

Measure M Independent Taxpayer Oversight Committee

Enterprise Transit Asset Management
State of Good Repair

Transit Asset Management (TAM)

“TAM is a business model that uses condition of assets to guide optimal prioritization of funding at transit properties in order to keep our transit networks in a State of Good Repair” --- FTA

Per FTA’s TAM Rulemaking – A Capital Asset is in a State Of Good Repair if it meets the following Objective Standards:

- The capital asset is able to perform its designed function;
- The use of the asset in its current condition does not pose an identified unacceptable safety risk; and
- The life-cycle investment needs of the asset have been met or recovered, including all scheduled maintenance, rehabilitation, and replacements.

Metro’s TAM Policy Defines

SGR asset: one that is currently in use in operation and its rehabilitation or replacement needs shall be included in the asset inventory.

SGR capital project involves rehabilitating or replacing an existing asset. *Excluded from this definition are capital projects for capacity enhancements or expansions to existing projects or new services.*



TAM Inventory Database Overview

Asset Database Statistics – as of Nov. 2021 NTD update

28,000+ asset records tracking over 521,000 assets

\$20.1B Asset Replacement Value (FY21\$)

\$26.7 B SGR needs over 40 years (FY21\$)*

\$2.7B Current Backlog (FY20\$)*

*ETAM still validating updated numbers

- ETAM Reported updated data into National Transit Database (NTD) 10/27/2021 - on time
 - 16 reports regarding asset inventory
 - Annual TAM Narrative Report
 - NTD A90 report - Performance Measure Targets summarized on next page

- Next NTD update due is October 31, 2022



Performance Measures - Definitions

- **Infrastructure** *Performance*
% of guideway directional route miles with performance restrictions (slow zones) by Heavy Rail and Light Rail
- **Rolling Stock** *Age*
% of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)
- **Equipment** *Age*
% of non-revenue vehicles met or exceeded their Useful Life Benchmark (ULB)
- **Facilities** *Condition*
% of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) scale
(1=Poor to 5=Excellent)



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Federal Transit Administration (FTA) Reporting Requirements FY21

FTA TAM Performance Measures / Targets					Based on FY21 Census Date (6/30/2021)				FY22 Forecast				
Asset Class	Performance Measure based on 49 CFR Part 625	① FY21 Target (reported to FTA)	② = ⑥ / ⑤ FY21 Actual (Calc'd by FTA)	③ = ⑩ / ⑨ FY22 Target (reported to FTA)	④ Total Asset Count	⑤ "Active" Asset Count	⑥ Exceeded ULB (NTD Method [‡])	⑦ Average Age	⑧ Total Asset Estimate	⑨ "Active" Asset Estimate	⑩ Exceeded ULB (NTD Method [‡])	⑪ Average Age	
Rolling Stock	Articulated Bus (AB)	625.43(b): Rolling stock. The performance measure for rolling stock is the percentage of [active, dedicated] revenue vehicles [for which the agency has capital responsibility] within a particular asset class that have either met or exceeded their useful life benchmark.	46.59%	45.25%	34.07%	340	316	143	7.4	275	273	93	6.5
	Bus (BU)		15.12%	0.00%	2.63%	1,999	1,806	0	6.9	1,958	1,899	50	6.7
	Heavy Rail Vehicles (HR)		0.00%	0.00%	18.18%	102	88	0	24.3	102	88	16	25.3
	Light Rail Vehicles (LR)		0.00%	0.00%	0.00%	292	245	0	8.0	337	309	0	7.6
Equipment	Asset Class	Performance Measure based on 49 CFR Part 625	FY21 Target (reported to FTA)	FY21 Actual (Calc'd by FTA)	FY22 Target (reported to FTA)	Total Asset Count	Exceeded ULB (NTD Method [‡])	Average Age	Total Asset Estimate	Exceeded ULB (NTD Method [‡])	Average Age		
	Automobiles	625.43(a): Equipment: (non-revenue) service vehicles. The performance measure for non-revenue, support-service and maintenance vehicles equipment is the percentage of those vehicles that have either met or exceeded their useful life benchmark.	25.47%	25.63%	37.83%	480	123	7.7	460	174	8.5		
	Trucks and Other Rubber Tire Vehicles		37.41%	39.64%	40.18%	999	396	10.2	978	393	10.1		
	Steel Wheel Vehicles		20.00%	20.00%	20.00%	10	2	8.1	10	2	9.1		
Facilities	Asset Class	Performance Measure based on 49 CFR Part 625	FY21 Target (reported to FTA)	FY21 Actual (Calc'd by FTA)	FY22 Target (reported to FTA)	Total Facilities	Facilities Assessed *	Facilities Below TERM Condition 3					
	Passenger Facilities (Stations & Parking)	625.43(d): Facilities. The performance measure for facilities is the percentage of facilities within an asset class, rated below condition 3 on the TERM scale.	0.00%	0.00%	0.00%	255	213	0					
	Administration & Maintenance Facilities		0.00%	0.00%	0.00%	151	150	0					
Infrastructure	Asset Class	Performance Measure based on 49 CFR Part 625	FY21 Target (reported to FTA)	FY21 Actual (Calc'd by FTA)	FY22 Target** (reported to FTA)	Total Revenue Track	Average Performance Restriction						
	Heavy Rail (HR)	625.43(c): Infrastructure: rail fixed-guideway, track, signals, and systems. The performance measure for rail fixed-guideway, track, signals, and systems is the percentage of track segments with performance restrictions.	0.28%	0.38%	0.30%	31.84 miles	0.12 miles						
	Light Rail (LR)		2.36%	3.48%	2.78%	171.73 miles	5.97 miles						

* FY21 Facility Performance Measure includes the facilities assessed in FY18 - FY21.

** FY22 Infrastructure Performance Measure forecast is 80% of FY21 actual performance measure.

‡ Uses the FTA/NTD method of calculating age: **Census Year - Year of Manufacture** for each asset.



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FTA TAM Requirements - Accomplished

Metro's Enterprise Transit Asset Management (ETAM) staff accomplished:

- All FTA FY21 TAM National Transit Database (NTD) reporting requirements were fulfilled on time including: the Group Plan with the uniform performance targets; and the TAM performance measures and targets

Support Implementation of new Enterprise Asset Management System (EAM)

- ETAM supported Phase I procurement.
- ETAM staff participating as Sponsor and Subject Matter Expert (SME) to procure and implement EAM System Integration (SI) Phase II – awarded October 2021.
- Support EAM project for duration of implementation to help ensure success.
- Coordinate with EAM team for a process to “on board” new assets acquired from new capital projects.

Continue Condition Assessments:

- Structures (Inspections) – continue coordination of track allocation to gain access to tunnels and bridges maintaining compliance with the CPUC-CA Public Utilities Commission regs
- Fire Life Safety Systems – continue to review contractor's deliverables and press contractor for quality recommendation reports to wrap up contract by end of FY22.



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Transit Asset Management - Next Steps

Initiate next 4-year cycle of FTA required Facilities Condition Assessments

- Proposals being reviewed – Black out period
- Scheduled to be awarded in FY22

Provide input on development of SGR Capital Projects for FY23 Budget

- Provide current asset replacement needs to Operations for project proposals
- Provide SGR short and long term needs to Planning and OMB for funding levels
- Include identification of asset replacements in capital project proposals to OMB
- Update backlog and SGR need with funded FY22 data

October 31, 2021 - FTA TAM Rulemaking compliance deadline:

- ✓ July - Collected data from Operations' asset managers to update asset information
- ✓ August – Validated information with asset owners
- ✓ September – Formulated Performance Measures and Targets information, Written Narrative
- ✓ October – Received Executive Approval to upload Performance Target data
- ✓ Uploaded data into National Transit Database (NTD) for multiple (17) asset reports by ETAM
- ✓ Group TAM Plan - coordinated with 34 sub-recipient transit agencies who participate and ensured compliance by deadline
- Spring 2022 – Coordinate with Technical Working Groups to prepare for data collection RY22. Ongoing improvement process to improve data.
- Prepare 2022 TAM Plan update, due every four years per the TAM Rulemaking. In process.



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Thank you!

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