Updated 11/18/16

FEDERAL TRANSIT ADMINISTRATION

Transit Asset Management (TAM)

Final Rule July/August 2016 Presenter: Mshadoni Smith



Today's Presentation

- Transit Asset Management Background
- Final Rule Provisions
- Implementation
- Technical Assistance

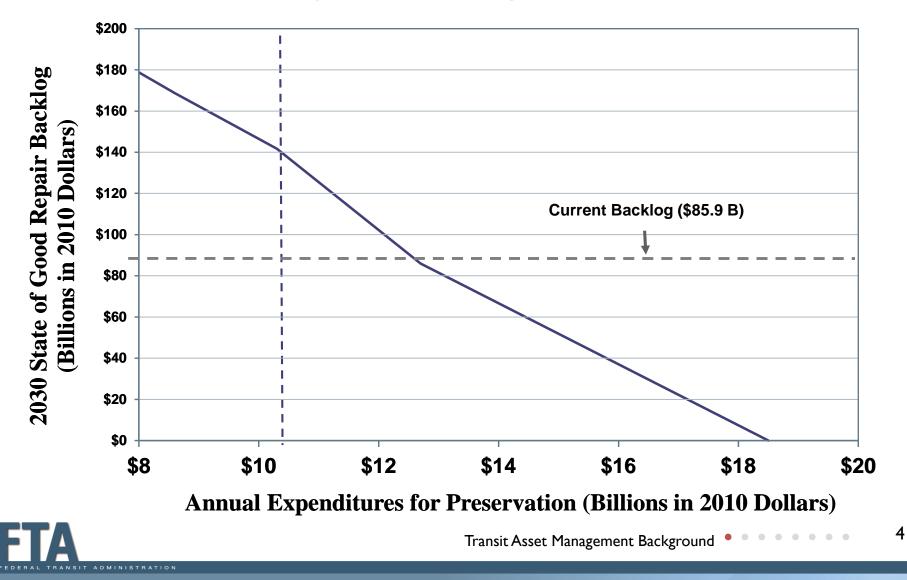


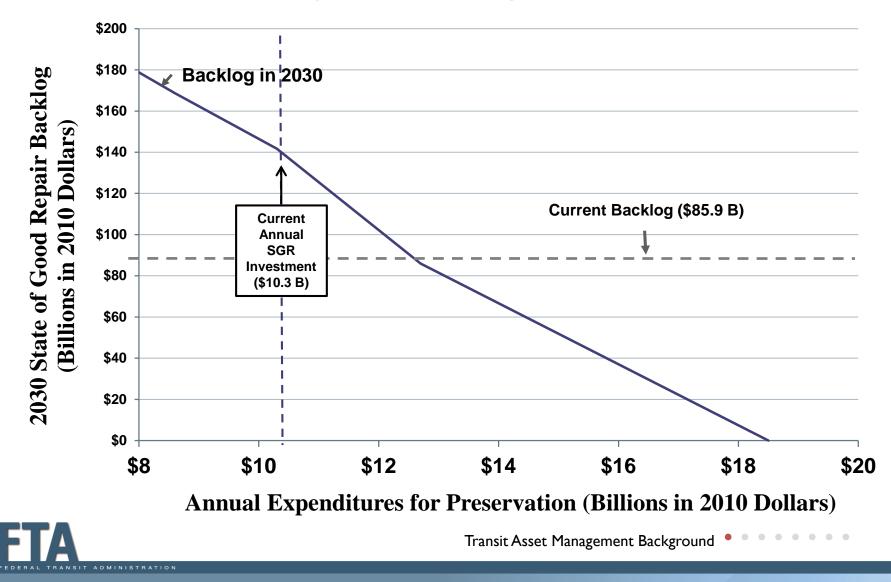


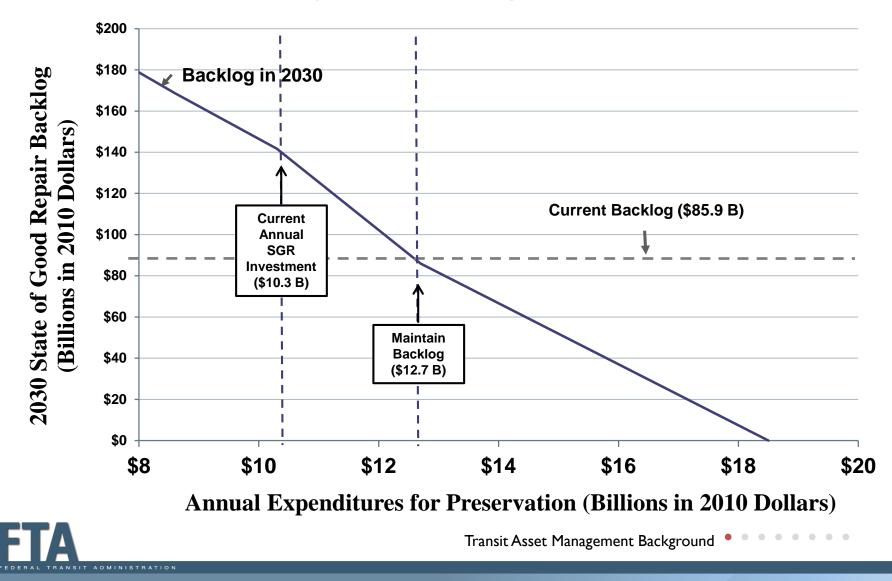
What is Transit Asset Management?

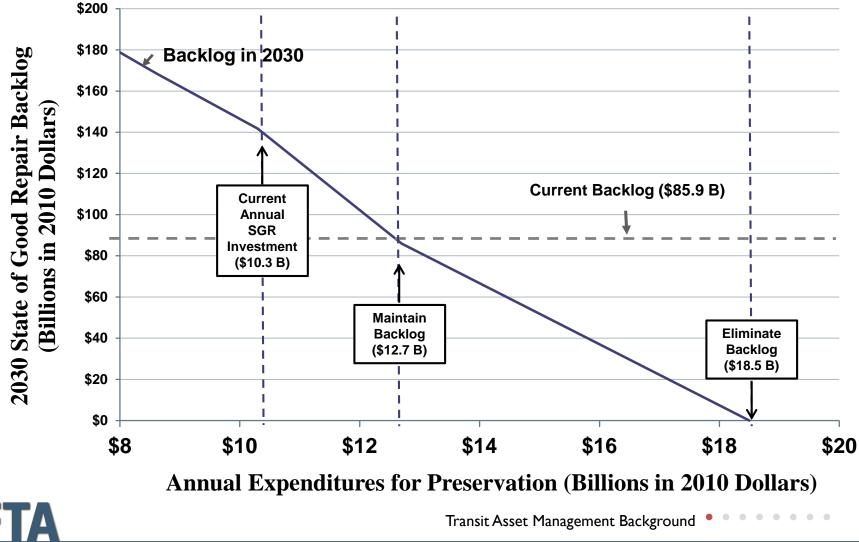
Transit Asset Management (TAM) is a business model that uses the condition of assets to guide the optimal prioritization of funding at transit properties in order to keep our transit networks in a State of Good Repair (SGR).



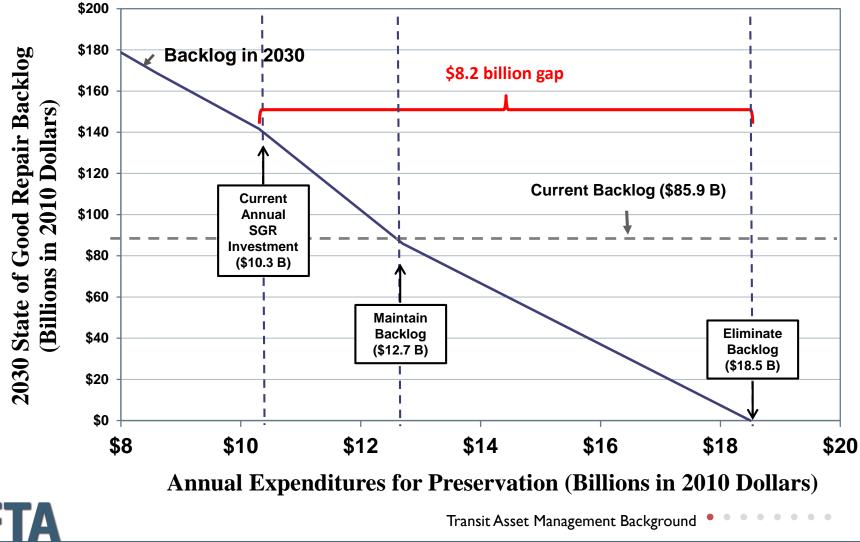








FEDERAL TRANSIT ADMINISTRATION



FEDERAL TRANSIT ADMINISTRATION

Anticipated Benefits of TAM

- I. Improved transparency and accountability
- 2. Optimized capital investment and maintenance decisions
- 3. More data-driven maintenance decisions
- 4. Potential safety benefits



MAP-21 Performance Management Framework

FTA

- Transit Asset Management
- National Public Transit Safety Plan
- Public Transportation Agency Safety Plan

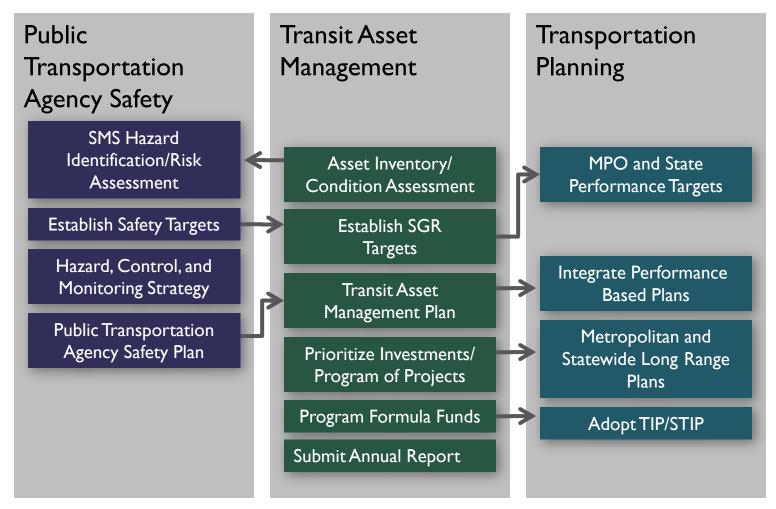
FHWA

- Safety Performance
- Pavement and Bridge Condition
- System Performance & CMAQ
- Highway Safety Improvement <u>Program</u>
- Highway Asset Management Plan

Statewide and Metropolitan Planning



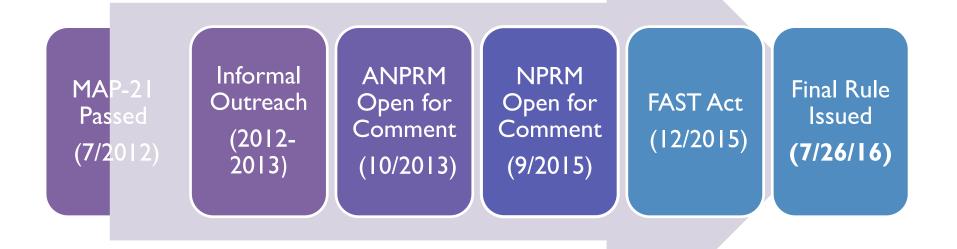
Linking Proposed Regulations





Transit Asset Management Background 11 11

What Process Did We Take to Get Here?





CFR Part 625

Transit Asset Management Final Rule

- A. General Provisions
- B. National Transit Asset Management System
- C. Transit Asset Management Plans
- D. Performance Management
- E. Recordkeeping and Reporting Requirements

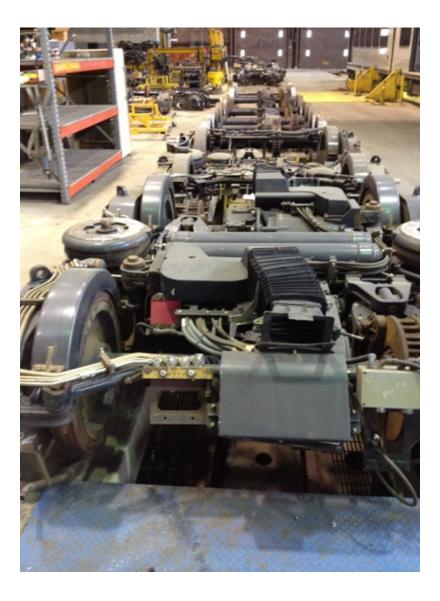


Changes from NPRM to Final Rule Δ

- Definitions
 - Tier II Provider
- Asset Tracking
 - Equipment
 - Third party assets
- 5310 Applicability
- Group Plans
- Performance Targets



A. General Provisions





A. General Provisions

Δ

- Purpose
 - To help achieve and maintain a state of good repair for the nation's public transportation systems
- Applicability
 - All recipients or subrecipients of Federal financial assistance under 49 U.S.C. Chapter 53 that own, operate, or manage capital assets used in the provision of public transportation
- Definitions



Definition of 'Public Transportation'

The term "public transportation" is defined at 49 U.S.C. 5302 and means regular, continuing shared-ride surface transportation services that are open to the general public or open to a segment of the general public defined by age, disability, or low income.



B. National Transit Asset Management System





Final Rule: National Transit Asset Management System

. . . .

National Transit Asset Management System

Define state of good repair Require TAM Plans for all recipients and subrecipients

Establish SGR performance measures

Report data to the NTD **Receive** technical assistance from FTA



Final Rule: National Transit Asset Management System

State of Good Repair

The condition in which a capital asset is able to operate at a **full level of performance**. This means the asset:

- I. Is able to perform its designed function,
- 2. Does not pose a known unacceptable safety risk, and
- 3. Its lifecycle investments have been met or recovered.



TAM and State of Good Repair

- The purpose of the National TAM System is to keep our Nation's assets in a State of Good Repair (SGR)
- Consequences of <u>not</u> being in a SGR include:
 - Safety risks,
 - Decreased system reliability,
 - Higher maintenance costs, and
 - Lower system performance



C. Transit Asset Management Plans





Final Rule: Transit Asset Management Plans

Applicability – Tier I or Tier II

Tier **Operates Rail** OR \geq 101 vehicles across **all** fixed route modes OR ≥ 101 vehicles in <u>one non-</u> fixed route mode

Tier II

Sub-recipient of 5311 Funds OR American Indian Tribe OR \leq 100 vehicles across **all** fixed route modes OR ≤ 100 vehicles in **one** non-fixed route mode



Responsibility for TAM Plan Development Δ

- Each transit provider must designate an Accountable Executive
- Plan Coordination
 - A Tier I provider must develop its own TAM Plan
 - A Tier II provider may participate in a single Group
 Plan or opt out and develop its own TAM Plan
 - A Group Plan participant must collaborate with the sponsor in the development of the plan
- Eligible activity under § 5337, § 5307 & § 5311



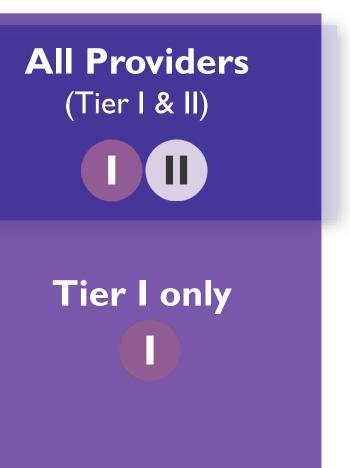
Group Plans

- Group Plans compiled by a sponsor
 - Generally the State DOT or Designated/Direct
 Recipient
 - Sponsor is not the Accountable Executive for its Group TAM Plan participants
 - Small urban operators (5307 Recipients) are not required to be offered a group plan but CAN be based on mutual agreement between sponsor and operator.



TAM Plan Elements

- I. Inventory of Capital Assets
- 2. Condition Assessment
- 3. Decision Support Tools
- 4. Investment Prioritization
- 5. TAM and SGR Policy
- 6. Implementation Strategy
- 7. List of Key Annual Activities
- 8. Identification of Resources
- 9. Evaluation Plan





I. Inventory of Capital Assets



- A listing of all capital assets:
 - Owned by the transit provider
 - Equipment: Non service vehicles & equipment > \$50,000
 - Include third-party exclusive-use non-equipment
 - Level of detail is same as in Capital Program of Projects
- May use existing inventories already collected
 - E.g., existing rolling stock and equipment reports
- Include assets acquired without FTA funds
 Final Rule: Transit Asset Management Plans

Equipment	 Construction Service Vehicles 	 Maintenance
Rolling Stock	 Railcars Buses Other Passenger Vehicles 	 Ferries
Infrastructure	 Fixed Guideway Signal Systems Structures 	■ Power
Facilities	 Support Facilities Passenger Facilities 	 Parking Facilities



2. Condition Assessment



- A rating of the inventoried assets
 - E.g., age; good/fair/poor; percentage of residual life
- Ratings should be sufficiently detailed to monitor performance and plan capital investment
- Condition assessments may be collected at the individual or asset class level
- Condition assessments may include vulnerabilities to natural/climate hazards
- Condition assessments are only required for assets with direct capital responsibility
 Final Rule: Transit Asset Management Plans

Assessing Condition by Asset Class

Category	Asset Inventory	Assessing Condition
Equipment	 All non-revenue service vehicles and equipment > \$50K used in the provision of public transit, except 3rd-party equipment assets 	 Only equipment with direct capital responsibility, no third party assets
Rolling Stock	 All revenue vehicles used in the provision of public transit 	 Only revenue vehicles with direct capital responsibility
Infrastructure	 All infrastructure used in the provision of public transit 	 Only infrastructure with direct capital responsibility
Facilities	 All facilities used in the provision of public transit (excluding bus shelters) 	 Only facilities with direct capital responsibility (excluding bus shelters)



3. Decision Support Tools



- List analytical process(es) used to make investment prioritization
 - To estimate capital investment needs over time
 - To assist in prioritization
- The tool does <u>not</u> have to be specialized software



4. Investment Prioritization



- A ranked listing of proposed projects and programs ordered by year of planned implementation
- Prioritization locally determined based on policy and need
- Must adequately consider
 - Identified unacceptable safety risks
 - Accessibility requirements
- Fiscally constrained based on estimated funding levels



5.TAM and SGR Policy



- Transit provider's vision
- Executive-level direction to support the goals of the TAM program
- Documented commitment to achieving SGR
- Defined TAM objectives
- Defined and assigned roles and responsibilities

Specific Measurable Attainable Relevant Temporally constrained



6. Implementation Strategy

• Operational level process for implementing TAM Plan

7. List of Key Annual Activities



- Description of actions needed to implement TAM Plan for each year of the plan's horizon
 - E.g., software development, coordination between maintenance and finance offices



8. Identification of Resources



• E.g., staff time, technology requirements, funding, etc.

9. Evaluation Plan



 How TAM activities will be monitored, evaluated, and updated to ensure the continuous improvement of TAM practices



TAM Plan Timeframes

- Plans would be updated in their entirety at least every 4 years
 - Coincide with relevant (Statewide) Transportation Improvement Program
 - Cover at least 4 years
 - Should be amended during the horizon period when there is a significant change
- Initial TAM Plans completed no later than

2 years after effective date (October 2018)



D. Performance Management





Analyzing Assets

Category	Assessing Condition	Performance Targets	Measure
Equipment	■Age based	Only <u>non-revenue</u> <u>service vehicles</u>	%
Rolling Stock	■Age based	 Only revenue vehicles <u>by vehicle class/mode</u> 	%
Infrastructure	 Only infrastructure with direct capital responsibility 	 Only <u>fixed rail</u> guideway, track, signals, and systems 	%
Facilities	 Only facilities with direct capital responsibility (not bus shelters) 	 Maintenance and Administrative and Passenger Stations and Parking Facilities 	TERM



Targets for Performance Measures

- Set targets annually for each asset class
- Supported by data
 - Most recent condition data
 - Reasonable financial projections
- Targets for Group Plans apply to the group as a whole
- Reported annually to National Transit Database (NTD)
 - www.transit.dot.gov/ntd/ntd-asset-inventorymodules-and-information



Useful Life Benchmark (ULB)

- ULB ≠ Useful life for FTA grant programs
- Useful Life Benchmark is defined as the expected lifecycle of a capital asset for a particular Transit Provider's operating environment, or the acceptable period of use in service for a particular Transit Provider's operating environment.
- ULB takes into account a provider's unique operating environment (i.e., geography, service frequency, etc.)
- There are default ULB values, but agencies are welcome to develop their own



Sample Default ULBs

Revenue Vehicle Type	Default Useful Life Benchmark	Useful Life in Grant Programs
Automated Guideway Vehicle (AG)	31	12
Bus (BU)	14	12
Cutaway Bus (CU)	10	10
Ferryboat (FB)	42	25
Heavy Rail Passenger Car (HR)	31	30
Light Rail Vehicle (LR)	31	25
Commuter Rail Locomotive (RL)	39	30
Trolleybus (TB)	14	12
Van (VN)	8	7



Performance Measures

- Equipment Age
 - Percentage of vehicles that have met or exceeded their Useful Life Benchmark (ULB)
- Rolling Stock Age
 - Percentage of revenue vehicles within a particular asset class that have met or exceeded their ULB
- Infrastructure *Performance*
 - Percentage of track segments with performance restrictions by class
- Facilities Condition
 - Percentage of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) scale (1=Poor to 5=Excellent)



E. Recordkeeping and Reporting Requirements

Including the role of the National Transit

Database





Final Rule: Recordkeeping and Reporting Requirements

Annual Reporting Requirements

- Submit to NTD
- I. Data Reports
 - Projected performance targets for next fiscal year
 - System Condition and Performance Report
- 2. Narrative Report
 - Change in condition
 - Progress toward targets
- Group Plan Sponsors submit consolidated reports on behalf of their participants
- A <u>TAM-NTD Crosswalk</u> can be found on the TAM website



National Transit Database Webpage

ps://www.transit.dot.gov/ntd/ntd-asset-inventory-modules-and-information

United States Department of Transporta	ation	About DOT Our Activities Areas of Focus	
💫 Federal Transit .	Administration	Q	
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	Asset Inventory Modules and mation	Related Links	
Reference Materials • Asse	et Inventory Modules for the National Transit Database et Reporting Manual et Module Reporting Template (Excel) 4	 Manuals 	sset Module eporting Template
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Reporting Login	r <mark>.transit.dot.gov/ntd/ntd-asset-i</mark> Final Rule: Recordkeeping	United States	nformation 45

Recordkeeping Requirements

- Maintain records supporting TAM Plan
- Share with State and metropolitan planning organization (MPO) planning agencies
 - TAM Plan
 - Performance targets
 - Investment strategies
 - Annual condition assessments



Certification

- TAM Plans are Self-Certified by the Accountable Executive
- FTA will update Certifications and Assurances to reflect TAM Plan requirements
- FTA will review Plans and Progress during Triennial and State Management Reviews, as well as during MPO Certification Reviews



Implementation





Where do we go from here?





TAM Timelines

Items in blue Submitted to NTD

Activity	Initial Due Date	Ongoing Submittal Frequency
Final Rule Effective Date	October 1, 2016	n/a
SGR Targets	Set by 1/31/17 (do not need to be reported to NTD)	Annually within 4 months of end of provider's FY as part of NTD Report
TAM Plan	October 1, 2018	Every 4 years
Asset Inventory and Condition Reporting	Within 4 months of end of provider's FY 2018	As part of NTD Report
Narrative Report	Within 4 months of end of provider's FY 2019	Annually within 4 months of end of provider's FY



What type of TAM plan do I need to develop?

- I. Is this rule applicable to me?
- 2. Am I Tier I or Tier II?
- 3. Can I participate in a Group Plan?



I. Inventory Capital Assets



Six 30-foot buses

- 2. Assess Condition
 - Age/ULB:

Bus	Bus 1	Bus 2	Bus 3	Bus 4	Bus 5	Bus 6	ULB
Age	17	15	15	7	7	2	12

3 of 6 buses are below the useful life benchmark



3. Decision Support Tools

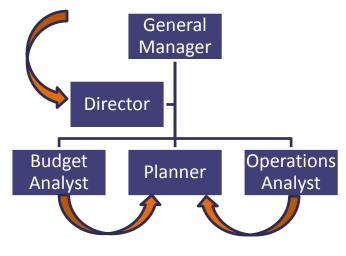
Criteria	Weight	Bus 1	Bus 2	Bus 3	Bus 4	Bus 5	Bus 6			
Poses safety risk (0-5)	8	5	0	1	2	4	0			
Age (years)	.5	17	15	15	7	7	2			
Poor reliability (0-5)	5	2	3	3	4	2	1			
Poor appearance (0-5)	1	1	3	2	4	2	1			
Totals		59.5	25.5	32.5	43.5	47.5	7			
4. Investment Prioritization										
Score \geq 50Replace this year $30 \leq$ Score < 50										

- 5. TAM and SGR Policy
 - "We have 2 objectives:
 - To ensure all vehicles are no more than 6 months behind in deferred maintenance
 - Zero transit deaths
 - Roles & Responsibilities:
 - Chief of Maintenance keeps asset condition inventory up to date
 - Chief Financial Officer provides cost estimates for …

1, the accountable executive, am committed to achieving a state of good repair. Dur agency's goal is ...



6. Implementation Strategy

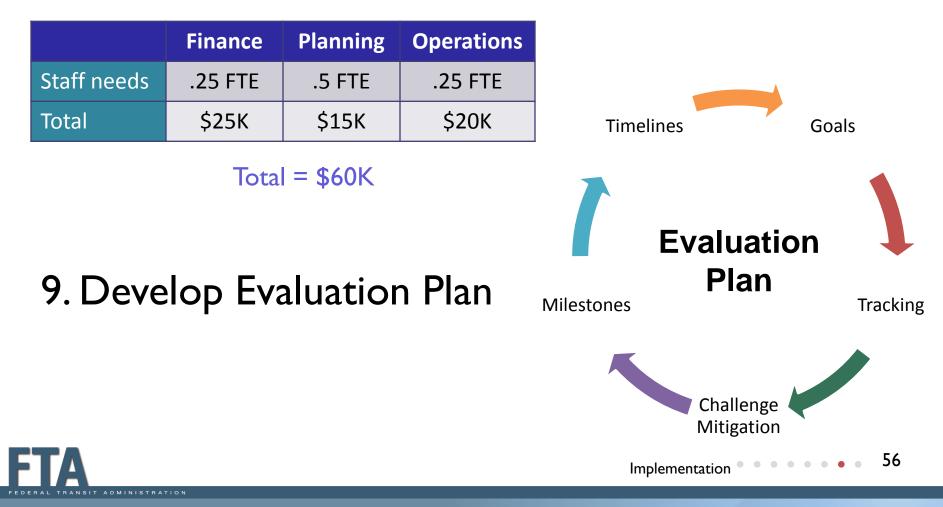


7.	Key ⁻	TAM	Activities
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31	1	2	3	4	5	6	5	6	7	8	9	10	11	2	3	4	5	6	7	8

- I. Link asset inventory to decision support tool (Due: May)
- 2. Improve coordination between maintenance and finance staff (meet quarterly)

8. Identify Resources



Reporting Requirements

Performance Measures and Targets

- a) Calculate condition information
- b) Set targets for next fiscal year

35% of 30-foot buses will exceed the 12-year ULB.

	ULB	Bus 1	Bus 2	Bus 3	Bus 4	Bus 5	Bus 6	Bus 7	Exceed ULB
Year 1		17							50%
Year 2	12	retired	16	16	8	8	3	1	33%



Technical Assistance from FTA



https://www.transit.dot.gov/TAM

Next Steps

- Draft condition guidebooks available and open for comment
- Next webinars: Guidebooks Aug. 11th and NTD Asset Inventory Aug. 16th 2pm EDT
- If you have questions, where do you go?
 - Website: <u>www.transit.dot.gov/TAM</u>
 - Regional Staff
 - Mshadoni Smith

<u>Mshadoni.Smith@dot.gov</u>

