Pavement and Bridge (PM2) and System Performance /Freight/CMAQ (PM3) Targets

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11/02/2018

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Background

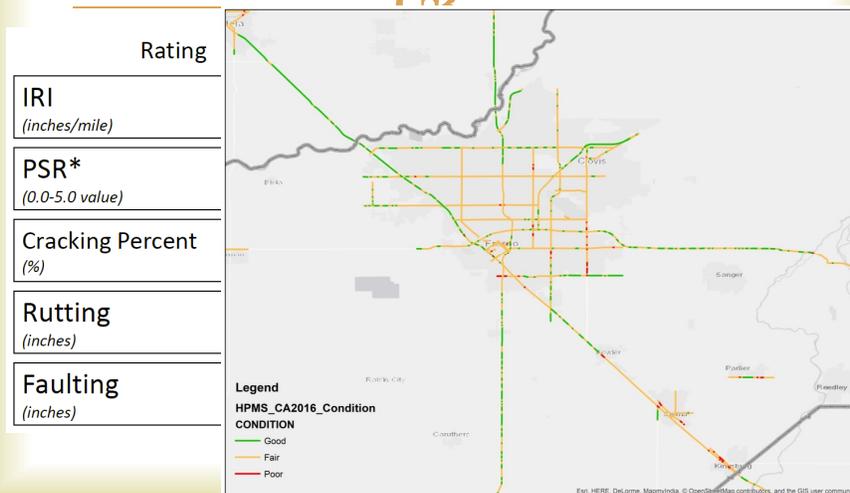|	
PM1	• Safety Performance Measures • 2018 targets approved November 2017
PM2	• Pavement and Bridge • MPO target due November 2018
PM3	• System Performance, Freight and CMAQ • MPO target due November 2018

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PM2 Performance Measures

∾ Performance Measures (2-year and 4-year targets)
- % Interstate pavements in Good condition
- % Interstate pavements in Poor condition
- % Non-Interstate NHS pavements in Good condition
- % Non-Interstate NHS pavements in Poor condition
- % NHS bridges in Good condition
- % NHS bridges in Poor condition

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Pavement and Bridge (PM2)

Rating	
IRI *(inches/mile)*	
PSR* *(0.0-5.0 value)*	
Cracking Percent *(%)*	
Rutting *(inches)*	
Faulting *(inches)*	

Legend
HPMS_CA2016_Condition
CONDITION
— Good
— Fair
— Poor

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Pavement and Bridge (PM2)

❧ Baseline Conditions
  ❧ 479 Locally maintained NHS Lane Miles
  ❧ (0.9% of statewide NHS Lane Miles)

Year	Total	Good		Fair		Poor	
2016	479	64.0	13.4%	394.0	82.3%	21.0	4.4%

Source: HPMS

  ❧ 33 bridges, 389,427 sqft NHS bridge deck area
  ❧ (0.1% of statewide NHS bridge deck area)

Year	Total	Good		Fair		Poor	
2017	389,427	121,320	31.2%	264,835	68.0%	3,272	0.8%

Source: NBI

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Pavement and Bridge (PM2)

❧ State Target
  ❧ Caltrans jurisdiction on Interstate and State Highways
  ❧ MPO input for locally maintained NHS
  ❧ Final state target calculated using weighted averages

Statewide NHS Pavement and Bridge Targets				
Pavement and Bridge Performance Measures	**2-Year NHS Targets** (1/1/2018 - 12/31/2019)		**4-Year NHS Targets** (1/1/2020 - 12/31/2021)	
	Good	**Poor**	**Good**	**Poor**
Pavements on the NHS				
Interstate	45.1%	3.5%	44.5%	3.8%
Non-Interstate	28.2%	7.3%	29.9%	7.2%
Bridges on the NHS	69.1%	4.6%	70.5%	4.4%

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Pavement and Bridge (PM2)

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- ❧ Future Year Condition Projection
  - ❦ Use deterioration rate
    - ❧ 9% good-> fair, 3% fair -> poor annually (pavement)
    - ❧ 0.45% good -> fair, 0.75% fair-> poor annually (bridge)
  - ❦ Find corresponding SB1 and RTP projects
    - ❧ Based on completion year
    - ❧ Based on current condition
      - ❧ Poor -> Good or Fair -> Good
- ❧ Recommended Target
  - ❦ Support statewide target for all 6 performance measures

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PM3 Performance Measures

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- ❧ Performance Measures (2-year and 4-year targets)
  - ❦ % Reliable person-miles traveled on the Interstate.
  - ❦ % Reliable person-miles traveled on the Non-Interstate NHS.
  - ❦ Percentage of Interstate system mileage providing for reliable truck travel time. (Truck travel time reliability)
  - ❦ Total emissions reductions by applicable pollutants under the CMAQ program.

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PM3 System Performance

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☙ % Reliable person-miles traveled on the Interstate
- ❧ Travel time reliability < 1.50
- ❧ Only include I-5 segment in Fresno County

	2017	2018 (up to date)
Fresno County	100%	100%
California	64.6%	66.3%

☙ % Reliable person-miles traveled on the Interstate

	2017	2018 (up to date)
Fresno County	92.7%	91.1%
California	73.0%	74.7%

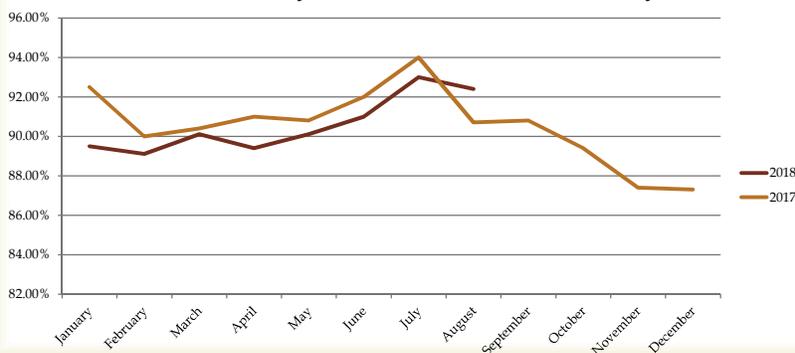Source: NPMRDS

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PM3 System Performance

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❧ Seasonal Effect

Fresno County Non-Interstate NHS Reliability

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PM3 Freight Performance

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- ❧ Truck Travel Time Reliability on Interstate
  - ❧ TTTR = 95th pct t.t.t./50th pct t.t.t
  - ❧ Max(TTTR) of all time periods (AM, PM, midday, weekend)
  - ❧ Weighted average based on segment length
  - ❧ Only include I-5 segment in Fresno County

	2017	2018 (up to date)
Fresno County	1.05	1.07
California	1.69	1.67

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PM3 State Target

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❧ State Targets

Performance Measure	2017 Baseline Data	2-year Target	4-year Target
Percent of Reliable Person-Miles Traveled on the Interstate[1]	64.6%	65.1% (+0.5%)	65.6% (+1%)
Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS[1]	73.0%	N/A	74.0% (+1%)
Percentage of Interstate System Mileage Providing Reliable Truck Travel Time (Truck Travel Time Reliability Index)[1]	1.69	1.68 (-0.01)	1.67 (-0.02)
Total Emissions Reductions by Applicable Pollutants under the CMAQ Program[2]			
VOC (kg/day)	951.83	961.35 (+1%)	970.87 (+2%)
CO (kg/day)	6,863.26	6,931.90 (+1%)	7,000.54 (+2%)
NOx (kg/day)	1,753.36	1,770.89 (+1%)	1,788.43 (+2%)
PM10 (kg/day)	2,431.21	2,455.52 (+1%)	2,479.83 (+2%)
PM2.5 (kg/day)	904.25	913.29 (+1%)	922.34 (+2%)

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PM3 CMAQ

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ભ 2-year and 4-year Emissions Reduction (kg/day) for CMAQ funded projects of reduced emissions.

ભ Only for non-attainment and maintenance areas.

ભ Baseline Conditions

	2017	2018
VOC (kg/day)	17.91	3.27
CO (kg/day)	0.04	0.04
NOx (kg/day)	18.94	27.52
PM10 (kg/day)	250.96	237.03
PM2.5 (kg/day)	74	71.26

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PM3 CMAQ

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ભ Emission reductions fluctuate year-to-year based on types of projects obligated.

ભ These fluctuations make it difficult to set our own targets unless COG changes the scoring criteria.

ભ Emissions reductions count as only 20% of scoring criteria during a Call for Projects.

ભ The State is proposing minor increases, and since they are not asking us to changing our scoring Criteria, COG is confident that everyone in the State will work together to achieve these new targets.

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