Department of Transportation



Q4 FY2018 Performance Evaluation (July 2018)

Strategic Policy Initiatives

The Colorado Department of Transportation (CDOT) has identified several Strategic Policy Initiatives (SPIs) for fiscal year 2017-18 and beyond. For this performance evaluation, the Department has updated progress on initiatives from its Fiscal Year 2018 Performance Plan¹ that capture the Department's strategic and operational priorities. The updates reflect data available from January to March 2018. Additional details on these initiatives are available in the Department's Performance Plan, which may be accessed <u>here.</u>

SPI 1

Safety: Move Colorado toward zero deaths by reducing traffic-related deaths by one-half by 2030. This includes reducing fatalities by 12 per year, from 548 in 2008 to 344 in 2025. CDOT aims to reduce fatalities to 440 for its one-year target (Dec. 31, 2017 target, or calendar year 2017 fatalities) and 416 for its three-year target (Dec. 31, 2019 target, or calendar year 2019 fatalities).

SPI 2

Pavement Condition: Attain High or Moderate Drivability Life for 80 percent of sampled lane miles of pavement on the state highway system by 2025. Achieve 73 percent High/Moderate Drivability Life for fiscal year 2018 pavement condition, compared to 80 percent in fiscal year 2016. Achieve 64 percent High/Moderate Drivability Life for fiscal year 2020 pavement condition.

SPI 3

Travel-Time Reliability: Slow the growth of congestion and achieve satisfactory travel-time reliability on Interstate 25 in the Front Range and in the Interstate 70 West Mountain Corridor. (See specific targets in pages below.)

SPI 4

Maintenance: Maintain CDOT's roadways and facilities to minimize the need for replacement or rehabilitation in a constrained funding environment. This includes achieving an overall Maintenance Levels of Service (MLOS) grade of B- for the state highway system in fiscal year 2018 and a C for fiscal year 2020, compared to a C+ in fiscal year 2016.²

SPI 5

Workers' Compensation Claims: Create a high-performing culture of employee safety, reducing workers' compensation claims from a goal of 249 in calendar year 2017 to 236 in calendar year 2018.

¹ For calendar year metrics, the FY18 Performance Plan includes targets for calendar year 2018. Because data for that year is not fully available, CDOT in this report is using its current calendar year targets (2017) for those metrics.

² The overall Maintenance Levels of Service grade for fiscal year 2016 was revised to a C+ in late calendar year 2016.



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Operational Measures

SPI 1-Safety: Move Colorado toward zero deaths by reducing traffic-related deaths by one-half by 2030. This includes reducing fatalities by 12 per year, from 548 in 2008 to 344 in 2025. CDOT aims to reduce fatalities to 800 for its one-year target (Dec. 31, 2018 target, or calendar year 2018 fatalities) and 890 for its three-year target (Dec. 31, 2020 target, or calendar year 2020 fatalities).³

Major Functional Area - Safety

Process - CDOT implements a variety of processes to mitigate injuries and fatalities on Colorado's roadways. For example, the Department gualifies, selects, advertises and awards Highway Safety Improvement Program projects. Projects that are selected address identified crash patterns, which are mitigated by the scope of the project and meet a minimum benefit/cost ratio of 1.0. CDOT's goal is to meet a program-wide

Measure	CY15 Actual	CY16 Actual	CY17 Actual	Q1 CY18	Q2 CY18	Q3 CY18	Q4 CY18	CY18 Goal	CY20 Goal
Outcome: Fatalities on Colorado Roadways.	547	608	648	114	263			800	890
Lead Metric 1: Average benefit/cost ratio for Highway Safety Improvement Program projects.	2.98	2.85	2.53	4.35	3.45			Minimum 2.0	Minimum 2.0
Lead Metric 2: Dedicated law enforcement contact hours for traffic safety enforcement.	84,146	119,762 (rev.)	88,535	10,903	29,931			66,750	N/A ⁴
Lead Metric 3: Percentage of advertised FASTER Safety projects that address Level of Safety Service 3 and 4 locations.	75%	86%	95%	100%	100%			90%	90%
Measure	FY16 Actual	FY17 Actual	FY18 Actual	Q1 FY18	Q2 FY18	Q3 FY18	Q4 FY18	FY18 Goal	FY20 Goal
Lead Metric 4: FASTER Safety Mitigation program dollars spent as a percentage of the program's fiscal-year allocation ⁵	160%	113%	N/A	27%	47% ⁶	61%	80%	100%	100%

benefit/cost ratio of 2.0.

³ SPI uses 2016-17 goals until reporting for CY2018 begins with the Quarter 3 report.

⁴ Goal currently being developed.

⁵ Metric compares program dollars spent during the specified time period to current year's allocation. The dollars spent may be revenue accumulated in any year.

⁶ Data as of November 2017.

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Note: Fatalities and injuries statistics are subject to frequent revision as new data become available. These data were current as of early April 1, 2018

SPI 2—Pavement Condition: Attain High or Moderate Drivability Life for 80 percent of sampled lane miles of pavement on the state highway system by 2025. Achieve 73 percent High/Moderate Drivability Life for fiscal year 2018 pavement condition, compared to 80 percent in fiscal year 2016. Achieve 64 percent High/Moderate Drivability Life for fiscal year 2020 pavement condition.

Major Functional Area - Various, including Capital Construction; Operations and Maintenance; Safety; and Program and Project Support

Process - Operational processes related to pavement condition include preserving, resurfacing, and rehabilitating roads with the optimized application of cost-effective pavement treatments.

Measure	FY15 Actual	FY16 Actual	FY17 Actual	Q1 FY18	Q2 FY18	Q3 FY18	Q4 FY18	FY18 Goal	FY20 Goal
Outcome: Percentage of sampled lane miles of state highway pavement with High or Moderate Drivability Life.	79%	80%	80%	Annual Metric	Annual Metric	Annual Metric	Annual Metric ⁷	73% (rev.)	64% (rev.)
Lead Metric: Percentage of Surface Treatment program projects advertised for the fiscal year that match recommendations from CDOT's pavement management system.	77%	90%	89%	100%	90%	93%	94%	80%	80%

⁷ Performance data will be available in Fall 2018 for FY17.



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SPI 3—Travel-Time Reliability: Slow the growth of congestion and achieve satisfactory travel-time reliability on Interstate 25 in the Front Range and in the Interstate 70 West Mountain Corridor. (See specific targets in chart below.)

Major Functional Area - Operations and Maintenance

Process - Various processes will be used to achieve this goal, such as improving incident management and training first responders.

Measure	CY15 Actual	CY16 Actual	CY17 Actual	Q1 CY18	Q2 ⁸ CY18	Q3 CY18	Q4 CY18	CY18 Goal	CY20 Goal
Outcome A: Average travel time per trip for NB I-25, peak weekday periods.	49 min.	49 min	51 min.	Jan: 50 min. Feb: 51 min. Mar: 51 min.	Apr: 50 min. May: 52 min. June: NA			49 min.	48 min.
Lead Measure 1: Average incident clearance time on NB I-25.	51 min.	53 min.	43 min.	Jan: 17 min. Feb: 18 min. Mar: 18 min.	Apr: 17 min. May: 18 min. June: NA			48 min.	43 min.
Outcome B: Average travel time per trip for SB I-25 peak weekday periods.	52 min.	49 min.	50 min.	Jan: 50 min. Feb: 50 min. Mar: 49 min.	Apr: 50 min. May: 53 min. June: NA			50 min.	49 min.
Lead Measure 1: Average incident clearance time on SB I-25.	44 min.	49 min.	40 min.	Jan: 16 min. Feb: 18 min. Mar: 22 min.	Apr: 18 min. May: 19 min. June: NA			44 min.	39 min.
Outcome C: Average travel time per trip for WB I-70, peak Saturday period.	93 min.	94 min.	92 min.	Jan: 104 min. Feb: 109 min. Mar: 98 min.	Apr: 86 min. May: 87 min. June: NA			94 min.	92 min.
Lead Measure 1: Average incident clearance time on WB I-70.	74 min.	52 min.	42 min.	Jan: 27 min. Feb: 28 min. Mar: 47 min.	Apr: 22 min. May: 52 min. June: NA			41 min.	36 min.
Outcome D: Average travel time per trip for EB I-70, peak Sunday period	106 min	100 min.	96 min.	Jan: 132 min. Feb: 110 min. Mar: 101 min.	Apr: 88 min. May: 83 min. June: NA			98 min.	92 min.
Lead Measure 1: Average incident clearance time on EB I-70.	71 min.	64 min.	51 min.	Jan: 67 min. Feb: 41 min. Mar: 64 min.	Apr: 22 min. May: 24 min. June: NA			57 min.	51 min.

⁸ Data for Q2 will be available pending data access to calculate travel and incident clearance times.



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SPI 4—Maintenance: Maintain CDOT's roadways and facilities to minimize the need for replacement or rehabilitation in a constrained funding environment. This includes achieving an overall Maintenance Levels of Service (MLOS) grade of C+ for the state highway system in fiscal year 2018 and a C for fiscal year 2020, compared to an actual grade of C+ in fiscal year 2017.

Major Functional Area - Operations and Maintenance

Process - Under nine Maintenance Program Areas, CDOT performs many processes to maintain the state highway system. For example, the Roadway Surface area includes sealing potholes and blading unpaved surfaces. The Structure Maintenance area includes painting bridges, repairing expansion joints and patching bridge decks. The Snow and Ice Control area includes plowing snow and taking avalanche control measures

		-	measure						
Maaguro	FY15	FY16	FY 17	Q1	Q2	Q3	Q4	FY18	FY20
Measure	Actual	Actual	Actual	FY18	FY18	FY18	FY18	Goal	Goal
Outcome: Overall Maintenance Levels of Service Grade.	В-	C+	C+	Annual Metric	Annual Metric	Annual Metric	Annual Metric ⁹	C+	С
Lead Measure 1: Snow and Ice Control Grade.	В	B-	C+	Annual Metric	Annual Metric	Annual Metric	Annual Metric ¹⁰	В	В
Lead Measure 2: Retro-reflectivity score for sampled long-line striping.	April: 146 May: 173 June: 166	July: 161 Aug.: 176 Sept.: 223 Oct.: 195 Nov.: 178 Dec.: 135 Jan.: 128 Feb.: 96 March: 155 April: 159 May: 135 June: 131	July: 144 Aug.: 144 Sept.: 161 Oct.: 181 Nov.: 193 Dec.: 202 Jan.: 135 Feb.: 112 March: 138 April: 152 May: 169 June: 201	July: 182 Aug: 230 Sept: 215	Oct: 256 Nov.: N/A Dec.: N/A	Jan: N/A ¹¹ Feb: N/A* Mar: N/A*	April: N/A May: N/A June: N/A	≥80 mcd/m²/l ux ¹²	≥80 mcd/m²/l ux

⁹ FY18 grade will be available in fall 2018.

¹⁰ FY18 grade will be available in fall 2018.

¹¹ FY18 grade will be available in fall 2018.

¹² CDOT's goal is to achieve, at minimum, a retro-reflectivity score for longitudinal pavement markings of 80 mcd/m²/lux (millicandelas per square meter per lux), a measure of luminous intensity. Properly implemented and maintained longitudinal pavement markings convey directional information, location of the road center and edges, the presence of passing or no-passing zones, and an indication that a driver is occupying the correct lane.

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SPI 5-Workers' Compensation Claims: Create a high-performing culture of employee safety, reducing workers' compensation claims from 249 in 2017 to 236 in calendar year 2018.

Major Functional Area - Safety

Process - CDOT uses safety engagements between supervisors and employees as an operational process that can reduce injuries and result in workers' compensation claims.

Measure	CY15 Actual	CY16 Actual	CY17 Actual	Q1 CY18	Q2 CY18	Q3 CY18	Q4 CY18	CY18 Goal	CY20 Goal
Outcome: Number of workers' compensation claims	250	267	180	65	101			236	212
Lead Measure 1: Number of safety engagements performed	13,689	8,859	16,108	4,331	8,599			10,000	11,000

*During the months of February and March CDOT experienced a cyber-incident hindering headquarters and regional data activities. Data for those months were unobtainable or are currently being redeveloped.