

# 2020/21 Performance Benchmark Report



Michael Johnson P.E.  
State Asset Management Engineer  
California Department of Transportation  
June 2021



Diverging Diamond - Union Road at Highway 120 - Manteca

# What is the Performance Benchmark Report?

- **CTC Guidelines:**

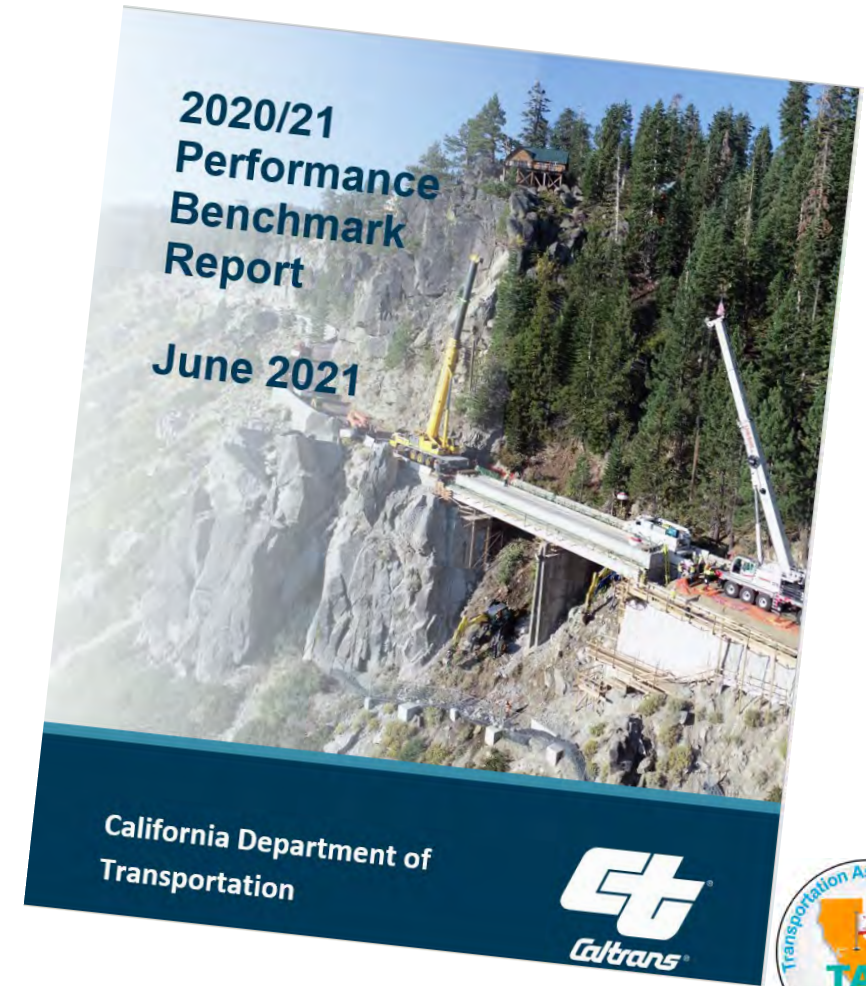
CTC Guidelines require an annual report to the Commission showing progress toward asset management and SB1 performance targets

- **What's in the Report:**

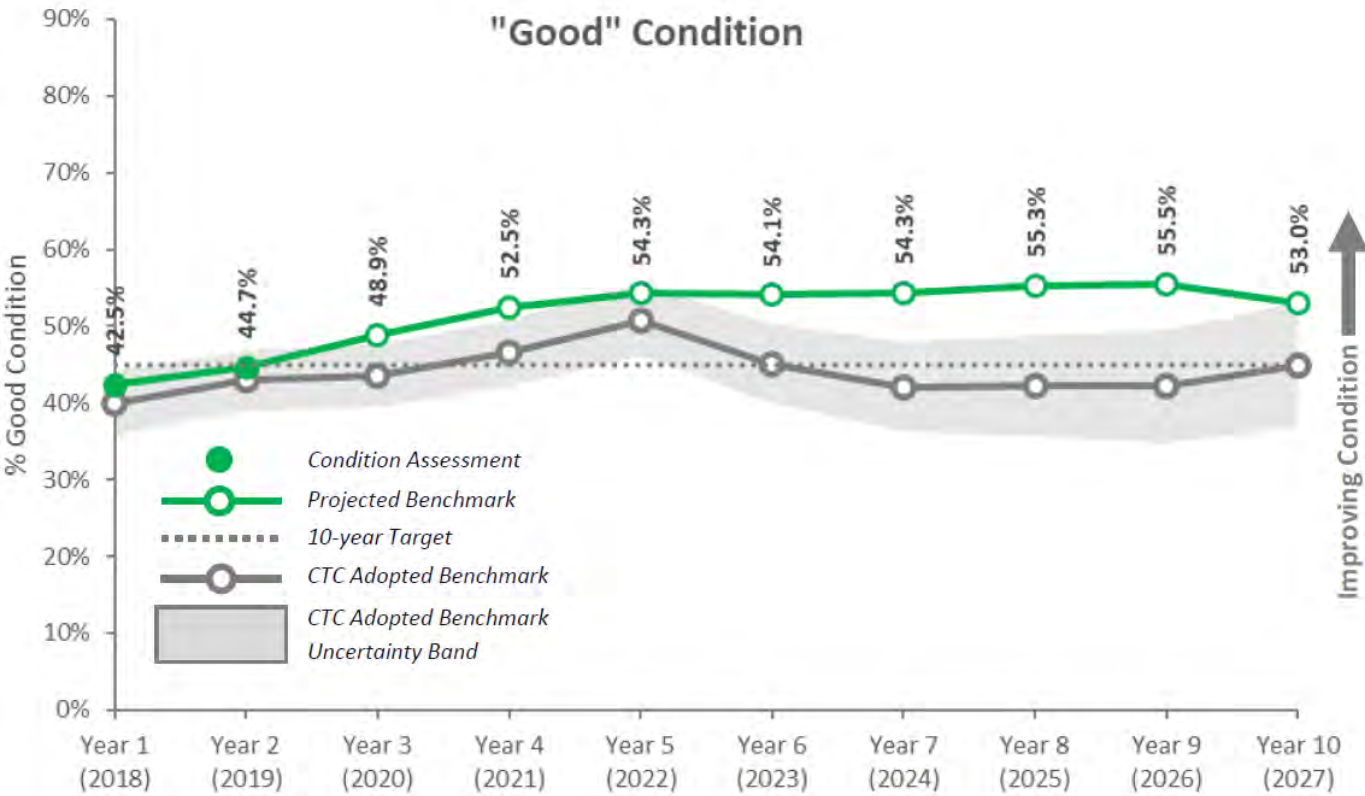
Reports the current condition and future projections relative to the 19 established baseline conditions 2017-2027.

- **Timing:**

The 2020/21 Performance Benchmark Report is presented in June of each year. This is the fourth reporting with actual conditions through 40% of the time period



# Report Features



**Figure 7 - Pavement Class III, Good**

**Table 5 - Pavement Class III Condition Summary**

Condition	2027 Target	2019 Year End	2020 Year End (Projection)	Change in Condition
Good	45.0%	44.7%	48.9%	4.2% ↑
Fair	53.0%	54.4%	50.7%	-3.7% ↓
Poor	2.0%	1.0%	0.4%	-0.6% ↓



# Benchmark Development

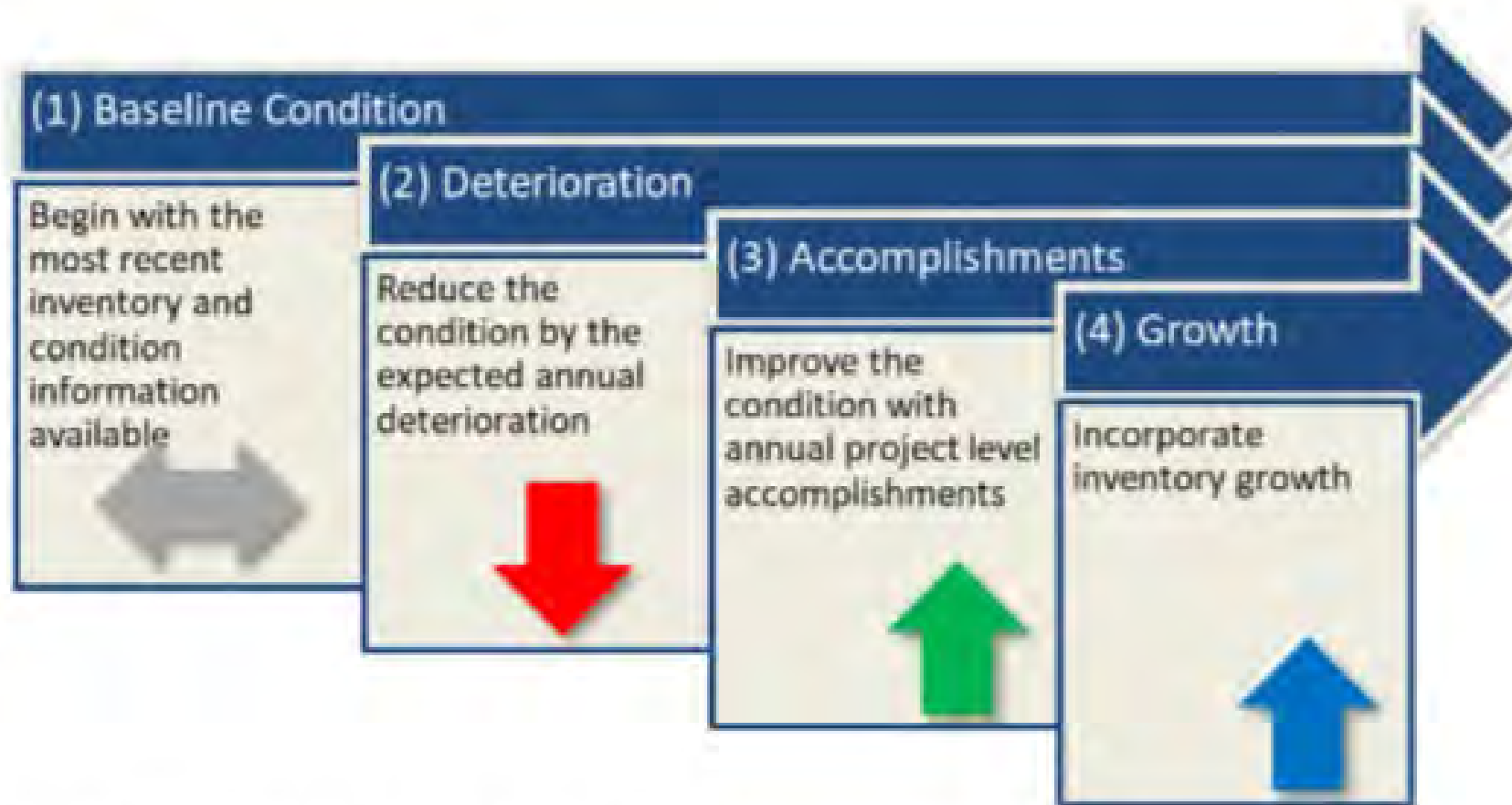










Figure 4-2. Steps in Calculating Benchmark Projections

# Summary of Progress on SB1 Targets

**Table 1 – Progress Towards 2027 SB1 Targets**

Asset Class	2027 SB1 Target	Status of Progress
<b>Pavement</b>	98% Good or Fair Condition;	 On Track
	90% level of service (LOS) achieved for maintenance of potholes, spalls, and cracks	 On Track
<b>Bridges</b>	Fix an additional 500 bridges	 On Track/ Target Achieved
<b>Culverts</b>	90% Good or Fair Condition	 Monitor
<b>TMS</b>	90% Good Condition	 On Track

-  **On Track** – Caltrans is on track to meet performance targets by 2027.
-  **Monitor** – Projected performance falls within uncertainty bounds, or performance metric under revision.
-  **Action Required** – Changes to plans are needed to assure that performance targets are achieved by 2027.



# Summary of Progress on Asset Management Targets

**Table 2 – Progress Towards 2027 TAMP Targets**

Asset Class		Good	Fair	Poor	Status of Progress	
Pavement	Class 1	60%	39%	1%	●	On Track
	Class 2	55%	43%	2%	●	On Track
	Class 3	45%	53%	2%	●	On Track
Bridges and Tunnels		48.5%	50%	1.5%	●	Monitor
Drainage (Culverts)		70%	20%	10%	●	Monitor
TMS		90%	N/A	10%	●	On Track

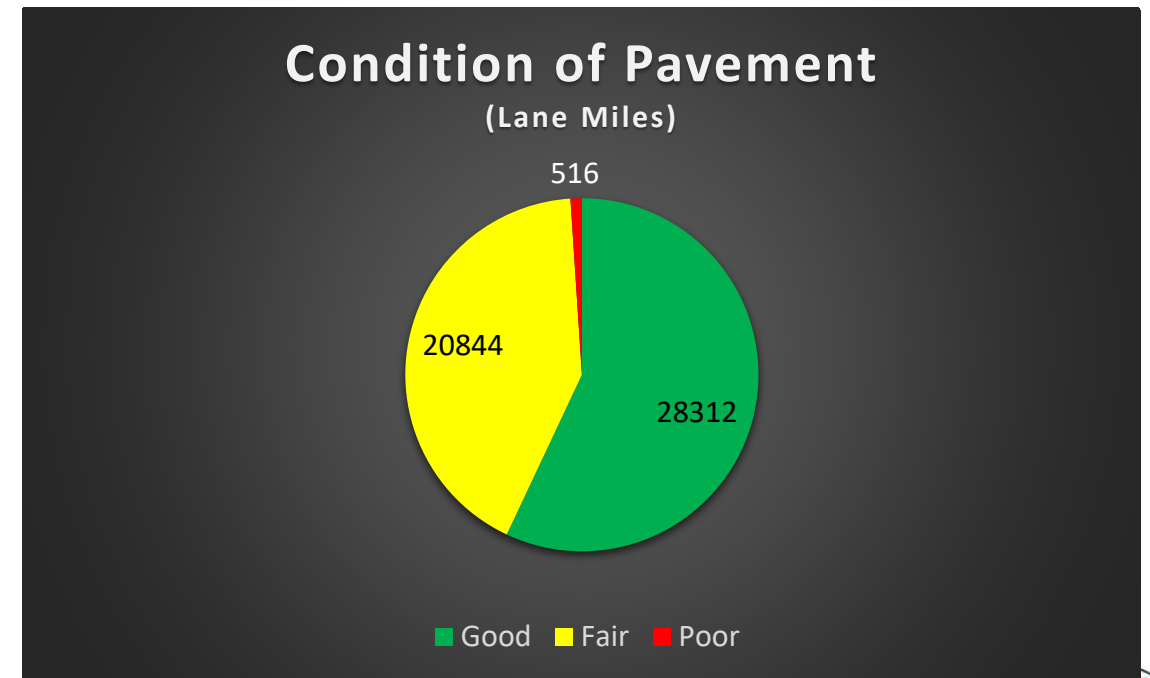
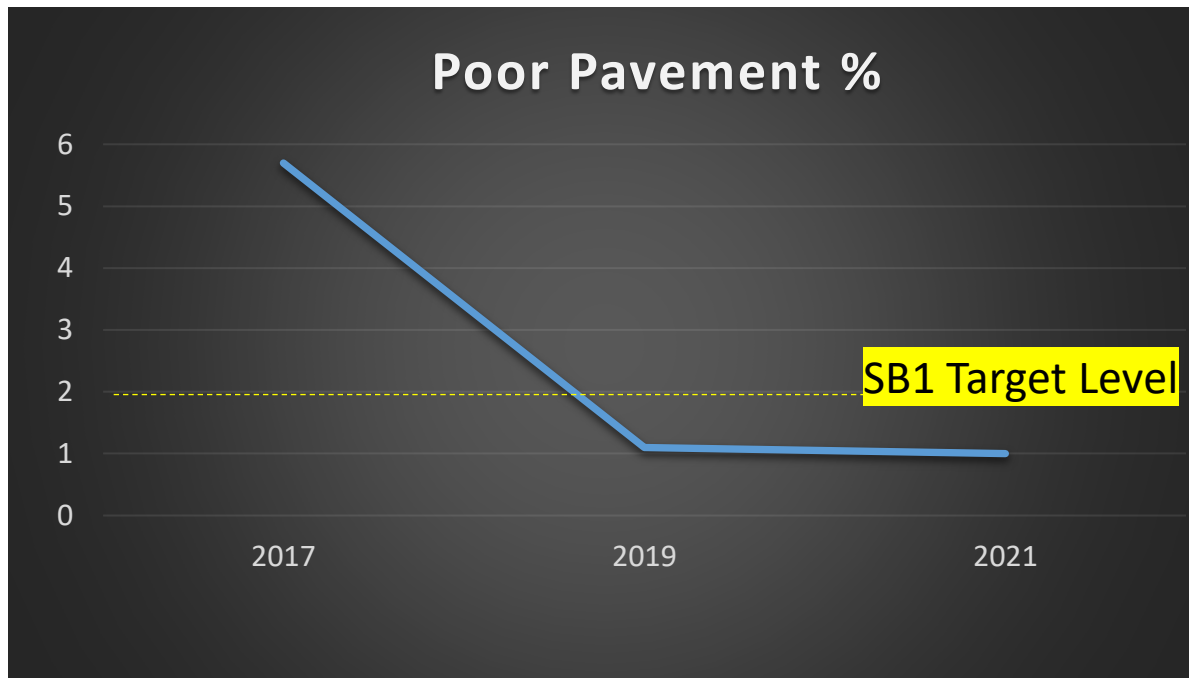
- **On Track** – Caltrans is on track to meet performance targets by 2027.
- **Monitor** – Projected performance falls within uncertainty bounds, or performance metric under revision.
- **Action Required** – Changes to plans are needed to assure that performance targets are achieved by 2027.



# Pavement

# Pavement Progress

- Pavement condition continues to improve!







Route 99 concrete pavement- Fresno County from the City of Selma to Kingsburg



Pavement overlay with pedestrian/bike improvements – Red Bluff

# Pavement Progress



# Pavement Summary

**Table 3 – Pavement Class I Condition Summary**

Condition	2027 Target	2019 Year End	2020 Year End (Projected)	Change in Condition
Good	60.0%	66.2%	70.5%	+4.3% ↑
Fair	39.0%	32.6%	28.8%	-3.8% ↓
Poor	1.0%	1.2%	0.7%	-0.5% ↓

**Table 4 - Pavement Class II Condition Summary**

Condition	2027 Target	2019 Year End	2020 Year End (Projected)	Change in Condition
Good	55.0%	46.8%	51.2%	+4.4% ↑
Fair	43.0%	52.4%	48.4%	-4.0% ↓
Poor	2.0%	0.9%	0.4%	-0.5% ↓

**Table 5 - Pavement Class III Condition Summary**

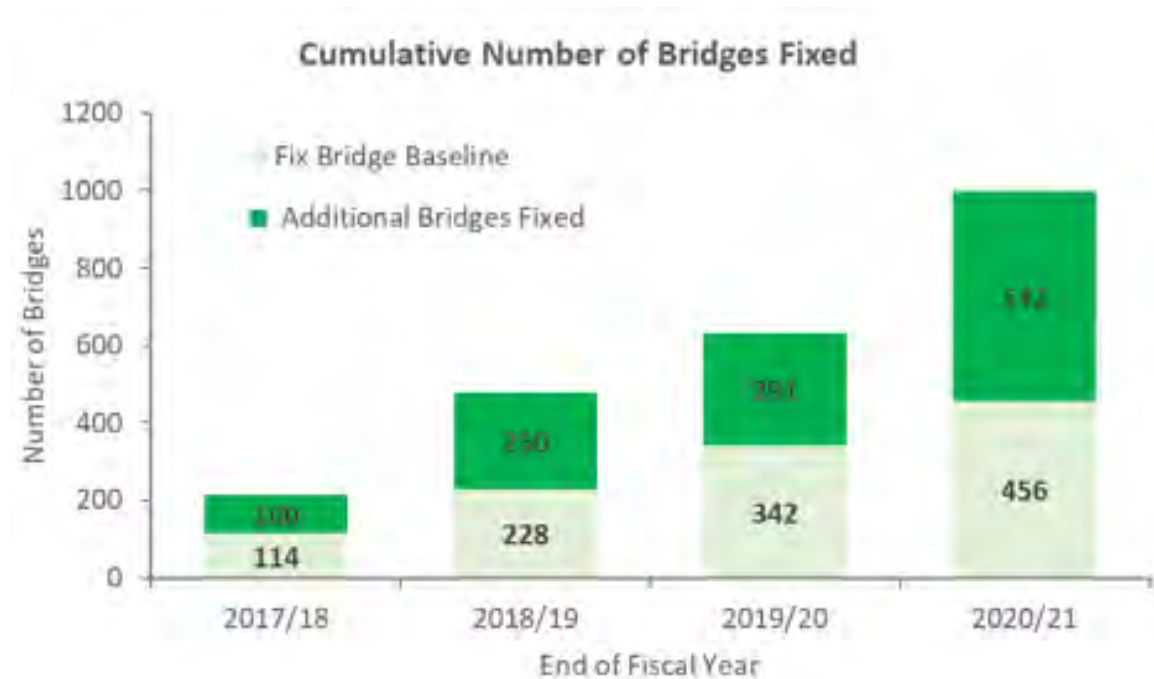
Condition	2027 Target	2019 Year End	2020 Year End (Projection)	Change in Condition
Good	45.0%	44.7%	48.9%	4.2% ↑
Fair	53.0%	54.4%	50.7%	-3.7% ↓
Poor	2.0%	1.0%	0.4%	-0.6% ↓



# Bridges

# Bridge Progress

- The number of bridges fixed surpasses the 500 bridge mark

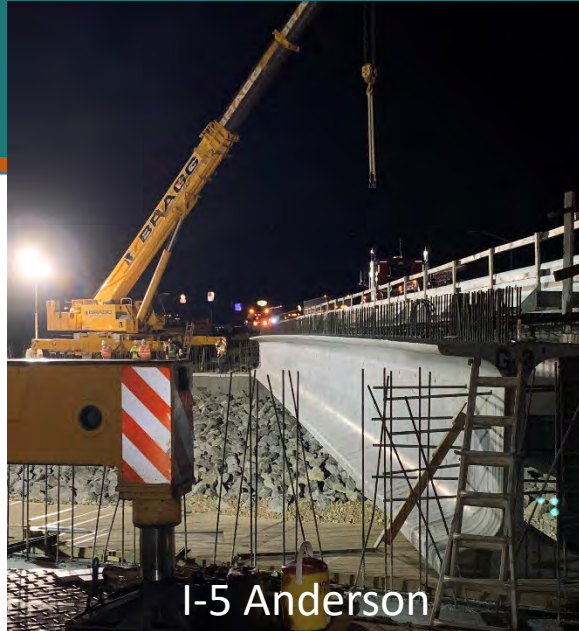


**Figure 19 – Cumulative Total Number of Bridges Fixed to Date Above the Baseline**





Alemany Interchange – San Francisco



I-5 Anderson



Klamath River Bridge – SR 96 & 263 Yreka



Gerald Desmond Bridge – Long Beach -

# Bridge Progress

# Bridge Summary

- Actions being taken have improved the bridge condition projections

**Table 6 – Bridge and Tunnel Health Condition Summary**

Condition	2027 Target	2019 Year End	2020 Year End	Change in Condition
Good	48.5%	54.1%	50.8%	-3.2% ↓
Fair	50.0%	42.5%	45.8%	+3.3% ↑
Poor	1.5%	3.5%	3.4%	-0.1% ↓



# Culverts



# Culvert Progress

Over 26,000 Inspections completed in the prior year





# Culvert Summary

- Culvert conditions remain at target levels

**Table 7 - Drainage Condition Summary**

	Condition	2027 Target	2019 Year End	2020 Year End	Change in Condition
	Good	70.0%	72.2%	71.6%	-0.6% ↓
	Fair	20.0%	18.0%	18.4%	+0.4% ↑
	Poor	10.0%	9.8%	10.0%	+0.2% ↑



# Transportation Management Systems (TMS)



# TMS Progress

TMS Conditions improved by 4.4% in the past year

# TMS Condition

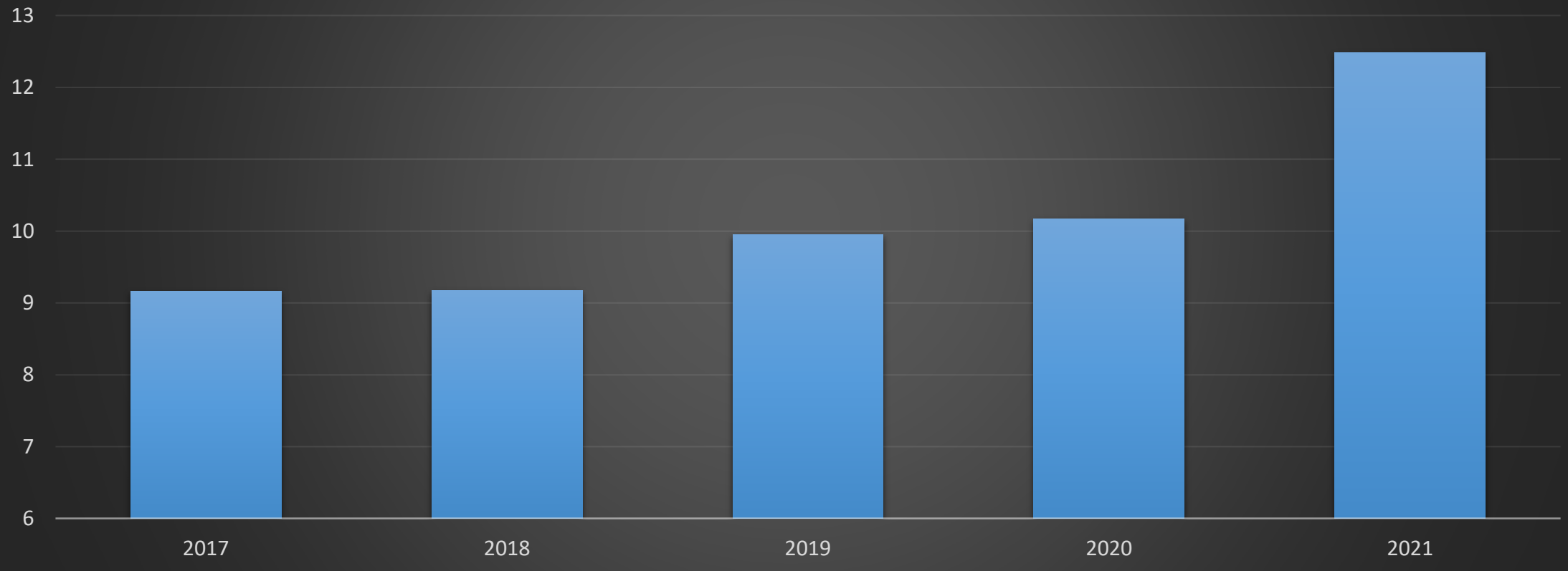
**Table 8 - Transportation Management Systems Condition Summary**

Condition	2027 Target	2019 Year End	2020 Year End	Change in Condition
Good	90.0%	74.6%	79.0%	4.4% ↑
Poor	10.0%	25.4%	21.0%	-4.4% ↓



# Value of Going Construction

Value in billions  
(summer of each year)



# Conclusion

- We continue to follow our asset management plan and are making significant progress
- We expect to meet all Core asset performance targets!
- Need to maintain investment in these assets to sustain these conditions
  
- Senate Bill 1 Metrics
  - Pavement and culverts are at or better than targets
  - Surpassed the 500 bridges fixed target set in SB1
  - TMS conditions continue to improve
  
- Asset Management Metrics
  - Pavement and TMS on track
  - Monitoring bridge and drainage progress going forward

