MAP-21 and the FAST Act established new emphasis on performance and outcome based planning

- Required USDOT to establish performance measures in a number of areas
- State DOTs and MPOs to “collaboratively” set targets for these measures
- Regular coordination has been going on between WSDOT and MPOs since 2016
  - Target Setting Framework Group – WSDOT and MPO Directors
  - Target Setting Working Group and Technical Teams – WSDOT and MPO Staff
- Federal performance measures are specific and prescriptive
## Progress to Date

<table>
<thead>
<tr>
<th>Performance Targets</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Asset Management</td>
<td>Approved June 2017</td>
</tr>
<tr>
<td>Safety Performance</td>
<td>Approved January 2018</td>
</tr>
<tr>
<td>Bridge and Pavement Condition</td>
<td>Anticipated October 2018</td>
</tr>
<tr>
<td>System Performance</td>
<td>Anticipated October 2018</td>
</tr>
<tr>
<td>Congestion Mitigation and Air Quality Improvement Program (CMAQ)</td>
<td>Anticipated October 2018</td>
</tr>
<tr>
<td>Transit Safety</td>
<td>Pending</td>
</tr>
</tbody>
</table>

Today's presentation
Target Setting Approach

Final rule on relevant performance measures finalized, effective May 20, 2017

WSDOT targets for each relevant performance measure established on May 20, 2018

MPOs establish targets within 180 days (by Nov 16, 2018)
Target Setting Approach

**Federal guidance** for target setting:

- Targets should be reasonable, practical, realistic, achievable and based on analyses of past trends and projections of future efforts.

- View targets as interim condition/performance levels that lead toward the accomplishment of longer-term performance expectations in the State DOTs' and MPOs' transportation plans.
Bridge and Pavement Condition
### Bridge Conditions

- **WSDOT Bridge Performance targets established May 20, 2018** for bridges on the National Highway System (NHS) based on a review of current bridge conditions, FHWA parameters and collaboration with MPOs.

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Current Condition Statewide</th>
<th>2-year State Target&lt;sup&gt;1&lt;/sup&gt;</th>
<th>4-year State Target&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of bridges classified in poor condition*</td>
<td>8%</td>
<td>Less than 10%</td>
<td>Less than 10%</td>
</tr>
<tr>
<td>Percent of bridges classified in good condition*</td>
<td>33%</td>
<td>More than 30%</td>
<td>More than 30%</td>
</tr>
</tbody>
</table>

**Notes:**
- * Weighted by deck area
- <sup>1</sup> 2-year target period ends October 1, 2020; <sup>2</sup> 4-year target period ends October 1, 2022
- <sup>3</sup> Only includes bridges on the NHS
- States and MPOs can adjust 4-year targets during the mid-performance progress report.
What are we doing in the region?

- Using federal guidance, state targets for bridge condition are realistic (not aspirational) and based on available funding.
- Bridge preservation is an important consideration for the region. There have been major bridge projects in our region (ex. SR 520) that have resulted in improvement in bridge condition, but this is not reflective of annual average investment.
  - Over the next four years, the RTP identifies $272 million in annual average expenditures for preservation of all bridges – totals over $6 billion through 2040.

Source: WSDOT Bridge & Structures Office
Pavement Performance Measure

- WSDOT Pavement Performance targets established May 20, 2018

- Targets established for pavement conditions on:
  - Interstate National Highway System (NHS)
  - Non-interstate National Highway System (NHS)

- Targets setting process included a review of current conditions, anticipated performance, collaboration with all MPOs, and understanding of federal requirements and FHWA parameters
## Pavement conditions

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Current Condition Statewide</th>
<th>4-year State Target&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of interstate pavement&lt;sup&gt;2&lt;/sup&gt; in good condition</td>
<td>32%</td>
<td>30%</td>
</tr>
<tr>
<td>Percent of interstate pavement&lt;sup&gt;2&lt;/sup&gt; in poor condition</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Percent of non-interstate pavement&lt;sup&gt;2&lt;/sup&gt; in good condition</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Percent of non-interstate pavement&lt;sup&gt;2&lt;/sup&gt; in poor condition</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

<sup>1</sup>4-year target period ends October 1, 2022

<sup>2</sup>Only includes pavement on the NHS
What are we doing in the region?

- Using federal guidance, state targets for pavement conditions are realistic (not aspirational) and based on available funding
  
  ▪ Estimates from WSDOT’s I-5 Action Plan, as part of the RTP, point to $1.2 billion needed to preserve pavement on the I-5 corridor alone
  
  ▪ Over the next four years, the RTP identifies $1.2 billion in annual average expenditures for preservation of all pavements – totals approx. $19 billion through 2040
What are we doing in the region?

Data collection and better estimation of needs:

• Obtaining consistent data on transportation assets (including pavement) to identify investment needs remains a challenge

• Implementation action identified in the RTP: “Explore a potential Regional Asset Management Planning Program aimed at better articulating need and making more informed investments”
System Performance

Includes the following measures:
- Interstate & Non-interstate Reliability
- Freight Reliability
What is reliability?

- Reliability captures the variability in travel experienced by users → measures extent of unexpected delays
- Reliability is important since system users typically plan based on the variability of travel time

Source: FHWA
# Interstate & Non-interstate Reliability

## Adopted Statewide Targets

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Current Condition Statewide</th>
<th>2-year State Target&lt;sup&gt;1&lt;/sup&gt;</th>
<th>4-year State Target&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate Travel Time Reliability</td>
<td>73%</td>
<td>70%</td>
<td>68%</td>
</tr>
<tr>
<td>Non-interstate Travel Time Reliability</td>
<td>77%</td>
<td>N/A</td>
<td>61%</td>
</tr>
</tbody>
</table>

### Notes:

1 2-year target period ends October 1, 2020; 2 4-year target period ends October 1, 2022. States and MPOs can adjust 4-year targets during the mid-performance progress report. No monetary penalties associated with these targets.
Interstate & Non-interstate Reliability
What’s behind the targets?

• Between 2012 and 2016, delay on major freeways in our region has increased 78%
• Reliability in the central Puget Sound region is lower compared to the state (over 90% of statewide delay occurs in the region)

Sources:
WSDOT 2015 Corridor Capacity Report
OFM, April 1, 2018 Population of Cities, Towns and Counties
ESD, WA Employment Estimates (seasonally adjusted) April 2018
Interstate & Non-interstate Reliability
What are we doing in the region?

- The Regional Transportation Plan includes investments to address congestion and improve travel time reliability

- Analyses from the RTP point to a 1 – 2% decline in reliability over a 10-year period
  - This is a lower estimate compared to the state targets mainly due to key transportation investments expected in our region by 2025
Freight Reliability
What does it mean?

- Represents a comparison of observed travel time to average travel time
- Captures the variability in truck travel time on the interstate system, as experienced by freight shippers and suppliers
  - Does not capture freight moving on state highways and local routes
## Freight Reliability

### Adopted Statewide Target

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Current Condition Statewide</th>
<th>2-year State Target&lt;sup&gt;1&lt;/sup&gt;</th>
<th>4-year State Target&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight Reliability Index</td>
<td>1.63</td>
<td>1.70</td>
<td>1.75</td>
</tr>
</tbody>
</table>

**Notes:**

1. 2-year target period ends October 1, 2020; 2. 4-year target period ends October 1, 2022

States and MPOs can adjust 4-year targets during the mid-performance progress report.

No monetary penalties associated with these targets

- An index =1 is reflective of little congestion, higher index values reflect higher congestion.
Freight Reliability
What’s behind the targets?

- Over the last four years, a 78% increase in delay on major freeways in the region has increased delay for trucks (trucks make up 7% of all vehicles in the I-5 corridor)
  - Booming population, robust economy and increasing congestion
Freight Reliability
What are we doing in the region?

- Increases in truck movement and congestion is expected to continue in the future
- The RTP includes investments to address congestion and support interstate mobility
Congestion Mitigation and Air Quality Improvement Program (CMAQ)

Includes the following measures:
- Delay per person
- Percent non-SOV Commute Trips
- Emissions Reduction
## Delay per Person

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Current Condition in the PSRC region</th>
<th>4-year Target&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours of Delay per Capita</td>
<td>23&lt;sup&gt;*&lt;/sup&gt;</td>
<td>28&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

**Notes:**
- <sup>1</sup> 4-year target period ends October 1, 2022; 2-year targets are not required
- <sup>*</sup> Delay is provided in hours
- States and MPOs can adjust 4-year targets during the mid-performance progress report.
- No monetary penalties associated with these targets

- Rule applies to urbanized areas with more than one million population that include nonattainment or maintenance areas
- Currently only applies to the Seattle-Everett-Tacoma urbanized area,
  State target = Regional target
Delay per Person
Rationale behind the targets

- Targets were established based on current delay estimates and past trends
- Over the last 10 years, annual delay on the major freeway corridors has increased on average 6% and in some cases, as high as 21%
Analysis of the RTP shows similar estimates of current delay in the region, consistent with the state’s estimates.

However with the key transportation investments expected in our region by 2025, delay remains fairly constant in the near-term.
### Percent of non-SOV Commute Trips

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Current Condition in PSRC Region</th>
<th>2-year Target(^1)</th>
<th>4-year Target(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of non-SOV Commute Trips</td>
<td>32%</td>
<td>32.8%</td>
<td>33.2%</td>
</tr>
</tbody>
</table>

**Notes:**
\(^1\) 2-year target period ends October 1, 2020;
\(^2\) 4-year target period ends October 1, 2022
States and MPOs can adjust 4-year targets during the mid-performance progress report. No monetary penalties associated with these targets

- Rule applies to urbanized areas with more than one million population that include nonattainment or maintenance areas
- Currently only applies to the Seattle - Everett - Tacoma urbanized area,
  State target = Regional target
Percent of non-SOV Commute Trips
Rationale behind the targets

• The targets were established based on a review of current estimates and past trends for non-SOV commute mode share from the American Community Survey

• Over the last 5 years, the non-SOV mode share for commute trips has changed less than 1%
Percent of non-SOV Commute Trips
What are we doing in the region?

• The RTP includes investments that provide transportation choices, improve access to jobs, opportunity and destinations and result in increase use of public transit

• Due to these investments, we could see an even higher increase in non-SOV mode share between now and 2025
In WA State, this measure only applies to MPOs programming CMAQ dollars.

For PSRC, applicable pollutants are:
- NO<sub>x</sub>
- PM<sub>2.5</sub>

PSRC required to estimate emissions reductions from all projects utilizing CMAQ funds:

- Annual report to WSDOT and FHWA

Projects already selected for FFY 2017-2020

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>2-Year Target (kg/day) 2017-2018</th>
<th>4-Year Target (kg/day) 2017-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Particulates (PM2.5)</td>
<td>2.16</td>
<td>8.83</td>
</tr>
<tr>
<td>Nitrogen Oxides (NOx)</td>
<td>54.88</td>
<td>116.54</td>
</tr>
</tbody>
</table>
Summary
PSRC’s Planning Efforts beyond Federal Targets

PSRC has many measures to better tell the story of travel and growth:

• How many boardings are occurring every year on the region’s fixed route transit system?

• How many people have access to a bus or train that operates every 15 minutes or less?

• How many people walk and bike to get somewhere everyday?

• How many miles do people travel in a car on an average day?

• How many hours do people spend sitting in traffic each year?
PSRC’s Planning Efforts beyond Federal Targets

- How many hours do trucks spend sitting in traffic each year?
- How long does it take to drive between key destinations?
- How long does transit take to get you between some key destinations?
- How much are regional emissions forecast to decline?
Reporting on Performance Targets

WSDOT Role:

- Report targets and progress towards achieving targets, as required to FHWA

<table>
<thead>
<tr>
<th>Report Type</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline Performance Report</td>
<td>October 1, 2018</td>
</tr>
<tr>
<td>Mid Performance Period Progress Report</td>
<td>October 1, 2020</td>
</tr>
<tr>
<td>Full Performance Report</td>
<td>October 1, 2022</td>
</tr>
</tbody>
</table>

- Adopted 4-year targets can be adjusted during the mid-performance period

PSRC role:

- Incorporate targets and progress towards achieving targets in the System Performance Report, as part of the RTP and TIP

- Develop CMAQ Performance Plan, as part of the State’s Biennial Performance Report
What’s Next

• PSRC must establish targets by November 16, 2018.
  ▪ TPB action on federal performance targets will be requested in October
• Adopted 4-year targets can be revisited within the next four years
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