Service Guidelines Task Force

Metro Overview
March 4, 2015
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

Network of All-day and Peak Service

Service Guidelines Task Force
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 Ridership (est. 2014)

82%

14%

1%
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.”
"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

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Rides Per Platform Hour</th>
<th>Passenger Miles Per Platform Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>31.7</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>32.7</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>33.5</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>35.5</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>35.7</td>
<td></td>
</tr>
</tbody>
</table>

Service Guidelines Task Force
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
“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
“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**

<table>
<thead>
<tr>
<th>Actions</th>
<th>Cumulative Total through 2013</th>
<th>Ongoing Annual Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing productivity/ efficiency actions</td>
<td>$204 million</td>
<td>$93 million</td>
</tr>
<tr>
<td>Revenue-related actions</td>
<td>$250 million</td>
<td>$55 million</td>
</tr>
<tr>
<td>One-time actions (cash savings)</td>
<td>$344 million</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$798 million</strong></td>
<td><strong>$148 million</strong></td>
</tr>
</tbody>
</table>

- 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
“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

Service Guidelines Overview
March 4, 2015
How does Metro’s planning process work?

**Metro system Budget adopted**
- Growth
- Reduction
- Stable

**Metro system analysis begins**

**Service Guidelines Report with system analysis issued annually**

**If changes, preliminary concepts developed**

**Draft alternative plan developed**

**Executive transmits proposed ordinance to County Council**

**Council action**

**Service changes**

**Guidelines analysis**
- Target service levels
- System performance
- Possible priorities for investments, reductions

**Service planning**
- Identify corridor, jurisdiction and community needs
- Use service design guidelines
- Develop conceptual changes
- Consider alternative services
- Analyze system impacts, Title VI

**Community engagement**
- Involve community and jurisdictions
- Revise and adjust concepts

**Council review and action**
- Committee and Council consider proposal, Title VI analysis, public engagement report, public testimony
- Council may make adjustments, adopts ordinance

**Service change implementation**
- Prepare schedules, information materials and website
- Inform customers and community

Service Guidelines Task Force
Metro’s service guidelines

**Budget direction**
- Growth
- Reduction
- Stable

**Guidelines analysis**
- Target service levels
- System performance
- Possible priorities for
  - Investments
  - Reductions

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## Priorities for Service Guidelines

### 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

- **Budget direction**: Growth, Reduction, Stable
- **Guidelines analysis**: Target service levels, Possible priorities for Investments, Reductions, System performance
- **Service planning**: Identify corridor, jurisdiction and community needs, Use service design guidelines, Develop conceptual changes, Consider alternative services, Analyze system impacts, Title VI
- **Community engagement**: Involve community and jurisdictions, Revise and adjust concepts
- **Council review and action**: Committee and Council consider proposal, Title VI analysis, public engagement report, public testimony, Council may make adjustments, adopts ordinance
- **Service change implementation**: Prepare schedules, information materials and website, Inform customers and community

Service Guidelines Task Force
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%)**

<table>
<thead>
<tr>
<th>Measures</th>
<th>Rides/platform hour</th>
<th>Passenger miles/platform mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle core</td>
<td>48.2</td>
<td>17.1</td>
</tr>
<tr>
<td>Non Seattle core</td>
<td>25.2</td>
<td>8.1</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Rides/platform hour</th>
<th>Passenger miles/platform mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle core</td>
<td>48.2</td>
<td>17.1</td>
</tr>
<tr>
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<td>25.2</td>
<td>8.1</td>
</tr>
</tbody>
</table>

Example: peak service thresholds (top 25%)
## Route performance

<table>
<thead>
<tr>
<th>Route (serves Seattle core)</th>
<th>Description</th>
<th>Peak</th>
<th>Off Peak</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rides/ Platform Hour</td>
<td>Passenger Miles/ Platform Mile</td>
<td>Rides/ Platform Hour</td>
</tr>
<tr>
<td>C Line</td>
<td>Westwood Village - Alaska Junction - Seattle CBD</td>
<td>50.4</td>
<td>20.9</td>
<td>45.7</td>
</tr>
<tr>
<td>D Line</td>
<td>Ballard - Seattle Center - Seattle CBD</td>
<td>76.1</td>
<td>20.8</td>
<td>66.2</td>
</tr>
<tr>
<td>E Line</td>
<td>Aurora Village - Seattle CBD</td>
<td>49.8</td>
<td>19.4</td>
<td>53.1</td>
</tr>
<tr>
<td>1</td>
<td>King near - Seattle CBD</td>
<td>54.6</td>
<td>12.1</td>
<td>46.2</td>
</tr>
<tr>
<td>2</td>
<td>West Queen Anne - Seattle CBD - Madrona Park</td>
<td>49.0</td>
<td>11.2</td>
<td>44.8</td>
</tr>
<tr>
<td>3</td>
<td>North Queen Anne - Seattle CBD - Madrona Park</td>
<td>53.7</td>
<td>11.1</td>
<td>49.4</td>
</tr>
<tr>
<td>4</td>
<td>East Queen Anne - Seattle CBD - Judkins Park</td>
<td>50.4</td>
<td>10.5</td>
<td>44.8</td>
</tr>
<tr>
<td>5EX</td>
<td>Shoreline CC - Seattle CBD</td>
<td>44.9</td>
<td>15.7</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Shoreline CC - Seattle CBD</td>
<td>58.5</td>
<td>18.5</td>
<td>48.0</td>
</tr>
<tr>
<td>7EX</td>
<td>Rainier Beach - Seattle CBD</td>
<td>35.6</td>
<td>8.7</td>
<td></td>
</tr>
</tbody>
</table>

Spring 2014 Thresholds Routes that serve Seattle Core

<table>
<thead>
<tr>
<th>Bottom 25%</th>
<th>Peak</th>
<th>Off Peak</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24.3</td>
<td>10.7</td>
<td>9.8</td>
</tr>
<tr>
<td>Top 25%</td>
<td>48.2</td>
<td>17.1</td>
<td>14.9</td>
</tr>
<tr>
<td></td>
<td>35.1</td>
<td>10.2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Route (does not serve Seattle core)</th>
<th>Description</th>
<th>Peak</th>
<th>Off Peak</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rides/ Platform Hour</td>
<td>Passenger Miles/ Platform Mile</td>
<td>Rides/ Platform Hour</td>
</tr>
<tr>
<td>A Line</td>
<td>Federal Way - Tukwila</td>
<td>56.1</td>
<td>15.5</td>
<td>59.7</td>
</tr>
<tr>
<td>B Line</td>
<td>Bellevue - Crossroads - Redmond</td>
<td>43.5</td>
<td>12.3</td>
<td>37.2</td>
</tr>
<tr>
<td>22</td>
<td>Arbor Heights - Westwood Village - Alaska Junction</td>
<td>11.9</td>
<td>2.5</td>
<td>9.5</td>
</tr>
<tr>
<td>50</td>
<td>Alki - Columbia City - Othello Station</td>
<td>22.4</td>
<td>4.9</td>
<td>19.3</td>
</tr>
<tr>
<td>61</td>
<td>North Beach - Ballard</td>
<td>7.2</td>
<td>1.0</td>
<td>7.8</td>
</tr>
<tr>
<td>105</td>
<td>Renton Highlands - Renton TC</td>
<td>32.8</td>
<td>8.6</td>
<td>27.8</td>
</tr>
<tr>
<td>107</td>
<td>Renton TC - Rainier Beach</td>
<td>24.0</td>
<td>6.3</td>
<td>22.1</td>
</tr>
<tr>
<td>110</td>
<td>Tukwila Station - North Renton</td>
<td>12.1</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>118</td>
<td>Tahlequah - Vashon</td>
<td>14.7</td>
<td>2.6</td>
<td>12.1</td>
</tr>
<tr>
<td>119</td>
<td>Dockton - Vashon</td>
<td>13.2</td>
<td>2.1</td>
<td>11.3</td>
</tr>
</tbody>
</table>

Spring 2014 Thresholds Routes that Do Not serve the Seattle Core

<table>
<thead>
<tr>
<th>Bottom 25%</th>
<th>Peak</th>
<th>Off Peak</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12.0</td>
<td>2.4</td>
<td>2.7</td>
</tr>
<tr>
<td>Top 25%</td>
<td>25.2</td>
<td>8.1</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>18.8</td>
<td>6.3</td>
<td></td>
</tr>
</tbody>
</table>
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

**Guidelines analysis**
- Target service levels
- System performance
- Possible priorities for
  - Investments
  - Reductions

**Service planning**
- Identify corridor, jurisdiction and community needs
- Use service design guidelines
- Develop conceptual changes
- Consider alternative services
- Analyze system impacts, Title VI

**Community engagement**
- Involve community and jurisdictions
- Revise and adjust concepts

**Council review and action**
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**Service change implementation**
- Prepare schedules, information materials and website
- Inform customers and community

---

Service Guidelines Task Force

We’ll Get You There.
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

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

<table>
<thead>
<tr>
<th>Route 240</th>
<th>Peak</th>
<th>Off-Peak</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current</strong></td>
<td>30-60</td>
<td>60</td>
<td>-</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>15</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Frequency of service (minutes between buses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 240</td>
</tr>
<tr>
<td>Current</td>
</tr>
<tr>
<td>Target</td>
</tr>
</tbody>
</table>

- Service is above target service levels
- Service is at target service levels
- Service is below target service levels
## Priorities for Service Guidelines

### Investments

1. Reduce overcrowding
2. Improve reliability
3. Achieve target service levels
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### Reductions

1. Routes in bottom 25 percent of productivity
2. Restructure service to improve efficiency
3. Routes between 25 and 50 percent of productivity
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## Summary of investment priorities

### 2014 Investment Needs
(Based on Spring 2014 Data)

<table>
<thead>
<tr>
<th>Priority</th>
<th>Investment Area</th>
<th>Estimated Annual Hours Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reduce passenger crowding</td>
<td>22,200</td>
</tr>
<tr>
<td>2</td>
<td>Improve schedule reliability</td>
<td>38,650</td>
</tr>
<tr>
<td>3</td>
<td>Increase service to meet target service levels in All-Day Network</td>
<td>486,500</td>
</tr>
<tr>
<td></td>
<td><strong>Total investment need</strong></td>
<td><strong>547,350</strong></td>
</tr>
<tr>
<td>4</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
Reduction priorities

<table>
<thead>
<tr>
<th>Reduction Priority</th>
<th>Route Performance</th>
<th>Corridor &amp; Peak Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0%  25%  50%  75%  100%</td>
<td>Duplicates other service</td>
</tr>
<tr>
<td>2</td>
<td>0%  25%  50%  75%  100%</td>
<td>Peak, not meeting criteria</td>
</tr>
<tr>
<td>3</td>
<td>0%  25%  50%  75%  100%</td>
<td>Restructure to improve network efficiency, design</td>
</tr>
<tr>
<td>4</td>
<td>0%  25%  50%  75%  100%</td>
<td>Duplicates other service</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peak, both criteria met</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Above or At level*</td>
</tr>
<tr>
<td></td>
<td>Below</td>
<td>Target service level*</td>
</tr>
</tbody>
</table>

*Target service level is based on demographics and demand between connections served by transit
Service Guidelines data generation process
How does Metro’s planning process work?

Metro system Budget adopted
Metro system analysis begins
Service Guidelines Report with system analysis issued annually
If changes, preliminary concepts developed
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Executive transmits proposed ordinance to County Council
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