

Regional Group TAMP for 16 Tier II Operators in the San Francisco Bay Area Region

**TRB 12th National
Conference on Transit
Asset Management**

July 17, 2018

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Agenda

- ▶ **MTC's Role in Regional Asset Management**
- ▶ **TAM Plan Development Approach**
- ▶ **Plan At A Glance**
- ▶ **Regional Advances in Asset Management**
- ▶ **Key Challenges and Lessons Learned**

Metropolitan Transportation Commission (MTC)

Metropolitan Planning Organization (MPO) for San Francisco Bay Area

- 9 counties, 12 UZAs,
- 101 cities & towns
- Served by 27 independent transit operators

► Develops long-range Regional Transportation Plan

- Projects needs & funding for transit capital replacement & rehabilitation

► Designated Recipient – Federal Funds

- MTC programs formula funds to 23 transit operators



TAM Rule Compliance

► Federal Requirements – TAM Rule

- Establish TAM performance targets
- Coordinate targets with the State and MPOs
- Develop a TAM Plan
- Report asset inventories, condition, and performance measures through the NTD

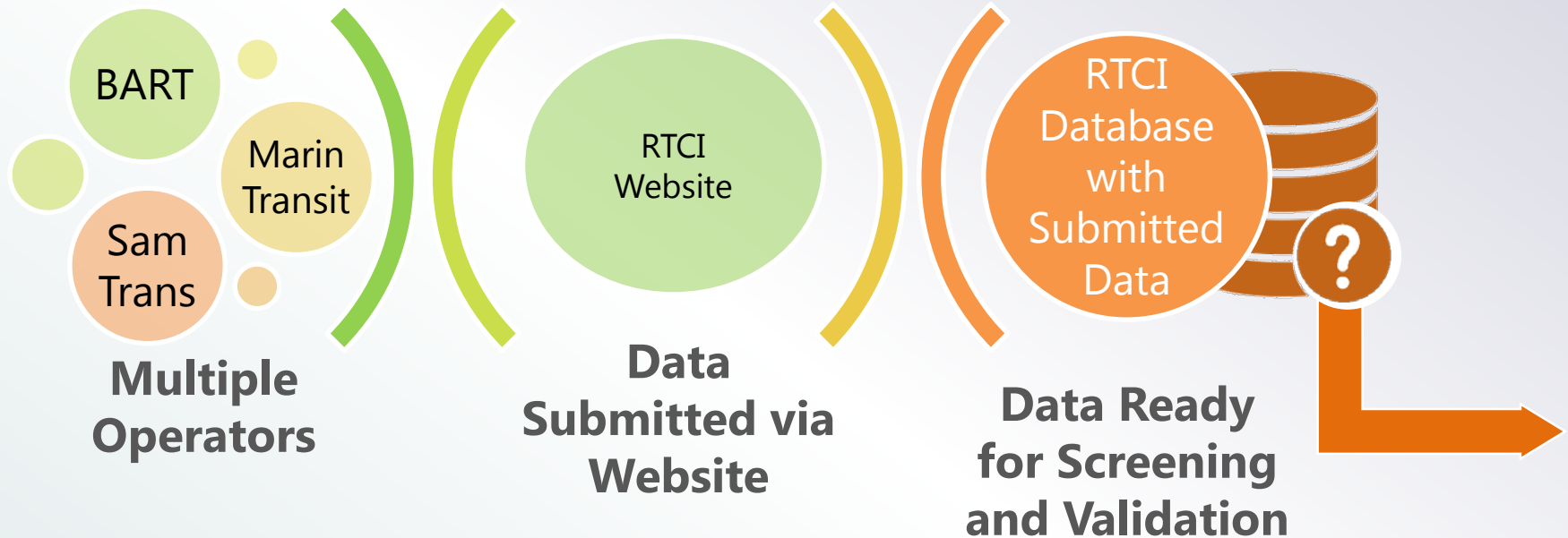
► MTC's Role in TAM Rule Compliance

- Target Setting
- Group TAM Plan for Tier II Operators
 - Preparation of a Group TAM Plan
 - Consolidated National Transit Database (NTD) report
- Technical Assistance for Tier I Operators
- Regional TAM Strategic Planning



Regional Transit Capital Asset Inventory (RTCI)

RTCI Update Process



- ▶ Database of existing Transit Capital Assets and their attributes
- ▶ Contains asset type, quantity, year in service, and cost
 - Vehicles, Guideways, Facilities, Stations, Systems
- ▶ Covers 25 different agencies in 9-county Bay Area Region

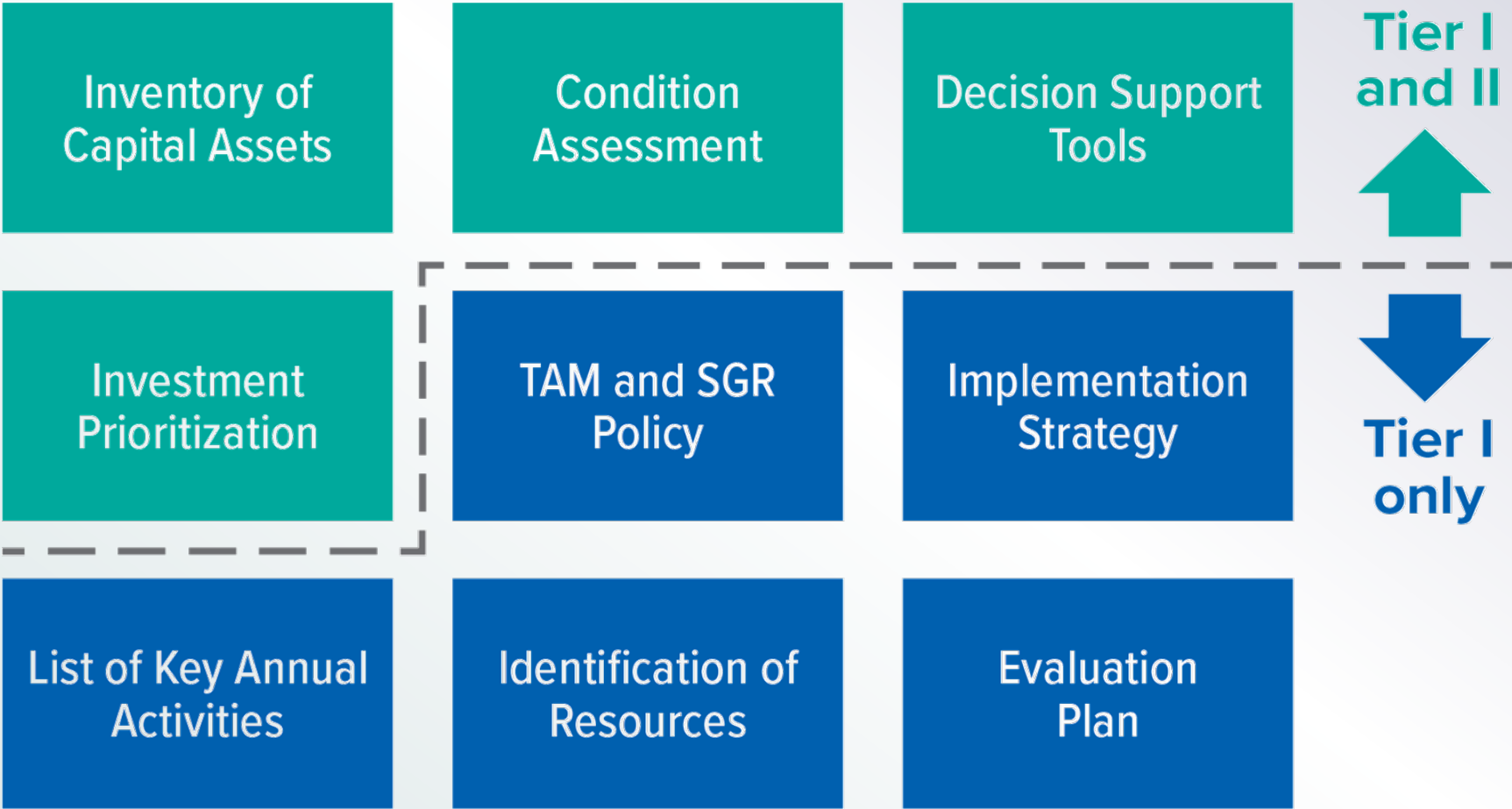
Group TAM Plan Development Approach



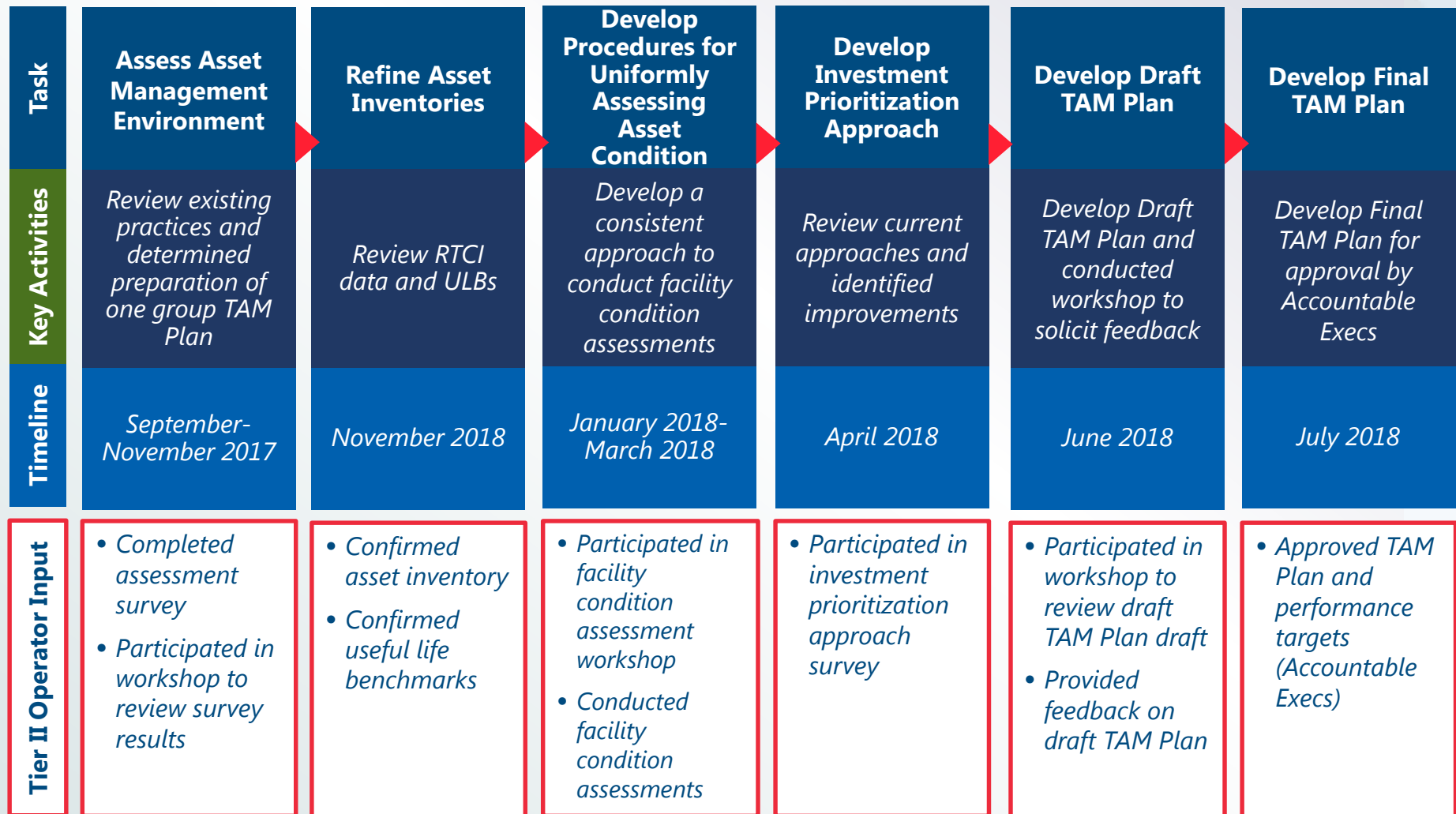
TAM Plan Participants – All Tier II Operators



TAM Plan Elements



TAM Plan Development Approach



Tier II Asset Management Guiding Principles



Maintain, update, and enhance the region's asset inventory to better invest in a state of good repair



Monitor and improve the condition of the system by setting annual performance measures and targets and documenting the progress towards those targets



Invest in state of good repair based on a structured decision support framework to ensure available funds are spent where they are needed most



Maintain a list of investment priorities that considers safety, accessibility, and available funding

Assess Asset Management Environment

Tier II Operators TAM Survey & Workshops to understand operators' asset management vision and practices

► Discussion of

- Current asset management state
- Asset management vision + culture

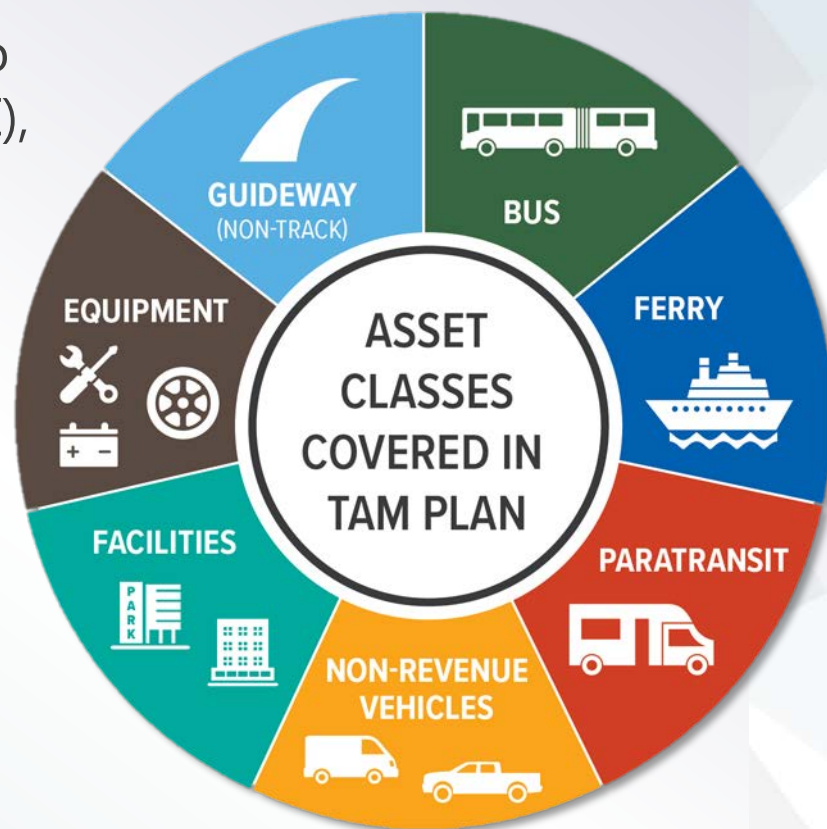
► Determined development of one group TAM Plan

- Operators in alignment:
 - Overall philosophy and vision for asset management
 - Level of maturity
 - Availability of data



Refine Asset Inventories

- ▶ Operators report their inventory data to Regional Transit Capital Inventory (RTCI), which is maintained by MTC
- ▶ Reviewed asset inventories in RTCI to ensure consistency of reporting
- ▶ Reviewed ULBs to ensure they reflect when assets are actually being retired
- ▶ Identified additional data needed for new NTD reporting requirements



Develop Procedures for Uniformly Assessing Asset Condition



ROLLING STOCK



AGE

Percentage of revenue vehicles with a particular asset class that have met or exceeded their useful life benchmark



EQUIPMENT



AGE

Percentage of non-revenue/support vehicles that have met or exceeded their useful life benchmark



FACILITIES



CONDITION

Percentage of facilities with a condition rating below '3' on the TERM scale (scale of 1-5)

Facility Condition Assessments

- ▶ Developed templates for consistent data collection, based on FTA guidance
- ▶ Developed guidance on how to aggregate scores
- ▶ Conducted training workshop to review FTA guidance and walkthrough of a condition assessment for a single facility with an expert

INVESTMENT PRIORITIZATION APPROACH



1. Scheduled Maintenance



Funding Source: City General Fund, Measure B, Measure BB, STA, TCP (5307, 5337, 5339), TDA, TDA IV



2. Planned Overhauls



Funding Source: City General Fund, Measure B, Measure BB, STA, TCP (5307, 5337, 5339), TDA, TDA IV



3. Replacements



Funding Source: AB 664, CalOES, Debt Financing, FTA 5309, FTA 5311, HVIP, LCTOP, Measure B, Measure BB, PTMISEA, SB-1, STA, State Zero Emission Vehicle Program, TCP (FTA 5307, 5337, 5339), TDA, TDA IV, TFCA, TPI

Criteria for Replacements

- ☐ Safety
- ☐ Impact to service and operations (reliability)
- ☐ Maintenance
- ☐ Age
- ☐ Condition

Investment Priorities

- ▶ **Investment priorities include:**
 - Federally funded projects from the TCP and TIP
 - Non-federally funded projects from each operators' CIP
- ▶ **Subsequent TAM Plan updates will include projects that are prioritized using the TAM investment prioritization approach**
- ▶ **Conducted TERM Lite analysis to estimate backlog of state of good repair needs**
- ▶ **Analysis informs gap between total forecasted needs and funding already programmed**

Develop Draft and Final TAM Plan

- ▶ **Conducted workshop to review TAM Plan Elements**
- ▶ **Provided Tier II operators with a comment period to provide feedback**
- ▶ **Finalized TAM Plan for approval by Accountable Executives**



A low-angle shot looking up at a person's hands holding a pair of round, dark-rimmed glasses up to the sun. The sun is a bright, glowing orb in the center of the frame, creating a strong lens flare and illuminating the scene with a warm, golden light. The person's hands are positioned on either side of the glasses, with fingers spread. They are wearing dark long-sleeved shirts with white and dark horizontal stripes on the cuffs. The background is a clear sky with some faint, out-of-focus tree silhouettes on the right side.

Plan At A Glance

Plan At a Glance - DRAFT



PLAN PARTICIPANTS



PLAN GUIDING PRINCIPLES



Maintain, update, and enhance the region's asset inventory to better invest in a state of good repair



Monitor and improve the condition of the system by setting annual performance measures and targets and documenting the progress towards those targets

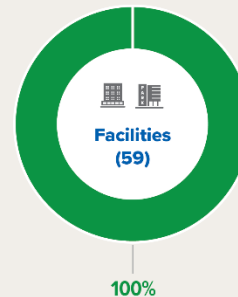
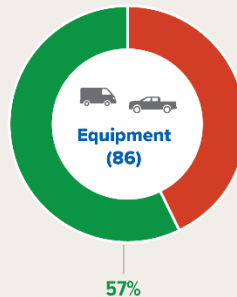
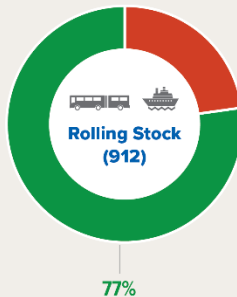


Invest in state of good repair based on a structured decision support framework to ensure available funds are spent where they are needed most



Maintain a list of investment priorities that considers safety, accessibility, and available funding

STATE OF GOOD REPAIR SUMMARY



INVESTMENT PRIORITIZATION APPROACH

1. Scheduled Maintenance

Funding Source: City General Fund, Measure B, Measure BB, STA, TCP (5307, 5337, 5339), TDA, TDA IV

2. Planned Overhauls

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The investment prioritization approach prioritizes annual maintenance activities, followed by planned overhauls. Both activities will enable operators to get to the planned useful life from their assets. When the asset comes up for replacement based on its planned useful life (third priority), operators will use a set of evaluation criteria to establish replacement priorities. These criteria include:

- Safety
- Maintenance
- Impact to service and operators (reliability)
- Age
- Condition

June 14, 2018

Plan At a Glance - DRAFT

ASSET CONDITION AND PERFORMANCE TARGETS

ROLLING STOCK

Rolling stock performance is measured by the percentage of revenue vehicles (by type) that meet or exceed the ULB.

Vehicle Type		Total # of Vehicles	# of Vehicles that Meet or Exceed ULB	% of Vehicles that Meet or Exceed ULB	FY 2018 Performance Target	FY 2019 Performance Target
AB—Articulated Bus		10	0	0%	0%	
AO—Automobile		11	1	9%	0%	
BR—Over-the-Road Bus		36	30	83%	83%	
BU—Bus		569	53	9%	22%	
CU—Cutaway		199	92	46%	23%	
FB—Ferryboat		13	2	15%	0%	
VN—Van		74	29	39%	28%	

EQUIPMENT

Equipment performance is measured by the percentage of non-revenue service vehicles (by type) that meet or exceed the ULB.

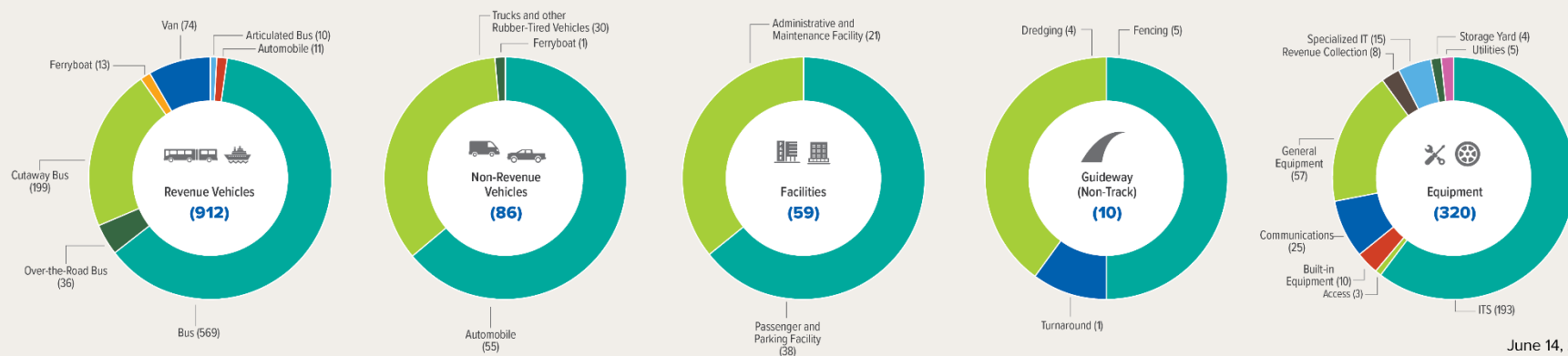
Vehicle Type		Total # of Vehicles	# of Vehicles that Meet or Exceed ULB	% of Vehicles that Meet or Exceed ULB	FY 2018 Performance Target	FY 2019 Performance Target
Automobile		55	26	47%	34%	
Trucks and other Rubber-Tired Vehicles		30	11	37%	34%	
Ferryboat		1	0	0%	0%	

FACILITIES

Facility performance is measured by the percentage of facilities (by group) that are rated less than '3' on the Transit Economic Requirements Model (TERM) scale.

Facility Type		Total # of Facilities	# of Facilities Below '3' on TERM Scale	% of Facilities Below '3' on TERM Scale	FY 2018 Performance Target	FY 2019 Performance Target
Administrative and Maintenance Facility		21	0	0%	11%	
Passenger and Parking Facility		38	0	0%	12%	

CAPITAL ASSET INVENTORY

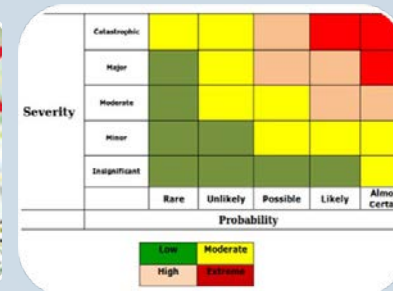
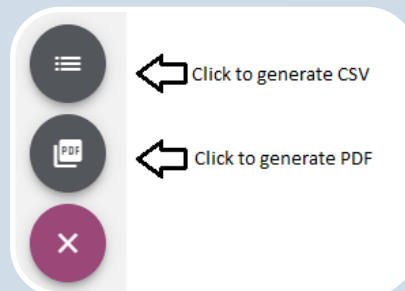


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Regional Advances in Asset Management

Regional Transit Asset Management Initiatives



Facility Data Improvement

- Improved RTCI parent-child facilities data
- Uniform inspection and condition assessment
- Better target-setting

RTCI/NTD Integration

- Ease of reporting for transit operators
- Consistent asset data across reporting functions
- Improved access to NTD data by MTC

GeoCoding

- Improved fixed guideway asset data
- Identification of critical rail assets / routes
- Improved target-setting for fixed guideway

Transit Network Risk Analysis

- Risk-based condition assessments
- Identification of region-critical assets
- Better informed funding policies

Key Challenges and Lessons Learned



Key Challenges

Will a group TAM Plan create more work for us? How time consuming will this be?

Will we have to make compromises (to our ULBs) to meet the needs of all operators?

How can we streamline all our reporting requirements (for TAM Plan, NTD, etc.)?

Lessons Learned

- ▶ **Get operators on board to develop group TAM Plan before beginning the process**
- ▶ **Establish expectations upfront, keep operators informed throughout the process**
- ▶ **Maintaining a central repository of inventory data (RTCI) will make future updates to the TAM Plan easier**
- ▶ **Use the process as an opportunity for operators to share practices and information**
- ▶ **Preparing plan guidance that will enable agencies to update their plan independently in the future**



Questions?

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THANK YOU!