Transportation Demand Management
Baseline Data Collection and Analysis

October 9, 2019
TDM Baseline Data Collection & Analysis

Overview

- Project Purpose & Goals
- Project Schedule
- Data Collection of Commute Trip Reduction and Public Programs
- Initial Data Analysis & Visualization
- Discussion
Project Purpose

To update the 2022 Regional Transportation Plan

To identify and communicate the effectiveness of TDM

To identify TDM opportunities and needs

To improve methods of measuring regional performance

To update the 2022 Regional Transportation Plan
## Project Schedule

<table>
<thead>
<tr>
<th>Summer 2019</th>
<th>Fall 2019</th>
<th>Winter 2019/2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Collect data from WSDOT, transit agencies, and jurisdictions</td>
<td>• Brief the TDM Advisory Committee</td>
<td>• Expand upon data collection if necessary</td>
</tr>
<tr>
<td>• Perform initial review and analysis of data</td>
<td>• Brief the Transportation Policy Board</td>
<td>• Explore regional TDM opportunities and gaps</td>
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</table>
Statewide Commute Trip Reduction Program

Key Components

- Statewide TDM program for CTR-affected worksites
- Targets peak-time commutes to and from worksites
- Worksites with 100 or more full-time employees that commute to work between 6 and 9am
- Goals of Washington’s CTR program
Available Data Points

- Number of Employees
- VMT per Employee
- Total VMT
- Non-Drive-Alone Trip Rate
- Total Annual Greenhouse Gas (GHG) Emissions
- Daily Roundtrip GHG per Employee
- Number of Weekly Trips
- Mode Share of Trips
Concentration of CTR Worksites
## Distribution of Worksites

### CTR-Affected Worksites in the Central Puget Sound Region

<table>
<thead>
<tr>
<th>County</th>
<th>Total Worksites</th>
<th>CTR-Affected Worksites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snohomish</td>
<td>256,201</td>
<td>52</td>
</tr>
<tr>
<td>Pierce</td>
<td>295,922</td>
<td>57</td>
</tr>
<tr>
<td>Kitsap</td>
<td>119,157</td>
<td>18</td>
</tr>
<tr>
<td>King</td>
<td>605,105</td>
<td>488</td>
</tr>
</tbody>
</table>

### CTR-Affected Employees in the Central Puget Sound Region

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>507,917</td>
<td>507,917 (19%)</td>
</tr>
<tr>
<td>2,142,100</td>
<td></td>
</tr>
</tbody>
</table>

Number of CTR-affected employees compared to total employees in the Central Puget Sound Region. Source: Washington State Department of Transportation and PSRC.

Number of CTR-affected worksites compared to total worksites in the Central Puget Sound Region. Source: Washington State Department of Transportation and PSRC.
Proportion of Non-Drive-Alone Trips

Share of non-drive-alone trips taken by CTR-affected worksite employees in the Central Puget Sound Region. Non-drive alone trips include weekly trips not made as drive alone trips or motorcycle trips with only one rider. Note: The decrease in the non-drive-alone trip share in Kitsap County in the 2013/2014 survey cycle is due to Naval Base Kitsap not submitting CTR survey data during the 2013/2014 cycle. Source: Washington State Department of Transportation.

Share of non-drive-alone trips taken by CTR-affected worksite employees in the Central Puget Sound Region and Washington State compared to share of non-drive-alone trips taken by all worksite employees in the Central Puget Sound Region. Source: Washington State Department of Transportation and Puget Sound Regional Council.
Vehicle miles traveled per CTR-affected worksite employee in the Central Puget Sound Region and the State. Vehicle miles traveled per employee is the average single occupancy vehicle equivalent mileage traveled by each employee for their one-way morning commute.
Public TDM Programs Inventory

**Data Points**
- Geographic Coverage
- Trip Purpose
- Employer Size
- Strategies Used
- Promoted Modes
- Target Audiences
- Rewards and Subsidies Info
- Data Collected
- Participation
- Performance Measures

**Methodology**
- Review city comprehensive plans and websites
- Review transit agency plans and websites
- Review Transportation Improvement Program (TIP) TDM projects
- Compile information in inventory
- Follow-up with agencies to confirm and fill in gaps
Public Programs – Initial Results

Overview*

- Unique Programs: 44
- Transit Agency Programs: 17
- 14 City Agencies
  - City-Operated/Authorized Programs: 26
- Cooperative City-Transit Program: 1

* Data collection is still in progress
Modes & Trip Purpose – Initial Results

Program Modes

- Bike: 84%  
- Walk: 82%  
- Transit: 77%  
- Carpool: 73%  
- Vanpool: 73%  
- Telework: 50%  
- Alternative Work Schedule: 50%  
- TNC's: 20%

Trip Purpose

- Work: 55%  
- All: 29%  
- School: 21%

Program Modes:
- Vanpool Rewards (PT)
- In Motion (KCM)
- School Transit Education Program (CT)
Program Strategies – Initial Results

- Education: 82%
- Consultation: 55%
- Marketing: 52%
- Events: 48%
- Ordinance or Resolution: 45%
- Transportation Subsidies: 45%
- Rewards Program: 41%
- RideshareOnline.com: 41%
- Pre-Loaded ORCA Passes: 32%
- Housing Subsidies: 5%
- Other Trip Logging: 5%
- Coupons to Local Businesses: 2%
Performance Measures – Initial Results

Several jurisdictions track their programs’ impacts via RideshareOnline.com.

Data reflects both CTR and non-CTR impacts.

Recommend selecting baseline year for future data analysis.

<table>
<thead>
<tr>
<th>Jurisdictions</th>
<th>Vehicle Miles Not Driven</th>
<th>Lbs of CO2 Not Emitted</th>
<th>Gallons of Gasoline Not Used</th>
<th>Drive-Alone Trips Not Taken</th>
<th>Costs Saved to Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everett</td>
<td>12,640,794</td>
<td>7,819,955</td>
<td>402,728</td>
<td></td>
<td>3,111,109</td>
</tr>
<tr>
<td>Issaquah</td>
<td>11,108,004</td>
<td>7,130,795</td>
<td></td>
<td>591,305</td>
<td>2,744,006</td>
</tr>
<tr>
<td>King</td>
<td>21,363,004</td>
<td>19,824,527</td>
<td>157,000</td>
<td>1,668,955</td>
<td></td>
</tr>
<tr>
<td>Kirkland</td>
<td>17,826,754</td>
<td>9,838,348</td>
<td>524,316</td>
<td>1,342,526</td>
<td>3,803,536</td>
</tr>
<tr>
<td>Redmond</td>
<td>64,032,634</td>
<td>39,018,962</td>
<td>2,035,244</td>
<td>4,150,375</td>
<td>15,289,700</td>
</tr>
<tr>
<td>Tukwila</td>
<td>309,037</td>
<td></td>
<td></td>
<td>23,636</td>
<td></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>127,280,227</strong></td>
<td><strong>83,632,587</strong></td>
<td><strong>3,119,288</strong></td>
<td><strong>7,776,797</strong></td>
<td><strong>$24,948,351</strong></td>
</tr>
</tbody>
</table>
What questions or observations do you have about the data?

What else would you like to know about TDM in the region?

How should we measure the effectiveness of TDM efforts?

How can we highlight opportunities and needs?
Thank you.

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