office of Structures Maintenance and Investigations (SM&I) within the Division of Maintenance is responsible for the coordination of maintenance and repair of state-owned bridges. SM&I coordinates with the districts for initiating and developing bridge repairs through either the SHOPP or the HM Program. The Office of Asset Management reports progress towards achieving the performance targets annually to the Commission.



## Project Delivery

As noted in the text box, Caltrans has a well-established project delivery process with established milestones that are tracked, monitored, and used in project delivery. The most recent Workplan Standards Guide (WSG) released in March 2021, provides statewide uniformity in development of project workplans to initiate, plan, control, execute, and close out capital projects. The WSG is one of the principal tools used throughout the project life cycle and describes milestones that are mandatory or optional for successful project management.

Additionally, Caltrans Chief Engineer introduced Asset Tracking in a memo to District Directors and Division Chiefs dated June 30, 2020. Asset tracking requires resident engineers to validate and document project performance measures at Construction Contract Acceptance (CCA). The Asset Tracking at Contract Acceptance Form (CEM 6305) requires the resident engineer to sign the form indicating the work was satisfactorily completed.

Further, the SB 1 Accountability and Transparency Guidelines (Guidelines) require Caltrans to submit completion reports within six months of CCA or the project becoming operable (open to the public) whichever comes sooner.

### **CALTRANS PROJECT DELIVERY MILESTONES:**

DED – Draft Environmental Document

PA&ED – Project Approval and Environmental Document

RWC – Right of Way Certification

RTL – Ready to List (optional)

BO- Bids Open (optional)

Award – Contract Award

AC – Approve Contract

FSR – Final Safety Review (optional)

OT – Open to Traffic (optional)

**CCA – Construction Contract Acceptance**

Project Closeout Initiated

FR – Final Report (optional)

EP – End Project Expenditures

FPC – Final Project Closeout

## Performance Targets

Caltrans developed a Decision Document which serves as a framework to assess the target of fixing no less than an additional 500 bridges. The Decision Document was approved by Caltrans Executive Management in December 2017 and includes a definition of a “fixed bridge” based on categories of activities as noted in the text box.

In consultation with the Commission, Caltrans finalized the activities that would constitute a “fixed bridge” and developed a baseline to start reporting progress. The baseline includes the average number of fixed bridges over the five-year period of 2012-13 to 2016-17.

Caltrans used a project milestone known as the Ready to List (RTL) date to determine the fixed bridges baseline in October 2017. Based on that metric, Caltrans initially established a baseline of 126 bridges fixed per year. However, at the December 2019 Commission meeting, Caltrans was asked to revise the baseline and exclude “rail upgrades” from the category of fixed bridges. Caltrans revised the baseline and presented it to the Commission at its March 2020 meeting. The Commission approved the revised baseline of 114 bridges and the “fixed bridge” definition. Caltrans worked extensively with the Commission to establish the types of activities that would be considered a “fixed bridge”, develop the baseline, and the methods for reporting progress for SHOPP projects.

## OBJECTIVES

The audit objectives were to determine whether Caltrans has:

- An established process and documentation to support the revised baseline of 114 bridges per year.

### APPROVED “FIXED BRIDGE” PERFORMANCE MEASURE

**Bridge Health** – Any project that improves the condition of the bridge from fair to good or poor to good as defined by the National Bridge Inspection Standards (NBIS).

**Bridge Scour** – Any project that eliminates scour vulnerability for a bridge determined to be unstable for scour conditions as defined by the NBIS.

**Bridge Seismic Restoration** – Any project that brings a bridge into seismically safe condition consistent with federal guidelines for seismically retrofitting highway structures.

**Bridge Goods Movement** – Any project that addresses bridges with identified operational limitations for either vertical clearance, whose vertical clearance is increased to meet current Highway Design Manual standards, or load capacity, whose load capacity is increased for permit vehicles.

- A well-established and consistent process to account for, and support, the reported number of bridges fixed each year.
- Documented and implemented policies and procedures to track, monitor, and report on bridge improvements to achieve the SB 1 requirement.

## **SCOPE**

The audit scope included bridge fix activities for the period of July 1, 2017, through the end of field work. Specifically, the audit focused on bridge accomplishments reported in the 2018-19, 2019-20, and 2020-21 Performance Benchmark Reports.

We conducted our audit from June 2020, through October 2021. Changes after these dates were not tested, and accordingly, our conclusions do not pertain to changes arising after October 2021.

## **METHODOLOGY**

To gain an understanding of the bridge program policies and procedures and assess key internal controls significant to the audit objectives, we interviewed personnel from the SM&I in the Division of Maintenance, and the Office of Asset Management. We also interviewed the Commission's Chief Engineer and the Assistant Chief Engineer. Key internal controls evaluated focused on the processes for developing the baseline and for reporting progress to the Commission. Deficiencies in internal controls that determined significant within the context of the audit objectives, are included in this report.

We also reviewed the following relevant documents:

- SB 1 Accountability and Transparency Guidelines
- SHOPP Guidelines
- Caltrans' bridge program policies and procedures, including the 2017 Decision Document
- Performance Benchmark Reports for 2019, 2020, and 2021
- 2019 State Highway System Management Plan
- California Transportation Asset Management Plan, January 2018
- Transportation Performance Management Guidebook, issued by the Federal Highway Administration

In addition, we assessed the sufficiency and appropriateness of computer-processed information used to support our findings, conclusions, and recommendations. In performing this audit, we relied on data from the Structures Maintenance Automated Report Transmittal (SMART) system and determined that it is sufficiently reliable for audit purposes. We noted that the data in the SMART system is dynamic and continually being

updated by staff because bridge inspections and other data generating sources are continually occurring. Therefore, we could not verify the source or accuracy of the information in the SMART system.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## RESULTS, FINDINGS, AND RECOMMENDATIONS

### RESULTS

The audit determined that while Caltrans defined a “fixed bridge” performance metric, specific project milestones were not identified to calculate the baseline nor to report annual accomplishments. As a result, this led to inconsistencies in reporting. Additionally, the number of fixed bridges reported in the annual Performance Benchmark Reports were overstated in early years. For example, reports may reflect projects with contract award or under construction, but not yet completed. Further, due to the milestones used, the audit identified 34 bridge fixes included in the baseline were also included in the annual benchmark reports.

While the findings do not affect Caltrans’ ability to meet the SB 1 target by 2027, Caltrans has an opportunity to adopt performance measurement best practices and implement process improvements to increase reporting accuracy and transparency.

### **FINDING 1 - Milestone Dates Used to Report a Fixed Bridge Resulted in Overstated Accomplishments in Early Years**

Following the passage of SB 1, Caltrans worked extensively with the Commission to define a “fixed bridge”, calculate the baseline, and establish methods for reporting progress for SHOPP projects. The 2021 Performance Benchmark Report issued in June 2021 indicates Caltrans met the performance target of fixing an additional 500 bridges well before the 2027 required timeframe.

Specifically, Caltrans reported fixing 998 bridges in total, with 542 counting towards the additional 500 target. However, different milestones were used to calculate the baseline and report progress as noted in Figure 1 below. Specifically:

**Baseline:** To calculate a baseline, Caltrans used the Ready to List (RTL) milestone date, which indicates the project is ready to be advertised. The RTL date precedes construction work.

**Annual Accomplishments:** To report annual accomplishments, the Contract Award (CA) date was used to report a fixed bridge under

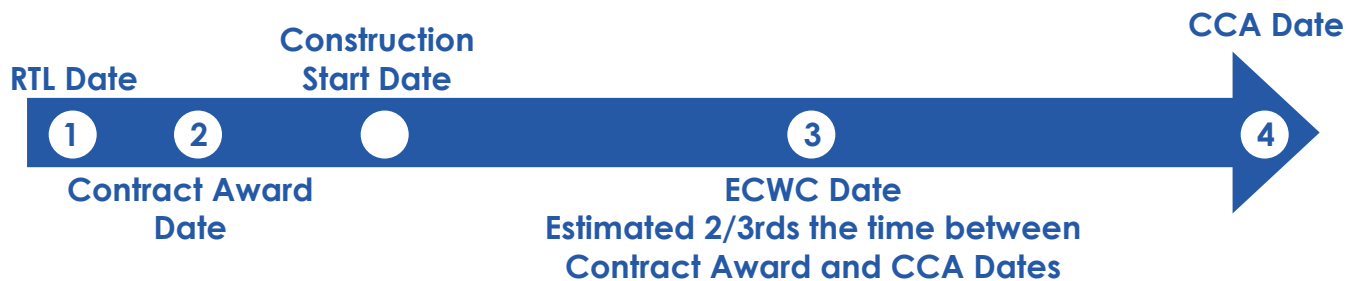
#### **FIXED BRIDGE:**

Caltrans defines a fixed bridge as projects that:

- Improve the condition of the bridge from a lesser condition to a better condition.
- Mitigate seismic vulnerabilities
- Mitigates scour vulnerabilities
- Address operational limitations to goods movement

Highway Maintenance (HM). This date indicates a contract is awarded and no construction has begun. For State Highway Operation and Protection Program (SHOPP) projects, an Expected Construction Work Completion (ECWC) date was used to report a fixed bridge.

**Figure 1: Inconsistent Milestone Dates Used to Report a Fixed Bridge**



- 1. Baseline
- 2. HM Projects
- 3. SHOPP Projects
- 4. Completion Reports

Conversely, as noted in the Background section of this report, Caltrans' asset tracking policies currently require resident engineers to validate and document project performance measures at Construction Contract Acceptance (CCA). Additionally, pursuant to the SB 1 Transparency and Accountability Guidelines amended in August 2018, Caltrans is required to report completed projects within six months of CCA or the project becoming operable (open to the public), whichever comes sooner. Caltrans does not currently track the "open to public" milestone and as a result, reports completed projects at CCA. The following sections provide further detail.

**Baseline**

Caltrans calculated the fixed bridge baseline by identifying all projects reaching RTL status between 2012-13 through 2016-17 and calculating an annual average. Based on this approach, Caltrans determined it had fixed an average of 114 bridges annually. Therefore, bridges fixed in excess of 114 bridges per year count towards the additional 500 bridge fix requirement.

Using the RTL milestone to calculate the fixed bridge baseline is inconsistent with Caltrans' established performance metric because it does not reflect a fixed bridge. The baseline is

**Baseline Calculation**

---

SHOPP	230
HM	341
	571
Total bridges in last 5 FYs	571

571 Bridges

---

5 Years

=114 Average per Year

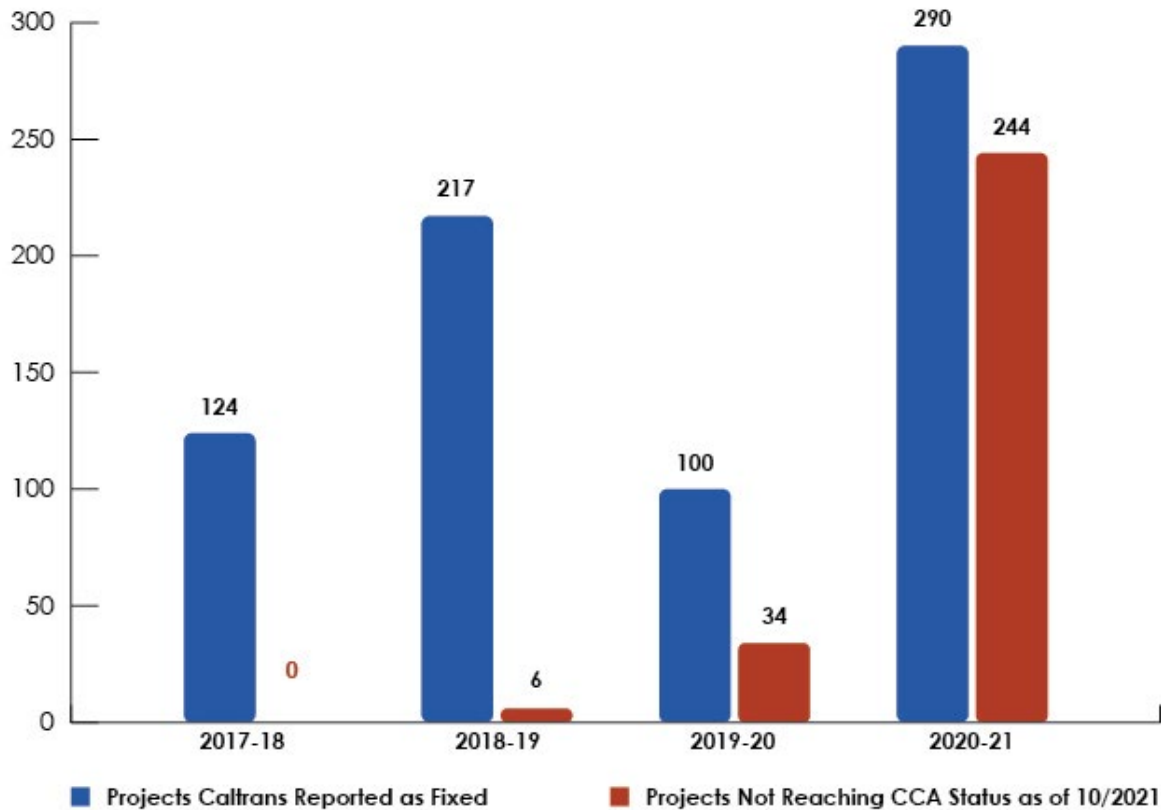
intended to illustrate actual past performance and serves as a measure from which implementation and progress begin. The RTL date reflects the project is ready to be advertised and does not measure actual completed projects, in this case a fixed bridge. According to Caltrans, it used the RTL because it is one of Caltrans' major milestones that is consistently tracked, and management wanted to be consistent with other asset classes. However, as noted in the Background section of this report, Caltrans has several well-established project delivery milestones that are consistently tracked, including the CCA milestone. The CCA milestone is a key milestone within project delivery as it illustrates actual performance and includes the assurance of a resident engineer certifying that the project has been completed as intended.

The Transportation Performance Management Guidebook, issued by the Federal Highway Administration, defines a baseline as "the observed level of performance for a specified performance period from which implementation begins, improvement is judged, or comparison is made." Developing a baseline using actual completed bridge data reflects actual accomplishments and decreases the risk of error. As noted Finding 2 below, we identified 34 duplicate bridge fixes as a result of using inconsistent milestones.

### **Highway Maintenance Projects**

For HM projects, the CA date is used to count a fixed bridge accomplishment. The CA date is the date the contract is awarded to the lowest-most qualified bidder. At the CA date, no construction work has begun.

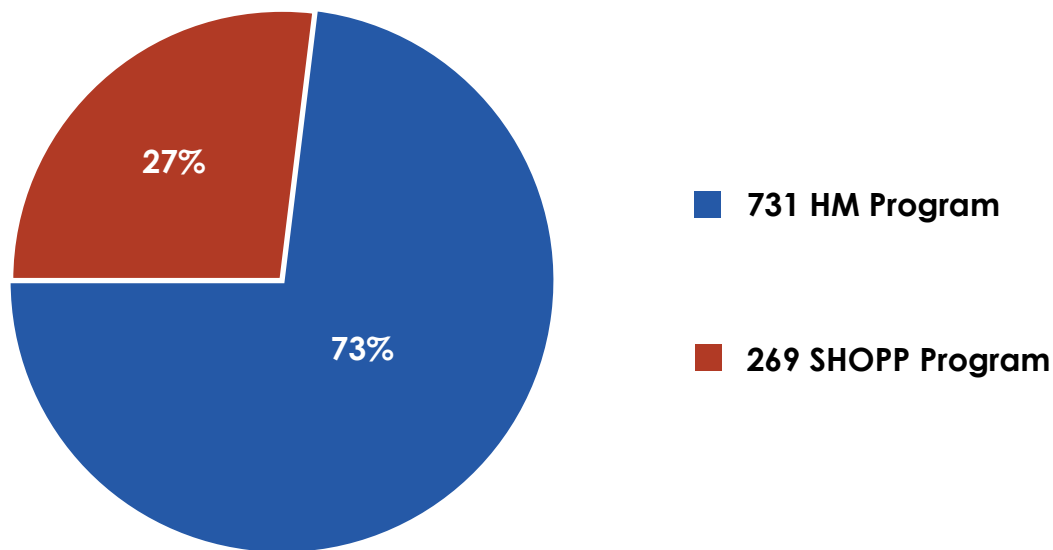
According to Caltrans, they used the CA date because HM projects typically have a short delivery period, meaning most projects are completed within a year. Caltrans believes that using the CA date does not significantly impact actual accomplishments reported as it only moves the accomplishments into a different year. However, based on our review, not all HM projects reach CCA status within one year. In 2018-19, there were 114 fixed bridges out of 217 HM projects, or 52 percent, that were reported as fixed but had not reached CCA status. One of those projects is expected to reach CCA status in 2023; yet, it was reported as complete in 2018-19. We also noted that not all bridge projects reported as accomplishments in 2018-19, 2019-20 and 2020-21 have reached CCA as of October 2021. As noted in Figure 2 below, there are over 280 bridges in the HM Program that were reported as fixed but have not reached CCA status.

**Figure 2: Fixed Bridges Reported vs. Bridges Not Reached CCA Status**

Source: Fixed Bridges data obtained from the Performance Benchmark Reports. Data for Projects Not Reaching CCA status obtained from the Office of Structures Maintenance and Investigations.

Additionally, the Performance Benchmark Reports did not distinguish between HM and SHOPP accomplishments. As noted in Figure 3 below, the majority, or 73 percent, of the total fixed bridges reported as of June 2021 were under the HM program. As a result, the Performance Benchmark Reports did not disclose the methodology used to report 731 HM bridge projects. Specifically, a bridge was reported as fixed at the time of contract award.



Figure 3: Total Fixed Bridges Reported in Benchmark Reports<sup>1</sup>

<sup>1</sup>The chart does not reflect the following adjustments made by Caltrans in the 2021 Performance Benchmark Report: 1) 2018-19: Number was reduced by one fixed bridge because construction was halted in midstream by court order, 2) 2019-20: Number was reduced by one fixed bridge because the bridge was reported in the baseline.

Reporting bridge fixes at CA is inconsistent with the established metric and does not reflect a completed bridge project. The CCA milestone reflects the date the project is complete, the final project inspection is done, and work is accepted. Reporting progress based on completed projects, instead of awarded projects, is accurate, transparent, and shows the correct progress.

### **SHOPP Projects**

For SHOPP projects, Caltrans reports a “fixed bridge” when it reaches the ECWC date. According to the Performance Benchmark Report, the number of bridges fixed is determined from an analysis of bridge project records and an estimate of when the work will be effectively complete, which is referred to as the ECWC date. The Office of Bridge Asset Management is responsible for tracking bridge accomplishments and for calculating the ECWC date. The ECWC date is estimated to be two thirds between the CA date and the CCA date.

According to Caltrans, they use the ECWC date because the date is closer to construction completion and the date when the traveling public realizes the benefit of a fixed bridge. Caltrans states they received the Commission's approval to use the ECWC instead of using the initially proposed RTL date. According to Caltrans, SHOPP projects typically reach CCA status years after construction is complete because there may be

paving, striping, and/or revegetation work that occurs after construction is complete. As a result, Caltrans was concerned that using the CCA date would not accurately reflect the date a bridge was complete and open for public use. However, the ECWC is not an established project delivery milestone, and as a result, the ECWC date is not tracked in any of Caltrans databases, and there is no documentation supporting the date. Additionally, the resident engineer is not involved in determining the ECWC date and therefore does not provide assurance nor certification that the project has been completed as intended.

As noted in the Background section of this report, Caltrans has well established project delivery milestones to track, monitor, and report completed projects. One of the key milestones used to measure a completed project is the CCA date. A key element of the CCA milestone is that it reflects a documented acceptance from the resident engineer. Specifically, it indicates the resident engineer accepts the construction job as having met all the standard specifications, the final project inspection is done, work is accepted, and the contractor is relieved from responsibility.

## **RECOMMENDATIONS**

Caltrans should revise subsequent Annual Performance Benchmark Reports, or issue an interim report if requested by the Commission. Future reports should:

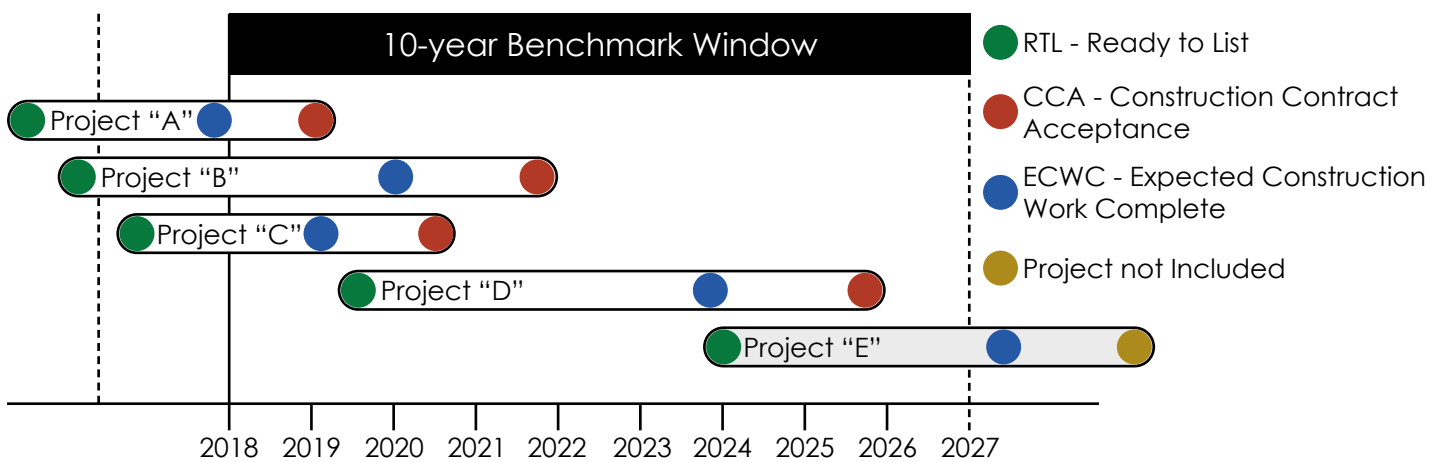
- A. Separately account for and report HM and SHOPP fixed bridge accomplishments, including a clear description of the methodology and milestone dates used to report fixed bridges.
- B. Use the CCA milestone to report HM and SHOPP bridge accomplishments, or an alternate milestone that is formally implemented. If an alternate milestone is used, such as “open to traffic” or ECWC, the milestone should be formally established and implemented as a project delivery milestone that requires a resident engineer to validate and document project performance.

**FINDING 2 - Duplicate Bridge Fixes Reported Under SHOPP**

Due to the inconsistent methodologies used, 34 duplicate bridges were reported in the annual Performance Benchmark Reports. Specifically, 34 bridges were counted in the baseline because they reached RTL during the five-year period of 2012 to 2017. The same SHOPP projects were counted again as fixed when they reached the ECWC date in 2018, 2019 and 2020. For example, project B in Figure 4 below, illustrates a project that is counted in the baseline because it reached RTL before 2018. The same project was reported as fixed in 2020 when it reached ECWC. Figure 4 illustrates the various milestones Caltrans used to develop the baseline and to report progress towards the target.

2017-18	15
2018-19	16
2019-20	<u>3</u>
<b>Total:</b>	<b><u>34</u></b>

**Figure 4: Project Accomplishments**



Source: Caltrans' 2019 SHSMP Report illustration.

When asked about the duplicate counts, Caltrans agreed the 34 bridges were reported twice. Similarly, Caltrans identified one project reported in 2018-19 that was previously reported in the baseline. We acknowledge that Caltrans reduced the count and reported the correction in their 2020-21 Benchmark Performance Report. The inconsistent methodologies and lack of written procedures for data management has caused duplicate counts and reporting fixed bridges before completion.

The Transportation Performance Measurement Guidebook outlines several data management best practices intended to improve data accuracy and completeness. Specifically, the Data Quality subcomponent highlights key areas including, "Processes and organizational functions to ensure data are accurate, complete, timely, consistent with requirements

and business rules, and relevant for a given use.” Caltrans has the opportunity to adopt performance measurement best practices and implement process improvements to increase reporting accuracy and transparency.

### **RECOMMENDATIONS**

To ensure accuracy, Caltrans should:

- A. Remove the 34 duplicate SHOPP bridges from the reported accomplishments in subsequent Performance Benchmark Reports.
- B. Establish and implement data quality controls to ensure data accuracy and mitigate duplicate fixed bridge reporting.

## APPENDIX A COMMON ACRONYMS

### **Approve Contract**

Date Caltrans approves construction contract.

### **Baseline**

The average number of bridges fixed annually by Caltrans before SB 1.

### **CCA - Construction Contract Acceptance (CCA)**

The milestone where the resident engineer accepts the contractor's work as meeting standard specifications. The contractor is released from responsibility.

### **CA - Contract Award Date**

The Office Engineer award contract to contractor.

### **ECWC - Expected Construction Work Complete Date**

The ECWC is estimated to be 2/3rds from Contract Award and the Construction Contract Acceptance date. Caltrans believes this is a good estimate of when the improvement is open to the public for SHOPP projects.

### **End Project Expenditures**

All work is complete from all functions. The earliest date project can be archived.

### **Final Project Closeout**

Date when Accounting's final voucher process is complete.

### **Final Report**

Date the District completes final project files.

### **Final Safety Review**

Date District completes final review.

### **Open to Traffic**

Date District opens improvement for traffic.

### **Project Closeout Initiated**

Date District initiates project close out efforts.

### **Ready to List (RTL)**

Date pre-construction requirements for projects are met, and the project is ready to be advertised.

## **APPENDIX B - CALTRANS RESPONSE**

## California Department of Transportation



OFFICE OF THE DIRECTOR  
P.O. BOX 942873, MS-49 | SACRAMENTO, CA 94273-0001  
(916) 654-6130 | FAX (916) 653-5776 TTY 711  
[www.dot.ca.gov](http://www.dot.ca.gov)

January 26, 2022

Diana C. Antony, CPA  
Acting Inspector General  
Independent Office of Audits and Investigations  
P.O. Box 942874, MS-2  
Sacramento, CA 94274-0001

Dear Ms. Antony:

We received your Draft Audit Report titled "California Department of Transportation SB 1 – Bridges Performance Measures and Targets" dated December 2021 as well as your Confidential Draft Report – Audit of SB 1 Performance Measures and Targets – Bridges letter dated December 23, 2021.

We agree with the Independent Office of Audits and Investigations (IOAI) that the findings in the report will not affect the Department's ability to meet the Senate Bill (SB) 1 target to fix 500 bridges by 2027.

Initial procedures used to establish a baseline for reporting and subsequent dynamic process revisions to annual accomplishments as directed by the CTC some years after SB1 initiation were identified as accounting irregularities. While the impacts of these irregularities ultimately will not affect the successful delivery of projects required to fix 500 bridges, it is acknowledged that if a more uniform methodology was available for use at the onset of the SB1 reporting these irregularities may have been avoided. We will evaluate the recommendations provided in the draft report as part of our commitment of continuous process improvement.

If you have any questions or concerns, please contact me at (916) 654-6823, Michael B. Johnson, State Asset Management Engineer at (916) 799-9362 or by e-mail sent to [michael.b.johnson@dot.ca.gov](mailto:michael.b.johnson@dot.ca.gov), or John Gillis, Bridge Program Manager at (916) 798-7162 or by e-mail sent to [john.gillis@dot.ca.gov](mailto:john.gillis@dot.ca.gov).

Ms. Diana C. Antony, Acting Inspector General  
January 26, 2022  
Page 2

Sincerely,



CORY BINNS  
Deputy Director, Maintenance and Operations

Enclosure

SB1 Bridges Performance Measures and Targets Complete--DRAFT REPOR--CT  
Comments.pdf

c: Michael Keever, Chief Deputy Director, Caltrans  
Steven Keck, Deputy Director, Finance, Caltrans  
Nabeelah Abi-Rached, Acting Chief Engineer, Caltrans  
Sergio Aceves, Division Chief, Division of Maintenance, Caltrans  
Michael B. Johnson, State Asset Management Engineer, Caltrans  
Erol Kaslan, Deputy Division Chief, Structures Maintenance and Investigations,  
Caltrans  
John Gillis, Bridge Asset Management, Caltrans  
Angel Pyle, SB1 Program Manager, Caltrans