

Transit Standards and Performance Measures

March, 2018

Background

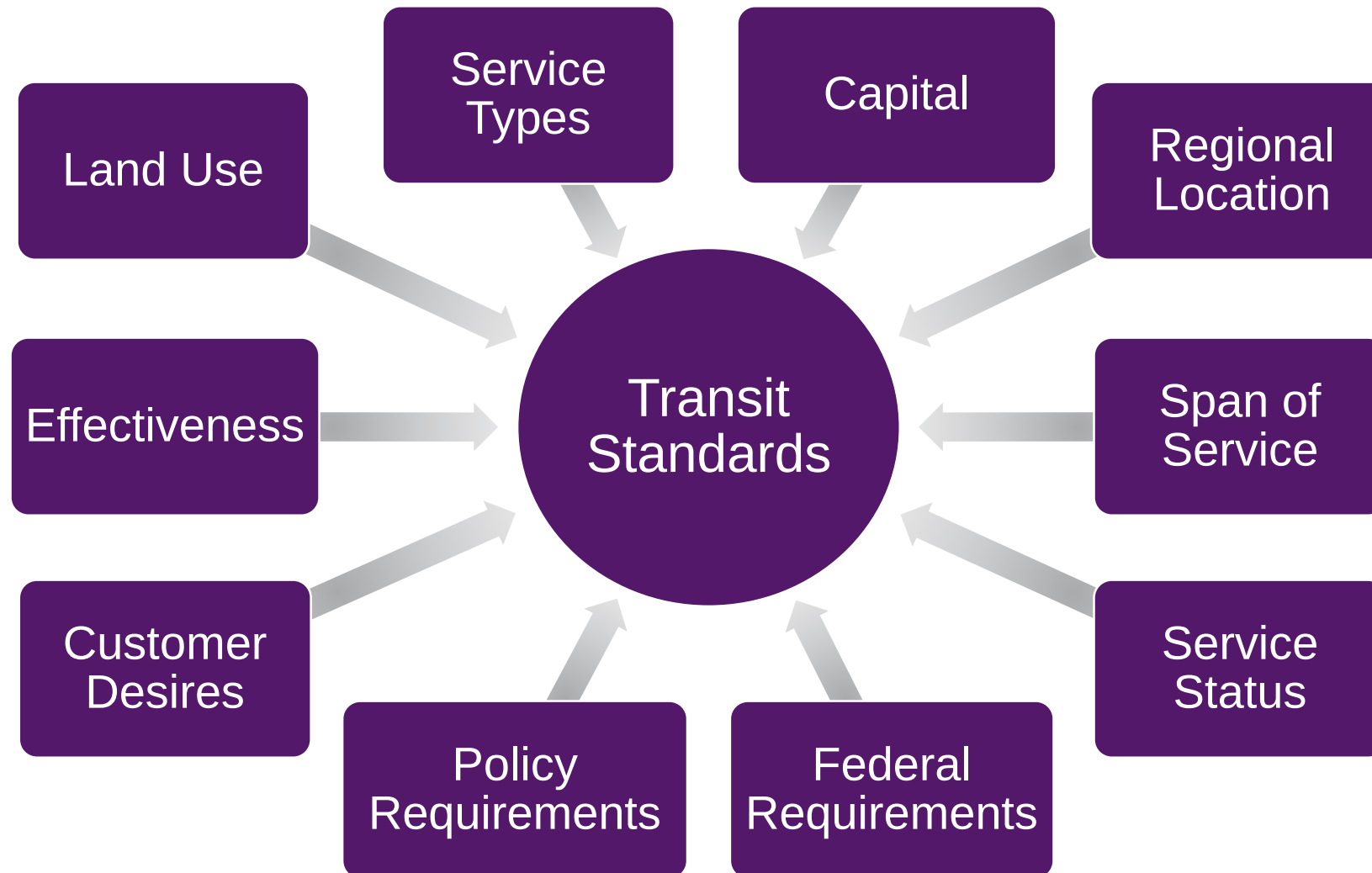
- Performance based transportation system emphasized and required by law
 - MAP-21
 - FAST Act
 - Prop 400 audits
- October 2012 TSPM initiated

Phase I (Adopted November 2013)	Phase II (Adopted December 2014)	Phase III (Adopted June 2016)
- Service delivery goals - Service types - Service standards (span, frequency, etc.) - Passenger stop spacing	- Performance measures - Planning tools - Performance thresholds - Standards for implementing and prioritizing new transit services - TSPM application principles	- Service design standards (route deviations, route duplication, end-of-line turnarounds) - Fleet prioritization process

Phase I



Transit Standards – Proposed Categories



Service Provision Goals

- **Implement RTP services with performance in mind**
- **High priority to serve transit-dependents**
- **Provide desirable options to auto travel**
- **Improve performance and promote financial stability of agency**
- **Promote expansion that:**
 - Builds existing services to meet standards
 - Focuses new service as follows:
 - high population density
 - limited auto availability
 - low income
 - major activity centers

Phase I Regional Service Standards

SERVICE TYPE	MINIMUM HEADWAY or DAILY TRIPS	MINIMUM SPAN WEEK / SAT / SUN	OPERATING DAYS
Dial-a-Ride (ADA)	NA	16 hrs / 14 hrs / 12 hrs	Mon – Sun
Rural Connector	4 trips inbound/ 4 trips outbound	NA	Mon – Fri
Community/Circulator	30 min	12 hrs / 0 hrs / 0 hrs	Mon – Fri
Local Bus	30 min*	16 hrs / 14 hrs / 12 hrs	Mon – Sun
Key Local Bus**	15 min peak / 30 min base*	16 hrs / 14 hrs / 12 hrs	Mon – Sun
Limited Stop Peak	4 trips AM / 4 trips PM	NA	Mon – Fri
Limited Stop All-Day	Headways same as LRT Up to 2X Peak LRT	Same as LRT	Mon – Fri
Commuter Express	4 trips AM / 4 trips PM	NA	Mon – Fri
Light Rail Transit	12 min peak / 20 min base	18 hrs / 14 hrs / 12 hrs	Mon – Sun

*60 min early morning and late night service

** Key Local Parameters: >1,000,000 Annual Boardings, Low-Income Households, & Zero Auto-Households

Phase I Minimum Stop Spacing Standards

SERVICE TYPE	BASE
Dial-a-Ride (ADA)	NA
Rural Connector	NA
Community/Circulator	1/4 Mile
Local Bus	1/4 Mile
Key Local Bus	1/4 Mile
Limited Stop Peak	1 Mile
Limited Stop All-Day	1 Mile
Commuter Express	4 Maximum Inbound Stops
Light Rail Transit	1 Mile

Application of Standards – Existing Routes

- If an existing route does not meet transit standards, then measure performance to determine action.
 - If route is performing to set measures, keep route and look for ways to achieve transit standards.
 - If route is not performing to set measures, make route improvements.
 - If still not performing, then it becomes candidate for elimination

Application of Standards – New and Modified Routes

- Requirements for New Routes
 - Design routes to meet transit standards
 - Evaluate every six months for two years.
 - Make adjustments as needed, to meet performance measures.

Phase II

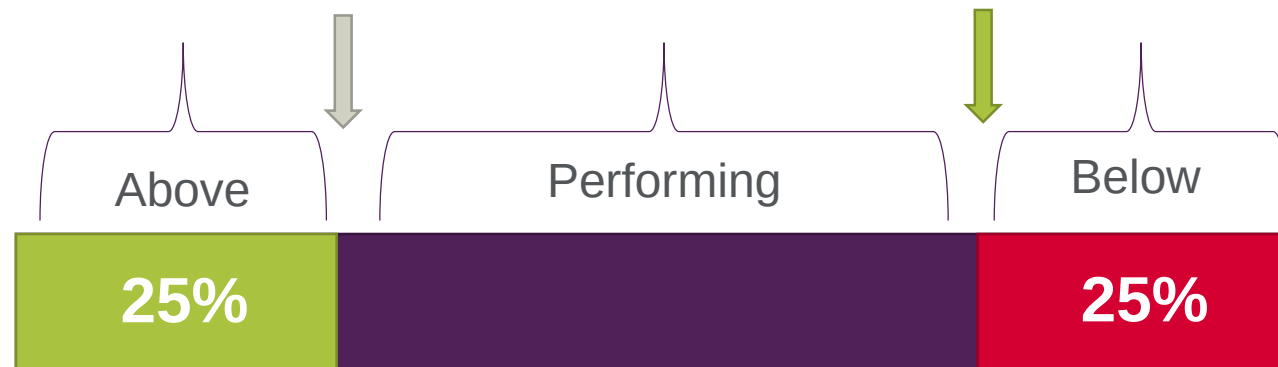


Proposed Transit Service Measures

Measures	Planning Tools
Boardings/revenue mile Boardings/revenue hour Boardings/revenue trip Farebox recovery rate On-time performance	Boardings by stop Boardings by time of day Subsidy per boarding Zero-auto households served Low-income households served Elderly persons served Youth served Person with mobility disability served Peak load factor Headways/trips Service span Operating days Population density Employment density Activity centers served

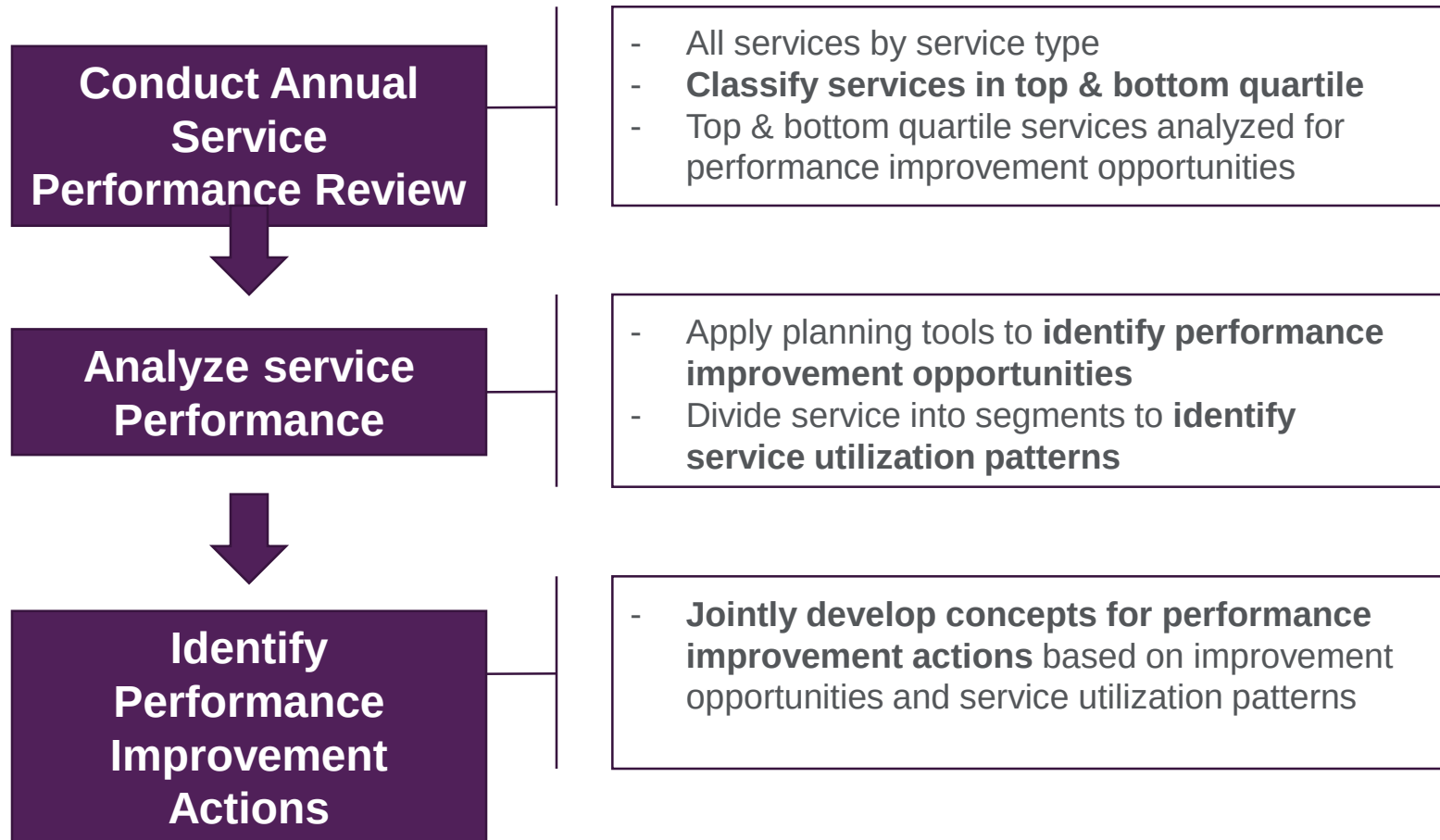
Proposed Transit Service Thresholds

- Apply a ranking of each service within their respective service type
- Annually, services performing above/below any of the measures will be further evaluated using the planning tools



Multi-Level Thresholds

Service Evaluation Process



Phase II Recommendations

- **Bottom Quartile Routes**
 - Analyzed more thoroughly for potential improvements
 - “Raw” ridership data evaluated for quality assurance
 - Additional data will be collected using automatic passenger counters or other sources/methods
 - A route in the bottom quartile is treated as a “performing” route if performance measures improve year over year
 - Performance improvement action examples include:
 - Frequency/schedule adjustments
 - Route length extensions or reductions
 - Travel speed enhancements
 - Targeted marketing

Transit Service Standards

- **New services expected to meet adopted standards**
 - Exception: weekend service levels
- **Expected to attain “performing” level within 3 years**
- **Existing routes that perform will not be subject to meeting standards**
- **Locally funded transit services are excluded**

Phase III



TSPM Phase III Recommendations

- **Performance thresholds**
- **Service design standards**
 - Route deviations
 - Revenue service end-of-line vehicle turnarounds
 - Route duplication
- **Regional fleet prioritization**
 - Production years (existing fleet)
 - Development years (expansion fleet)

Fleet Prioritization Need and Applicability

Why do we need fleet prioritization?

- Support regional partners' needs
- Support short-range transit planning process
- Defined process for allocating existing and programmed fleet for new service implementation, expansion, and deficiencies

What fleet would process be applied to?

- Regionally funded fleet (capital match or operating) and/or operated by Valley Metro
- Bus transit modes only

How would process work with existing fleet procurement processes?

- Process will integrate with existing regional fleet programming and procurement processes

Existing Route Fleet Prioritization

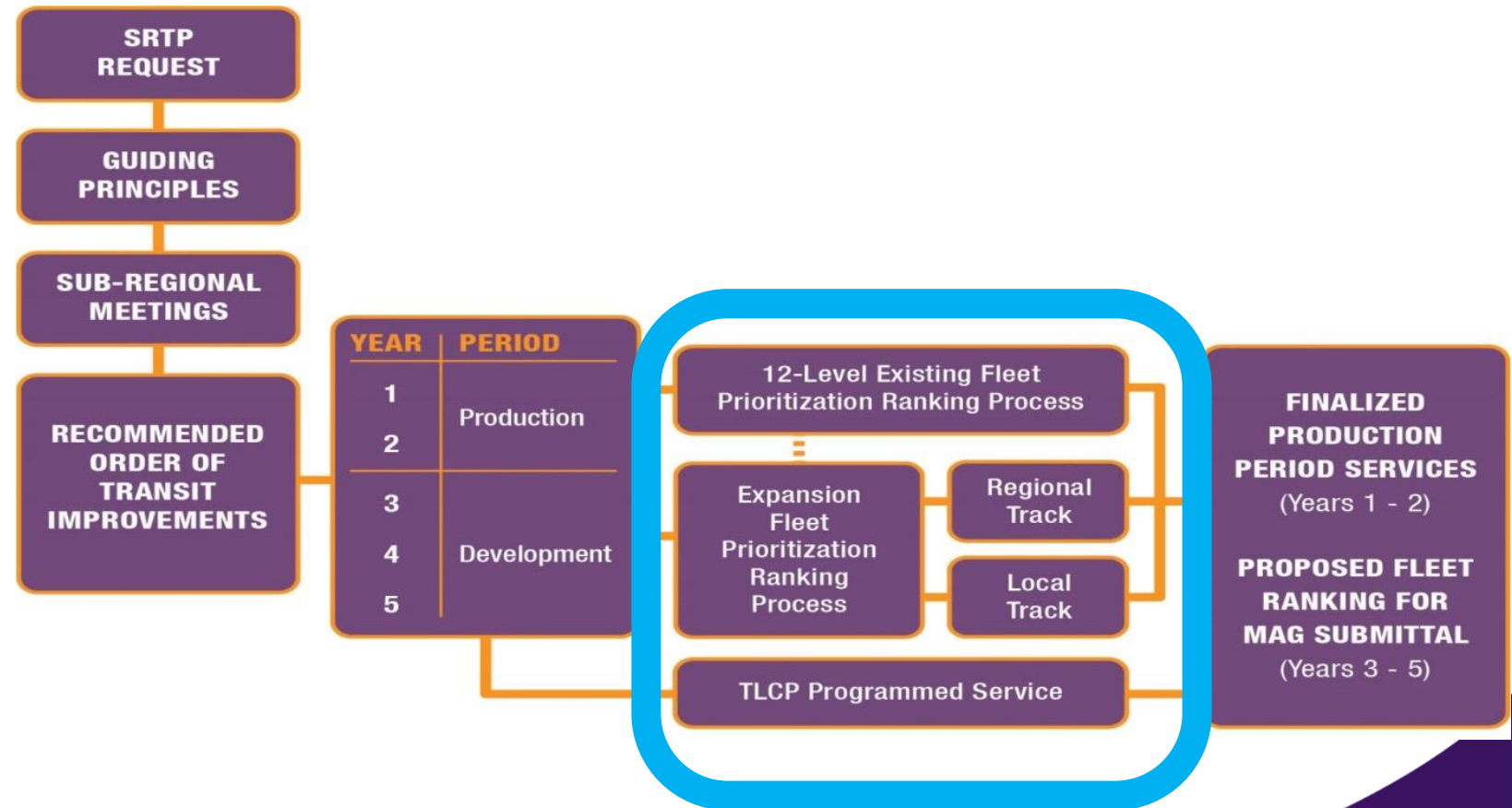
Service Adjustment	Purpose	Rank Level
Implement TLCP-programmed service as scheduled	Implement TLCP-programmed service	1
Early implementation of programmed service as scheduled in TLCP	Addresses performance-based fleet need (high ridership or running-time adjustment)	2
	Will enhance regional transit connectivity (connect one or more routes)	3
	Will reach potential ridership generator	4
Implement TLCP-planned service	Implement TLCP-planned service	5
Locally funded expansion of an existing route funded through the TLCP	Existing service with performance-based fleet need (high ridership or insufficient schedule)	6
	Will reach potential ridership generator	7
Implementation of service adjustment on existing locally funded service	Addresses performance-based fleet need (e.g. running-time adjustment)	8
	Will enhance regional transit connectivity (connect one or more routes)	9
	Will reach potential ridership generator	10
Implementation of new locally funded service	Will enhance regional transit connectivity (connect one or more routes)	11
	Will reach potential ridership generator	12

Expansion Fleet Prioritization

EXPANSION FLEET PRIORITIZATION RANKING PROCESS		
Category	Metric	Points
Funding Characteristics	Is there between 2 and 3 years of funding committed for the service improvement? OR Is there more than 3 years of funding committed for the service improvement?	1
		2
	Is the service improvement a TLCP-planned service?	1
TSPM Compliance	Does the service improvement meet weekday service standards?	0.5
	Does the service improvement meet Saturday service standards?	0.25
	Does the service improvement meet Sunday service standards?	0.25
	Does the service improvement meet the current transit propensity threshold? (Note: only applicable to local/key local service improvements greater than 1 mile)	1
	Does the service improvement remove/modify an under-performing route deviation, thereby requiring at least one less vehicle for operation?	1
Regional Connectivity	Does the service improvement serve multiple jurisdictions?	1
	Does the service improvement connect to other transit route alignments?	0.25 per connection (2 points maximum)

TSPM Phase III Recommendations

- **Regional SRTP fleet prioritization**
 - Production years (existing fleet)
 - Development years (expansion fleet)



Short Range Transit Program



Short Range Transit Program (SRTTP)

- Identifies regionally and locally funded transit service change concepts for the next five years
- In accordance with Transit Life Cycle Program (TLCP) policies
- Based on input from member agencies and VM staff

S RTP Process

- **Develop service concepts with member agencies**
- **Prioritize service concepts for “production” years**
- **Review performance**

FY17 TSPM Quartiles

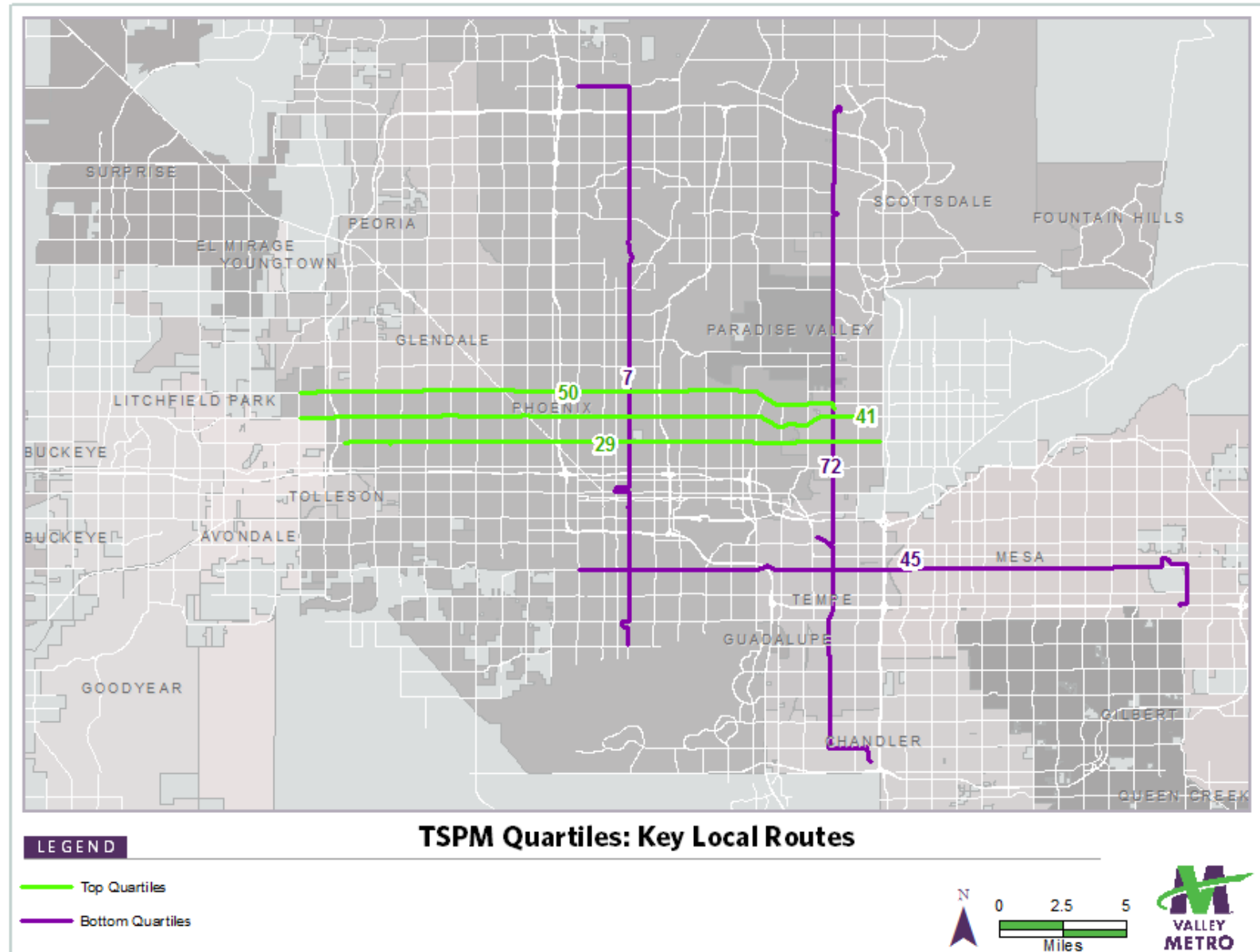
Low Performance Routes

	Route Number	Bottom Quartile: On-Time Performance	Bottom Quartile: Weekday Boardings per Revenue Hour	Bottom Quartile: Weekday Boardings per Revenue Mile	Bottom Quartile: Weekday Farebox Recovery Rate (%)	Bottom Quartile: Weekday boardings per TRIP
Service Type	Route	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5
Local Routes	1		•	•	•	NA
Local Routes	28		•	•	•	NA
Local Routes	39		•	•	•	NA
Local Routes	75	•	•		•	NA
Local Routes	83	•	•	•	•	NA
Local Routes	108	•	•	•	•	NA
Local Routes	122		•	•	•	NA
Local Routes	154		•	•	•	NA
Local Routes	184		•	•	•	NA
Local Routes	186		•	•	•	NA
Local Routes	251		•	•		NA
Key Local Routes	7		•	•	•	NA
Key Local Routes	45		•	•		NA
Key Local Routes	72		•	•		NA
Commuter Express	514		•		•	•
Commuter Express	520	•	•			•
Commuter Express	521		•		•	•
Commuter Express	522	•			•	
Commuter Express	CSM				•	•
Commuter Express	CSM-E		•		•	•

High Performance Routes

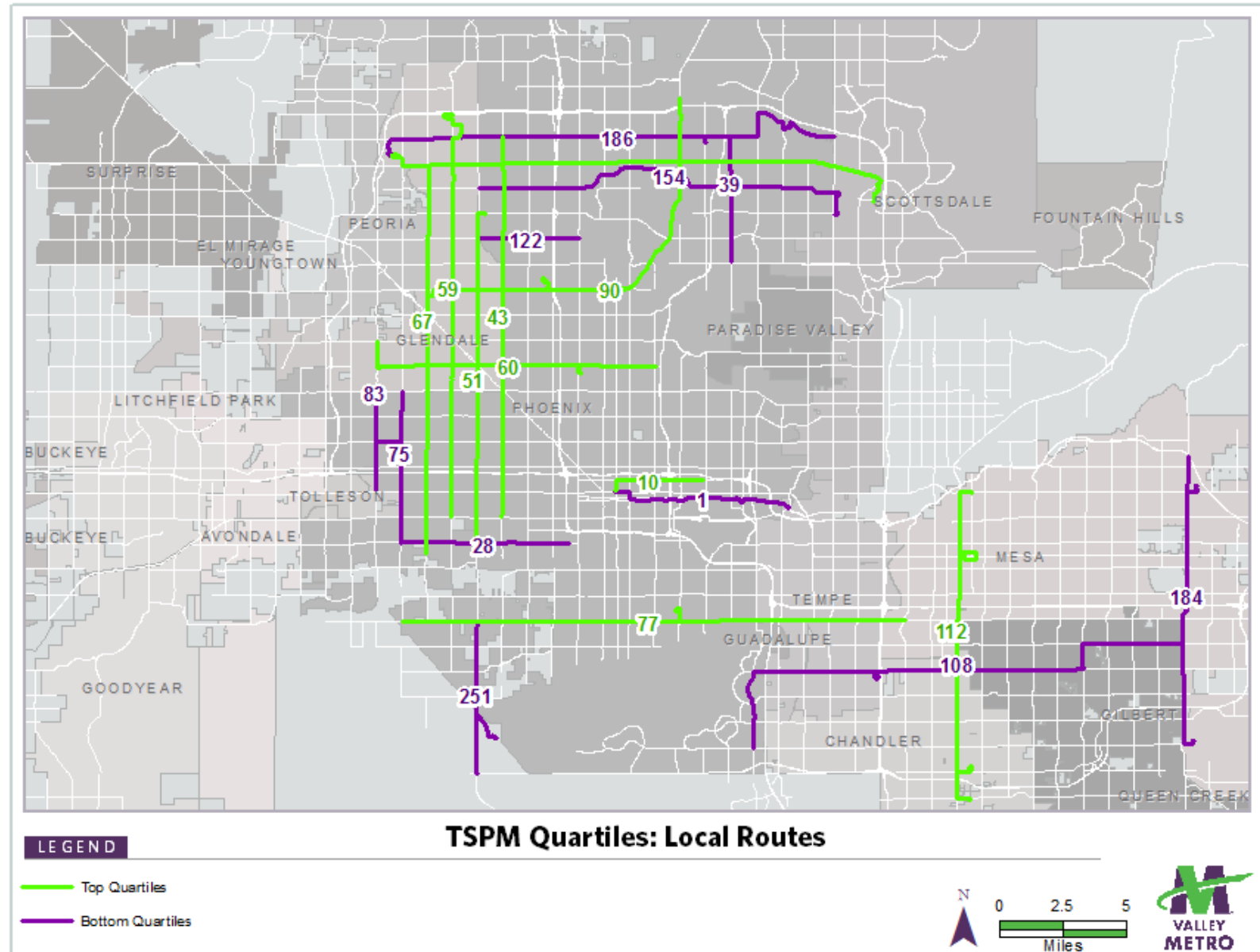
	Route Number	Top Quartile: On-Time Performance	Top Quartile: Weekday Boardings per Revenue Hour	Top Quartile: Weekday Boardings per Revenue Mile	Top Quartile: Weekday Farebox Recovery Rate (%)	Top Quartile: Weekday boardings per TRIP
Service Type	Route	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5
Local Routes	10		★	★	★	NA
Local Routes	43		★	★	★	NA
Local Routes	51		★	★	★	NA
Local Routes	59		★	★	★	NA
Local Routes	60		★	★		NA
Local Routes	67		★	★	★	NA
Local Routes	77		★	★	★	NA
Local Routes	90		★	★		NA
Local Routes	112	★	★	★	★	NA
Local Routes	170	★	★	★		NA
Key Local Routes	29			★	★	NA
Key Local Routes	41			★	★	NA
Key Local Routes	50		★	★		NA
Commuter Express	533		★		★	★
Commuter Express	535		★		★	★
Commuter Express	542				★	★
Commuter Express	562		★		★	★
Commuter Express	563	★			★	
Commuter Express	SR51	★	★			
Commuter Express	I-10 E	★	★			★

TSPM Quartiles: Key Local Routes

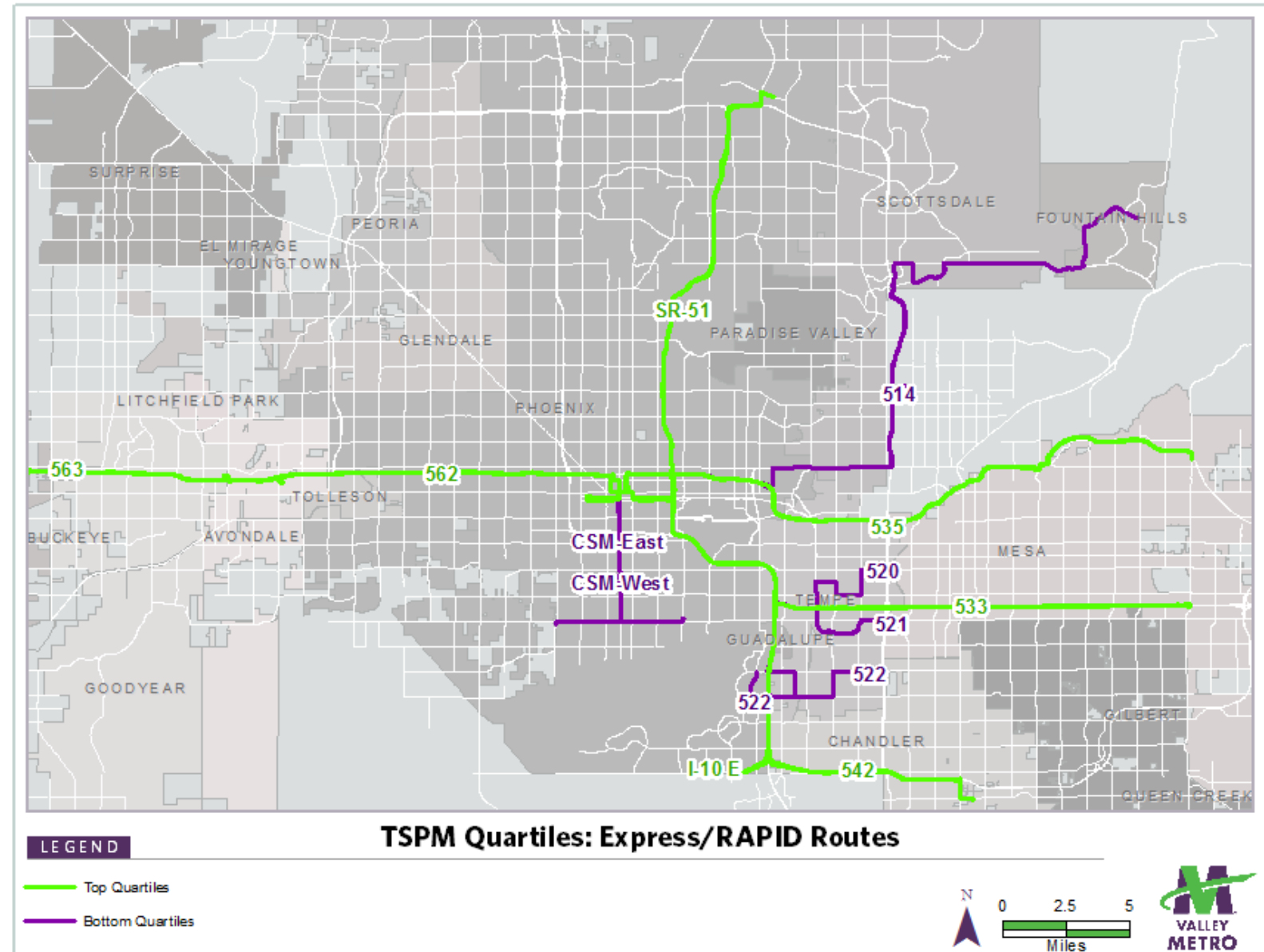


TSPM

Quartiles: Local Routes



TSPM Quartiles: Express / RAPID Routes



Thank You

