

Service Guidelines Task Force

Metro Overview

March 4, 2015

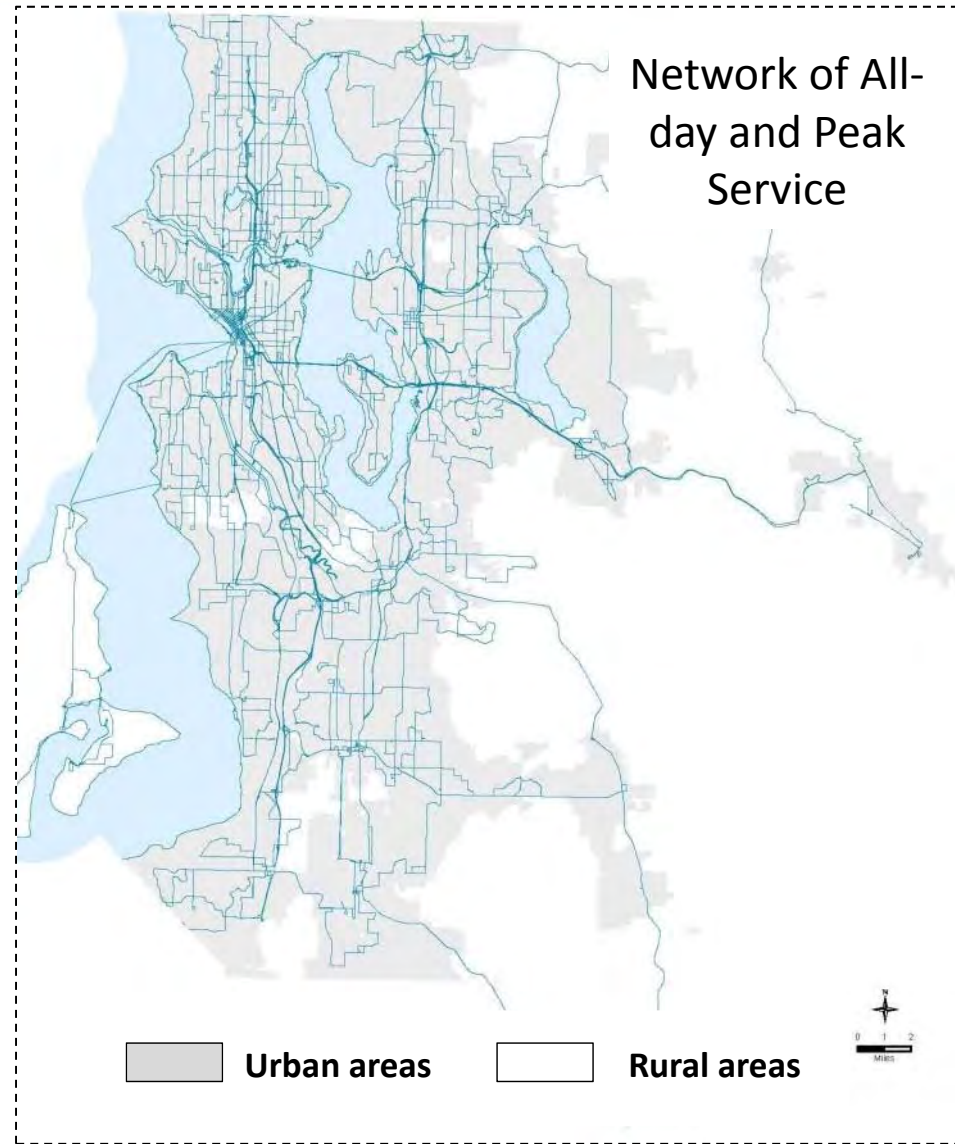


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King County Metro overview



- 2 million people
- 2,134 sq mile service area
- 120 million trips per year on more than 1,400 buses
- 3.5 million annual service hours



Metro: Transit Products and Services

Fixed Route service: 120 million



Contracted service: 20.5 million



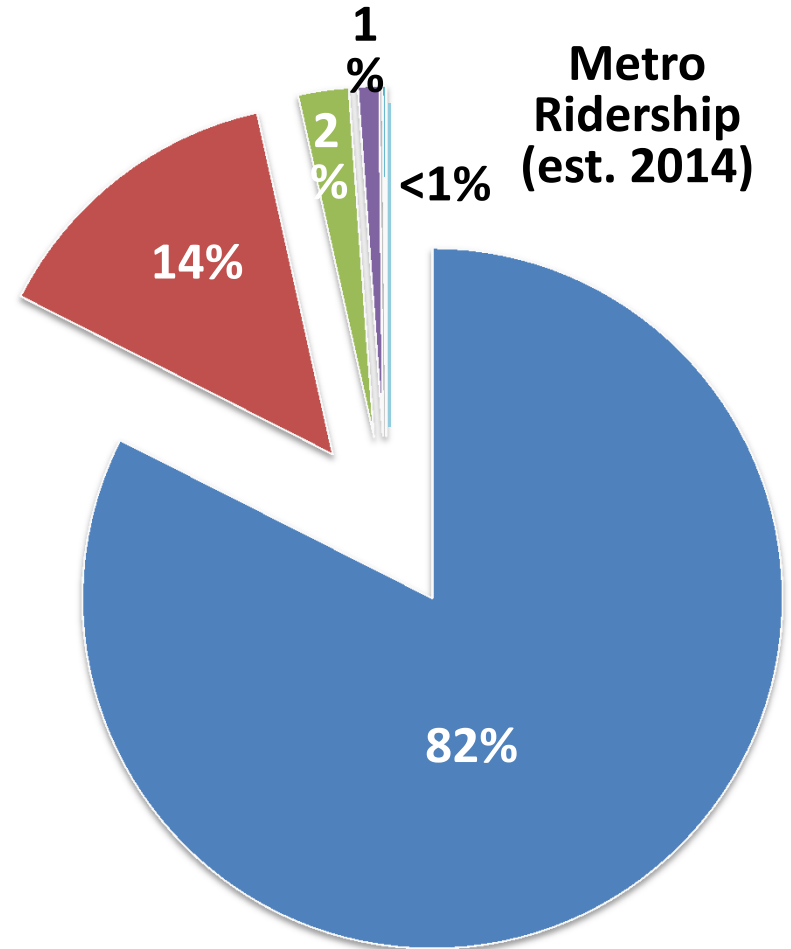
Vanpool/Vanshare: 3.4 million



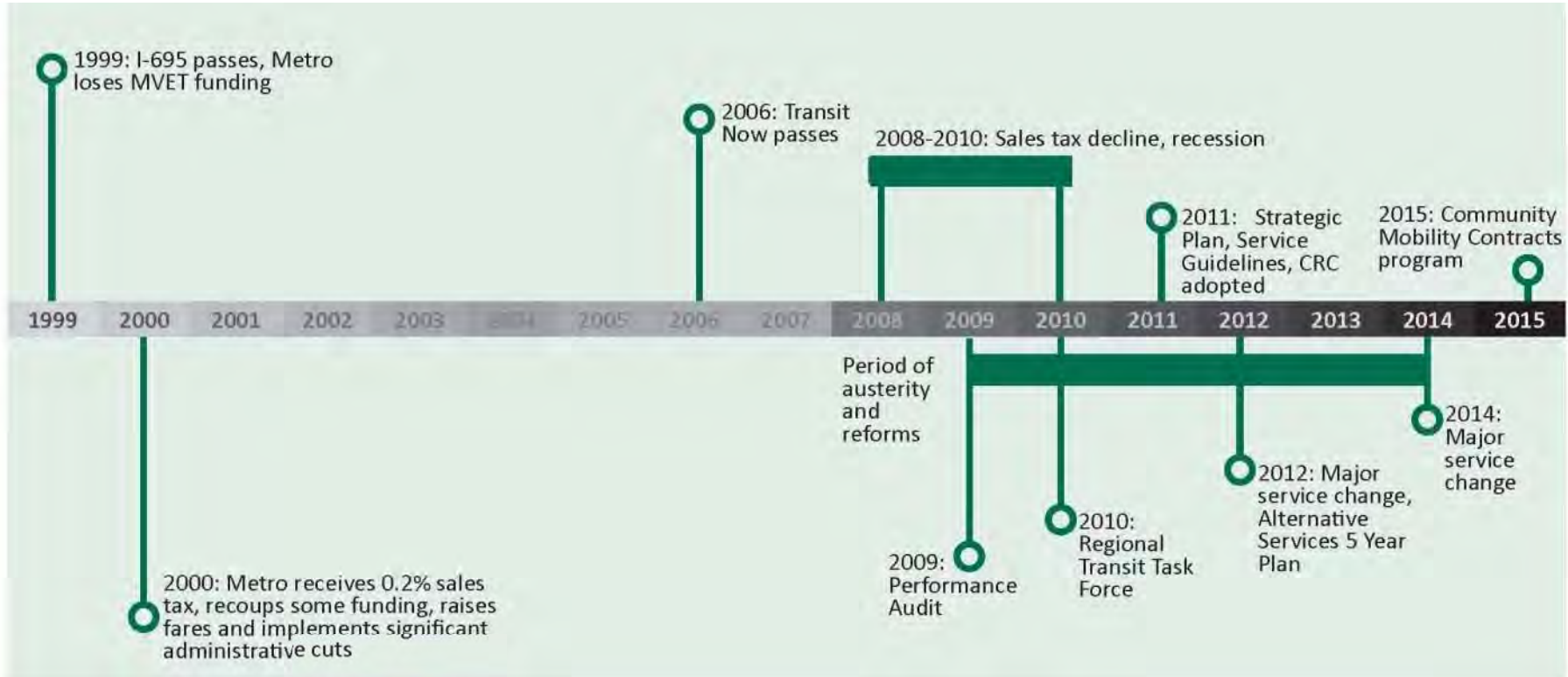
Accessible services: 1.4 million



Alternative services: 17,000



Metro's recent history



2010 Regional Transit Task Force (RTTF)

Asked to recommend policy framework with:

- Criteria for transit system growth, reduction
- Strategies for increasing Metro's efficiency
- State and federal legislative agenda to support recommendations



RTTF recommendations

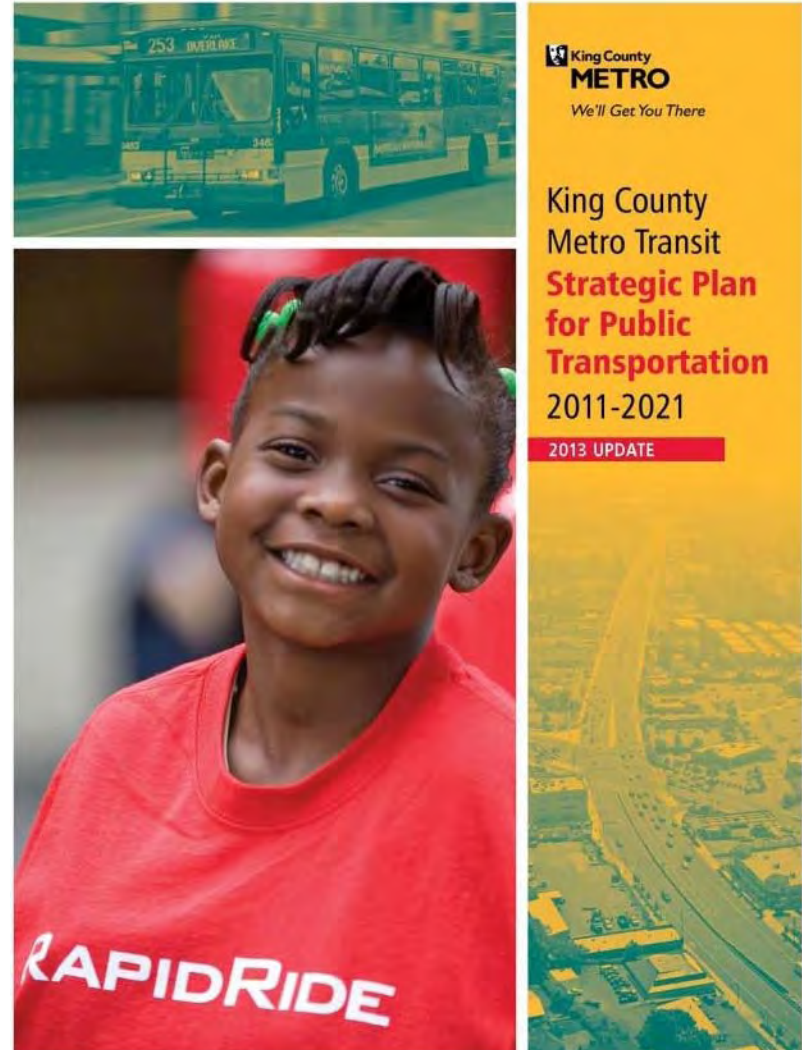
- Mission and vision
- Service Guidelines
- Productivity, social equity and geographic value
- Transparency and clarity
- Cost control
- Sustainable funding



RTTF recommendation – mission and vision

New strategic plan

- Vision for safe, efficient, reliable, easy to use, cost-effective system
- Offers fixed route transit and alternative services
- Better quality of life in Puget Sound
- Engaged public and quality employees
- Financial stability



RTTF recommendation – service guidelines

“Create clear and transparent guidelines to be used for making service allocation decisions, based upon the recommended policy direction.”

“Use the following principles to provide direction for the development of service guidelines:

- Transparency, clarity and measurability
- Use of the system design factors
- Flexibility to address dynamic financial conditions
- Integration with the regional transportation system
- Development of performance thresholds as the basis for decision-making on network changes.”

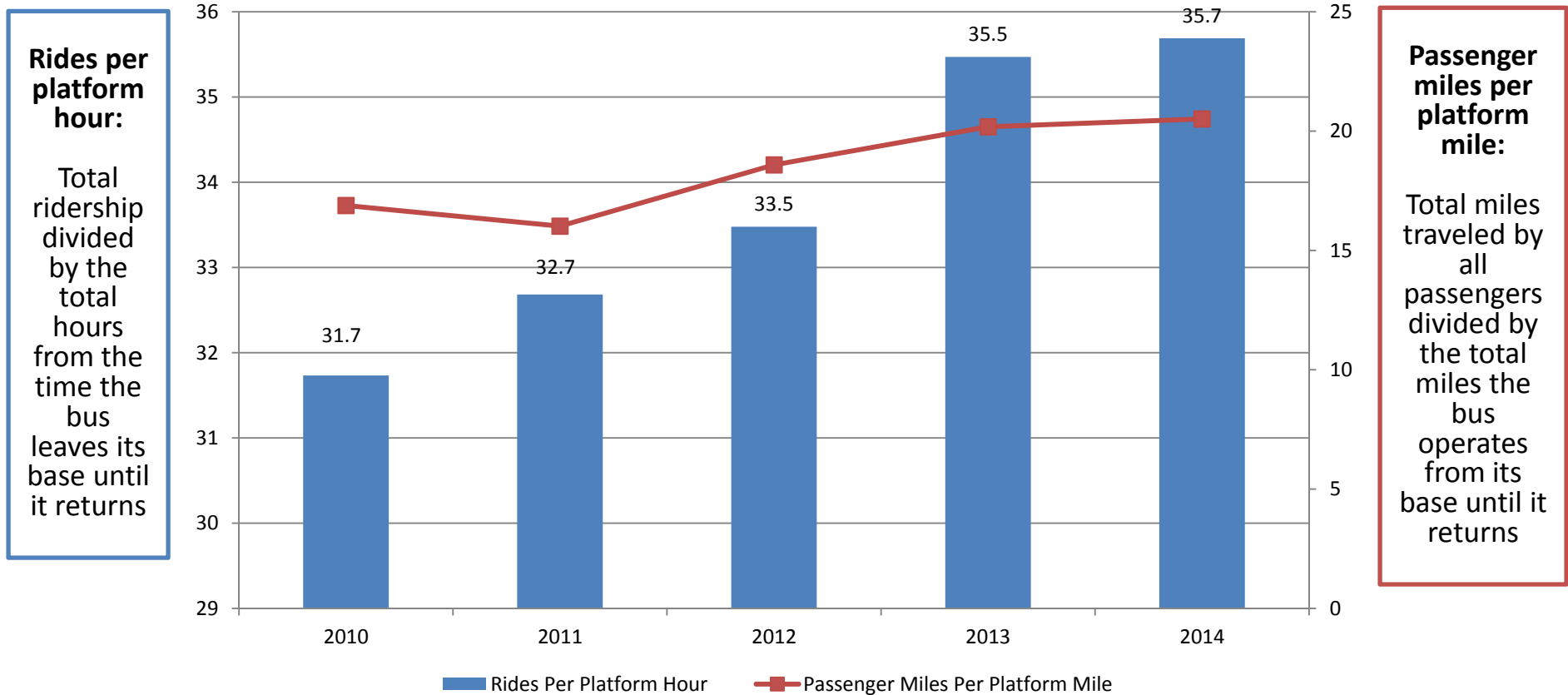
RTTF recommendation – productivity, social equity, geographic value

“The policy guidance for making service reduction and service growth decisions should be based on the following priorities:

- 1) Emphasize **productivity** due to its linkage to economic development, land use, financial sustainability, and environmental sustainability
- 2) Ensure **social equity**
- 3) Provide **geographic value** throughout the county.”

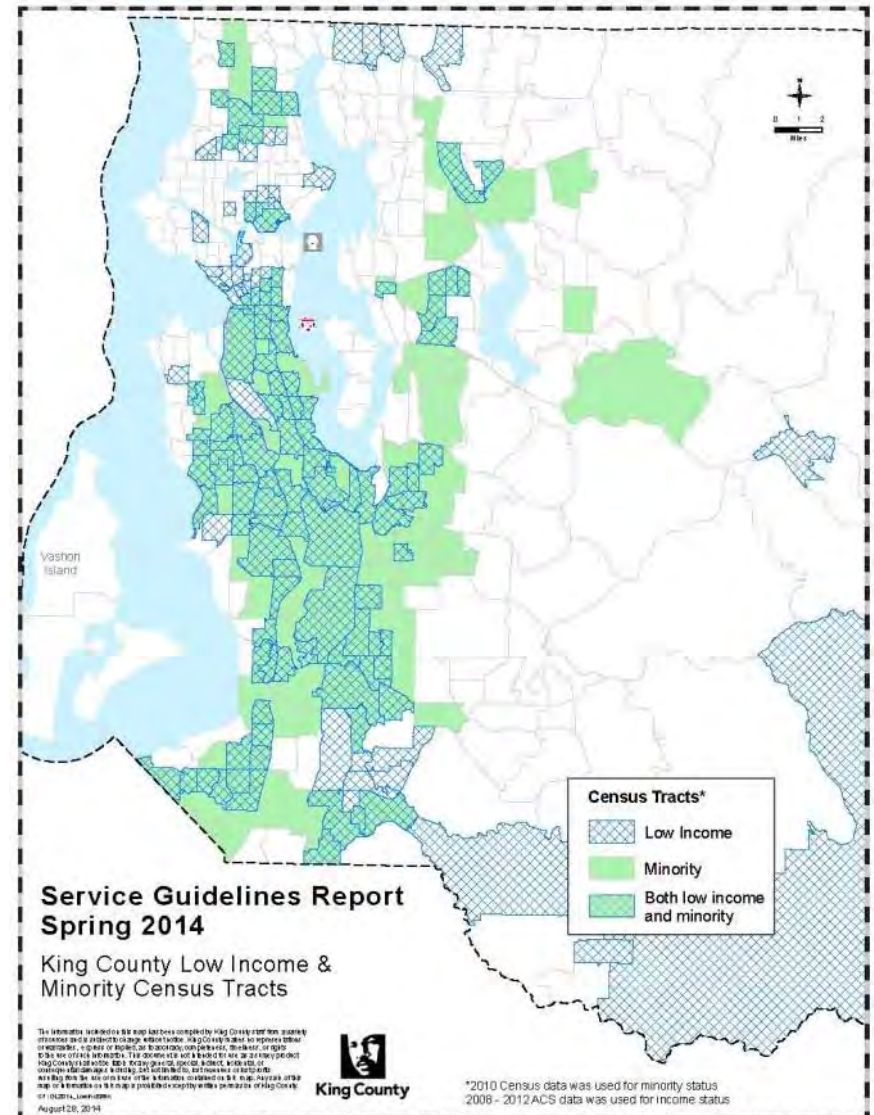
RTTF recommendation – productivity

Outcome: System Productivity 2010-2014



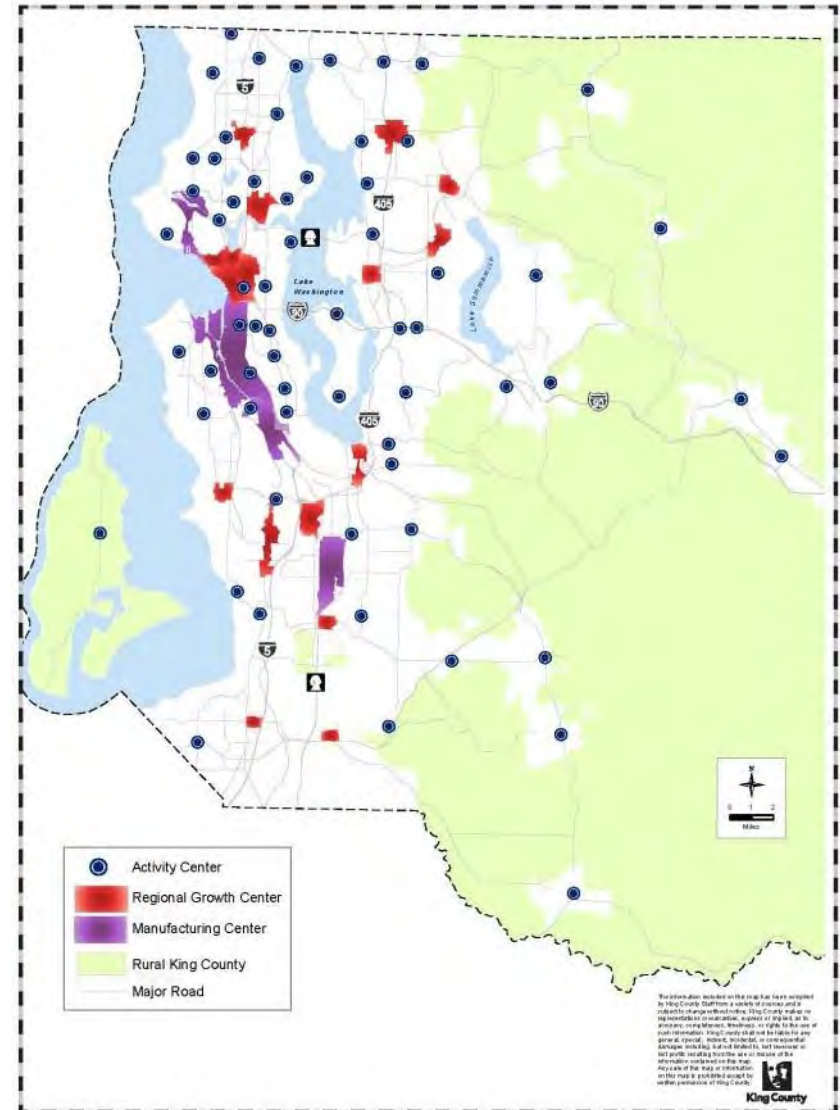
RTTF recommendation – social equity

- **Established new methods to incorporate social equity measures into service guidelines**, which assess social equity through:
 - Boardings in low income census tracts
 - Boardings in minority census tracts
- Also ensure social equity through:
 - Community engagement to impacted areas
 - Title VI analysis



RTTF recommendation – geographic value

- **Incorporated geographic value into service guidelines, which assess centers and corridors**
 - 85 centers are geographically distributed throughout King County
 - Analyze 112 corridors that connect all 85 centers
- Also provide geographic value through:
 - Community engagement to impacted areas
 - Ensuring service is distributed throughout the county
 - Alternative Services



RTTF recommendation – transparency, clarity

“Metro should create and adopt a new set of performance measures by service type, and report at least annually on the agency’s performance on these measures. The performance measures should incorporate reporting on the key system design factors, and should include comparisons with Metro’s peer transit agencies.”

RTTF recommendation – transparency, clarity

- Strategic Plan Progress Reports
- Annual Service Guidelines Reports
- Accountability Center
 - Rider/Non-Rider surveys
 - Peer comparisons



RTTF recommendation – cost control

“King County and Metro management must control all of the agency’s operating expenses to provide a cost structure that is sustainable over time. Cost-control strategies should include continued implementation of the 2009 performance audit findings, exploration of alternative service delivery models, and potential reduction of overhead and internal service charges. “

RTTF recommendation – cost control

- Summary of Actions and Results
 - Implemented recommendations from 2009 Performance Audit
 - Increase in farebox recovery over the last 10 years is 4th highest among peer agencies
 - Cost per boarding growth over the last 10 years is well below peer agency average



RTTF recommendation – cost control

- Summary of Actions and Results

Actions	Cumulative Total through 2013	Ongoing Annual Savings
Ongoing productivity/ efficiency actions	\$204 million	\$93 million
Revenue-related actions	\$250 million	\$55 million
One-time actions (cash savings)	\$344 million	
TOTAL	\$798 million	\$148 million

- These measures plus regional recovery and reduced fuel costs staved off major service reductions

Alternative services

- Ordinance adopting Strategic Plan required alternative services
- Alternative Services Delivery Plan adopted 2012
- Augments fixed-route transit
 - Ridesharing/vanpool, paratransit, dial-a-ride transit (DART), community shuttles, taxi scrip, community hub, community van, flexible ridesharing
- \$12 million in 2015/2016 transit budget



RTTF recommendation – sustainable funding

“King County, Metro, and a broad coalition of community and business interests should pursue state legislation to create additional revenue sources that would provide a long-term, more sustainable base of revenue support for transit services. To build support for that work, it is essential that King County adopt and implement the task force recommendations, including use of the service guidelines and performance measures, and continue efforts to reduce Metro’s operating costs.”

RTTF recommendation – sustainable funding

- Congestion reduction charge
- No permanent new state tools
- King County Transportation Benefit District (Proposition 1)
- After the failure of King County's Proposition 1, Seattle put their own measure on the ballot
- Still need a long term solution



Service Guidelines Task Force

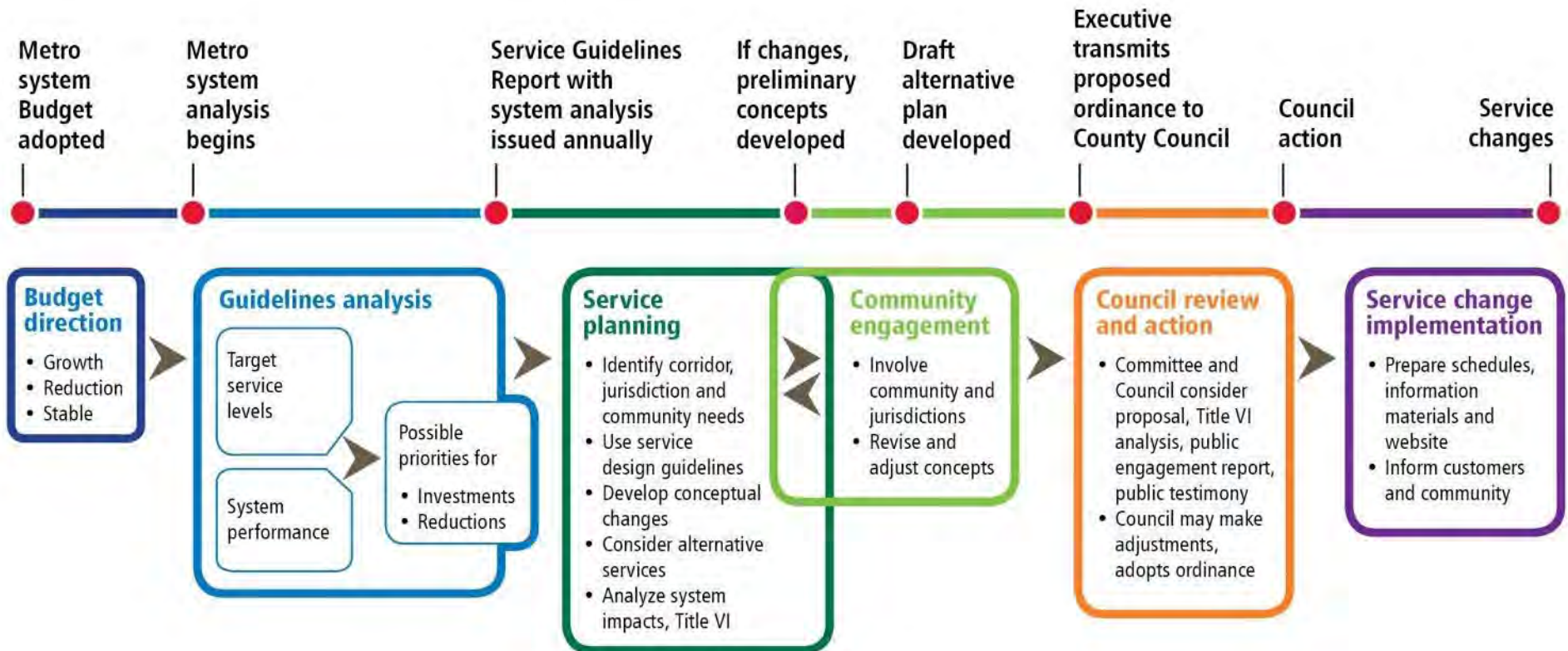
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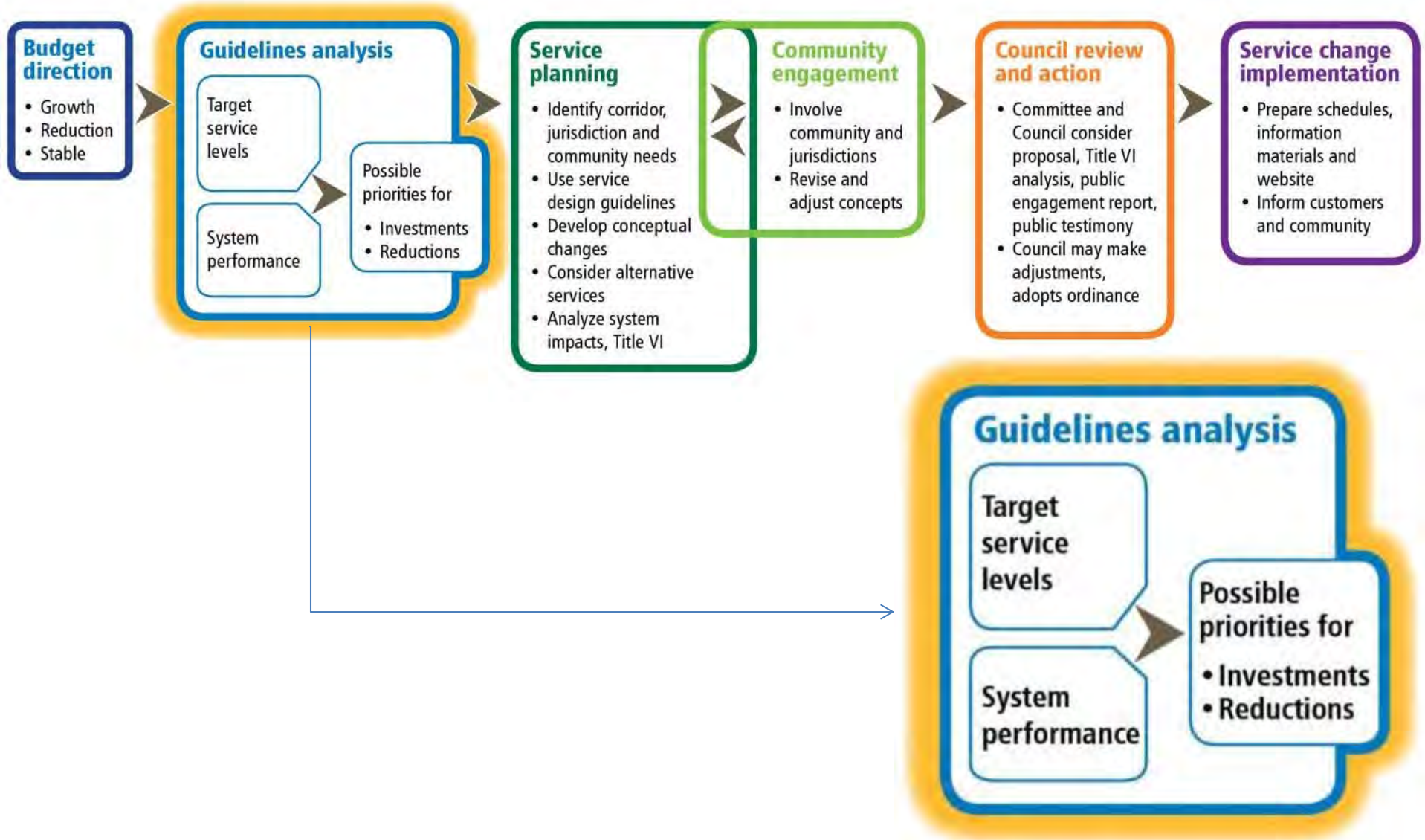


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How does Metro's planning process work?



Metro's service guidelines



Priorities for

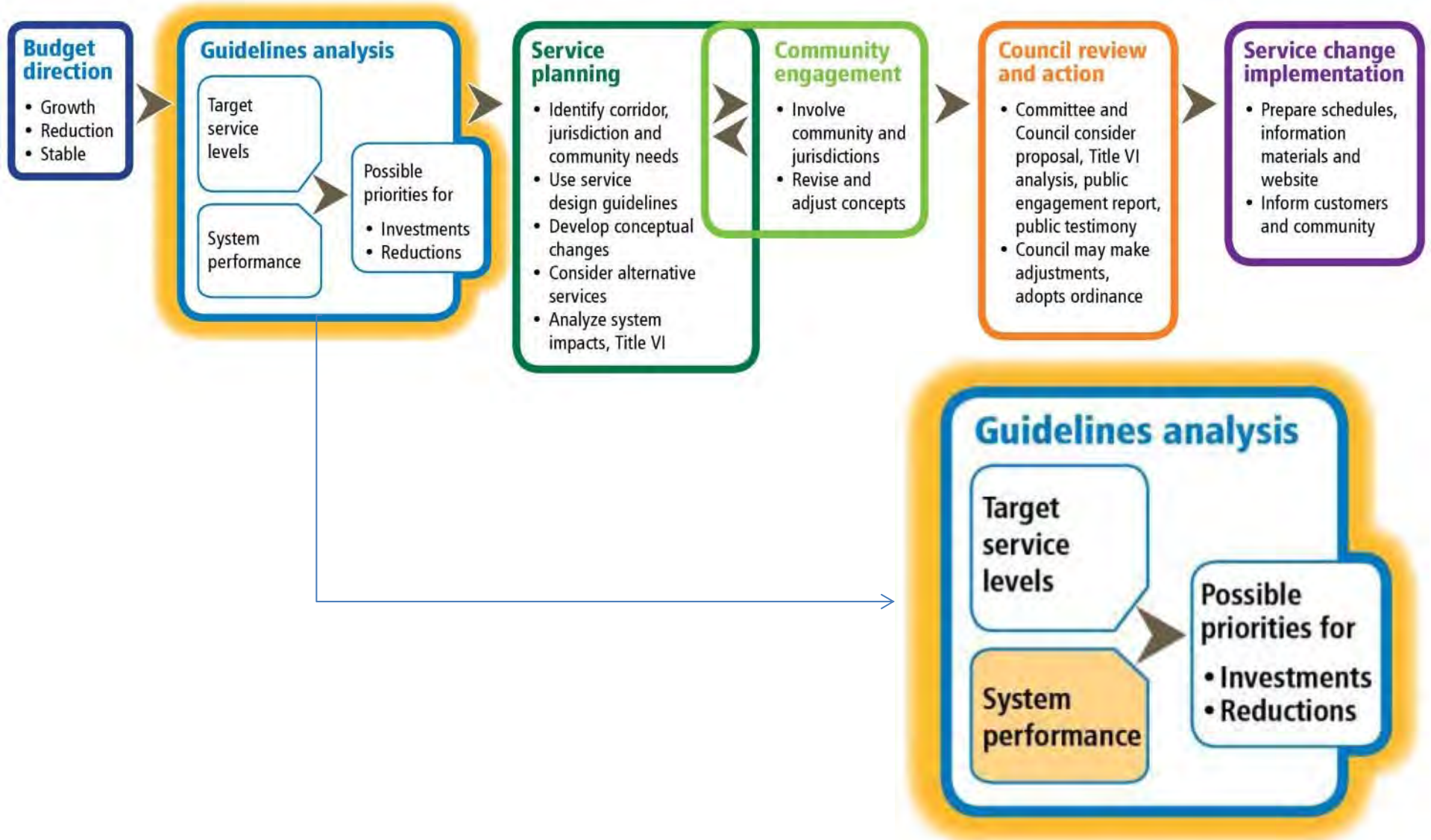
Investments

1. Reduce overcrowding
2. Improve reliability
3. Achieve target service levels
4. Become more productive

Reductions

1. Routes in bottom 25 percent of productivity
2. Restructure service to improve efficiency
3. Routes between 25 and 50 percent of productivity
4. Routes in bottom 25% that warrant higher service level

Guidelines analysis: system performance



Route performance

- Determine performance based on measures
- Identify routes with passenger crowding
- Identify routes with reliability issues

Rides per platform hour:

Total ridership divided by the total hours from the time the bus leaves its base until it returns

Passenger miles per platform mile:

Total miles traveled by all passengers divided by the total miles the bus operates from its base until it returns

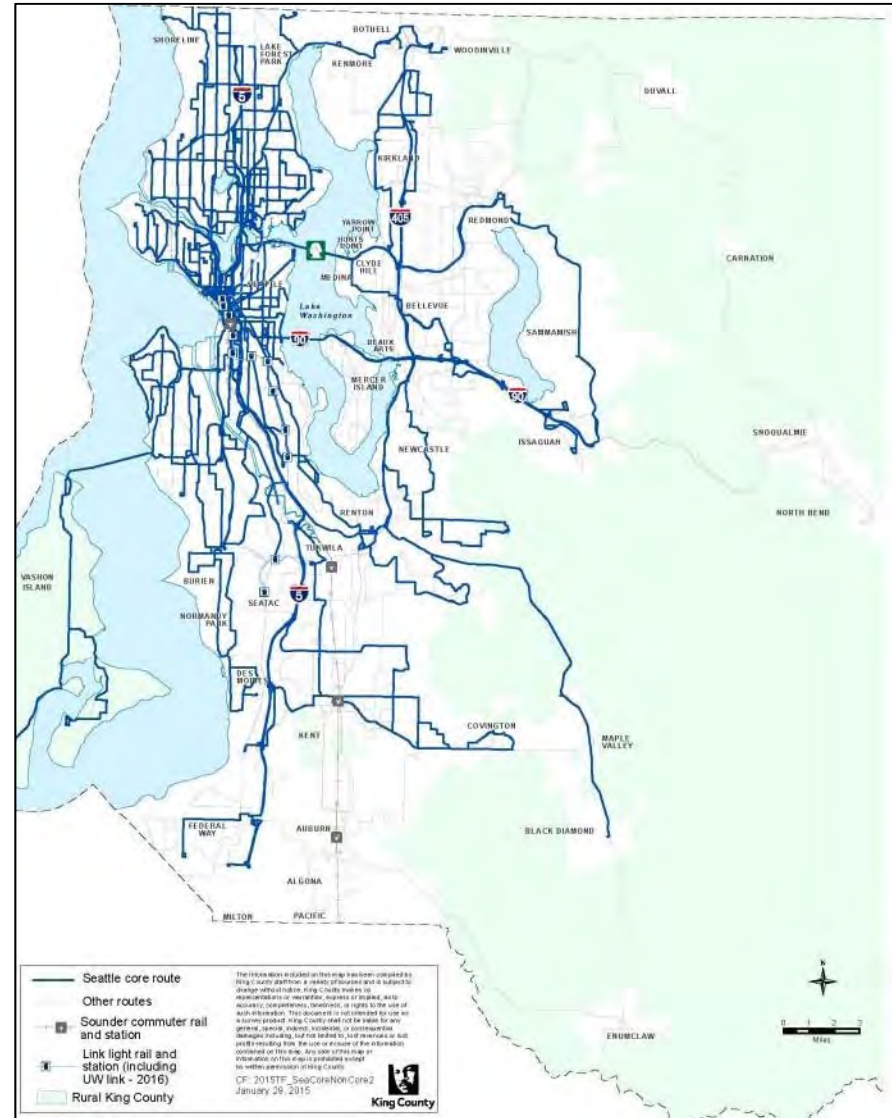
Route performance – serve Seattle core

The productivity of routes connecting with the Seattle CBD, First Hill, Capitol Hill, South Lake Union, and University District will be compared to each other, by time of day

These routes are held to a **higher** standard for performance

Example: peak service thresholds (top 25%)

Measures	Rides/ platform hour	Passenger miles/ platform mile
Seattle core	48.2	17.1
Non Seattle core	25.2	8.1



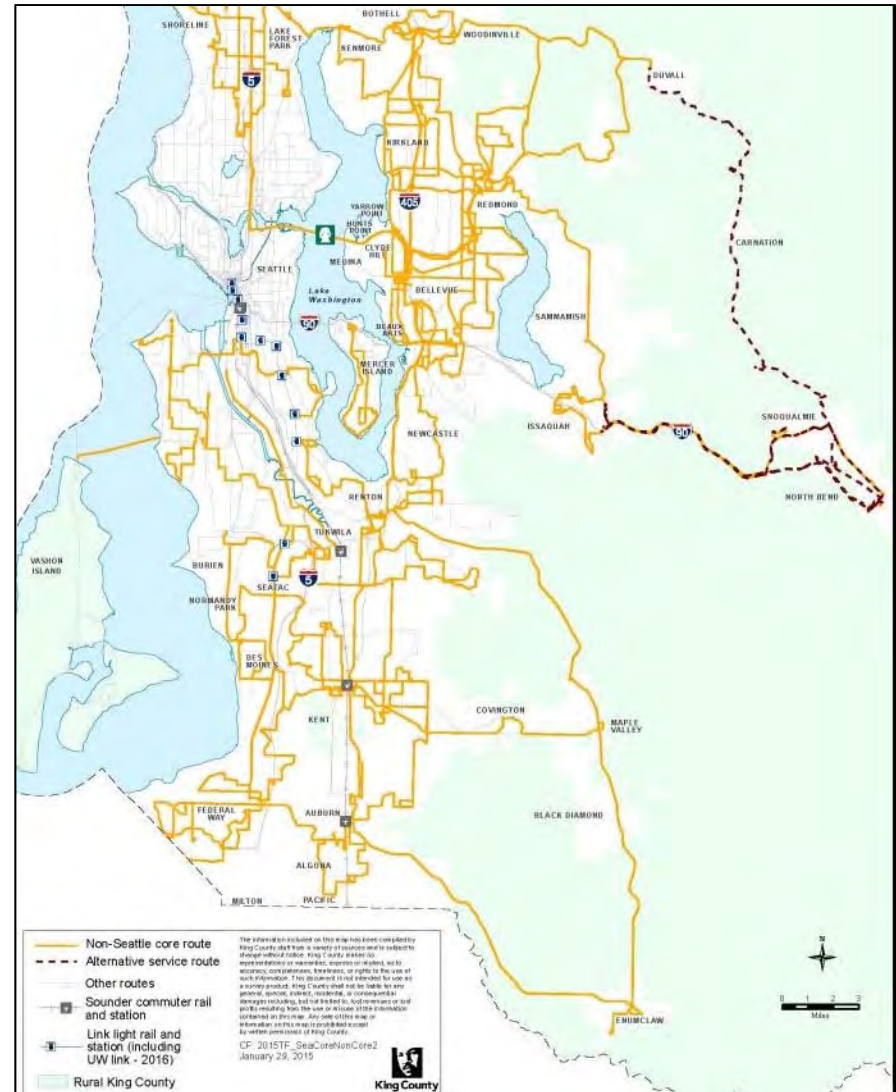
Route performance – do not serve Seattle core

The productivity of routes connecting activity centers *outside* Seattle core areas will be compared to one another, by time of day

These routes are held to a **lower** standard for performance

Example: peak service thresholds (top 25%)

Measures	Rides/ platform hour	Passenger miles/ platform mile
Seattle core	48.2	17.1
Non Seattle core	25.2	8.1



Route performance

Route (serves Seattle core)	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
C Line	Westwood Village - Alaska Junction - Seattle CBD	50.4	20.9	45.7	20.0	30.1	12.6
D Line	Ballard - Seattle Center - Seattle CBD	76.1	20.8	66.2	19.8	45.0	12.7
E Line	Aurora Village - Seattle CBD	49.8	19.4	53.1	22.9	37.9	14.9
1	Kinnear - Seattle CBD	54.6	12.1	46.2	9.4	32.7	6.8
2	West Queen Anne - Seattle CBD - Madrona Park	49.0	11.2	44.8	10.0	28.4	6.7
3	North Queen Anne - Seattle CBD - Madrona Park	53.7	11.1	49.4	10.6	24.7	5.6
4	East Queen Anne - Seattle CBD - Judkins Park	50.4	10.5	44.8	9.4	25.1	5.9
5EX	Shoreline CC - Seattle CBD	44.9	15.7				
5	Shoreline CC - Seattle CBD	58.5	18.5	48.0	14.3	35.0	10.7
7EX	Rainier Beach - Seattle CBD	35.6	8.7				

Spring 2014 Thresholds Routes that serve Seattle Core	Peak		Off Peak		Night	
Bottom 25%	24.3	10.7	33.7	9.8	20.7	5.9
Top 25%	48.2	17.1	51.1	14.9	35.1	10.2

Route (does not serve Seattle core)	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
A Line	Federal Way - Tukwila	56.1	15.5	59.7	19.0	41.1	12.0
B Line	Bellevue - Crossroads - Redmond	43.5	12.3	37.2	10.7	30.2	7.5
22	Arbor Heights - Westwood Village - Alaska Junction	11.9	2.5	9.5	2.2	5.5	1.4
50	Alki - Columbia City - Othello Station	22.4	4.9	19.3	4.8	9.8	2.5
61	North Beach - Ballard	7.2	1.0	7.8	1.2	4.1	0.6
105	Renton Highlands - Renton TC	32.8	8.6	27.8	8.0	19.1	5.7
107	Renton TC - Rainier Beach	24.0	6.3	22.1	6.1	16.0	4.3
110	Tukwila Station - North Renton	12.1	2.1				
118	Tahlequah - Vashon	14.7	2.6	12.1	1.9	10.6	3.1
119	Dockton - Vashon	13.2	2.1	11.3	1.5		

Spring 2014 Thresholds Routes that Do Not serve the Seattle Core	Peak		Off Peak		Night	
Bottom 25%	12.0	2.4	11.3	2.7	11.3	2.7
Top 25%	25.2	8.1	24.7	8.0	18.8	6.3

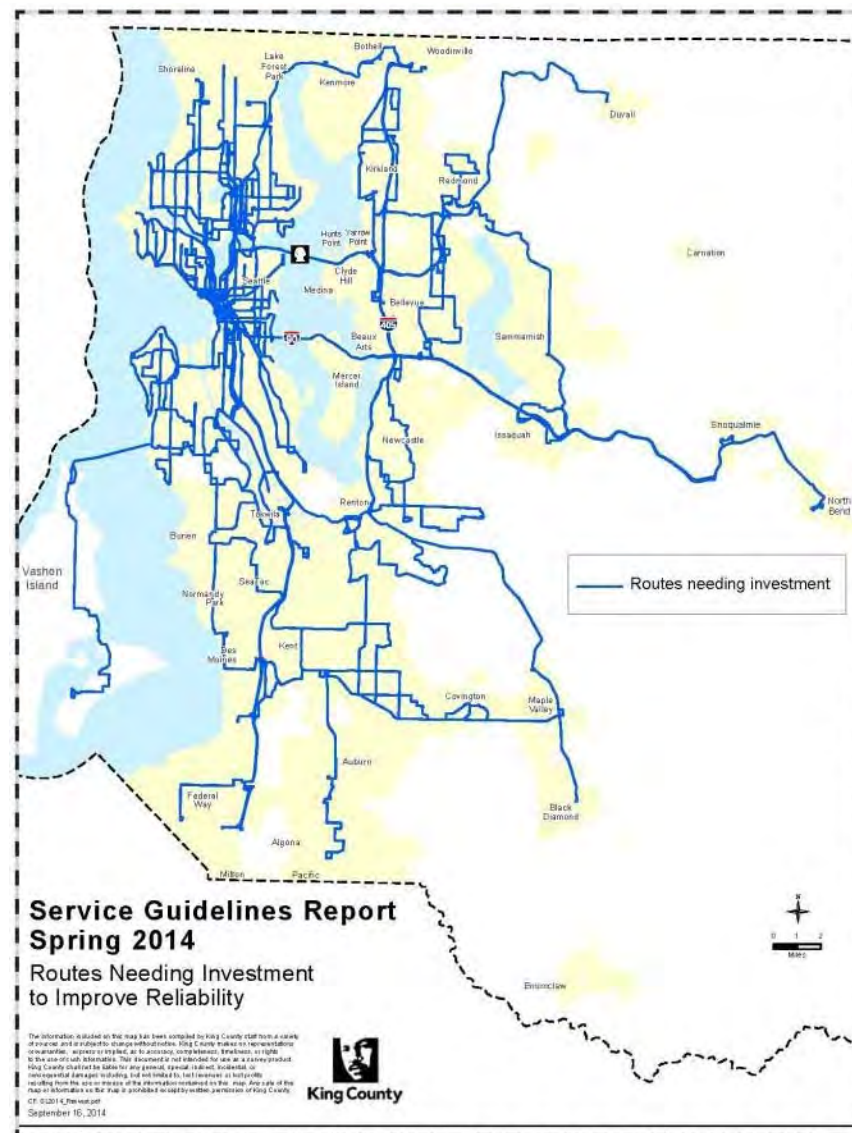
Service quality needs: passenger crowding

- Chronically crowded service has poor quality and negatively impacts riders
 - 25-50% more riders than seats
 - People standing for more than 20 minutes
- Highest priority to address
- 2014 report identified 22,200 hours of need on 27 routes

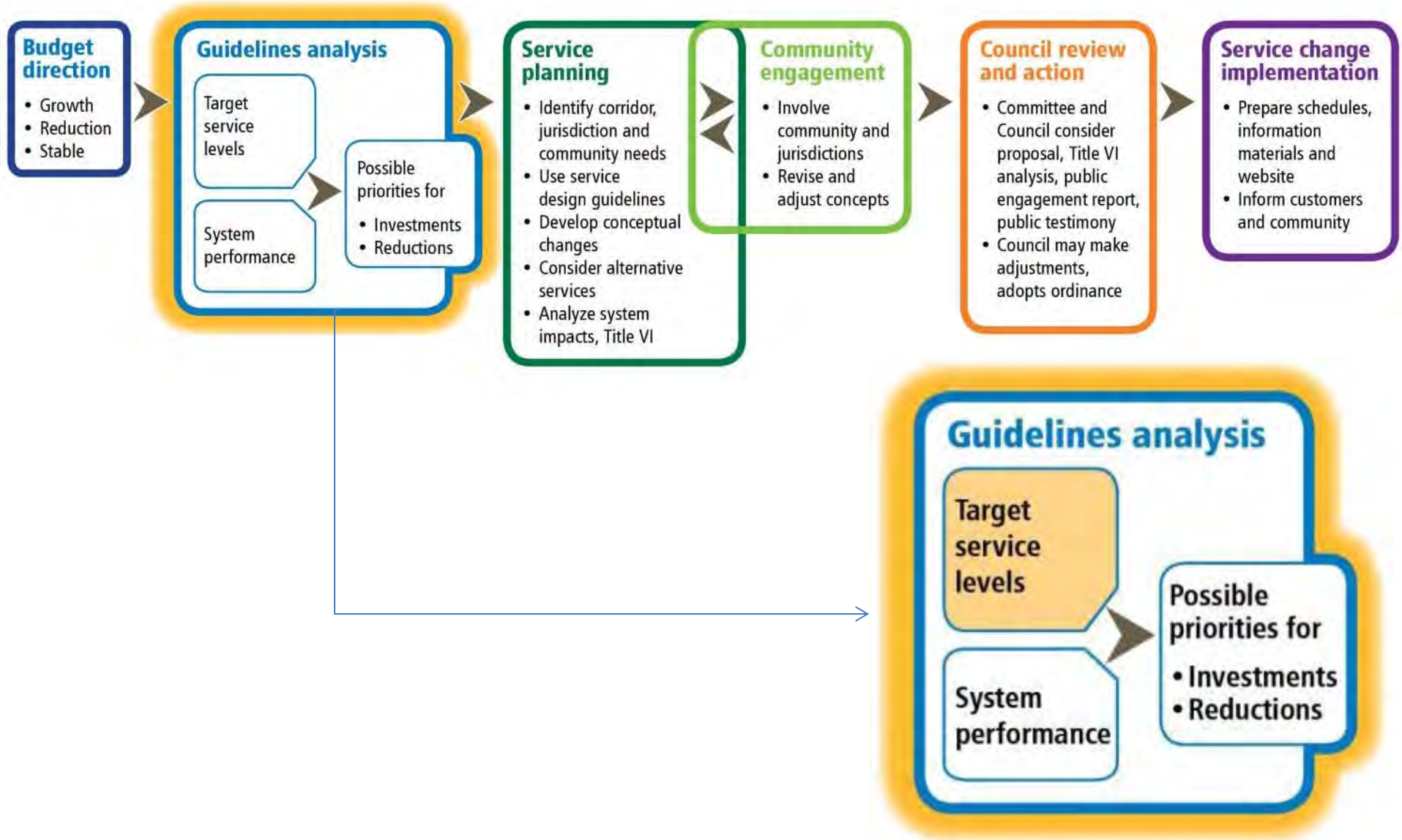


Service quality needs: reliability

- Investments in routes that are chronically late
 - Based on percentage of trips that arrive more than five minutes late
- 2014 report identified 38,650 hours of need on 89 routes

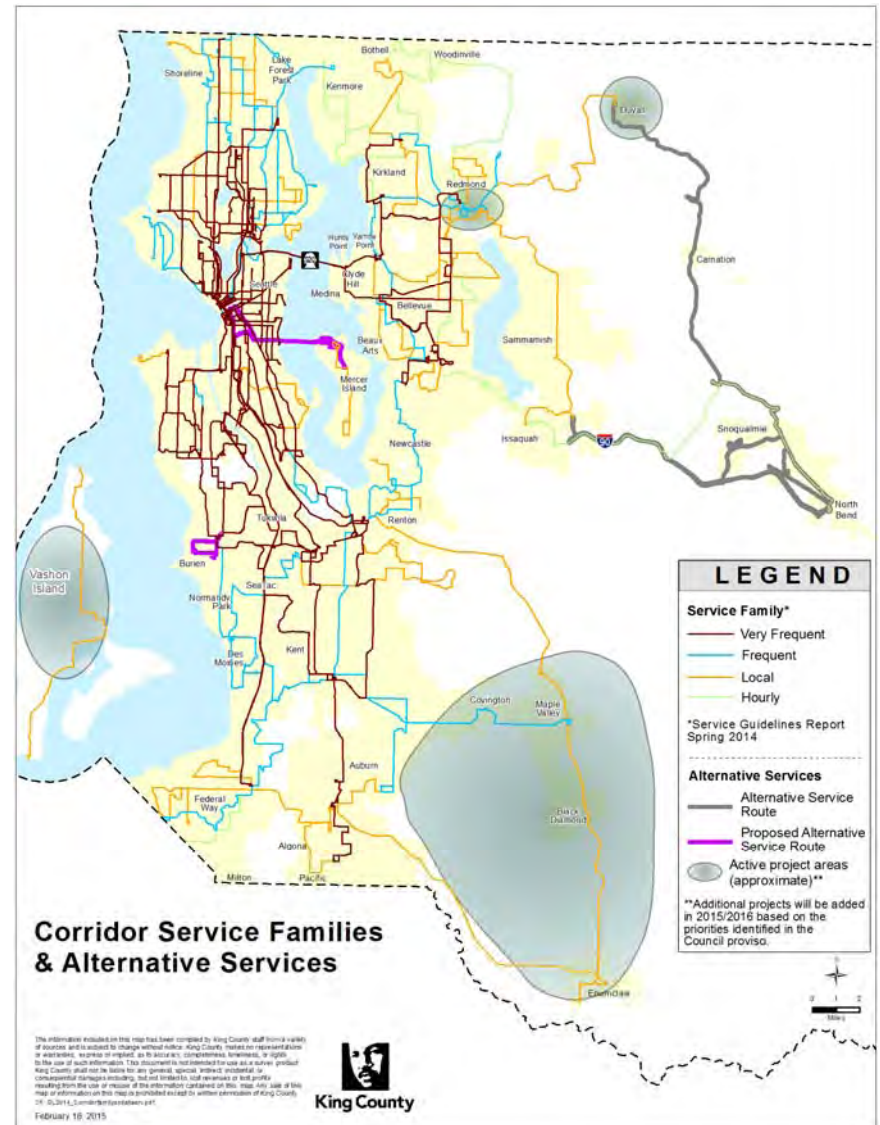


Guidelines analysis: set target service levels



Set target corridor service levels - Metro-operated service

- Analyze 112 all-day corridors connecting 85 centers throughout King County
- Target service levels determined by frequency a corridor *should* have based on:
 - Productivity
 - Social Equity
 - Geographic Value
- ST and Metro service levels coordinated in planning process



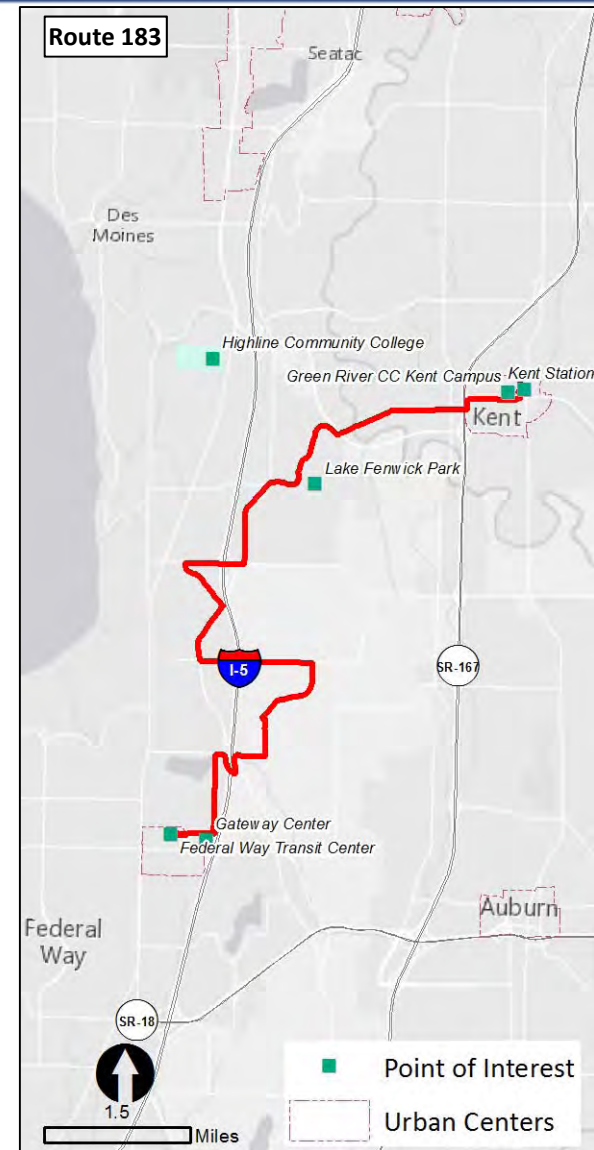
Data used to determine target service levels

	Productivity	Social Equity	Geographic Value
Primary Considerations	Households within ¼ mile of stops per corridor mile	Percent of boardings in low-income census tracts	Primary connection between regional growth, manufacturing/ industrial centers
	Jobs and student enrollment within ¼ mile of stops per corridor mile		
Secondary Considerations	Estimated cost recovery by time of day	Percent of boardings in minority census tracts	Primary connection between transit activity centers
	Estimated load factor by time of day		
	Connection at night		

Example #1 of Corridor Below Target Service Level

- **Corridor 33: Federal Way to Kent**
 - Primary Route: 183
- **Analysis results:**
 - **Productivity:** Some areas of transit supportive land use along corridor
 - **Social Equity:** Low-income and minority corridor
 - **Geographic Value:** Primary connection between two regional growth centers

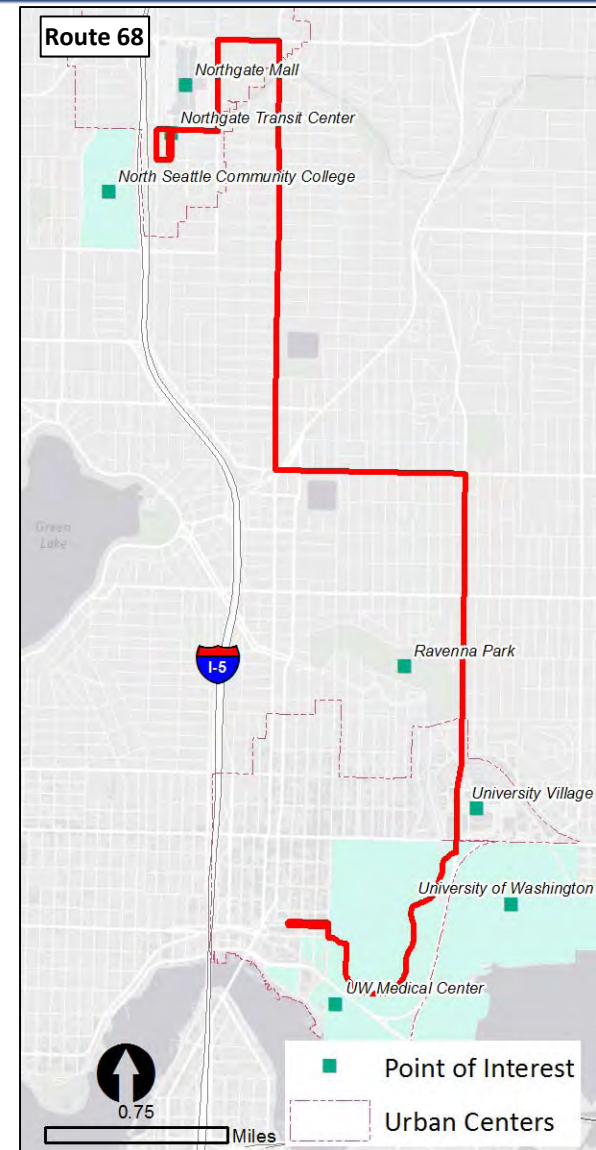
Frequency of service (minutes between buses)			
Route 240	Peak	Off-Peak	Night
Current	30-60	60	-
Target	15	30	30
Service is above target service levels		Service is at target service levels	Service is below target service levels



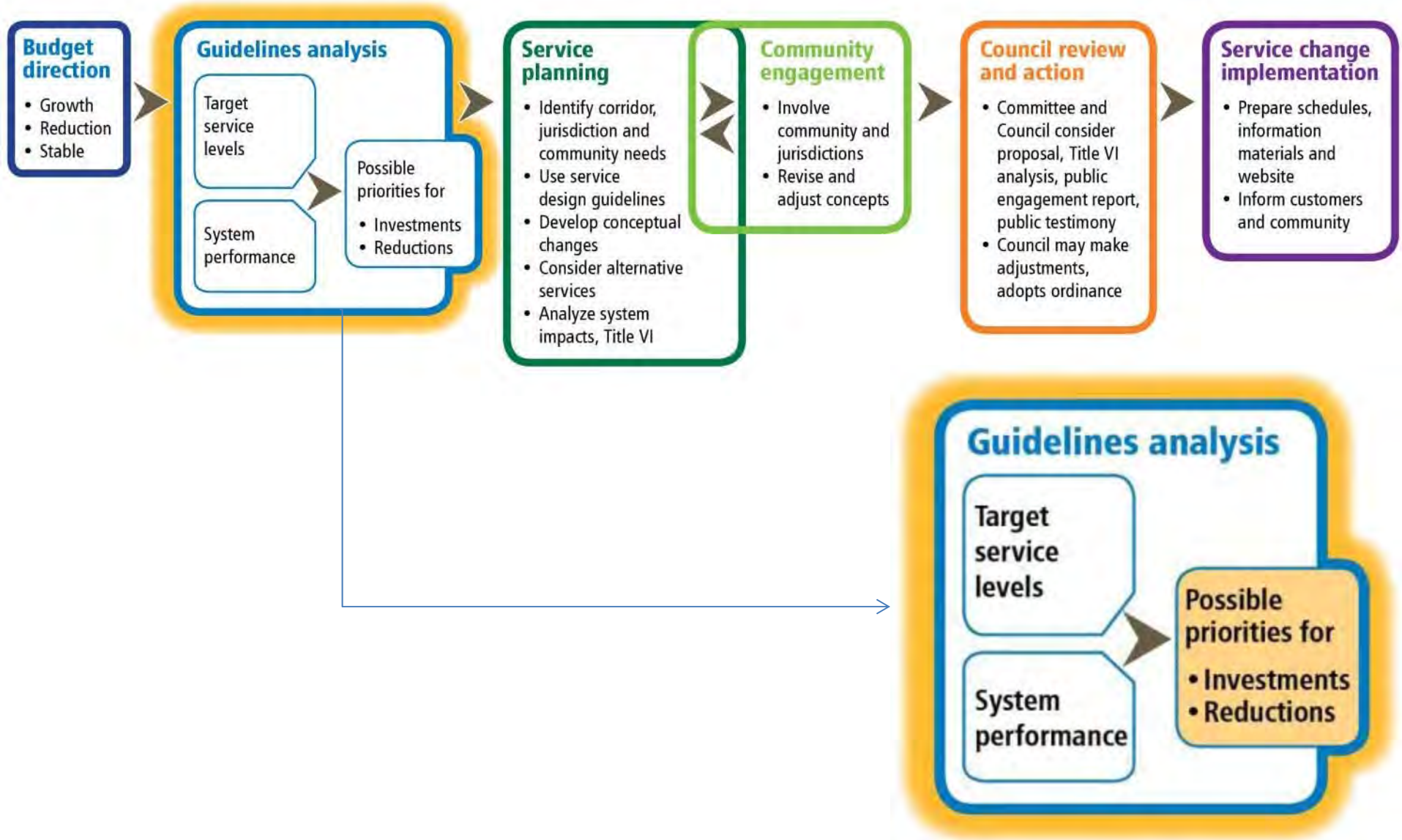
Example #2 of Corridor Below Target Service Level

- **Corridor 70:** Northgate to University of Washington
 - Primary Route: 68
- **Analysis results:**
 - **Productivity:** Areas of transit supportive land use along corridor, high ridership
 - **Social Equity:** Low-income corridor
 - **Geographic Value:** Not a primary connection

Frequency of service (minutes between buses)			
Route 240	Peak	Off-Peak	Night
Current	15-20	30	0
Target	15	15	30
Service is above target service levels	Service is at target service levels	Service is below target service levels	



Guidelines analysis: possible priorities



Priorities for

Investments

1. Reduce overcrowding
2. Improve reliability
3. Achieve target service levels
4. Become more productive

Reductions

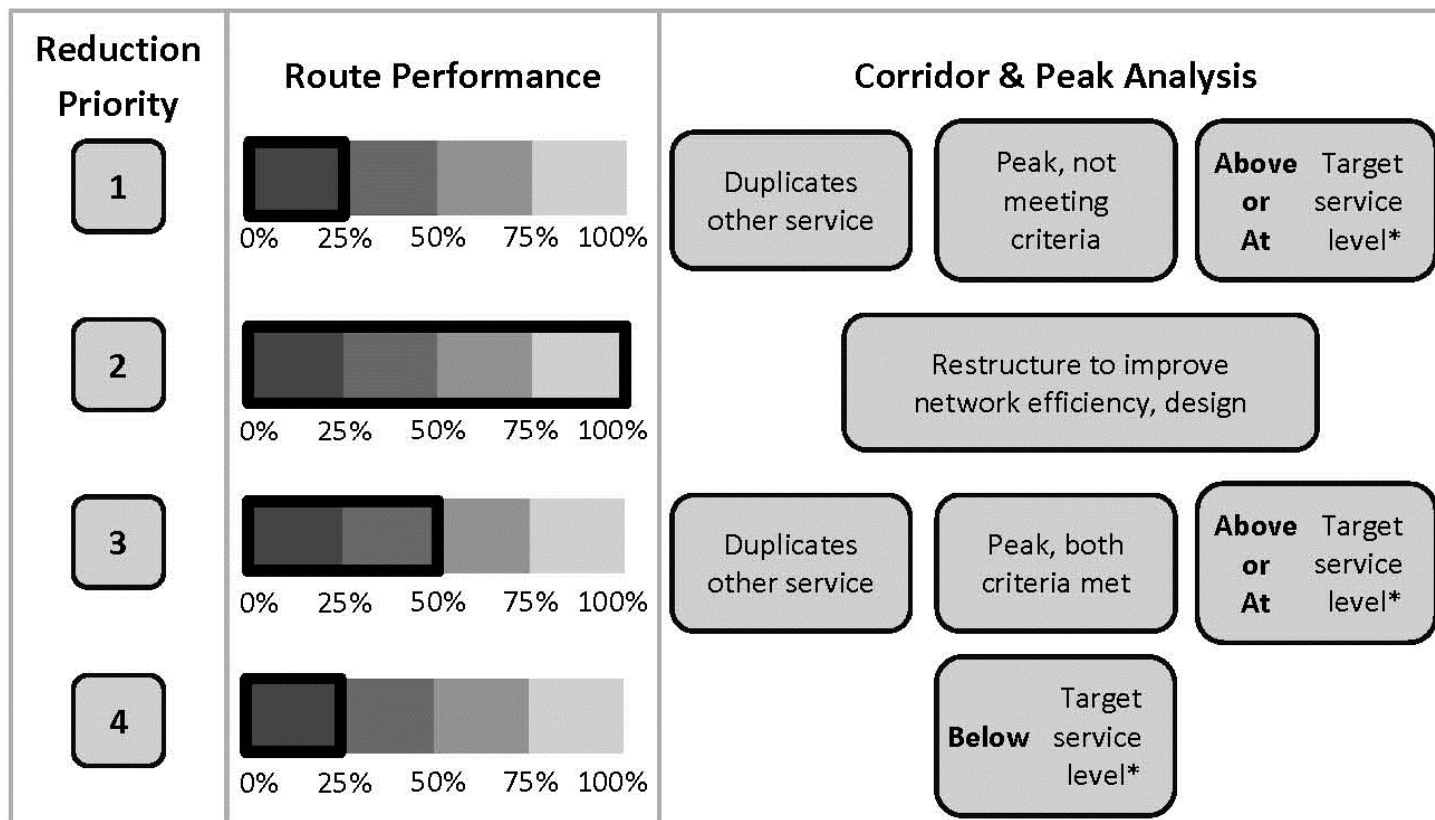
1. Routes in bottom 25 percent of productivity
2. Restructure service to improve efficiency
3. Routes between 25 and 50 percent of productivity
4. Routes in bottom 25% that warrant higher service level

Summary of investment priorities

2014 Investment Needs (Based on Spring 2014 Data)

Priority	Investment Area	Estimated Annual Hours Needed
1	Reduce passenger crowding	22,200
2	Improve schedule reliability	38,650
3	Increase service to meet target service levels in All-Day Network	486,500
	Total investment need	547,350
4	Increase service on high productivity routes: A substantial portion of the growth needed to meet the Transportation 2040 expectation (an additional 2.6 million annual service hours) will be on high-productivity services.	

Reduction priorities



*Target service level is based on demographics and demand between connections served by transit

Service Guidelines data generation process

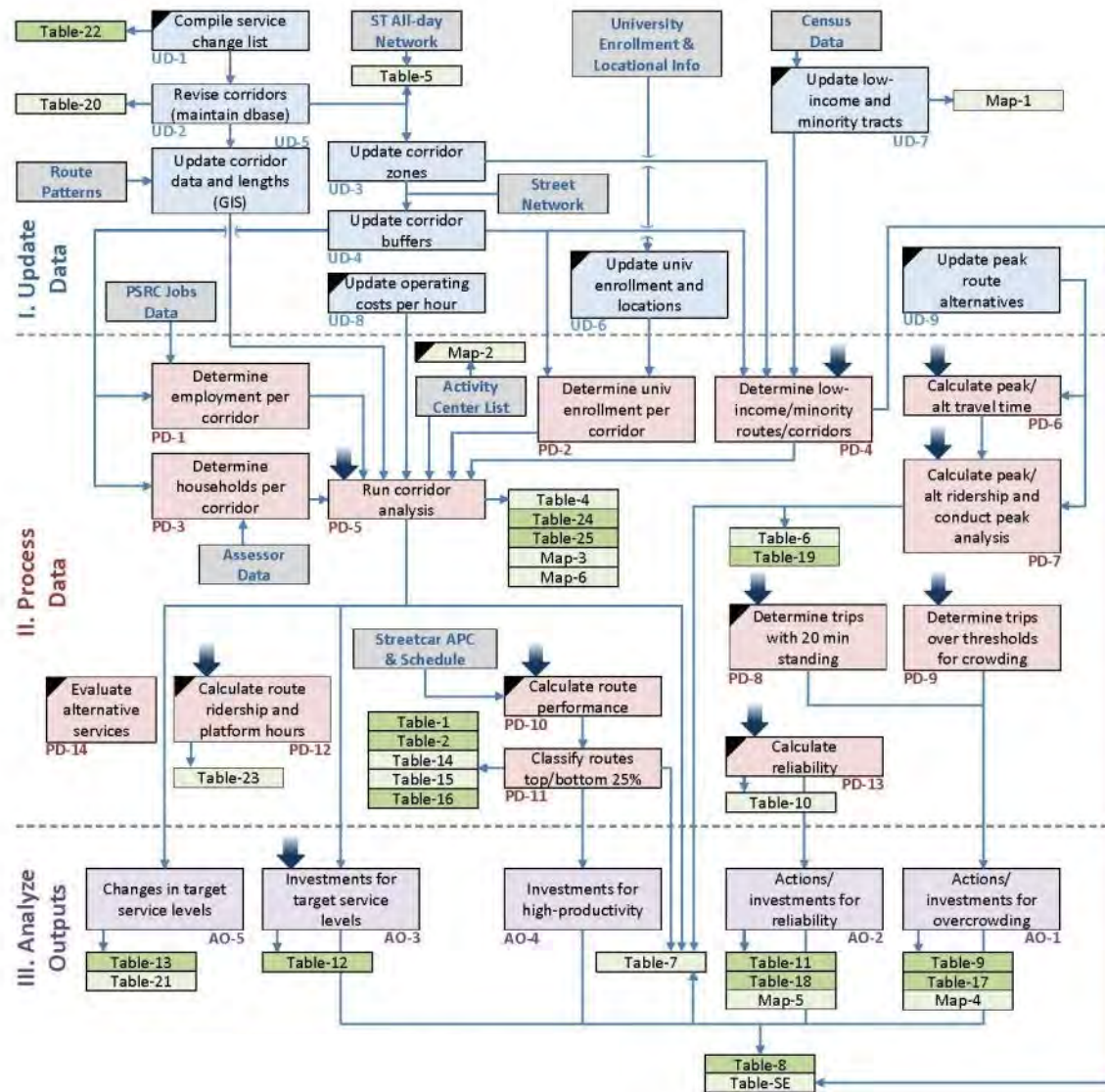
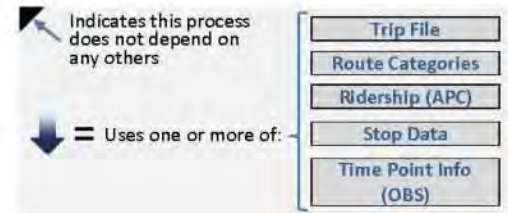


Table-1	Route performance threshold changes for top 25%*
Table-2	Route performance threshold changes for bottom 25%*
Table-4	Number of all-day corridors by assigned service levels
Table-5	Corridors served primarily by Sound Transit
Table-6	Number of peak routes analyzed
Table-7	Route and corridor performance (combined table)
Table-8	Investment needs (summary)*
Table-9	Routes needing investment to reduce passenger crowding*
Table-10	Percent on-time
Table-11	Routes needing investment to improve schedule reliability*
Table-12	Corridors below target service levels / estimated hours needed*
Table-13	Corridors no longer targeted for investment*
Table-14	Routes in top 25% in both measures for all times
Table-15	Routes in top 25% in both measures for at least one time
Table-16	Route productivity data*
Table-17	Routes with over crowding*
Table-18	Routes with poor reliability*
Table-19	Peak route analysis results*
Table-20	Corridor changes
Table-21	Corridors that changed target service levels
Table-22	Service changes*
Table-23	Route-level ridership
Table-24	Corridor analysis step 1*
Table-25	Corridor analysis step 2*
Table-SE	Investments for low-income and minority routes/corridors

* Council requirement

Map-1	Low-income and minority tracts
Map-2	Activity centers
Map-3	Corridor service families
Map-4	Routes with overcrowding
Map-5	Routes with poor reliability
Map-6	Corridors below target service level



How does Metro's planning process work?

