

METROPOLITAN TRANSPORTATION COMMISSION Agenda Item 4b Bay Area Metro Center 375 Beale Street San Francisco, CA 94105 TEL 415.778.6700 WEB www.mtc.ca.gov

Memorandum

TO: Planning Committee

DATE: July 6, 2018

FR: Executive Director

RE: Federal Performance Target-Setting Update - July 2018

Background

The Moving Ahead for Progress in the 21st Century Act, also known as MAP-21, was signed into law in 2012 and established a suite of new performance requirements for state Departments of Transportation (DOTs), metropolitan planning organizations (MPOs), and transit agencies as shown in **Attachment A**. Over the past six years, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have been working through the rulemaking process to identify a set of performance measures that meet the requirements of the law. With these rules now coming into effect, MPOs must either support short-range statewide targets or set short-range regional targets on a recurring basis. Furthermore, MPOs must incorporate these short-range targets into their planning process – most notably, the Transportation Improvement Program (TIP) and the Regional Transportation Plan (RTP).

Under the final performance rules, MTC is responsible for setting targets for each performance measure on an ongoing rolling basis. Each measure has its own schedule and cycle for target updates, meaning that ongoing collaboration with state, regional, and local partners will be essential. These performance targets – which are focused solely on short-term transportation objectives defined by federal law – are fundamentally different from those in *Plan Bay Area 2040*. Under MTC Resolution No. 4295 adopted in June 2017, the Planning Committee delegated authority for target-setting to staff, requiring regular consultation with stakeholders through MTC's working groups and semiannual updates to the committee going forward.

2020 and 2022 Congestion and Mode Shift Targets

As discussed in **Attachment B** and **Attachment C**, MTC is required to establish traffic congestion and mode shift targets in coordination with Caltrans, as MTC receives funding through the Congestion Mitigation and Air Quality (CMAQ) Program. After working with the Regional Advisory Working Group and Caltrans throughout the spring, the agencies reached consensus on four percent traffic congestion reduction targets for San Francisco-Oakland and San Jose urbanized areas by 2022, and two percentage point increase modal shift targets by 2022. There is no penalty for failing to achieve these targets.

2018 Transit Asset Management Targets

As discussed in **Attachment D** and **Attachment E**, staff has worked with transit operators across the region to roll up their individual agency asset management targets required by FTA into year 2018 regional targets. In 2017, the Bay Area achieved two of its four transit asset condition targets (transit facilities and infrastructure) but fell short on transit revenue vehicle and non-revenue vehicle targets. 2018 targets make slight adjustments to the 2017 targets but are relatively similar overall. Unlike congestion and mode shift targets above – which are adopted every two to four years – transit asset management targets are updated annually in collaboration with transit operators.

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Next Steps

Note that while there are no direct funding impacts from an MPO's failure to achieve a given performance target, MPO target-setting and performance-based planning processes will be evaluated as part of the agency's triennial review. Federal requirements also mandate that MPOs report their targets to their respective state DOT and that MPOs quantify progress made towards targets in the context of their TIPs and RTPs. These targets will also be updated on the Vital Signs performance monitoring website in the coming weeks (refer to <u>vitalsigns.mtc.ca.gov</u> for more info).

Finally, another fourteen federally-required performance targets remain to be set in the coming months, as shown in **Attachment A**. These include asset management targets for pavement and bridges as well as targets for system reliability, goods movement, and roadway safety. Staff will return to the Planning Committee with the next federal performance target-setting update in November 2018.

Steve Heminger

Attachments:

- Attachment A: List of Federally-Required Performance Measures
- Attachment B: July 2018 Target-Setting Summary: Congestion & Mode Shift Targets
- Attachment C: Proposed 2020 and 2022 Targets for Congestion & Mode Shift
- Attachment D: July 2018 Target-Setting Summary: Transit Asset Management Targets
- Attachment E: Proposed 2018 Targets for Transit Asset Management

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List of Federally-Required Performance Measures

Federal Goals & Programs	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET- Setting Frequency	TARGET-SETTING DUE DATES	CURRENT STATUS
	Number of Fatalities on Roads	1. Total number of road fatalities	Annual	State: annually in August MPO: annually in February	MTC supported the State's Toward Zero
	Rate of Fatalities on Roads	2. Road fatalities per VMT	Annual	State: annually in August MPO: annually in February	Deaths targets for roadway safety in
	Number of Serious Injuries on Roads	3. Total number of serious injuries on roads	Annual	State: annually in August MPO: annually in February	2018. The State is currently updating targets for 2019;
	Rate of Serious Injuries on Roads	4. Serious injuries on roads per VMT	Annual	State: annually in August MPO: annually in February	MTC will determine how to proceed with
	Non-Motorized Safety on Roads	5. Combined total number of non-motorized fatalities and serious injuries	Annual	State: annually in August MPO: annually in February	regards to 2019 targets in the fall.
Safety HSIP TSOP	Safety of Public Transit Systems	 6. Total number of reportable transit fatalities 7. Reportable transit fatalities per RVM by mode (example below) a. Motor bus b. Light rail c. etc. 8. Total number of reportable transit injuries 9. Reportable transit injuries per RVM by mode (example below) a. Motor bus b. Light rail c. etc. 10. Total number of reportable transit safety events 11. Reportable transit safety events per RVM by mode (example below) a. Motor bus b. Light rail c. etc. 12. Mean distance between major mechanical failures by mode (example below) a. Motor bus b. Light rail c. etc. 	Annual	Operators: TBD * MPO: TBD * * = measures approved in January 2017 regulatory action but transit & MPO safety target-setting requirements are slated for additional regulation later this year	On hold pending secondary rule process and establishment of deadlines. Operators will likely have 3 months to set targets, followed by 6 months for MTC to set regional targets.

FEDERAL GOALS & PROGRAMS	General Measures in Law	FINAL PERFORMANCE MEASURES	Target- Setting Frequency	TARGET-SETTING DUE DATES	CURRENT STATUS	
	Pavement Condition on the IHS	 Percentage of pavements on the IHS in good condition Percentage of pavements on the IHS in poor condition 	Every 2-4 years	State: May 21, 2018 MPO: November 17, 2018	State set targets in May	
	Pavement Condition on the NHS	 Percentage of pavements on the non-IHS NHS in good condition Percentage of pavements on the non-IHS NHS in poor condition 	Every 2-4 years	State: May 21, 2018 MPO: November 17, 2018	2018 for pavement and bridge condition. MTC has until November 2018 to set its 1 st cycle	
Infrastructure	Bridge Condition on the NHS	 Percentage of NHS bridges classified in good condition Percentage of NHS bridges classified in poor condition 	Every 2-4 years	State: May 21, 2018 MPO: November 17, 2018	targets.	
Condition NHPP NTAMS	State of Good Repair for Public Transit Assets	 19. Percentage of revenue vehicles that have met or exceeded their ULB by asset class (example below) a. Motor bus b. Light rail vehicle c. etc. 20. Percentage of facilities within a condition rating below fair by asset class (example below) a. Maintenance yards b. Stations c. etc. 21. Percentage of guideway directional route-miles with performance restrictions 22. Percentage of non-revenue vehicles that have met or exceeded their ULB 	Annual	Operators: annually in January (2017 & 2018); annually in October (going forward) MPO: annually in July (2017 & 2018); annually in March (going forward)	Operators have set their 2017 and 2018 targets by FTA's January 1 st deadline. MTC set its 2017 targets by July 2017 and has now finalized its 2018 TAM targets.	
	Performance of the Interstate System	23. Percentage of person-miles traveled on the IHS that are reliable	Every 2-4 years	State: May 21, 2018 MPO: November 17, 2018	State set targets in May 2018 for system reliability. MTC has	
System Reliability NHPP	Performance of the NHS	 24. Percentage of person-miles traveled on the non- IHS NHS that are reliable 25. Percent change in NHS tailpipe CO₂-emissions- (compared to 2017 baseline) 	Every 2-4 years	State: May 21, 2018 MPO: November 17, 2018	until November 2018 to set its 1 st cycle targets. The CO ₂ performance target requirement was eliminated by FHWA rulemaking in spring 2018.	

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FEDERAL GOALS & PROGRAMS	GENERAL MEASURES IN LAW	FINAL PERFORMANCE MEASURES	TARGET- Setting Frequency	TARGET-SETTING DUE DATES	CURRENT STATUS
Freight Movement and Economic Vitality NHFP	Freight Movement on the Interstate System	26. Percentage of IHS mileage providing reliable truck travel times	Every 2-4 years	State: May 21, 2018 MPO: November 17, 2018	State set targets in May 2018 for goods movement. MTC has until November 2018 to set its 1 st cycle targets.
Congestion Reduction CMAQ	Traffic Congestion	 27. Annual hours of peak-hour excessive delay per capita by urbanized area a. San Francisco-Oakland UA b. San Jose UA c. Concord UA** d. Santa Rosa UA** e. Antioch UA** 28. Percent of non-SOV travel by urbanized area a. San Francisco-Oakland UA b. San Jose UA c. Concord UA** d. Santa Rosa UA** e. Antioch UA** e. Antioch UA** 28. Percent of non-SOV travel by urbanized area a. San Francisco-Oakland UA b. San Jose UA c. Concord UA** d. Santa Rosa UA** e. Antioch UA** ** = not required during 1st target-setting cycle 	Every 2 years	State: May 21, 2018 MPO: November 17, 2018 Note that targets must be fully consistent with state targets; therefore the de facto target-setting deadline for both State and MPO is May 21.	State & MTC agreed upon targets in May 2018 for PHED and non-SOV travel.
Environmental Sustainability CMAQ	On-Road Mobile Source Emissions	 29. Total emissions reductions from CMAQ-funded projects by pollutant a. PM_{2.5} b. PM₁₀ c. CO d. VOC e. NOx 	Every 2 years	State: May 21, 2018 MPO: November 17, 2018	State set targets in May 2018 for CMAQ emissions reductions. MTC has until November 2018 to set its 1 st cycle targets.
Reduced Project Delivery Delays	none	none (neither MAP-21 nor FAST included performance measures for this goal)	n/a	n/a	n/a

July 2018 Target-Setting Summary: Congestion and Mode Shift Targets

Overview

The final rule from FHWA established two performance measures to assess performance for congestion reduction, which are required for regions receiving CMAQ funding, in accordance with MAP-21. The rule contained new requirements for State DOTs and MPOs. The major requirements of the rule related to congestion and mode shift are:

1) **Congestion and Mode Shift Performance Targets** – The final rule established two performance measures to assess progress towards the congestion reduction goal. The final rule establishes the following performance measures for congestion and mode shift:

Measure	Definition
Annual hours of peak-hour excessive delay per capita by urbanized area	The number of person-hours per year for which people experience excess delay – defined as travel times below 20 mph or 60 percent of the posted speed limit during peak periods – on the National Highway System, divided by the population of the applicable urbanized area.
Percent of non-SOV travel by urbanized area	Share of commute trips for which the primary mode is not a single-occupant vehicle as defined by the U.S. Census Bureau, including travel avoided by telecommuting.

State DOTs and MPOs must set two-year and four-year numerical targets every four years for each CMAQ measure to comply with the regulation. Unlike most other targets, the state DOT and MPO targets for each urbanized area must be fully consistent.

- Reporting MTC must report progress on these measures in future Regional Transportation Plans (RTPs) and Transportation Improvement Programs (TIPs), as well as through a new CMAQ Performance Plan requirement. FHWA will review MPO performance as part of the triennial review process.
- 3) **Evaluation** State DOTs and MPOs are not subject to "significant progress" determinations for targets under the CMAQ program. Instead, state DOTs will be evaluated for making progress towards the related system reliability and goods movement targets.

MPOs are required to establish their 2020 and 2022 targets for traffic congestion and mode shift by November 17, 2018, 180 days after the state DOT requirement. However, because the state DOT and MPO targets must be fully consistent for these measures, the *de facto* deadline for target-setting was May 21, 2018. These targets are set every 4 years; adjustments to the 4-year targets (e.g., 2022 targets for this round) are allowed at the halfway point of the four-year cycle. The process will be repeated in 2022, with additional requirements to set targets for Concord, Santa Rosa, and Antioch urbanized areas at that time. Planning Committee July 6, 2018 Page 2

Target-Setting Approach and Rationale

In compliance with new federal performance management rules, state and regional performance targets for congestion and mode shift must be fully consistent with those set by Caltrans. Caltrans held several workshops across the state with MPO partners to determine the appropriate approach for setting these targets. There was significant discussion regarding the tradeoffs between setting ambitious targets and achievable targets, especially given rising congestion due to the state's booming economy and declining transit ridership (particularly in Southern California).

This spring, staff sought input from stakeholders on target-setting options for traffic congestion and mode shift at the Regional Advisory Working Group, which includes representatives from CMAs, cities, NGOs, and others. Stakeholders provided input on their preferred target setting approach, noting that the target-setting approach should be consistent across urbanized areas (i.e., apply the same percentage increase to San Francisco-Oakland and San Jose urbanized areas). There was also support for aligning targets with the adopted longer-term targets for mode shift and congestion reduction in *Plan Bay Area 2040*.

Ultimately, Caltrans and the MPOs reached a consensus to set somewhat aspirational targets to slightly reduce congestion and slightly increase non-SOV mode share over the next four years, given new funding for transportation from sources like Senate Bill 1. For the Bay Area, the congestion reduction targets reflect a reversal of the trend of rising congestion over the last decade, but the mode shift targets are consistent with our region's steady rise in non-SOV mode share since the end of the Great Recession. Targets for the San Francisco Bay Area were somewhat more ambitious than those elsewhere in the state to align them more closely with the longer-range trajectory of targets from *Plan Bay Area 2040*.

Measure	Current*	2020 Target	2022 Target
Annual hours of peak-hour excessive delay	31.3	N/A	30.0
per capita (San Francisco-Oakland UA)	hours/year	1N/A	hours/year
Annual hours of peak-hour excessive delay	27.5	N/A	26.4
per capita (San Jose UA)	hours/year	1N/A	hours/year
Percent of non-single-occupant vehicle	44.3%	45.3%	46.3%
travel (San Francisco-Oakland UA)	44.370	45.570	40.370
Percent of non-single-occupant vehicle	24.5%	25.5%	26.5%
travel (San Jose UA)	24.370	23.370	20.370

Summary of Proposed Targets

* = based upon most recently available data; for congestion (peak-hour delay), year 2017 data is used; for mode share, year 2016 data is used.

Proposed 2020 and 2022 Targets for Congestion and Mode Shift

Goal	Congestion Reduction
Performance Measure(s)	 Annual hours of peak-hour excessive delay per capita (by urbanized area) Percent of non-single-occupant vehicle (non-SOV) travel (by urbanized area)
Target(s) for Year	2020 and 2022
Target(s) Deadline for MTC Approval	May 21, 2018 (concurrence with Caltrans; de facto deadline) November 17, 2018 (official deadline)

General Information

Measure	Urbanized Area	Current*	Target (<u>2020</u>)	Target (<u>2022</u>)	Measure ID
Annual hours of	San Francisco-Oakland	31.3	N/A	30.0	US-27a
peak-hour excessive delay per capita (by	San Jose	27.5	N/A	26.4	US-27b
urbanized area)	Concord	N/A	N/A	N/A	US-27c
	Santa Rosa	N/A	N/A	N/A	US-27d
	Antioch	N/A	N/A	N/A	US-27e
Percent of non-	San Francisco-Oakland	44.3%	45.3%	46.3%	US-28a
single-occupant vehicle travel (by	San Jose	24.5%	25.5%	26.5%	US-28b
urbanized area)	Concord	N/A	N/A	N/A	US-28c
	Santa Rosa	N/A	N/A	N/A	US-28d
	Antioch	N/A	N/A	N/A	US-28e

Current Conditions and Proposed Targets

Cells marked with N/A indicate that these targets are not required this cycle, but they will be required going forward in perpetuity starting in 2022.

* = based upon most recently available data; for congestion (peak-hour delay), year 2017 data is used; for mode share, year 2016 data is used.

July 2018 Target-Setting Summary: Transit Asset Management Targets

<u>Overview</u>

The transit asset management (TAM) final rule published by FTA in July 2016 established a National TAM System in accordance with MAP-21. The rule contained new requirements for public transit providers, and designated recipients such as MTC. The major requirements of the rule include:

1) State of Good Repair (SGR) Performance Targets – Targets must be set for each applicable asset including Rolling Stock, Equipment, Infrastructure, and Facilities. The final rule establishes SGR standards and SGR performance measures as shown below:

Asset Category	Performance Measure
Rolling Stock: All revenue vehicles	Percentage of revenue vehicles within a particular asset class that have either met or exceeded their Useful Life Benchmark (ULB)
Facilities: All buildings or structures and parking facilities	Percentage of facilities within an asset class, rated below condition 3 (fair) on the TERM scale
Infrastructure: Only rail fixed guideway, tracks, signals and systems	Percentage of guideway directional route-miles with performance restrictions
Equipment: Only non-revenue (service) vehicles	Percentage of non-revenue vehicles that have either met or exceeded their ULB

In the case of rolling stock and facilities, the major asset categories are further broken down into distinct asset classes, with targets required for each asset class. For the 2018 target-setting effort, targets for rolling stock were set by asset class (trains, buses, trolleys, etc.). Similarly, targets for facilities were set by categories (administrative & maintenance facilities and passenger & parking facilities).

Note that over time some targets improve relative to existing performance measures if there is funding available to replace or repair assets that are in poor condition. On the other hand, if there is no funding available to replace or repair assets, targets can worsen due to these assets aging another year and exceeding their useful lives.

- 2) Development of TAM Plans Tier I operators (rail operators and any operators with 101 or more vehicles) must do their own TAM plan consisting of nine required elements. Tier II operators (operators with 100 vehicles or less) may do their own plan or participate in a group plan. There are only four required elements to the TAM plan for Tier II operators.
- 3) **Reporting** Operators must report annually to FTA on SGR targets, asset conditions, and progress made towards meeting set targets.

The Planning Rule requires that each MPO establish targets no later than 180 days after the date on which the transit providers establish their performance targets. Therefore, staff has developed proposed 2018 regional transit asset management targets to comply with the Rule.

Target-Setting Approach and Rationale

To set the initial targets, MTC staff assessed the current condition of operators' assets using data from the Regional Transit Capital Inventory (RTCI). The RTCI is a comprehensive regional database of the transit assets that are owned by transit agencies across the region. MTC developed the RTCI in order to collect consistent and comparable data on the region's transit capital assets and associated replacement and rehabilitation costs from each operator.

To set the target for each asset category, MTC staff provided each operator with existing performance measures (by asset class) for their asset inventory included in the RTCI and requested that each operator conduct an analysis of expected funding from all sources for the coming fiscal year that will be used to repair or replace transit assets. Most operators used this assessment to predict which vehicle assets would be replaced or repaired, and presented MTC with a target percentage of assets expected not to be in a state of good repair by the end of the fiscal year.

Operators were instructed to keep the targets realistic and base them on reasonable financial projections. For revenue vehicles, facilities, non-revenue vehicles, and infrastructure, MTC staff consolidated the targets for all operators to identify a regional target for each asset class.

Summary of Proposed Targets

As presented in detail in **Attachment E**, staff recommends setting the following targets for transit asset management for year 2018, based on a consolidation of individual operator targets. As shown below, the regional targets seek to reduce the share of revenue vehicles and non-revenue vehicles considered not to be in a state of good repair, but predict a slight decline in the condition of infrastructure and facilities in the coming year.

Asset Category	2017 Target	2017 Performance	2018 Target			
Revenue Vehicles	28%	36% (target not achieved)	31%			
Facilities	25%	21% (target achieved)	24%			
Infrastructure	2.4%	1.5% (target achieved)	1.8%			
Non-Revenue Vehicles	48%	64% (target not achieved)	53%			

Percent of Assets Not in a State of Good Repair

Review of Past Performance

Revenue Vehicles: There has been an overall decline in the performance of revenue vehicle assets which is primarily attributable to a couple of the larger operators retaining bus fleets for a year or two beyond useful life. Operators often need to keep buses in service for one to two years beyond useful life in order to amass sufficient funding and complete the procurement process. At least one of the region's operators has plans to replace their fleet this year.

Facilities: The facilities performance measure has improved since last year. This is mainly attributable to a different methodology used for calculating the performance measure for facilities by one large operator. That operator has also adopted a lower target for facilities' state of repair over the coming year.

Infrastructure: The infrastructure performance measure has improved as rail operators saw a decline in their guideway directional route-miles with restrictions and expect it to increase marginally over the coming year.

Non-Revenue Vehicles: There has also been an overall decline in the performance of non-revenue vehicle assets as most of the operators reported non-revenue vehicles which have exceeded their useful life over the past year. Some of these vehicles will be replaced over the coming year.

Proposed 2018 Targets for Transit Asset Management

General Information

Goal	Infrastructure Condition
Performance Measure(s)	 Percentage of revenue vehicles that have met or exceeded their useful life benchmark (ULB) by asset class Percentage of facilities within a condition rating below fair by asset class Percentage of guideway directional route-miles with performance restrictions Percentage of non-revenue vehicles that have met or exceeded their ULB
Target(s) for Year	2018
Target(s) Deadline for MTC Approval	July 1, 2018

Past Targets & Past Performance

Measure	Subcategory	Target (<u>2017</u>)	Actual (<u>2017</u>)	Target Achieved?	Measure ID
Percentage of revenue	Articulated bus	13%	23%	No	US-19a
vehicles that have met or exceeded their useful life benchmark (ULB)	Automated guideway vehicle	0%	0%	Yes	US-19b
benefiniar k (CLD)	Bus	18%	36%	No	US-19c
	Bus rapid transit	0%	N/A	N/A	US-19d
	Cable car	0%	0%	Yes	US-19e
	Commuter rail – locomotive	58%	69%	No	US-19f
	Commuter rail – passenger coach	42%	53%	No	US-19g
	Commuter rail – self-propelled passenger car	44%	42%	Yes	US-19h
	Ferryboat	29%	24%	Yes	US-19i
	Heavy rail	85%	81%	Yes	US-19j
	Light rail	0%	0%	Yes	US-19k
	Over-the-road bus	12%	19%	No	US-19l
	Trolley bus	0%	10%	No	US-19m
	Van	37%	41%	No	US-19n
	Vintage trolley ¹	25%	51%	No	US-190
Percentage of facilities with a condition rating below fair	n/a*	25%	21%	Yes	US-20
Percentage of guideway directional route-miles with performance restrictions	n/a	2.4%	1.5%	Yes	US-21
Percentage of non-revenue vehicles that have met or exceeded their ULB	n/a	48%	64%	No	US-22

* = For the 2017 target-setting effort, a single target was set for all facilities combined. At that time, MTC did not have sufficient information from operators required to classify facilities and components of facilities into the specific classes defined by FTA.

Measure	Subcategory	Current (<u>2017</u>)	Target (<u>2018</u>)	Total #	Measure ID
Percentage of revenue	Articulated bus	23%	19%	400	US-19a
vehicles that have met or exceeded their useful life benchmark (ULB)	Automated guideway vehicle	0%	0%	12	US-19b
benefiniar K (OLD)	Bus	36%	27%	2,120	US-19c
	Cable car	0%	0%	42	US-19e
	Commuter rail – locomotive	69%	69%	35	US-19f
	Commuter rail – passenger coach	53%	53%	129	US-19g
	Commuter rail – self-propelled passenger car	42%	42%	50	US-19h
	Ferryboat	24%	13%	21	US-19i
	Heavy rail	81%	81%	669	US-19j
	Light rail	0%	0%	250	US-19k
	Over-the-road bus	19%	31%	176	US-191
	Trolley bus	10%	24%	333	US-19m
	Van	41%	32%	622	US-19n
	Vintage trolley ¹	51%	0%	43	US-190
Percentage of facilities with a condition rating	Administrative & Maintenance	24%	18%	N/A	US-20a
below fair	Passenger & Parking	4%	5%	N/A	US-20b
Percentage of guideway directional route-miles with performance restrictions	n/a	1.5%	1.8%	474	US-21
Percentage of non-revenue vehicles that have met or exceeded their ULB	n/a	64%	53%	1,941	US-22

Current Conditions and Proposed Targets

¹ Performance measures and targets for these historic assets (that will not be retired) are calculated based on whether an overhaul has been completed at the designated interval or whether it has been deferred for longer than that amount of time. Useful life benchmarks for historic assets are set based on an expected overhaul schedule.