

# CMP PERFORMANCE MEASURE METHODOLOGIES

**Appendix A** 

# **CMP Performance Measure Methodologies**

#### **Corridor Performance Measures**

| Performance Measure   | Methodology   | Data Source |
|---|---|-------------|
| Transportation + housing costs<br>as a percentage of median<br>income along CMP corridors | ▶ Interpolate H+T Index block groups to a 0.5 mile corridor buffers and provide average along each corridor.  | ► H+T Index |
| Existing and forecasted<br>employment density along CMP<br>corridors                      | <ul> <li>Existing: Interpolate SRTC TAZ-level base year employment to 0.5 mile corridor buffers and calculate the average number of jobs per square mile along each corridor.</li> <li>Forecast: Interpolate SRTC TAZ-level forecast employment to 0.5 mile corridor buffers and calculate the average number jobs per square mile along each corridor.</li> </ul>    | ► SRTC      |
| Existing and forecasted<br>population density along CMP<br>corridors                      | <ul> <li>Existing: Interpolate SRTC TAZ-level base year population to 0.5 mile corridor buffers and calculate average number of people per square mile along each corridor.</li> <li>Forecast: Interpolate SRTC TAZ-level forecast employment to 0.5 mile corridor buffers and calculate the average number of people per square mile along each corridor.</li> </ul> | ► SRTC      |
| Freight tonnage on CMP<br>corridors   | Conflate WSDOT FGTS network with CMP network and calculate average freight tonnage on each corridor.  | ▶ WSDOT     |
| Level of Travel Time Reliability<br>(LOTTR) averages and peaks on<br>CMP corridors        | <ul> <li>Calculate corridor average and maximum LOTTR by direction along each corridor during peak periods (7-9 AM, 4-6 PM) using annual data exported from NPMRDS dashboards.</li> <li>Corridor average LOTTR calculated by weighting TMC segments by directional vehicle miles traveled (VMT).</li> </ul>   | ▶ NPMRDS    |
| Annual Peak Hours of Excessive<br>Delay (PHED) on CMP Corridors                           | Calculate the total annual PHED (based on a 3–7 PM peak period) per centerline mile, by direction and in total, along<br>each corridor using data exported from NPMRDS dashboards.  | ► NPMRDS    |
| Existing and forecasted Travel<br>Time Index (TTI) averages and<br>peaks on CMP corridors | Calculate average and maximum TTI by direction along each corridor during peak periods (7–9 AM, 4–6 PM) using the<br>latest April travel times from NPMRDS raw probe data.  | ► NPMRDS    |
| Transit performance on CMP corridors  | ▶ STA provided bus frequency and access along each corridor during peak periods (6–8 AM, 4–6 PM).   | ► STA       |
| Transit reliability factor  | Provided by STA Bus Route Scheduler.  | ► STA       |



### **Corridor Performance Measures**

| Performance Measure   | Methodology  | Data Source   |
|---|--|---|
| Percent of households along<br>CMP corridor that are within 0.5<br>mile of a transit stop | Calculate the percent of households within 0.5 miles of STA transit stops along each corridor by interpolating OFM's<br>SAEP block-level household estimates to 0.5 mile buffers around transit stops and 0.5 mile buffers around each corridor<br>and dividing the transit stop buffer totals by the corridor buffer totals for each corridor.                  | <ul> <li>STA (Transit)</li> <li>OFM (Households)</li> </ul> |
| Crash rate per million VMT on<br>CMP corridors  | <ul> <li>Calculated using the following formula:<br/>[5-Year Rolling Average # of Crashes ÷ (VMT: AADT × Centerline Miles)] × 1,000,000.</li> </ul>  | <ul> <li>WSDOT (Crashes)</li> <li>HPMS (Mileage)</li> </ul> |
| Equivalent Property Damage<br>Only (EPDO) crash rate per<br>million VMT on CMP corridors  | <ul> <li>Calculated using the same formula as the crash rate, but using equivalent property damage only (EPDO) crashes to calculate the 5-year rolling average.</li> <li>EPDO crashes calculated using the following formula:<br/>(Fatal/Serious Injury Crash × 76.8) + (Evident/Possible Injury Crashes ×8.4) + (Property Damage Only Crashes × 1.0)</li> </ul> | <ul> <li>WSDOT (crashes)</li> <li>HPMS (mileage)</li> </ul> |
| Crash Severity Index (SI) on<br>CMP corridors   | <ul> <li>Calculated as:<br/>Total EPDO Crashes ÷ Total Crashes</li> </ul>  | ▶ WSDOT   |

## **Regional Performance Measures**

| Performance Measure  | Methodology  | Data Source |
|--|--|-------------|
| Attendance at CMP working<br>group meetings, committees &<br>public meetings | Calculate total annual attendance at CMP, SRTC Board, and committee meetings.  | ► SRTC      |
| SRTC call for projects<br>expenditures on CMP projects<br>vs. all projects   | Compare funding programmed for projects in the TIP with SRTC-managed funds that are located on the CMP network<br>and incorporate CMP strategies relative to funding programmed in the TIP for all projects with SRTC-managed funds<br>on an annual basis. | ► SRTC      |
| Total regional miles of bike<br>network                                      | Calculate total mileage of the SRTC Regional Priority Bicycle Network by facility type.  | ► SRTC      |
| Incidence clearance on I-90  | Calculated using WSDOT PeMS (Performance Measurement System) Data (for I-90 only).   | ► WSDOT     |