

DRAFT REGIONAL TARGETS FOR TRANSIT ASSET MANAGEMENT

Performance-Based Planning and Programming

2019 Report



Regional Targets for Transit Asset Management – 2019 Report

December 28, 2018

ABOUT THE TPB

The National Capital Region Transportation Planning Board (TPB) is the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 23 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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Executive Summary – 2019 Regional TAM Targets

This report presents the transit asset management (TAM) targets developed for the region for adoption by the National Capital Region Transportation Planning Board (TPB) for 2019. The setting of annual TAM targets is one of the requirements of the performance based planning and programming (PBPP) rulemakings enacted by the federal government in accordance with the MAP-21 and FAST Act surface transportation acts. Once providers of public transportation have each set their TAM targets, MPOs have 180 days to adopt transit asset targets for their metropolitan planning area to comply with requirements.

Transit asset management (TAM) is “a strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively through the life cycle of such assets.” In accordance with federal requirements, providers of public transportation must adopt annual targets for the performance of their transit assets. Initial TAM targets were adopted by the region’s providers of public transportation in January 2017, following which TPB staff in consultation and coordination with the region’s providers proposed a set of TAM targets for the region that summarized those reported by all agencies in table or matrix format. This summary table of TAM targets was adopted by the TPB on June 2017 as the initial set of regional TAM targets.

For 2019, the regional TAM targets were developed in accordance with the FTA guidance, which suggests that the MPOs adopt a single regional target for each asset class. The regional targets were developed by calculating the total number of each asset class and the associated target based on the targets of each the region’s providers of public transportation. Figure 5 (Page 13) shows the draft 2019 TAM targets for the region

Adoption of regional TAM targets for 2019 is anticipated by the TPB in February 2019.

Overview of Performance-Based Planning and Programming Requirements

Under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and reinforced in the Fixing America's Surface Transportation (FAST) Act, federal surface transportation regulations require the implementation of performance management requirements through which states and metropolitan planning organizations (MPOs) will “transition to a performance-driven, outcome-based program that provides for a greater level of transparency and accountability, improved project decision-making, and more efficient investment of federal transportation funds.”

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have been gradually issuing a set of rulemakings, initially proposed and subsequently final, for the implementation of this performance-based planning and programming (PBPP) process. Each rulemaking lays out the goals of performance for a particular area of transportation, establishes the measures for evaluating performance, specifies the data to be used to calculate the measures, and then sets requirements for the setting of targets.

Under the PBPP process, states, MPOs, and providers of public transportation must link investment priorities to the achievement of performance targets in the following areas.

1. Highway Safety
2. Highway Assets: Pavement and Bridge Condition
3. System Performance (Interstate and National Highway System, Freight Movement on the Interstate System, and the Congestion Mitigation and Air Quality Improvement Program)
4. Transit Asset Management
5. Transit Safety

The final Statewide and Metropolitan Planning Rule, published May 27, 2016, provides direction and guidance on requirements for implementation of PBPP, including specified measures and data sources, forecasting performance, target-setting, documentation in the statewide and metropolitan long-range transportation plans and Transportation Improvement Programs (TIPs), and reporting requirements.

States will typically measure performance and set targets on a statewide basis, and providers of public transportation will measure performance and set targets for their transit system. Depending upon the area of performance, targets may be set annually, biennially, or every four years. States and providers of public transportation must also develop supporting strategic plans for monitoring and improving performance in order to achieve their selected targets. In addition to quantitative targets, periodic narrative reports on performance will also be required. Target-setting is intended to be based on an agency's strategic plan and science-based methodology for forecasting performance based on measured trends and the funding available and programmed for projects that will affect performance.

The MPO is responsible for collecting this information to calculate measures and set targets for the metropolitan planning area as appropriate. MPOs have up to 180 days to adopt targets following the targets being set by state DOTs or providers of public transportation. MPOs must coordinate with the state DOTs and providers of public transportation in setting the metropolitan area targets, which should be based on the strategic plans and funded projects of the cognizant agencies.

Introduction to Transit Asset Management (TAM) Performance and Target Setting

This report presents the transit asset management (TAM) targets being adopted by the National Capital Region Transportation Planning Board (TPB) for 2019. The setting of TAM targets is one of the requirements of the PBPP rulemaking.

The final Transit Asset Management rule was published in the Federal Register on July 26, 2016, and became effective October 1, 2016.¹ Transit asset management (TAM) is “a strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively through the life cycle of such assets.”

Under the final TAM rule, transit providers must collect and report data for four performance measures, covering rolling stock, equipment, infrastructure, and facility condition. For these measures, transit providers have to annually set targets for the fiscal year, develop a four-year TAM plan for managing capital assets, and use a decision support tool and analytical process to develop a prioritized list of investments.

Each provider of public transportation is required to adopt annual targets for the performance of their transit assets. An initial reporting of targets was required by January 1, 2017. Subsequently, mandatory annual target-setting and reporting began with the 2019 fiscal year, with providers required to set targets within four months of the end of the previous fiscal year. Most regional transit providers are on a July -to-June fiscal year; accordingly they have to set targets for the new fiscal year by the end of October. Only the District of Columbia uses the federal fiscal year calendar (October to September) and has until the end of February to set TAM targets for the new fiscal year.

Once providers of public transportation have all set their TAM targets, MPOs have 180 days to adopt transit asset targets for their metropolitan planning area to comply with requirements. Initially, the TPB adopted the first set of transit asset targets for the region in June 2017. The TPB anticipates setting regional TAM targets for 2019 in February 2019.

Applicability to Regional Providers

The final TAM rule applies to all recipients and subrecipients of federal transit funds (e.g., Section 53XX funds) that own, operate, or manage capital assets used in the provision of public transportation and requires accounting for all assets used in the provision of public transportation service, regardless of funding source, and whether used by the recipient or subrecipient directly, or leased by a third party.

The federal TAM rulemaking defines two tiers of providers of public transportation. Tier 1 providers are those that operate rail service or more than 100 vehicles in regular service. Tier 2 providers are those operating less than 100 vehicles in regular service. Tier 1 providers must set transit asset targets for their agency, as well as fulfilling other additional reporting and asset management requirements. Tier 2 providers can set their own targets, or participate in a group plan with other Tier 2 providers whereby targets are set for the group as a whole. Note that a parent organization can

¹ <https://www.gpo.gov/fdsys/pkg/FR-2016-07-26/pdf/2016-16883.pdf>

operate several services, such as bus service and paratransit service, that combined exceed 100 vehicles.

The region has seven Tier 1 providers of public transportation as defined in the federal rulemaking:

1. WMATA: Metrorail, Metrobus, MetroAccess
2. District of Columbia: Streetcar, Circulator
3. Fairfax County: Connector, Community and Neighborhood Services
4. Montgomery County: Ride On
5. Prince George's County: TheBus, Call-A-Bus
6. Potomac and Rappahannock Transportation Commission (PRTC): OmniRide, OmniLink
7. Virginia Railway Express (VRE)

The region has twelve Tier 2 providers as defined in the federal rulemaking, including several small paratransit providers and non-profit providers:

Northern Virginia

1. Alexandria: DASH, DOT
2. Arlington: ART
3. Fairfax City: CUE
4. Loudoun County Transit
5. Virginia Regional Transit (VRT)
6. The Arc of Greater Prince William
7. Every Citizen Has Opportunities, Inc. (ECHO)
8. Endependence Center of Northern VA
9. Weinstein Jewish Community Center
10. Prince William Area Agency on Aging

Suburban Maryland

11. Charles County: VanGo
12. Frederick County: TransIT

All of the Tier 2 providers in the region, with the exception of Arlington (ART) in 2019, have chosen to participate in a group plan with their respective state agency: the Maryland Transit Administration (MTA) or the Virginia Department of Rail and Public Transportation (DRPT). Accordingly, there are ten reporting entities in the TPB's metropolitan planning area for 2019.

Providers of public transportation operating within the region but based outside of the TPB's metropolitan planning area, such as MTA Commuter Bus and MARC commuter rail, are not included.

The following schedule for TAM requirements was published in the final rulemaking in July 2016, and subsequently modified by FTA through issued guidance in February and April 2017².

- **By January 1, 2017:** Providers of public transportation were required to establish initial performance targets.
- **By June 30, 2017:** MPOs were required to adopt transit asset targets for the metropolitan region within 180 days.
 - Subsequently, regional transit asset targets shall be adopted with every new long-range plan or Transportation Improvement Program (TIP).

² February 2017 guidance: <https://www.transit.dot.gov/TAM/gettingstarted/htmlFAQs>

April 2017 guidance: <https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/metropolitan-planning-organization-responsibilities>

- **Starting October 2017:** Providers of public transportation report performance data and targets in the National Transit Database (NTD) within four months after fiscal year end:
 - Optional reporting for FY 2017 data and FY 2018 targets.
 - Mandatory reporting for future years, beginning with FY 2018 data and FY 2019 targets by October 31, 2018 (if fiscal year July-June).
 - Starting October 2019, submit a narrative report describing changes in the condition of the provider's transit system from the previous year and progress made during the year to meet the performance targets.

- **By October 2018:** Providers of public transportation must develop and submit to FTA their initial four-year strategic TAM Plans. Subsequently, these plans must be updated every four years.

TAM Performance Measures

There are four transit asset performance measures, two of which are age-based and two of which are condition-based (see Figure 1):

1. Rolling stock (Age)
2. Equipment: (non-revenue) service vehicles (Age)
3. Infrastructure: rail fixed-guideway track, signals, and systems (Condition)
4. Stations/Facilities (Condition)

Within each of the performance measures, assets are further divided into asset classes. For example, distinct asset classes for buses can be articulated buses, standard buses, or minibuses. Each asset class is measured separately for performance and for target-setting. National Transit Database Form A-90 is the means by which TAM targets are reported to the FTA (see Figure 2), with target and performance for each asset class listed. Note that many of these asset classes are not represented in the National Capital Region

For the age-based performance measures, providers set their own standard – the useful life benchmark (ULB) – for each asset class. The ULB is the anticipated useful lifetime of the asset. Accordingly, each provider in the region can set a different standard for its buses as well as different targets for the anticipated percentage of buses that will exceed those standards, to reflect different degrees of usage and operating conditions, variations in maintenance efforts, etc. This affects the feasibility of comparison among agencies and the integration of data to measure regional performance and set regional targets.

Providers of public transportation measure their performance in accordance with the definitions and requirements of federal rulemaking, including the TAM final rule and the final rule on National Transit Database (NTD) Asset Inventory Reporting. The FTA also published a Guideway Performance Assessment Guidebook and a Facility Performance Assessment Guidebook to provide guidance to providers of public transportation on how to collect data and measure performance for these assets.

Figure 1 – TAM Performance Measures

	Performance Measure	Asset Classes
Rolling stock (Age)	Percentage of revenue vehicles within a particular asset class that have met or exceeded useful life benchmark (ULB).	40 foot bus, 60 foot bus, vans, automobiles, locomotives, rail vehicles
Equipment - (non-revenue) service vehicles (Age)	Percentage of vehicles that have met or exceeded their ULB.	Cranes, prime movers, vehicle lifts, tow trucks
Infrastructure-rail fixed-guideway track, signals, and systems (Condition)	The percentage of track segments, signal, and systems with performance restrictions.	Signal or relay house, interlockings, catenary, mechanical, electrical and IT systems
Stations/ Facilities (Condition)	The percentage of facilities, within an asset class, rated below 3 on the TERM scale.	Stations, depots, administration, parking garages, terminals

Figure 2 – TAM Performance Measures Form - National Transit Database (A-90)

Form Name: Transit Asset Management Plan Performance Metrics and Targets

Line No.	Performance Measure	Annual Target	Annual Performance	Difference	Row Complete Yes / No
1	Percentage of revenue vehicles that have met or exceeded their useful life benchmark				
	AB - Articulated bus				
	AG - Automated guideway vehicle				
	AO - Automobile				
	BR - Over-the-road bus				
	BU - Bus				
	CC - Cable car				
	CU - Cutaway Bus				
	DB - Double decked bus				
	FB - Ferryboat				
	HR - Heavy rail passenger car				
	IP - Inclined plane vehicle				
	LR - Light rail vehicle				
	MO - Monorail vehicle				
	RL - Commuter rail locomotive				
	RP - Commuter rail passenger coach				
	RS - Commuter rail, self-propelled passenger car				
	SB - School bus				
	SV - Sport Utility Vehicle				
	TB - Trolleybus				
	TR - Aerial tramway				
	VN - Van				
	VT - Vintage trolley / streetcar				
2	Percentage of service vehicles that have either met or exceeded their useful life benchmark				
	Automobiles				
	Trucks and other Rubber Tire Vehicles				
	Steel Wheel Vehicles				
3	Percentage of track segments, signals, and systems with performance restrictions (by mode)				
	AG - Automated Guideway				
	AR - Alaska Railroad				
	CC - Cable Car				
	CR - Commuter Rail				
	HR - Heavy Rail				
	LR - Light Rail				
	MG - Monorail/Automated Guideway				
	SR - Streetcar Rail				
	TR - Aerial Tramway				
	YR - Hybrid Rail				
4	Percentage of Passenger and Maint. facilities rated below condition 3 on the condition scale				
	Passenger Facilities				
	Passenger Parking Facilities				
	Maintenance Facilities				
	Administrative Facilities				
5	Upload TAM Narrative Report: Your narrative report should include, at a minimum, a discussion of your system including the 1-Changes in your system's conditions since last year 2-Progress toward your current fiscal year's targets, and 3 – Targets for the next fiscal year.				
	Attachment <input type="text"/> <input type="button" value="Browse..."/>				
	<small>The maximum file upload size is 10.00 MB.</small>				

Changes in Regional TAM Target-Setting

Following the establishment of initial TAM targets by the providers of public transportation in January 2017, TPB staff in consultation and coordination with the region's providers proposed a set of TAM targets for the region that summarized those reported by all agencies in table or matrix format. This accounted for the differences in targets and standards among the providers of public transportation. The summary table of TAM targets for the region was adopted by the TPB on June 2017 as the initial set of TAM targets (see Figure 3). In most cases for the 2017 target-setting process, providers set targets that were approximately equivalent to their current performance.

Targets are the threshold for the maximum percentage of assets at or exceeding acceptable standards.

Figure 3 – 2017 TAM Targets – Regional Providers of Public Transportation

Reporting Entity	Rolling Stock	Service Vehicles	Rail Infrastructure	Station/ Facility Condition
WMATA	1% Rail, 3% Bus	<u>1%</u> ^{c,d}	5%	32%
DDOT	0% Rail, 40% Bus	<u>20%</u> ^c	5%	20%
Ffx. Co.	10%	<u>14%</u> ^e	n/a	0%
Mont. Co.	<u>8%</u> ^a	<u>50%</u> ^{c,d}	n/a	<u>50%</u> ^f
Pr. Geo. Co.	0%	<u>18%</u> ^d	n/a	0%
PRTC	<u>46%</u> ^b	<u>50%</u> ^c	n/a	0%
VRE	0% Rail	<u>50%</u> ^e	n/a	0%
Maryland Tier 2 (MTA)	<u>24%</u> ^a	<u>31%</u> ^d	n/a	<u>25%</u> ^f
Virginia Tier 2 (DRPT)	20%	Not reported	n/a	20%

a: heavy-duty buses; b: 45-foot buses; c: autos; d: trucks; e: service vehicles; f: maintenance/administrative facilities

The ten providers of public transportation in the region that are reporting entities for 2019 have provided their TAM targets to the TPB, and these are shown in Figure 4.

Figure 4 – Summary of Providers’ 2019 TAM Targets

Reporting Entity	Rolling Stock	Service Vehicles	Rail Infrastructure	Station/ Facility Condition
WMATA	0% Rail, 0% Bus	<u>11%</u> ^d	2.1%	<u>7%</u> ^f
DDOT	0% Rail, 0% Bus	n/a	5%	<u>0%</u> ^g
Arl Co.	0%	n/a	n/a	0%
Ffx. Co.	10%	<u>10%</u> ^d	n/a	0%
Mont. Co.	11%	<u>21%</u> ^d	n/a	<u>25%</u> ^g
Pr. Geo. Co.	4%	<u>43%</u> ^d	n/a	0%
PRTC	<u>8%</u> ^b	<u>0%</u> ^e	n/a	<u>0%</u> ^g
VRE	0%	<u>0%</u> ^e	n/a	0%
Maryland Tier 2 (MTA)	<u>13.3%</u> ^a	<u>14.6%</u> ^d	n/a	<u>25%</u> ^f
Virginia Tier 2 (DRPT)	10%	<u>25%</u> ^e	n/a	<u>10%</u> ^g

a: heavy-duty buses; b: 45-foot buses; c: autos; d: trucks; e: service vehicles; f: passenger, g: maintenance/administrative facilities



Draft 2019 Regional TAM Targets

For 2019, the regional TAM targets were developed in accordance with the FTA guidance, which suggests that the MPOs adopt a single target for each asset class in the region. The regional targets calculate the total number of each asset class and the associated target based on the targets of each provider of public transportation. Figure 5 shows the draft TAM targets for the region.

Figure 5 – DRAFT 2019 Regional TAM Targets

National Capital Region: 2019 Transit Asset Management Targets

Percentage of revenue vehicles that have met or exceeded useful life benchmark	Regional Assets Total	Regional Target
AB- Articulated bus	77	0.0%
AO- Auto	43	1.2%
BR- Over-the-road bus	160	8.8%
BU- Bus	2589	3.4%
CU- Cutaway bus	103	7.6%
HR- Heavy rail passenger car	1290	0.0%
LR- Light rail vehicle	6	0.0%
RL- Commuter rail locomotive	20	0.0%
RP- Commuter rail passenger coach	100	0.0%
VN- Van	1524	10.2%
<i>Revenue Vehicle Totals</i>	<i>5912</i>	
Percentage of service vehicles that have either met or exceeded their useful life benchmark		
Automobiles	222	20.6%
Trucks and other Rubber Tire Vehicles	1354	11.0%
Steel Wheel Vehicles	199	24.0%
<i>Service Vehicle Totals</i>	<i>1775</i>	
Percentage of track segments, signals, and systems with performance restrictions (by mode)		
CR - Commuter Rail	0	0.0%
HR - Heavy Rail	234	2.1%
SR - Streetcar Rail	5.6	5.0%
<i>Track Segments Totals</i>	<i>0</i>	
Percentage of Passenger and Maint. facilities rated below condition 3 on the condition scale		
Passenger Facilities	115	1.6%
Passenger Parking Facilities	93	9.9%
Maintenance Facilities	106	11.5%
Administrative Facilities	55	13.3%
<i>Facility Totals</i>	<i>369</i>	