Introduction and Purpose

- MPO updating Regional Transportation Plan (RTP)
- Goals and Policies developed for RTP to serve as guide for infrastructure and service investment decisions and transportation policy
- *Performance Measures Report* ties specific metrics to the Goals and tracks them over time
- Report can be used to gauge effectiveness of past investments and guide future investments
- Targets for federally required measures and others will be added in the future
Regional Transportation Plan

Goals

1. Create Connected Livable Neighborhoods and Communities
2. Improve Public Health, Safety, and Security
3. Support Personal Prosperity and Enhance the Regional Economy
4. Improve Equity for All that Use the Transportation System
5. Reduce the Environmental Impact of the Transportation System
6. Advance System-wide Efficiency, Reliability, and Integration Across Modes
7. Establish Financial Viability of the Transportation System
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Create Connected Livable Neighborhoods and Communities

Create interconnected livable places linked to jobs, services, schools, shops, and parks through a multi-modal transportation system that is integrated with the built environment and supports compact development patterns that increase the viability of walking, bicycling, and transit.

Performance Measures

1. Miles of Pedestrian Facilities
2. Miles of Bicycle Facilities
3. BCycle Utilization
4. Active Living Index Scores
1,339 miles of pedestrian facilities in metro area, a 26 mile increase since last year.
Create Connected Livable Neighborhoods and Communities

Miles of Bicycle Facilities

Average trip length increased 44% from 2.1 to 3.0 miles. Ridership experienced a slight drop. Mileage Increased nearly 30%.
Create Connected Livable Neighborhoods and Communities

**Active Living Index**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Community</th>
<th>Score</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shorewood Hills</td>
<td>27.1</td>
<td>57.3</td>
<td>9.2</td>
</tr>
<tr>
<td>2</td>
<td>Madison</td>
<td>20.2</td>
<td>75.8</td>
<td>1.5</td>
</tr>
<tr>
<td>3</td>
<td>Middleton</td>
<td>19.6</td>
<td>53.0</td>
<td>2.6</td>
</tr>
<tr>
<td>4</td>
<td>Maple Bluff</td>
<td>19.2</td>
<td>47.0</td>
<td>7.2</td>
</tr>
<tr>
<td>5</td>
<td>Fitchburg</td>
<td>19.2</td>
<td>52.2</td>
<td>2.5</td>
</tr>
<tr>
<td>6</td>
<td>Sun Prairie</td>
<td>18.8</td>
<td>42.2</td>
<td>3.0</td>
</tr>
<tr>
<td>7</td>
<td>Monona</td>
<td>18.7</td>
<td>52.8</td>
<td>3.3</td>
</tr>
<tr>
<td>8</td>
<td>Verona</td>
<td>17.0</td>
<td>55.1</td>
<td>2.7</td>
</tr>
<tr>
<td>9</td>
<td>Waunakee</td>
<td>16.3</td>
<td>38.4</td>
<td>5.4</td>
</tr>
<tr>
<td>10</td>
<td>Stoughton</td>
<td>15.8</td>
<td>52.4</td>
<td>4.0</td>
</tr>
<tr>
<td>11</td>
<td>McFarland</td>
<td>15.5</td>
<td>47.0</td>
<td>3.7</td>
</tr>
<tr>
<td>12</td>
<td>DeForest</td>
<td>14.5</td>
<td>47.1</td>
<td>1.5</td>
</tr>
<tr>
<td>13</td>
<td>Cottage Grove</td>
<td>14.2</td>
<td>33.4</td>
<td>6.0</td>
</tr>
<tr>
<td>14</td>
<td>Cross Plains</td>
<td>13.7</td>
<td>39.9</td>
<td>4.3</td>
</tr>
<tr>
<td>15</td>
<td>Oregon</td>
<td>13.4</td>
<td>46.6</td>
<td>1.5</td>
</tr>
</tbody>
</table>
Create Connected Livable Neighborhoods and Communities

**Active Living Index**

2015

Active Living Index for the Madison Metro Area

**Desired:**

**Actual:**

![Map of Madison Metro Area with Active Living Index]

Project is a Collaboration between MATPB, CARPC, and City of Madison
Regional Transportation Plan Goals

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Improve Public Health, Safety, and Security

Design, build, operate, and maintain a transportation system that enables people to get where they need to go safely and that, combined with supportive land use patterns and site design, facilitates and encourages active lifestyles while improving air quality.

Performance Measures

1. Number and Rate of Motor Vehicle Crash Fatalities and Serious Injuries
2. Number of Non-Motorized Fatalities and Serious Injuries
3. County-wide Five-Year Rolling Averages
Fatalities and injuries have been falling. 2014 had 25% fewer serious injury crashes than 2010.

Desired: DECLINE
Actual: DECLINE

Dane County Motor Vehicle Serious Injuries and Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Serious Injuries</th>
<th>Serious Injuries per 100 Million VMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>195</td>
<td>4.03</td>
</tr>
<tr>
<td>2011</td>
<td>196</td>
<td>4.09</td>
</tr>
<tr>
<td>2012</td>
<td>163</td>
<td>3.25</td>
</tr>
<tr>
<td>2013</td>
<td>164</td>
<td>3.38</td>
</tr>
<tr>
<td>2014</td>
<td>145</td>
<td>2.95</td>
</tr>
</tbody>
</table>

Source: WisTransPortal / UW TOPS Lab

Dane County Motor Vehicle Fatalities & Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Fatalities per 100 Million VMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>33</td>
<td>0.68</td>
</tr>
<tr>
<td>2011</td>
<td>33</td>
<td>0.69</td>
</tr>
<tr>
<td>2012</td>
<td>27</td>
<td>0.54</td>
</tr>
<tr>
<td>2013</td>
<td>33</td>
<td>0.68</td>
</tr>
<tr>
<td>2014</td>
<td>28</td>
<td>0.57</td>
</tr>
</tbody>
</table>

Source: WisTransPortal / UW TOPS Lab
Pedestrian injuries and fatalities have been declining; 2014 was nearly half of 2010. Rolling averages show steady improvement.
Regional Transportation Plan Goals

1. Create Connected Livable Neighborhoods and Communities
2. Improve Public Health, Safety and Security
3. **Support Personal Prosperity and Enhance the Regional Economy**
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Support Personal Prosperity and Enhance the Regional Economy

Build, operate, and maintain a transportation system that provides people with affordable access to jobs and enables the exchange of goods and services within the region and to/from other regions.

Performance Measures

1. Airline Passenger Traffic
2. Freight Imports and Exports
3. Housing + Transportation Costs
4. Transit Access to Employment
Airport passenger growth steady from 2010-'14. Freight originating from county has surged. Shift from rail to truck for inbound/outbound.

Support Personal Prosperity and Enhance the Regional Economy

Airline Passenger Traffic and Freight Imports and Exports

Dane County Regional Airport (MSN)
Annual Passenger Volume (in thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Desired</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>757</td>
<td>743</td>
</tr>
<tr>
<td>2011</td>
<td>733</td>
<td>724</td>
</tr>
<tr>
<td>2012</td>
<td>792</td>
<td>787</td>
</tr>
<tr>
<td>2013</td>
<td>818</td>
<td>810</td>
</tr>
<tr>
<td>2014</td>
<td>827</td>
<td>816</td>
</tr>
</tbody>
</table>

Source: Dane County Regional Airport Monthly Record

Freight Tonnage to and From Dane County

<table>
<thead>
<tr>
<th>Year</th>
<th>Inbound (tons)</th>
<th>Outbound (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>8,408,283</td>
<td>8,533,015</td>
</tr>
<tr>
<td>2013</td>
<td>12,198,215</td>
<td>10,369,825</td>
</tr>
</tbody>
</table>

Each symbol represents 250,000 tons of freight - the equivalent of over 83,000 full-sized pickup trucks. Airplane symbol represents air and all other modes.

Source: 2013 HIS Transsearch, 2007 Global Insight Dane County commodity flow data
Increases in housing costs between 2011 and 2013 caused many parts of metro area to become unaffordable for families on a county-typical income.
The average transit commuter spends about 33 minutes getting to work, compared with 20 minutes for other modes.
Regional Transportation Plan Goals

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Improve Equity for All that Use the Transportation System

Provide an equitable level of transportation facilities and services for all regardless of age, ability, race, ethnicity, or income.

Performance Measures

1. Transit Ridership
2. Specialized Transportation Ridership
3. Fixed-Route Transit Service Area
4. Transit Coverage for Underrepresented Groups
Gas prices dropped 30% between 2014 and 2015 and winter 2015 was exceptionally warm. This may have contributed to declines in ridership.
Paratransit is urban, while GRP is suburban and rural.
Improve Equity for All that Use the Transportation System

Fixed-Route Transit Service Area

Service Areas for Metro Transit & Monona Systems in the Madison Metro Area

Peak period service covers 71% of metro area residents. All-day service covers 65% of metro area residents.
Though minorities comprise 17% of the metro population, they constitute 27% of transit riders. 29% of all riders have incomes below $35,000.

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Reduce the Environmental Impact of the Transportation System

Ensure that the transportation system is designed, built, operated, and maintained in a way that protects and preserves the natural environment and historic and cultural resources, and minimizes air pollutant emissions.

Performance Measures

1. Vehicle Miles Traveled
2. Mode of Transportation to Work
3. Air Quality
2015 gas price drops will have a major impact on 2015 VMT. In the future, connected/autonomous vehicle may spur VMT growth.
Changes in non-SOV preference are significant – less carpooling and more transit and telecommuting, resulting in fewer vehicle on the road.

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**Mode of Transportation to Work in Dane County**

**In 2009**
- 71.5% of Dane County Residents Drove Alone to Work
  - 8.5% Carpool
  - 5.1% Transit
  - 2.9% Bike
  - 6.2% Walk
  - 1.1% Other
  - 3.6% Work at home

**In 2014**
- 71.2% of Dane County Residents Drove Alone to Work
  - 7.5% Carpool
  - 6.0% Transit
  - 2.8% Bike
  - 6.1% Walk
  - 0.8% Other
  - 4.6% Work at home

**Number of Vehicles Needed to Carry 45 People**

**Bus**

**Vanpool**

**3-Person Carpool**

**2-Person Carpool**

**Single Occupant Vehicle**

Source: ACS
Particulate matter in the region is low; however, ozone averages are of moderate concern and have been for some time.
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Advance System-wide Efficiency, Reliability, and Integration Across Modes

Design, build, operate, and maintain an efficient transportation system with supportive land use patterns that maximizes mobility, minimizes unexpected delays, and provides seamless transfers between all modes.

Performance Measures

1. Transit On-time Performance
2. Percent of Key Destinations Served by Transit
3. Roadway Congestion
4. Roadway Reliability
Metro's time-transfer system requires a very high level of on-time performance. Performance has improved since 2013.
The difference in accessibility is not dramatic – no more than 10% between peak and off-peak for any destination type.
Advance System-wide Efficiency, Reliability and Integration Across Modes

Roadway Congestion

System-wide TTI during morning rush hour is 1.49, during afternoon rush hour is 1.60.
System-wide PTI during morning rush hour is 2.63, during afternoon rush hour it is 3.12.
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Establish Financial Viability of the Transportation System

Achieve and maintain a state of good repair for the existing transportation system, invest in cost-effective projects, and ensure adequate, reliable funding to meet current and future needs.

Performance Measures

1. Bridge Condition
2. Roadway Pavement Condition
3. Metro Buses At or Past Replacement Age
Establish Financial Viability of the Transportation System

Bridge Condition

More than 90% of all bridges are in good or fair condition. This trend has held for more than 5 years.

Source: MATPB - 2015 Roadway Centerlines, WisDOT Bridge Condition via HSI
Establish Financial Viability of the Transportation System

Pavement Condition

65% of all high-volume, regional mobility roadways (collector or higher) are in good or excellent condition, 27% fair, 8% poor or very poor.

Source: MATPB - 2015 Roadway Centerlines, PASER, WisDOT PCI

2015 Pavement Condition in the Madison Metro Area

65% of all high-volume, regional mobility roadways (collector or higher) are in good or excellent condition, 27% fair, 8% poor or very poor.

Source: MATPB - 2015 Roadway Centerlines, PASER, WisDOT PCI
Establish Financial Viability of the Transportation System

Buses At or Past Replacement Age

Average bus ages have returned to pre-ARRA levels.

Metro Transit Buses
At or Past Replacement Age

Source: Metro Transit / NTD
<table>
<thead>
<tr>
<th>Measure</th>
<th>Desired Trend</th>
<th>Actual Trend</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles of Pedestrian Facilities</td>
<td>Increase in miles of facilities</td>
<td>Increase in miles of facilities</td>
<td>26 miles of pedestrian facilities were completed in 2015.</td>
</tr>
<tr>
<td>Miles of Bicycle Facilities</td>
<td>Increase in miles of facilities</td>
<td>?</td>
<td>This is the first year comprehensive data has been collected using this methodology.</td>
</tr>
<tr>
<td>BCycle Utilization</td>
<td>Increase in utilization</td>
<td>Increase in utilization</td>
<td>BCycle miles biked increased by nearly 1/3 and trip lengths increase by 44%.</td>
</tr>
<tr>
<td>Active Living Index Score</td>
<td>Increase in community scores</td>
<td>?</td>
<td>This is the first year comprehensive data has been collected using this methodology.</td>
</tr>
<tr>
<td>Injuries and Fatalities</td>
<td>Decline in injuries and fatalities</td>
<td>Decline in injuries and fatalities</td>
<td>Using five-year rolling averages, motorized and non-motorized fatalities and serious injuries have declined nearly every year.</td>
</tr>
<tr>
<td>Airline Passenger Traffic</td>
<td>Increase in passengers</td>
<td>Increase in passengers</td>
<td>Passenger volume has been increasing, rising nearly 9% since 2010.</td>
</tr>
<tr>
<td>Freight Exports and Imports</td>
<td>Increase in total freight tonnage</td>
<td>Increase in total freight tonnage</td>
<td>Inbound and outbound freight volumes have increased and shifted to on-road options.</td>
</tr>
<tr>
<td>Housing + Transportation Costs</td>
<td>Steady Housing + Transportation Costs</td>
<td>Steady Housing + Transportation Costs</td>
<td>Combined housing and transportation costs have increased due to a sharp rise in the costs of housing metro-wide.</td>
</tr>
<tr>
<td>Transit Access to Jobs</td>
<td>Increase in job accessibility percentages</td>
<td>?</td>
<td>This is the first year comprehensive data has been collected using this methodology.</td>
</tr>
<tr>
<td>Transit Ridership</td>
<td>Increase in ridership</td>
<td>Decline in ridership</td>
<td>A 50% drop in gas prices, strong economy, and mild winter may have contributed to the drop in ridership.</td>
</tr>
<tr>
<td>Specialized Transit Ridership</td>
<td>Steady ridership</td>
<td>Steady ridership</td>
<td>Metro Paratransit ridership has returned to 2011 levels, while Dane County Group Ride Program ridership has leveled off.</td>
</tr>
<tr>
<td>Fixed Route Transit Service</td>
<td>Increase in coverage and population served</td>
<td>Increase in coverage and population served</td>
<td>Metro Transit continues to add routes that increase peak and all-day coverage and population served.</td>
</tr>
<tr>
<td>Transit Service for Minorities and Low Income Persons</td>
<td>Increase in coverage and population served</td>
<td>?</td>
<td>This is the first year comprehensive data has been collected using this methodology.</td>
</tr>
<tr>
<td>Vehicle Miles Traveled</td>
<td>Steady total VMT</td>
<td>Steady total VMT</td>
<td>VMT data is only available through 2014, meaning gas price drops are not accounted for with this dataset. 2015 may see sharp increase in VMT.</td>
</tr>
<tr>
<td>Mode of Transportation to Work</td>
<td>Decline in # of residents driving to work alone</td>
<td>Steady # of residents driving to work alone</td>
<td>A little more than 71% of work-related trips are single occupant vehicles and have been for the past five years.</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Decline in air pollution levels</td>
<td>Steady air pollution levels</td>
<td>Air pollution levels are tied to SO2 utilization and VMT - both of which have remained steady over the last five years.</td>
</tr>
<tr>
<td>Transit On-time Performance</td>
<td>Decline in percentage of late buses</td>
<td>Decline in percentage of late buses</td>
<td>A transfer point-based system relies on strong on-time performance. The system will continue to perform well as routine route modifications take place.</td>
</tr>
<tr>
<td>Percent of Key Destinations Served by Transit</td>
<td>?</td>
<td>Unknown</td>
<td>This is the first year comprehensive data has been collected using this methodology.</td>
</tr>
<tr>
<td>Roadway Congestion</td>
<td>Decline in congestion</td>
<td>?</td>
<td>This is the first year comprehensive data has been collected using this methodology.</td>
</tr>
<tr>
<td>Roadway Reliability</td>
<td>Increase in reliability</td>
<td>?</td>
<td>This is the first year comprehensive data has been collected using this methodology.</td>
</tr>
<tr>
<td>Bridge Condition</td>
<td>Steady bridge sufficiency ratings</td>
<td>Steady bridge sufficiency ratings</td>
<td>Federal, State, Regional, and Local agencies have demonstrated a strong commitment to maintaining bridge condition. More than 90% are &quot;good.&quot;</td>
</tr>
<tr>
<td>Roadway Pavement Condition</td>
<td>Steady average pavement condition</td>
<td>Steady average pavement condition</td>
<td>66% of all roads are in &quot;good&quot; or &quot;excellent condition and all Interstate highways in the area have a PCI of at least &quot;good.&quot;</td>
</tr>
<tr>
<td>Buses at or Past Replacement Age</td>
<td>Steady percentage of old buses</td>
<td>Increase in percentage of old buses</td>
<td>The end of ARRA funding has meant the return of fleet age to pre-2008 levels.</td>
</tr>
</tbody>
</table>
Questions?

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or

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