

Memorandum

To: CHAIR AND COMMISSIONERS

CTC Meeting: March 25, 2020

From: MITCH WEISS, Executive Director

Reference Number: 4.15, Action

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Subject: Addendum to the Commission's 2019 Annual Report: Evaluation of Caltrans' Effectiveness in Reducing Deferred Maintenance and Improving Conditions on the State Highway System

Issue:

Should the California Transportation Commission (Commission) approve the addendum to the Commission's 2019 Annual Report that includes final findings of the evaluation of the California Department of Transportation's (Caltrans) progress for 2018 in achieving the Senate Bill (SB) 1 (Beall, Chapter 5, Statutes of 2017) performance goals?

Recommendation:

Staff recommends the Commission approve the evaluation set forth in Attachment A, and find that Caltrans is making progress towards reducing deferred maintenance and improving road conditions on the state highway system. Staff further recommends the findings of this evaluation be included in an addendum to the Commission's 2019 Annual Report to the Legislature pursuant to Section 14535 of the Government Code.

Background:

SB 486 (DeSaulnier, Chapter 917, Statutes of 2014) created requirements for Caltrans to develop an asset management plan to guide the selection of State Highway Operation and Protection Program projects and to provide for a transparent means to track and evaluate performance of the program relative to established targets and benchmarks approved by the Commission.

The Commission is required to include in its Annual Report to the Legislature findings on the progress made by Caltrans towards meeting the 10-year performance outcomes. At its December 4, 2019 meeting, the Commission adopted

an evaluation of Caltrans' progress toward meeting the statutory performance outcomes, including SB 1 performance targets for pavement goals by 2027. On December 6, 2019, the Independent Office of Audits and Investigations issued its final audit report on SB 1 pavement performance outcomes. It was not until the report was released that the Commission first became aware of additional information which might impact Caltrans' performance report. Specifically, given the nature of the audit findings and recommendations, it was important the Commission obtain a better understanding of the implications of the audit on the Commission's evaluation of Caltrans' performance. Subsequently, the Commission reviewed the audit findings, met with the State Pavement Engineer, and prepared a list of questions related to the audit for Caltrans to respond to at the January 2020 Commission meeting. Caltrans' responses are included in Attachment B.

Attachments:

- Attachment A: Addendum to the Commission's 2019 Annual Report
- Attachment B: Caltrans' Responses to the Commission's Questions Regarding the Pavement Audit

**California Transportation Commission
ADDENDUM TO THE 2019 ANNUAL REPORT**

Statutory requirements

Senate Bill (SB) 486 (DeSaulnier, Chapter 917, Statutes of 2014) created requirements for the Department of Transportation (Caltrans) to develop an asset management plan to guide the selection of State Highway Operation and Protection Program (SHOPP) projects and to provide for a transparent means to track and evaluate performance of the program relative to established targets and benchmarks approved by the Commission.

Referred to variously as goals, outcomes, and targets, SB 1 (Beall, Chapter 5, Statutes of 2017) states that it is the intent of the Legislature that Caltrans meet the following preliminary performance outcomes for additional state highway investments by the end of 2027:

- (1) Not less than 98% of pavement on the state highway system in good or fair condition.
- (2) Not less than 90% level of service achieved for maintenance of potholes, spalls, and cracks.
- (3) Not less than 90% of culverts in good or fair condition.
- (4) Not less than 90% of transportation management system units in good condition.
- (5) Fix not less than an additional 500 bridges.

Government Code section 14526.7 requires Caltrans to incorporate performance targets into the asset management plan, along with benchmarks to measure the degree to which progress is made toward achieving the overall 2027 targets. In March 2018, the Commission adopted annual benchmarks for the four SHOPP primary asset classes (pavement, bridges, culverts, and traffic management system elements) to measure progress toward meeting the SB 1 performance targets. The targets and benchmarks are shown in the table on page 2.

Evaluation of Caltrans' progress

Government Code section 14526.7(b) and Streets and Highways Code section 2032.5 require that Caltrans report to the Commission on its progress toward meeting the targets and performance measures established for state highways.

Streets and Highways Code section 2032.5(c) states that annually, the Commission shall evaluate the effectiveness of Caltrans in reducing deferred maintenance and improving road conditions on the state highway system, as demonstrated by the progress made toward achieving the goals set forth in SB 1.

Pursuant to statute, Commission Staff utilized Caltrans' assessment of its progress toward achieving the annual benchmarks to evaluate the effectiveness of Caltrans, through the end of 2018, in reducing deferred maintenance and improving road conditions on the state highway system.

Progress reported towards 2027 SB 1 Targets

In October 2019, Caltrans reported on its progress toward meeting the targets and benchmarks established for the state highway system based on 2018 data.

The table below summarizes the key information presented to the Commission by Caltrans on its progress toward achieving the SB 1 targets and benchmarks through the end of 2018.

Asset Class	Commission Adopted 2027 Performance Targets	Commission Adopted 2018 Year End Benchmark	Department Reported 2018 Year End Actual
Pavement* in good or fair condition			
Class 1	99%	98.4%	98.8%
Class 2	98%	98.3%	99.2%
Class 3	98%	97.8%	99.0%
Bridges in good or fair condition	98.5%	97.4%	96.0%
Culverts in good or fair condition	90%	88.8%	90.2%
Transportation management systems in good condition	90%	58.1%	67.4%

* Class 1 includes interstates, other principal arterials, and urban freeways and expressways, (52% of the state highway system). Class 2 includes rural freeways and expressways, and minor arterials (34% of the state highway system). Class 3 includes major and minor collector routes (14% of the state highway system).

At its December 2019 meeting, the Commission concluded that Caltrans demonstrated progress was made in 2018 toward reducing deferred maintenance and improving road conditions on the state highway system. On December 6, 2019, the Independent Office of Audits and Investigations issued its final audit report on SB 1 pavement performance outcomes. The purpose of the audit was to determine if Caltrans had adequately established a baseline for pavement condition and benchmarks for achieving pavement performance targets. It was not until the report was released that the Commission first became aware of additional information which might impact Caltrans' performance report. Specifically, given the nature of the audit findings and recommendations, it was important that the Commission obtain a better understanding of the implications of the audit on the Commission's evaluation of Caltrans' performance.

The findings and recommendations included in the audit report raised serious concerns regarding Caltrans' reporting of its progress. As a result, the Commission reviewed the audit findings, met with the State Pavement Engineer, and prepared a list of questions related to the audit for Caltrans to respond to at the January 2020 Commission meeting. The responses from Caltrans are included in Attachment B.

One of the audit findings raised concerns that funding shortfalls would have impacts to

Caltrans' projections of asset conditions. Caltrans reported that because Asset Management requires a fiscally constrained list of projects, Districts within Caltrans deal with funding shortfalls by identifying higher-performance projects from their portfolio and by selecting more cost-effective strategies for projects. Defined performance objectives are met by focusing on prioritized asset classes and realizing efficiencies through multi-asset strategies. Another audit finding raised concerns regarding the validity of the pavement data. Caltrans explained that the Performance Benchmark Report is a forward looking forecast that estimates where the system condition is expected to be for the coming years. There is uncertainty in these forecasts represented by uncertainty bands. The bands account for uncertainty in condition, project level accomplishments, and deterioration. Additionally, the entire state highway system pavement is analyzed on a yearly basis and Caltrans believes it is unlikely that errors in the data set would continue into subsequent years.

The audit report on Caltrans' baseline performance outcomes for pavement completed by the Independent Office of Audits and Investigations resulted in Caltrans implementing changes in business processes to address the findings in the audit. Commission staff raised questions regarding the audit report, and Caltrans has provided responses that acknowledge that quality assurance procedures are in place to review the integrity of that data.

Fix an additional 500 Bridges

At its December 2019 Commission meeting the Commission approved criteria for meeting the SB 1 target of "fix not less than an additional 500 bridges" by 2027. The intent of this target and the associated additional funding provided by the passage of SB 1 was to focus attention on repairs to bridges that would extend their service life. At the March 2020 Commission meeting Caltrans presented revised benchmarks and a report on the progress made over the past two years towards fixing an additional 500 bridges. Prior to the passage of SB 1, Caltrans was fixing an average of 114 bridges per year. After the passage of SB 1, Caltrans reported that 214 and 265 bridges were fixed in fiscal years 2017-18 and 2018-19, respectively. The ten-year projection by Caltrans is to fix a total of 1,971 bridges by 2027. That exceeds the requirement set by SB 1 which would require a total of at least 1,640 bridges fixed over the ten years.

Pavement Level of Service

At the March 2020 Commission meeting Caltrans presented a framework to assess the target of achieving not less than 90% level of service for the maintenance of potholes, spalls, and cracks. Based on that methodology, Caltrans is reporting that the current level of service is 95% and they forecast to be above the SB 1 target of 90% in 2027.

Conclusion

The Commission finds that Caltrans has demonstrated progress in 2018 toward reducing deferred maintenance and improving road conditions on the state highway system and is on track towards meeting the SB 1 2027 targets for pavement, culverts, and transportation

management systems. Additionally, based on reporting by Caltrans at the March 2020 meeting, the Commission finds that Caltrans is on track towards meeting the SB 1 2027 targets for fixing an additional 500 bridges and obtaining not less than 90% level of service for the maintenance of potholes, spalls, and cracks.

However, Caltrans did not meet the annual benchmark for the condition of bridges and is not projected to meet the commission-adopted target of 98.5% of bridges in good or fair condition by 2027. At the December 2019 meeting, Commission Staff recommended provisions to increase accountability on individual bridge projects by requiring projects that include bridge improvements in the scope of work to provide the existing overall condition of the bridge at programming and the projected overall condition of the bridge at construction completion. Additionally, Commission Staff recommended a reevaluation of the targets established for this asset class to ensure the efficient use of limited funding.