

# Agenda



**Metro**

600 NE Grand Ave.  
Portland, OR 97232-2736

Meeting: Joint Transportation Policy Alternatives Committee (TPAC) and Metro Technical Advisory Committee (MTAC) Workshop  
Date: Wednesday, March 7, 2018  
Time: 9:30 a.m. – noon  
Place: Metro Regional Center, Council Chamber

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- |                 |             |   |   |
|-----------------|-------------|---|---|
| <b>9:30 am</b>  | <b>1.</b>   | <b>Call To Order And Introductions</b>  | <b>Tom Kloster, Chair</b>   |
| <b>9:35 am</b>  | <b>2.</b>   | <b>Comments From The Chair And Committee Members</b>  | <b>Tom Kloster, Chair</b>   |
| <b>9:40 am</b>  | <b>3.</b>   | <b>Public Communications On Agenda Items</b>  |   |
| <b>9:45 am</b>  | <b>4. *</b> | <b>2018 Growth Management Decision: Buildable Land Estimates</b><br>Purpose: Provide an update on the technical review process for the buildable land inventory as well as a summary of methods and preliminary results   | <b>Ted Reid, Metro</b><br><b>Jeff Frkonja, Metro</b>                            |
| <b>10:30 am</b> | <b>5. #</b> | <b>Regional Leadership Forum #4 Takeaways and Initial Recommendations for Refining 2018 RTP Investment Priorities</b><br>Purpose: Report on key takeaways from March 2 Regional Leadership Forum and initial recommendations for refining project lists for the 2018 RTP                        | <b>Kim Ellis, Metro</b>   |
| <b>11:10 am</b> | <b>6. *</b> | <b>MAP-21 Performance Measures and Targets Input-CMAQ</b><br>Purpose: Provide TPAC and MTAC a brief overview on the federally required MAP-21 performance targets set to be developed as part of the 2018 RTP and region's input on two statewide MAP-21 performance targets being set by ODOT. | <b>Grace Cho, Metro</b>   |
| <b>11:30 am</b> | <b>7. *</b> | <b>2021-2024 STIP Funding Programs Overview</b><br>Purpose: To provide an overview of the 2021-2024 STIP Funding Programs, including the Safety, Active Transportation, and Enhance Leverage programs.  | <b>Grace Cho, Metro</b><br><b>Ted Leybold, Metro</b><br><b>Jon Makler, ODOT</b> |
| <b>12:00 pm</b> | <b>8.</b>   | <b>Adjourn</b>  | <b>Tom Kloster, Metro</b>   |

Upcoming TPAC/MTAC Workshop Meetings:

- Wednesday, April 4, 2018  
TPAC/MTAC Workshop, 9:30 a.m. – noon
- Wednesday, May 2, 2018  
TPAC/MTAC Workshop, 9:30 a.m. - noon

- \* Material will be emailed with meeting notice  
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[www.oregonmetro.gov/civilrights](http://www.oregonmetro.gov/civilrights)  
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ប្រជុំសាធារណៈ សូមទូរស័ព្ទលេខ 503-797-1890 (ម៉ោង 8 រឿងអែងស៊ីស្តមចូលទស្សនាការប្រជុំ  
ថ្ងៃអង្គការ) ប្រាំពីរថ្ងៃ  
ថ្ងៃអង្គការ មុនថ្ងៃប្រជុំដើម្បីអាចឲ្យគេសម្រួលភាសាសំណើរបស់លោកអ្នក

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**2018 Joint TPAC/MTAC Workshop Work Program**

**As of 2/28/18**

*NOTE: Items in italics are tentative*

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|--|--|
| <p><b><u>March 7, 2018</u></b></p> <p>Comments from the Chair:</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p><b>Agenda Items:</b></p> <ul style="list-style-type: none"> <li>• 2018 Growth Management Decision: Buildable Land Estimates (Reid/Frkonja; 45 min)</li> <li>• Regional Leadership Forum #4 Takeaways and Initial Recommendations for Refining 2018 RTP Investment Priorities (Ellis; 40 min)</li> <li>• MAP-21 Performance Measures and Targets Input – CMAQ (Cho; 20 min)</li> <li>• 2021-2024 STIP Funding Programs Overview (Cho/Leybold/Makler; 30 min)</li> </ul> | <p><b><u>April 4, 2018</u></b></p> <p>Comments from the Chair:</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p><b>Agenda Items:</b></p> <ul style="list-style-type: none"> <li>• RTP Policy Chapter Changes: System Maps and Modal Visions and Policies (Ellis; 45 min)</li> </ul>  |
| <p><b><u>May 2, 2018</u></b></p> <p>Comments from the Chair:</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p><b>Agenda Items:</b></p> <ul style="list-style-type: none"> <li>• 2018 Growth Management Decision: Urban Reserve Goal 14 Analysis (Reid/O’Brien; 30 min)</li> <li>• Regional Travel Options Funding Methodology (Kaempff; 45 min)</li> <li>• <i>Draft RTP Implementation Chapter (Ellis; 45 min)</i></li> <li>• <i>MAP-21 Performance Monitoring, Target Setting and Reporting (Ellis/Collins; 30 min)</i></li> </ul>  | <p><b><u>June 6, 2018</u></b></p> <p>Comments from the Chair:</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p><b>Agenda Items:</b></p> <ul style="list-style-type: none"> <li>• Congestion Management Program finding for Transportation Improvement Program (Cho; 45 min)</li> <li>• 2022-2024 Regional Flexible Funds Allocation kickoff (Kaempff; 30 min)</li> </ul>   |
| <p><b><u>July 11, 2018</u></b></p> <p>Comments from the Chair:</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p><b>Agenda Items:</b></p> <ul style="list-style-type: none"> <li>• 2018 Growth Management Decision: Overview of Draft 2018 Urban Growth Report (Frkonja; 60 min)</li> <li>• 2018 Growth Management Decision: Urban Reserves Alternatives Analysis (Reid/O’Brien; 30 min)</li> <li>• <i>Transportation Resiliency and Regional Transportation Emergency Routes (Ellis; 45 min)</i></li> </ul>  | <p><b><u>August 1, 2018</u></b></p> <p>Comments from the Chair:</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p><b>Agenda Items:</b></p> <ul style="list-style-type: none"> <li>• 2021-2024 State Transportation Improvement Program (STIP) 150% ARTS List and Leverage Opportunities (Cho/Leybold/Makler; 45 min)</li> <li>• Public review draft RTP and Framing Policy Issues Discussion (Ellis; 45 min)</li> </ul> |

**2018 Joint TPAC/MTAC Workshop Work Program**

**As of 2/28/18**

*NOTE: Items in italics are tentative*

|  |   |
|--|---|
| <p><b><u>September 5, 2018</u></b><br/> Comments from the Chair:<br/> <ul style="list-style-type: none"> <li>•</li> </ul> <b>Agenda Items:</b></p> | <p><b><u>October 3, 2018</u></b><br/> Comments from the Chair:<br/> <ul style="list-style-type: none"> <li>•</li> </ul> <b>Agenda Items:</b></p>  |
| <p><b><u>November 7, 2018</u></b><br/> Comments from the Chair:<br/> <ul style="list-style-type: none"> <li>•</li> </ul> <b>Agenda Items:</b></p>  | <p><b><u>December 5, 2018</u></b><br/> Comments from the Chair:<br/> <ul style="list-style-type: none"> <li>•</li> </ul> <b>Agenda Items:</b></p> |
| <p><b><u>January 9, 2019</u></b><br/> Comments from the Chair:<br/> <ul style="list-style-type: none"> <li>•</li> </ul> <b>Agenda Items:</b></p>   | <p><b><u>February 6, 2019</u></b><br/> Comments from the Chair:<br/> <ul style="list-style-type: none"> <li>•</li> </ul> <b>Agenda Items:</b></p> |
|  |   |

**Parking Lot**

- HB2017 Electric Vehicle Rebate
- Portland Area Value Pricing
- DEQ-PSU Diesel Monitoring Project

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# Meeting minutes

Meeting: Joint Transportation Policy Alternatives Committee (TPAC) and  
Metro Technical Advisory Committee (MTAC) Workshop

Date/time: Wednesday Feb. 7, 2018 | 9:30 a.m. - noon

Place: Metro Regional Center, Council chamber

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## **Attending**

Tom Kloster, Chair  
Adam Barber  
Jennifer Donnelly  
Brendon Haggerty  
Chris Damgen  
Glenn Koehrsen  
Tom Bouillion  
Ramsay Weit  
Carol Chesarek  
Jae Douglas  
Beverly Drottar  
Emily Lai  
Tom Armstrong  
Karen Perl Fox  
Chris Deffebach  
Ginger Shank  
Janet Van Gilder  
Yi-Min Hu  
Connor Toth  
Brian Martin  
Eric Engstrom  
Adriana Bitton  
Jeff Pazdalski  
Sarah Goforth  
Anne Debbant  
Claire Carcen  
Chris Neamtzu  
Jeff Owen  
Karla Kingsley  
Dwight Brashear  
Nicole Hendrix  
Denny Egner  
Erin Wardell  
Talia Jacobson  
Lidwien Rahman  
Michelle Neiss  
Anne Buzzini  
Jessica Berry  
Jeannine Rustad  
Katherine Kelly

## **Affiliate**

Metro  
Multnomah County  
DLCD  
Multnomah Co. Health Department  
City of Troutdale  
TPAC Community Member  
Port of Portland  
AHS, Housing Affordability  
Multnomah County  
Multnomah County Public Health  
TPAC Community Member  
TPAC Community Member  
City of Portland  
City of Tualatin  
Washington County  
TriMet  
Cascade Policy Institute  
Kittelson & Associates, Inc.  
TriMet  
City of Beaverton  
Portland, BPS  
TriMet  
Westside Transportation Alliance  
Portland Bureau of Transportation  
DLCD  
Community Member  
City of Wilsonville  
TriMet  
Kittelson & Associates, Inc.  
SMART/ City of Wilsonville  
SMART/City of Wilsonville  
City of Milwaukie  
Washington County  
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ODOT  
DHM Research  
DHM Research  
Multnomah County  
Tualatin Hills Park and Recreation District  
City of Gresham

## **Metro Staff**

|  |   |
|--|---|
| Kim Ellis, Principal Transportation Planner    | Tim O'Brien, Principal Regional Planner     |
| Ted Reid, Principal Regional Planner           | Lake McTighe, Senior Transportation Planner |
| Jeff Frkonja, Research Center Director         | Grace Cho, Associate Transportation Planner |
| Margi Bradway, Deputy Dir. Planning & Dev.     | Caleb Winter, Senior Transportation Planner |
| Eliot Rose, Technology Strategist              | Tim Collins, Senior Transportation Planner  |
| Jamie Snook, Principal Transportation Planner  | Cindy Pederson, Research Center Manager     |
| Kale Mattias, Assistant Transportation Planner | Marie Miller, TPAC Recorder                 |

### **1. Call to Order and Introductions**

Chair Tom Kloster called the workshop meeting to order at 9:30 a.m., and welcomed everyone. Introductions were made by TPAC and MTAC members, alternates, staff and guests attending the meeting.

### **2. Comments From the Chair and Committee Members**

- ***Application cycle for 2040 Planning and Development Grants(Tom Kloster)*** Chair Kloster provided an overview of the 2040 Planning and Development Grants Program, formerly known as the Community Planning and Development Grants (CPDG) Program. The handout in the workshop packet provides eligibility requirements and policy and investment emphasis for the 2018 grant cycle. An estimated \$2 million total per grant cycle is awarded, with grant amounts averaging \$100K to \$200K. The time for the application cycle was provided; this year moved more in line with the budgeting process.
- ***State of the Centers Report (Tim O'Brien)*** Mr. O'Brien announced that the 2017 version of the State of the Centers Report was going online. The State of the Centers report, first published January 2009 and updated May 2011, describes the region's 38 distinct regional and town centers and highlights community efforts to enhance them. In 1995 Metro adopted the [2040 Growth Concept](#) to guide growth and development in the Portland metropolitan area. It designates regional and town centers plus downtown Portland as the focus for redevelopment and concentration of homes and jobs. The State of the Centers report provides a description and demographic information for each center, highlights community actions to enhance it, and lists its private and public amenities. Mr. O'Brien welcomes comments and questions on the report.

### **3. Public Communications on Agenda Items - None**

### **4. Regional Travel Options (RTO) Travel and Awareness Survey Results**

The panelists presenting the Survey Results introduced themselves: Caleb Winter and Kale Mattias, Metro, and Michelle Neiss and Anne Buzzini, DHM Research. Mr. Winter provided background on the RTO program and how results of this survey will help shape its update of the Regional Travel Options Strategy. The Strategy guides the region in creating safe, vibrant and livable communities by supporting programs that increases walking, biking, ride sharing, telecommuting, and public transit use. Public comment on the RTO Strategy is currently open online through Feb. 27, 2018.

The RTO Survey tracks Metro residents' travel behavior over time, including top modes of transportation and purposes, assesses awareness of Metro area programs and services related to multi-modal transportation and transportation safety, and determines interest in changing travel behavior and tests most effective messages for spurring change. The current RTO survey for 2017 asks new questions on ridehailing (on demand ride service), smartphone apps, combining trips and trip choices, with 50% of the survey provided by cell phone sample. There were 601 residents responding to the survey during a

one-week period. The representative sample included age, gender and County population quotas for the Metro region.

Showing charts, smartphone apps are now more popular than local news for traffic information for drivers, cyclists, transit riders and pedestrians. The survey shows about one-third of residents take advantage of new ridehailing technology. Use is typically infrequent. Rates of ridehailing use are higher among those under age 30, and those with higher incomes, based on household incomes, with a fairly even split across the three counties.

Most residents share the car with other passengers when ridehailing, and nearly half of rides cost \$10-\$20 per ride. Ridehailing for leisure activities decreases with age, but using the service for other reasons, such as airport rides and medical trips, increases with age. When residents choose ridehailing, it is typically for their leisure activities rather than a commute option. When asked what they would do without access to a car, drivers continue to say public transit as their top choice. However, more categories were offered in the survey, including telecommute, and ridehailing/taxi service showing a rising response.

Residents are increasingly able to telecommute. The option to do so increases with age and income. The availability of commute information and financial incentives from employers at or work, or at school has remained stable. A plateau of roughly 1/3 the workforce is aware of transportation options since 2014. More new people are in the workforce providing the opportunity to reach more with education programs through RTO strategy investments.

Commuters are finding their daily trips increasing more difficult, up sharply in all Counties. Part of the reason is more congestion on roads, new jobs added in the region, and not enough known for travel options. It was asked what the policy implications were with this data. More education/marketing of programs vs. congestion pricing programs? The public wants good policy to address these issues, and may be ready to shift their choice of travel with a good set of investments in the region. It was suggested that combining transportation and housing needs together would be beneficial for planning. Mr. Winter added that resident outreach is underway through partner marketing outreach to new residents, but longer time residents stay in the area, they are less likely to change travel modes.

Discussion was held on transportation options for back up plans when access isn't available, which seems to favor a combination of travel modes. Encouraging having residence and work closer for travel times was suggested, which could be related to income and race. Ms. Mattias reported on a housing choice question why people moved within the past five years, with less expensive housing selected over being closer to work or urban amenities. Studies in the past have shown the commute distance not chosen over location of neighborhood, which could be linked to income and race as well.

Being able to obtain income data on surveys is partly due to respondents not willing to share this data. Zip code data, educational information, and aiming for a reasonable representative response to surveys without bias is attempted, but not always obtainable. It was suggested that educating the public on options through future surveys might change travel patterns.

Awareness in RTO programs has remained stable or increased across several programs. BIKETOWN is new and shows 65% awareness in the survey. The Bike More Challenge showed a decrease, which may

be attributed to change in month event and sponsor name change this past year. While residents are most aware of BIKETOWN, they are more likely to participate in Sunday Parkways. The rates of transportations uses show about half of all residents are biking, walking or using transit at least monthly. Interest in using them more is about the same. More than half of Multnomah residents use travel options already, while Washington and Clackamas residents would like to use them more they do now. It was noted that Multnomah County has the infrastructure for better access.

Following providing the quiz answers with prizes for the top winners, discussion was held on how more data could be gained on resident location. Neighborhood focus groups, asking for cross streets at their location and more direct location data available were suggested. The scale of graphics appeared to be misleading and difficult to read. Finding the collation between uses of the primary mode to availability of access in the county with a more accurate method of visual was suggested.

It was asked if possible to pull the City of Portland out of the Multnomah County sections to provide data on cities and areas of east Multnomah Co. Asked what the focus of the survey was intended to be used for, Mr. Winter emphasized the programs of RTO that could have more focus of marketing and education, making wise choices with investments, and creating change with travel options in the region. Other data, the current RTO public comment period and crosswalk with policies proposed was suggested to further develop answering the “why” to these programs.

How the survey data will be used:

1. Topic Area Report – New Mobility Services
2. Behavior Change Continuum
3. Active Transportation in the Community
4. Context Scores and Cluster Analysis
5. Topic Area Report – Travel Choices

Final comments added to discussion referenced the Coordinated Transportation Plan for Senior and Persons with Disabilities, and adding inclusion of seniors and people with disadvantages to transportation. Clarification with TriMet program funding in the RTO Strategy draft should be reviewed. Future surveys should consider framing questions for purpose and focus for actionable data to programs. The draft RTO Strategy will be discussed at the April TPAC meeting.

#### **5. 2018 Growth Management Decision: Population and Employment Range Forecast**

Ted Reid opened the presentation with background on the purpose of urban growth management to protect farms and forests and to support reinvestment in existing urban locations. State law requires this review at least every six years. The Metro Council intends to make a growth management decision this fall. Council has directed staff that they want to focus discussions on the merits of actual expansion proposals from cities. There are five cities proposing expansions into urban reserves this year. Peer-reviewed regional analysis, including population forecasts and buildable land estimates, is being prepared to support decisions. Today, the focus will be on preliminary information from the regional population and employment forecast.

Jeff Frkonja provided an overview of key findings from the latest regional population and employment forecast. From the summary handout “2018-2038 Regional Growth Draft Forecast Quick Reference”:  
Key findings:

- A panel of experts, economists, and demographers found the forecast to be reasonably sound.
- The Metro region has rebounded from the Great Recession.



- The region added 45,000 new residents last year (2016), equal to 1.9% APR. This is the fastest annual growth since the Great Recession.
- The tight labor market is leading to a Portland area unemployment rate below 4 percent (December 2017). Job growth has been robust since 2014.
- Strong regional growth has lifted employment back above the pre-recession employment peak.
- Going forward, both population and job growth are expected to continue at a moderated pace because the region is approaching its full potential and full employment.
- Longer-term, the region will continue to see relatively stronger population growth (than U.S. trends) as net in-migration is expected to add to regional population – averaging 1.0% APR, (784,000 more residents in MSA between 2015 and 2045).
- Job growth in the long-term is expected to trend with population, - averaging roughly the same 1.0% APR, (406,000 more jobs in MSA between 2015 and 2045).

State of the Region:

- Strong real estate prices indicate a growing economy with room to expand a key blue-collar employment sector – construction. Surveys of local apartments show low vacancy rates and higher year-over-year rents.
- Cargo shipments through the Port of Portland indicate a prosperous, growing region. Air cargo is ramping up to activity levels before the recession. Marine cargo (especially through Terminal 6) has not performed to expectations due to labor issues although it shows a capacity to rebound and contribute to regional job growth.

Further analysis of the data for the 2018 Growth Management Decision will be presented this year at Joint TPAC/MTAC workshops.

**6. Adjourn**

There being no further business, workshop meeting was adjourned by Chair Kloster at 12:00 p.m.

Meeting minutes submitted by,

Marie Miller

TPAC Recorder

Attachments to the Public Record, TPAC and MTAC Workshop meeting, February 7, 2018

| <b>Item</b> | <b>DOCUMENT TYPE</b>     | <b>DOCUMENT DATE</b> | <b>DOCUMENT DESCRIPTION</b>                                 | <b>DOCUMENT No.</b> |
|-------------|--------------------------|----------------------|---|---------------------|
| 1           | Agenda                   | 2/7/2018             | Feb. 7, 2018 Joint TPAC/MTAC Workshop Agenda                | 020718T-01          |
| 2           | Work Program             | 2/6/2018             | 2018 Combined TPAC/MTAC Workshop Work Program               | 020718T-02          |
| 3           | 1/3/2018 Meeting Minutes | 1/3/2018             | Jan. 3, 2018 Meeting Minutes from Joint TPAC/MTAC Workshop  | 020718T-03          |
| 4           | Handout                  | 2/7/2018             | 2040 Planning and Development Grants Program                | 020718T-04          |
| 5           | Handout                  | 2/7/2018             | Regional Travel Options Travel & Awareness Survey 2017 Quiz | 020718T-05          |
| 6           | Handout                  | January 2018         | 2018-2038 Regional Growth Draft Forecast Quick Reference    | 020718T-06          |
| 7           | Presentation             | 2/7/2018             | Metro RTO Survey  | 020718T-07          |
| 8           | Presentation             | 2/7/2018             | State of the Metro Region: Regional Forecast                | 020718T-08          |

This document summarizes the Metro 2018-2038 Regional Growth Forecast. It provides high-level talking points and forecast outputs for general audiences.

### Key Findings

- A panel of experts, economists, and demographers found the forecast to be reasonably sound.
- The Metro region has rebounded from the Great Recession.
- The region added 45,000 new residents last year (2016), equal to 1.9% APR. This is the fastest annual growth since the Great Recession.
- The tight labor market is leading to a Portland area unemployment rate below 4 percent (December 2017). Job growth has been robust since 2014.
- Strong regional growth has lifted employment back above the pre-recession employment peak.
- Going forward, both population and job growth are expected to continue at a moderated pace because the region is approaching its full potential and full employment.
- Longer-term, the region will continue to see relatively stronger population growth (than U.S. trends) as net in-migration is expected to add to regional population – averaging 1.0% APR, (784,000 more residents in MSA between 2015 and 2045)
- Job growth in the long-term is expected to trend with population, – averaging roughly the same 1.0% APR, (406,000 more jobs in MSA between 2015 and 2045)

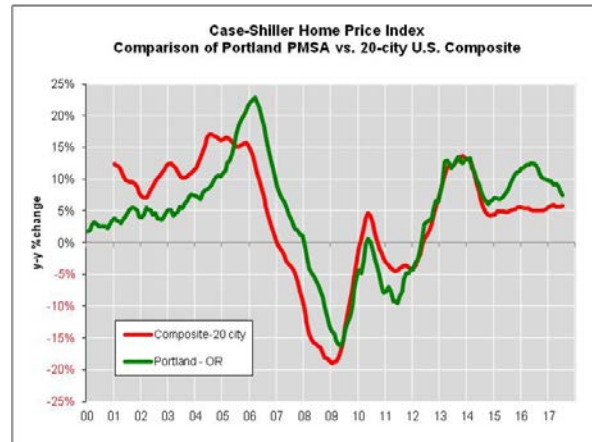
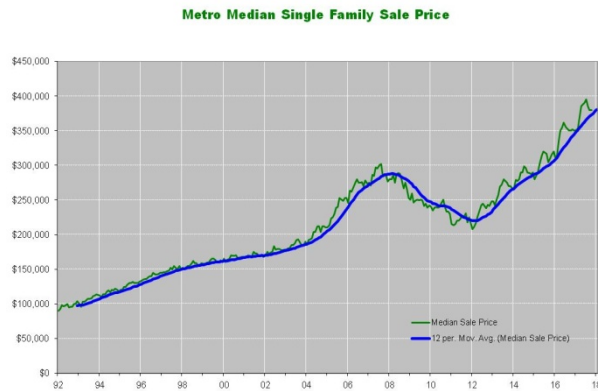
### State of the Region

#### Annual MSA Population and MSA Employment

|            | <u>2012</u>         | <u>2013</u>         | <u>2014</u>         | <u>2015</u>         | <u>2016</u>         |
|------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Population | 2,265,725<br>(0.7%) | 2,291,650<br>(1.1%) | 2,324,535<br>(1.4%) | 2,362,655<br>(1.6%) | 2,407,540<br>(1.9%) |
| Employment | 1,020,400<br>(2.2%) | 1,044,800<br>(2.4%) | 1,076,000<br>(3.0%) | 1,111,900<br>(3.3%) | 1,144,500<br>(2.9%) |

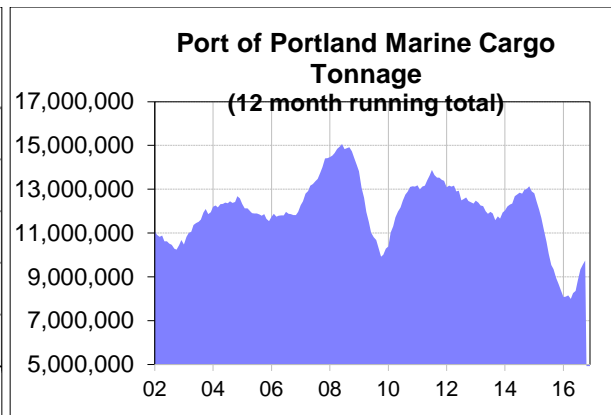
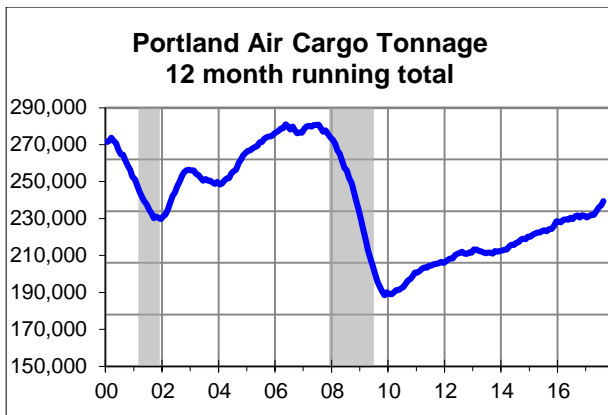
*Source: PSU and BLS (annual growth rate in parenthesis)*

- ❖ The Great Recession is now well past. Job and population growth have returned to pre-recession rates in recent years.
- ❖ National, state and regional unemployment rates are approaching near-full employment – meaning that anyone looking for a job is likely able to find a job, but may mean a shortage for businesses looking to hire.
- ❖ Strong real estate prices (charts below) indicate a growing economy with room to expand in a key blue-collar employment sector – construction. Surveys of local apartments show low vacancy rates and higher year-over-year rents.
- ❖ Prices for homes are similarly showing strong appreciation – another indicator of a robust and healthy economy.

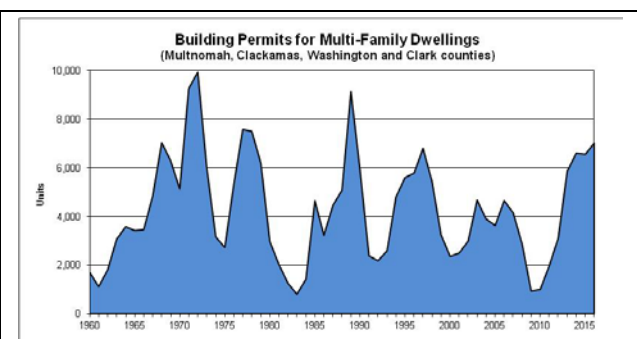
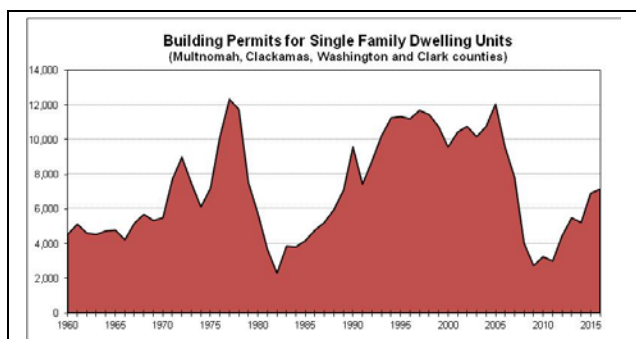


Sources: *Regional Multiple Listing Service, Case-Schiller*

❖ Cargo shipments (charts below) through the Port of Portland indicate a prosperous, growing region. Air cargo is ramping up to activity levels before the recession. Marine cargo (especially through Terminal 6) has not performed to expectations due to labor issues although it shows a capacity to rebound and contribute to regional job growth.



Source: *Port of Portland*



Source: *U.S. Census (Permits include Clackamas, Multnomah, Washington and Clark)*

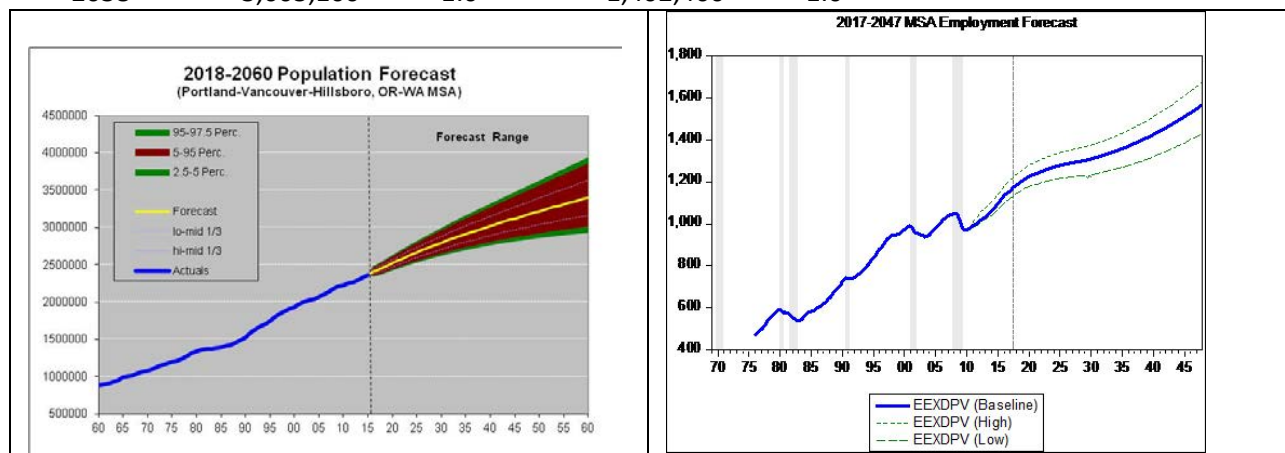
- ❖ Average SFR permits issued in last 3 years = 6,400 units/yr; 20 year avg. = 8,050 units/yr
- ❖ Average MFR permits issued in last 3 years = 6,700 units/yr; 20 year avg. = 4,100 units/yr

**Regional Forecast Summary**

- ❖ Forecast prepared using up-to-date Census and Portland State Population Research Center data
- ❖ Forecast data sources include U.S. Bureau of Labor Statistics, Bureau of Economics, Federal Reserve Board, and Census
- ❖ U.S. growth projections derived from IHS Markit (August 2017 edition) and U.S. Census
- ❖ Annual comparisons between past forecasts and actuals/estimates are accurate and within an error band of about +/- 1 percent compounded, excluding years for the Great Recession
- ❖ Forecast contains uncertainty (see charts below).

**2018-38 Regional Forecast, Portland-Vancouver-Hillsboro, OR-WA Metropolitan Statistical Area**

| Year | Population | APR% | Employment | APR% |
|------|------------|------|------------|------|
| 2015 | 2,362,655  | 1.6  | 1,111,900  | 3.3  |
| 2016 | 2,407,540  | 1.9  | 1,144,450  | 2.9  |
| 2017 | 2,443,900  | 1.5  | 1,169,300  | 2.2  |
| 2018 | 2,480,800  | 1.5  | 1,193,500  | 2.1  |
| 2019 | 2,513,500  | 1.3  | 1,214,250  | 1.7  |
| 2020 | 2,545,400  | 1.3  | 1,230,200  | 1.3  |
| 2038 | 3,005,100  | 1.0  | 1,402,400  | 1.0  |



Source: history = {Census/ PSU and BLS; forecast = Metro, Research Center, November 2017}

**Forecast Comparison (Metro November 2017 Forecast v. Metro November 2014 Forecast)**

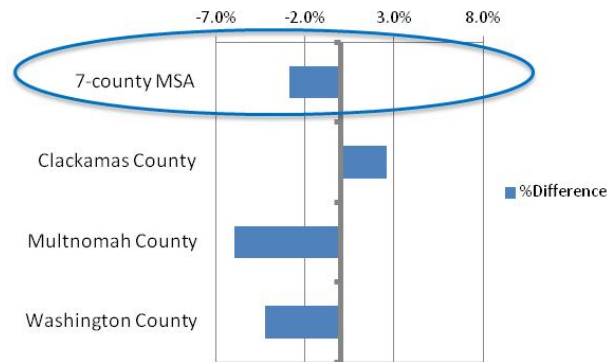
| <u>Total Population</u> | <u>2015</u> | <u>2020</u> | <u>2025</u> | <u>2030</u> | <u>2035</u> | <u>2040</u> |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| (in 1,000's)            |             |             |             |             |             |             |
| Metro (2017 vintage)    | 2,362.7     | 2,545.4     | 2,691.5     | 2,822.5     | 2,940.4     | 3,046.7     |
| Metro (2014 vintage)    | 2,342.5     | 2,519.2     | 2,671.8     | 2,814.1     | 2,937.9     | 3,052.1     |
| % diff                  | 0.9%        | 1.0%        | 0.7%        | 0.3%        | 0.1%        | -0.2%       |
| <u>Total Employment</u> | <u>2015</u> | <u>2020</u> | <u>2025</u> | <u>2030</u> | <u>2035</u> | <u>2040</u> |
| (in 1,000's)            |             |             |             |             |             |             |
| Metro (2017 vintage)    | 1,111.9     | 1,230.2     | 1,281.4     | 1,313.2     | 1,363.1     | 1,432.3     |
| Metro (2014 vintage)    | 1,100.0     | 1,228.1     | 1,311.6     | 1,399.8     | 1,484.5     | 1,571.3     |
| % diff                  | 1.1%        | 0.2%        | -2.3%       | -6.2%       | -8.2%       | -8.8%       |

**Prior Metro Regional Forecast Accuracy**

**Population Forecast  
(2010 vintage Metro v. PSU actual)**

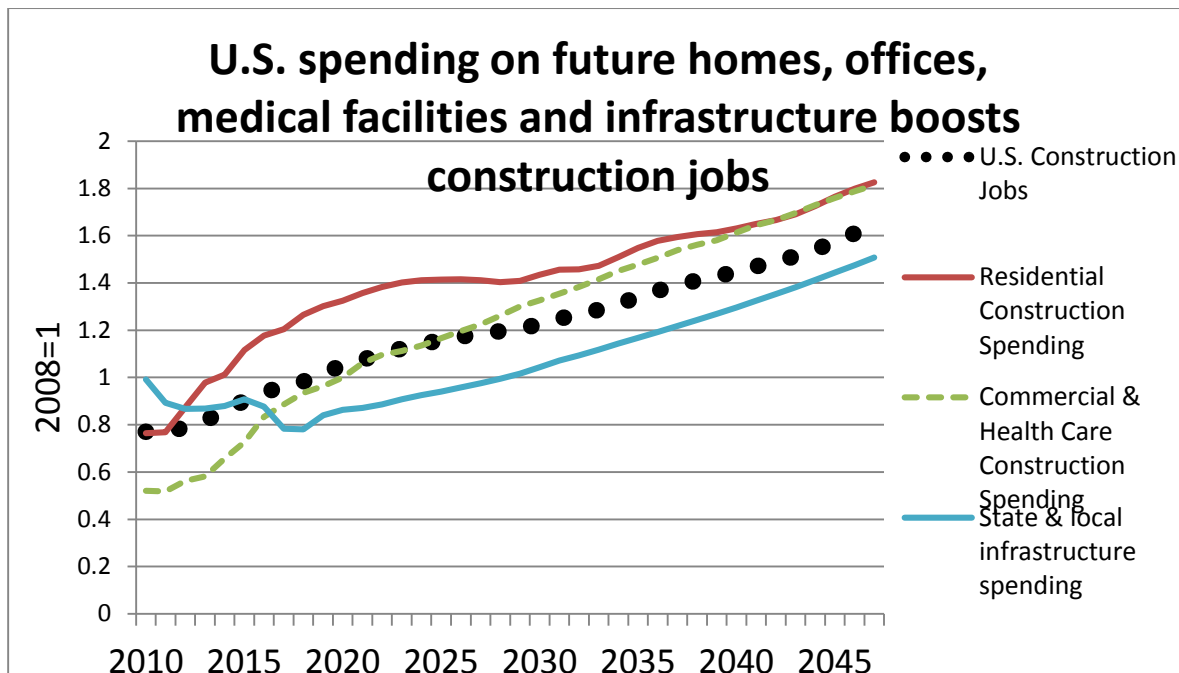


**Employment Forecast  
(2010 vintage Metro v. OED actual)**



**Review of Metro 2017 Regional Forecast and NERC November 2017 Forecast**

- Both Metro and NERC economists agree that the differences between the two respective forecasts are not significant.
- Both concur that sector level employment differences are also not are not large
- Both forecasts project construction to be the fastest industry growth sector. Both cite infrastructure development from state and federal sources along with non-residential construction as key drivers of construction in future years.



# Memo

Date: Wednesday, March 7, 2018  
To: Transportation Policy Alternatives Committee/Metro Technical Advisory Committee and Interested Parties  
From: Grace Cho, Associate Transportation Planner  
Ted Leybold, Resource Development Manager  
Subject: MAP-21 Performance Measures and Targets – CMAQ Program

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## **Purpose**

Provide TPAC and MTAC a brief overview on the federally required MAP-21 performance targets set to be developed as part of the 2018 RTP and the region's input on two statewide MAP-21 performance targets being set by ODOT.

## **Introduction and Background**

Signed into law in 2012, the Moving Ahead for Progress in the 21st Century (MAP-21) created the most significant federal transportation policy shift since the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA). For the first time, MAP-21 established a performance-based planning framework intended to improve transparency and hold state transportation departments, transit agencies and metropolitan planning organizations (MPOs) accountable for the effectiveness of their transportation planning and investment choices. The objective of the new framework was to ensure States, MPOs, and transit agencies invest federal resources in projects that collectively will make progress toward the achievement of the national goals identified in MAP-21.

As a result, part of Metro's duties as the metropolitan planning organization (MPO), will be to work in partnership with local, regional, and state partners to develop transportation system performance targets based on prescribed federal performance measures using observed and collected transportation data.

These MAP-21 performance targets have different deadlines, but a majority of the MPO required targets must be completed and set by Autumn 2018. For State DOTs and transit providers the deadlines also vary based on performance measure, but those statewide targets of interest to the MPO need to be set by May 2018. State DOTs, MPOs, and transit agencies are expected to be consistent and/or coordinated with their performance targets.

## **2018 RTP and MAP-21 Performance Measures and Targets**

In requiring State DOTs, MPOs, and transit agencies to move towards a performance-based planning framework, MAP-21 identified and defined performance measures which are aligned national goal areas for the transportation system. State DOTs, MPOs, and transit agencies are expected to develop near-term (four-year and for certain measures, two-year) performance targets for each of the performance measures and using observed data to measure progress. Table 1 illustrates the MAP-21 defined performance measures.

Table 1. MAP-21 Performance Measures

| National Goal Areas                           | Federal Performance Measure(s)   |
|---|--|
| <b>Safety</b>                                 | <ul style="list-style-type: none"> <li>Fatalities (number and rate per 100 million vehicle miles traveled) <sup>1</sup></li> <li>Serious injuries (number and rate per 100 million vehicle miles traveled) <sup>2</sup></li> </ul>   |
| <b>Infrastructure condition</b>               | <ul style="list-style-type: none"> <li>Condition of pavements on the Interstate System and on the non-Interstate National Highway System</li> <li>Condition of bridges on the National Highway System</li> <li>State of good repair for public transit assets for rolling stock, equipment, facilities and infrastructure</li> </ul> |
| <b>Congestion reduction</b>                   | <ul style="list-style-type: none"> <li>Annual hours of peak hour<sup>3</sup> excessive delay (PHED) per capita<sup>4</sup> on the National Highway System.</li> <li>Percent of Non-Single Occupancy Vehicle (SOV) travel<sup>5</sup></li> </ul>  |
| <b>System reliability</b>                     | <ul style="list-style-type: none"> <li>Percent of reliable person-miles traveled<sup>6</sup> on Interstate System and on the non-Interstate National Highway System</li> </ul>   |
| <b>Freight movement and economic vitality</b> | <ul style="list-style-type: none"> <li><b>Percent of Interstate System miles with reliable truck travel times<sup>7</sup></b></li> </ul>   |
| <b>Environmental sustainability</b>           | <ul style="list-style-type: none"> <li><b>Total emissions reduction for CMAQ funded projects by applicable pollutants<sup>8</sup></b></li> <li><b>Percent change in CO<sub>2</sub> emissions from 2017, generated by on-road mobile sources on the National Highway System</b></li> </ul>  |

<sup>1</sup> Number of motorized and non-motorized fatalities.

<sup>2</sup> Number of motorized and non-motorized serious injury crashes.

<sup>3</sup> The morning peak period is 6-10 a.m. local time on weekdays. The afternoon peak is 3-7 p.m. or 4-8 p.m. local time, providing flexibility to State DOTs and MPOs

<sup>4</sup> Excessive delay based on travel time at 20 miles per hour or 60 percent of the posted speed limit travel time, whichever is greater, in 15-minute intervals per vehicle. If an affected urbanized area overlaps with more than one State DOT or MPO, all parties must coordinate and report on a single, unified target.

<sup>5</sup> A minimum option for measurement will be use of the American Community Survey (ACS) Journey to Work data from the U.S. Census Bureau. State DOTs and MPOs also may use localized survey or measurements. Finally, State DOTs and MPOs may use volume counts for each mode to determine the percent non-SOV travel, and will be encouraged to report any data not available in national sources today (such as bike counts) to FHWA. This measure may include travel avoided by teleworking.

<sup>6</sup> Reliable defined as the ratio of the 80th percentile travel time of a reporting segment to a “normal” travel time (50th percentile), using data from FHWA’s free National Performance Management Research Data Set or equivalent. Data are collected in 15-minute segments during all time periods other than 8 p.m.-6 a.m. local time. The measures are the percent of person-miles traveled on the relevant NHS areas that are reliable

<sup>7</sup> The ratio will be generated by dividing the 95th percentile time by the normal time (50th percentile) for each segment. Then, the Index will be generated by multiplying each segment’s largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate. Reporting is divided into five periods: morning peak (6-10 a.m.), midday (10 a.m.-4 p.m.) and afternoon peak (4-8 p.m.) Mondays through Fridays; weekends (6 a.m.-8 p.m.); and overnights for all days (8 p.m.-6 a.m.)

<sup>8</sup> Applicable pollutants include: nitrogen oxide (NOx), volatile organic compounds (VOCs), carbon monoxide (CO), and particulate matter (PM10 and PM2.5)



## **MAP-21 Congestion Mitigation Air Quality (CMAQ) Performance Measures & Targets – Statewide and MPO Targets**

Within the MAP-21 performance measures, there are three which are associated with the CMAQ program. These MAP-21 CMAQ performance measures are:

1. Emissions Reductions (by pollutant) of CMAQ funded projects (Environmental sustainability goal area)
2. Non-Single Occupancy Vehicle (SOV) mode split (Congestion reduction goal area)
3. Peak Hour Excessive Delay per capita (PHED) (Congestion reduction goal area)

These three MAP-21 performance measures are applicable to states and metropolitan areas which: 1) receive U.S. DOT CMAQ funding; and/or 2) have a status of non-attainment or attainment with a maintenance plan as of October 1, 2017. The Portland metropolitan region federal air quality status changed on October 2, 2017 when the region completed the 20-year maintenance planning period without violations that could have extended the planning period.

Recognizing how close the deadline MAP-21 CMAQ performance measures application and the region's change in status, ODOT and Metro staff formally requested to FHWA and FTA exemption on the MAP-21 CMAQ performance measures. FHWA and FTA denied the exemption request. As a result of one-day, the Portland metropolitan region will be required to develop the Non-SOV mode split and Peak Hour Excessive Delay performance targets.

These MAP-21 CMAQ performance measures are not applicable to metropolitan regions with less than 1 million in population until 2020 and therefore, the Portland metropolitan region is the only part of the state currently required to address these targets. The state must also develop MAP-21 CMAQ performance targets, which will only be applicable to the Portland metropolitan region.

As a result, ODOT formally requested the Portland metropolitan region to create the statewide performance target for the Non-SOV mode split and Peak Hour Excessive Delay performance measures for their consideration.<sup>9</sup> Metro staff has accepted ODOT's request to lead the development of the statewide CMAQ performance targets. While the region anticipated being able to bring forward these two measures as part of all the MAP-21 performance targets starting in April 2018 as part of the 2018 RTP, the deadline for the state to submit a statewide performance target on Non-SOV mode split and Peak Hour Excessive Delay is May 20, 2018. For ODOT to accomplish submitting the statewide MAP-21 CMAQ performance targets by May 2018, ODOT will need to bring forward a preliminary performance target recommendation to the Oregon Transportation Commission in March 2018 to accommodate a public comment period and public hearing before taking action in May 2018. Metro will be submitting a recommendation and input on the Non-SOV mode split and the Peak Hour Excessive Delay to ODOT in early March 2018.

### **Determining CMAQ Performance Targets**

In taking on the lead in the development of the Non-SOV mode split and Peak Hour Excessive Delay performance target, Metro staff reviewed the MAP-21 performance measure rules. Recognizing the MAP-21 performance rules have not expressed the implications for State DOTs, MPOs, and transit agencies for achieving or not achieving the MAP-21 performance target, the region proposes taking

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<sup>9</sup> Link to the MAP-21 CMAQ performance measures and targets can be found at: <https://www.fhwa.dot.gov/tpm/rule.cfm>

a conservative approach to setting achievable CMAQ performance targets. This is in recognition the region will not likely need to report and monitor the Non-SOV mode split and Peak Hour Excessive Delay performance targets for the long-term and the region has already set aspirational transportation system performance targets in the 2018 RTP more directly tailored to the region’s goals.

Below, the key details are identified for each individual measure.

Non-Single Occupancy Vehicle (SOV) Mode Split

Dataset Used: U.S. Census Bureau American Community Survey – Journey to Work, 5-year estimates (2011-2015, 2012-2016)

Geography: Census urbanized area (Oregon-side only. [See Maps](#))<sup>10</sup>

For the Non-SOV model split performance measure, the MAP-21 rules prescribe one of three datasets be used to inform the region’s Non-SOV mode split baseline and establishing a target for monitoring purposes. The region has elected to use the Journey-to-Work data from the U.S. Census Bureau from the three available dataset as it is a consistent data source for the purposes of long-term monitoring and reporting.<sup>11</sup>

*Table 1. Non-SOV Mode Split over Time (5-Year Urbanized Area Estimates – Oregon only)<sup>12</sup>*

| <b>Estimates</b>                                  | <b>2011 %</b> | <b>2016 %</b> |
|---|---------------|---------------|
| <b>Car, truck, or van: - Drove alone</b>          | 68.8%         | 67.3%         |
| <b>Car, truck, or van: - Carpooled:</b>           | 9.6%          | 9.7%          |
| <b>Public transportation (excluding taxicab):</b> | 8.0%          | 8.3%          |
| <b>Taxicab</b>                                    | 0.0%          | 0.0%          |
| <b>Motorcycle</b>                                 | 0.4%          | 0.3%          |
| <b>Bicycle</b>                                    | 2.8%          | 3.1%          |
| <b>Walked</b>                                     | 3.7%          | 3.8%          |
| <b>Other means</b>                                | 0.6%          | 0.7%          |
| <b>Worked at home</b>                             | 6.1%          | 6.6%          |
| <b>Not drove alone</b>                            | 31.2%         | 32.7%         |

In looking at the datasets for the Oregon-side of the urbanized area, the non-SOV mode split is slightly higher, at 31.2% between 2007-2011 and 32.7% between 2012-2016. The rate of change between 2007-2011 and 2012-2016 is 1.5% growth in non-SOV commuting with .3% as the

<sup>10</sup> The Vancouver, Washington portion of the census urbanized area was not included in setting this performance target as the Washington portion of the urbanized area is not subject to the MAP-21 CMAQ performance measures and target setting requirements because the area is in attainment prior to October 1, 2017. In not being subject to the MAP-21 CMAQ performance measures and targets, the region has elected to develop performance targets tailored to the Oregon portion of the urbanized area since it is the only area subject to the federal mandate and the region is setting a performance target it has the ability to impact.

<sup>11</sup> Nonetheless, Metro recognizes the limitations of the Journey-to-Work data.

<sup>12</sup> In order to calculate the Oregon-side of the urbanized area, the census tracts intersecting the Oregon-side of the greater urbanized area were used and aggregated to determine the non-SOV mode split.

average annual level of growth in non-SOV mode split seen over the five year period. Based on the Journey-to-Work data the region's baseline starting point for non-SOV mode split is 32.7%.

In taking a conservative approach to setting the 2-year and 4-year targets, the following factors were taken into consideration:

- A slightly upward trajectory in Non-SOV mode split on the Oregon-side between 2007-2011 and 2012-2016.
- The Portland-side of the greater Portland-Vancouver urbanized area will see a significant infusion of transit service funding due to House Bill 2017.
- 2016 census bureau estimates show the rate of vehicle-based commuting is outpacing other mode options. This recognizes the level of investment in improving non-SOV options is not at a rate fast enough to keep up with population and job growth.

In light of these factors and the Journey-to-Work data trend between 2007-2011 and 2012-2016, Metro staff recommends using an annual average growth rate of non-SOV mode split growth of .2% per year to set the two and four year targets from the base line rate of 32.7%.

#### Peak Hour Excessive Delay

Dataset Used: National Performance Management Research Dataset (NPMRDS), February 2017 – January 2018

Geography: National Highway System (NHS) facilities on the Oregon-side of the urbanized area

Timeframe: Peak Hours: 6-10AM, 3-7PM, weekdays, in 15 minute intervals

For the Peak-Hour Excessive Delay performance measure, the MAP-21 rules prescribe one method for calculating the measure and states and MPO's are expected to use the information to determine a performance target. For the purposes of the MAP-21 performance measures and targets, excessive delay is defined as, "*the extra amount of time spent in congested conditions defined by speed thresholds that are lower than a normal delay threshold. The speed threshold is either 20 mph or 60% of the posted speed limit, whichever is greater.*" An outline of the method is below:

Figure 1. Outline of Peak Hour Excessive Delay Segment Calculation

## Overview: PHED Metric: Example

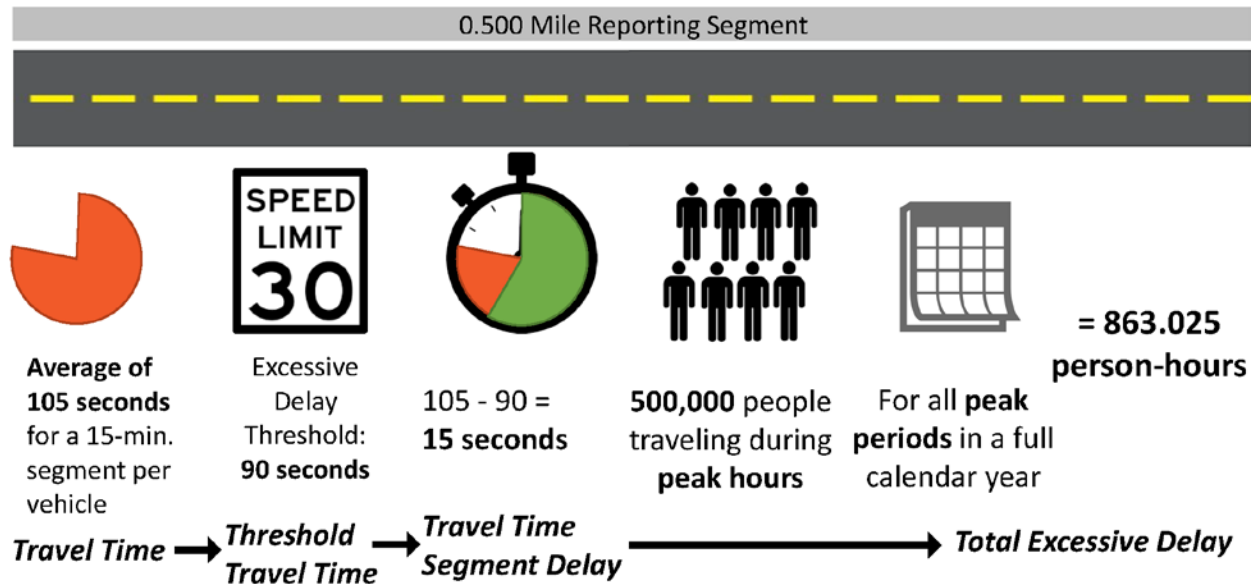
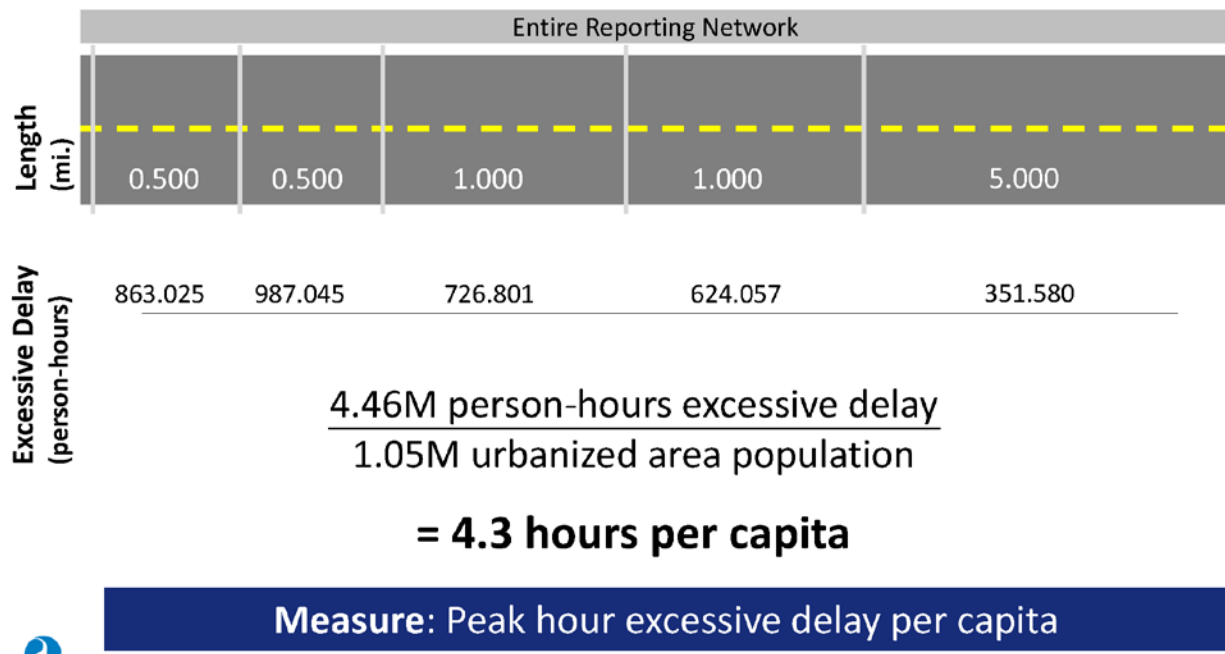


Figure 2. Example Peak Hour Excessive Delay Per Capita Calculation

## PHED MEASURE Calculation: Example



The generalized outline of the method illustrates the intensive data exercise calculating the MAP-21 Peak Hour Excessive Delay performance measure poses. Across the Oregon portion of the

urbanized area of an entire year on all segments of the NHS system during the peak travel period in 15-minute intervals, over 12 million segment calculations had to be undertaken to get to a total of annualized hours of excessive delay. (An example of Metro’s calculation is show as **Attachment 1.**) Once the prescribed segment calculations were completed, total annualized delay was determined. This information was assessed against the urbanized area population and to understand over the course of February 2017 – January 2018, what the total annual peak hour excessive delay is per person. Table 2 provides the summary.

*Table 2. Inputs to Peak Hour Excessive Delay Per Capita Calculation*

| Category  | Totals   |
|---|--|
| Total Time Over 1-Year Spent in Peak Hour Excessive Delay | <b>31,495,248.10</b> annualized hours of delay |
| Total Population (Oregon-side only)                       | <b>1,577,456</b>                               |
| Total Annual Peak Hour Excessive Delay (Per Capita)       | <b>19.97</b> hours                             |

Based on the NPMRDS data collected from February 2017 through January 2018 and the applied calculation outlined in the federal rules, the region’s annual per capita peak hour excessive delay is 19.97 hours.

To help inform what the region would recommend as a four-year target, the 2018 RTP model runs were used to help look at the growth in delay on the system. While not an exact match to the MAP-21 Peak Hour Excessive Delay performance measure method, the 2018 RTP model runs provide insight on the trajectory of expected congestion on the region’s transportation system during the peak hours of travel with the investments prioritized in the draft plan at this time. The 2018 RTP model runs show ~5% growth per year in vehicle hour delay (VHD) per capita between 2015 base year and 2027 financially constrained investment strategy. Applying this growth rate of delay, there would be about 20% growth in annual peak hour excessive delay per person over a four-year period. The 20% growth rate in delay is being recommended to add for the annual peak hour excessive delay per capita target.

### **Recommendation MAP-21 CMAQ Performance Targets**

When establishing the MAP-21 performance-based planning framework, U.S. DOT did not provide any direction on what the implications will be for achieving or not achieving performance targets. In recognizing the region has performance targets within the 2018 RTP which measure the outcomes the region desires to see for the regional transportation system, the region’s approach to the MAP-21 CMAQ performance targets is to set achievable performance targets. The following are the recommended performance targets for the MAP-21 CMAQ performance measures. This is the input Metro staff intends to communicate to ODOT staff.

#### Non-Single Occupancy Vehicle (SOV) Mode Split

In taking a conservative approach in setting the MAP-21 Non-SOV mode split performance targets combined with using the Metro staff recommended rate of .2% growth in non-SOV mode split per year, proposed for the MAP-21 non-SOV mode split target are:

- 2-year target – 33.1%
- 4-year target – 33.5%

#### Peak Hour Excessive Delay

In using a conservative approach in setting the MAP-21 Peak Hour Excessive Delay performance target, Metro staff recommends a 4-year target of 23.96 annual peak hour excessive delay per capita.

**Next Steps**

The following timeline has been provided to illustrate the next steps for the MAP-21 CMAQ performance targets.

*Timeline – 2021-2024 STIP Policy Discussion*

| <b>Activity</b>   | <b>Timeframe</b>  |
|---|---|
| Metro Staff Presentation on MAP-21 CMAQ Performance Target <ul style="list-style-type: none"> <li>• Recommendation for PHED &amp; Non-SOV mode split targets</li> </ul> | March 7, 2018   |
| Metro Staff Submits Recommendations on MAP-21 CMAQ Performance Targets to ODOT  | March 7, 2018   |
| Oregon Transportation Commission Receives Presentation and Recommendations on all Statewide MAP-21 Performance Targets  | March 15, 2018  |
| Public Comment on Statewide MAP-21 Performance Targets  | March 15 – First Week of May 2018 (exact closing day TBD) |
| OTC Public Hearing on MAP-21 Performance Targets  | April 19 – 20, 2018                                       |
| OTC and ODOT Formalizes Statewide MAP-21 Performance Targets  | May 17, 2018  |

## Attachment 1.

### Example of Metro's Peak Hour Excessive Delay NHS Segment Calculation

NHS Segment: I-405N, Fremont Bridge (TMC segment 114P04514)

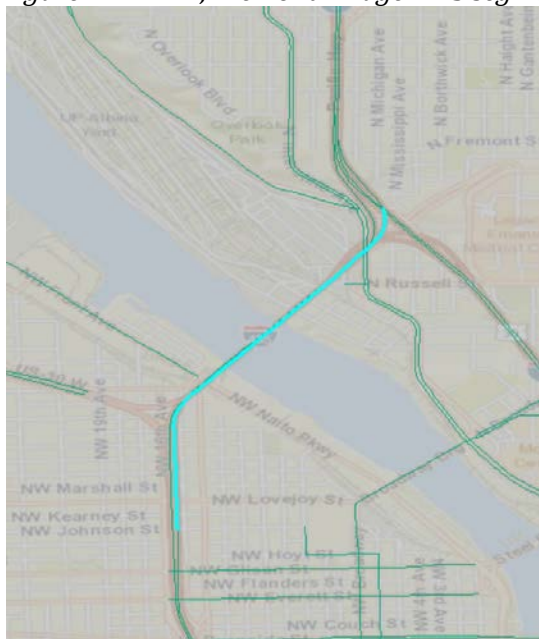
Segment length: 1.304 Miles

Posted Speed Limit: 50 MPH

60% of Posted Speed Limit = 30 MPH Threshold Speed (required to use since greater than 20 MPH)

Threshold Travel Time = (1.304 Miles / 30 MPH) \* 3600 = 156.48 Seconds

Figure 1. I-405N, Fremont Bridge NHS segment



#### Example 15-minute peak hour calculation on segment I-405N, Fremont Bridge:

247.60 seconds travel time for vehicles on Feb 1, 2017, 4:00 PM.

247.60 – 156.48 = 91.12 seconds (.025 hours) excessive delay

#### Steps for Annualizing All Peak Hour Excess Delay for I-405N, Fremont Bridge NHS segment:

Repeat calculations for 6-10AM, 3-8PM peak hours in 15 minute increments.

Repeat calculations for all weekdays between February 2017 – January 2018

Total annual delay for Segment I-405N, Fremont Bridge: 684,486 hours

Materials following this page were distributed at the meeting.



FROM: Jon Makler, ODOT Region 1 Planning Manager  
TO: TPAC/MTAC  
DATE: March 7, 2018  
RE: 2021-2024 STIP – Draft Leverage Program Guidelines

The following are highlights from draft guidelines provided to ODOT staff regarding the 2021-24 STIP Leverage Programs, to which the Oregon Transportation Commission allocated funds at their meeting in December 2017.

### **Leverage Programs**

- State Highway Leverage.
- Safety Leverage HB 2017.
- Active Transportation Leverage.

### **Principles of Leverage Programs**

- Improve the State Highway System.
- ACT engagement.
- Meet community needs not addressed by Fix-It projects.
- Maximize resources by leveraging priority improvements.
- Allow for flexibility while maintaining transparency.
- Projects should be consistent with plans and on a list of identified needs.
- Document investments to inform outcome-based Performance Based Planning and Programming.

### **Eligible Activities for All Leverage Programs**

- Add features to ODOT Fix-It projects on the State Highway System.
- Add features not already included in state earmarked projects in HB 2017, but only with prior approval by the Highway Division Administrator. NOTE: There is no guarantee of state cash availability, so you must assume that this would federalize the project. Leverage funds are not to be used to fill a funding gap in an earmarked project – they must be scope additions / enhancements.
- In coordination with an ODOT Fix-It project, partner with local jurisdictions to improve the State Highway System. It is anticipated that ACTs would provide feedback on such partnering opportunities.
- Leverage funds can be exchanged between Regions with clear and explicit documentation of the reasons / outcomes and tracking of funds.

### **Ineligible Activities for All Leverage Programs**

- No exchanging of dollars between leverage programs within a region.
- No bucketing of leverage funds. They must be allocated to specific projects.
- Cannot be used for stand-alone projects.
- Not for ADA curb ramp improvements or Bike Bill (ORS 366.514) required features triggered by the Fix-It project. Those improvements are to be covered by the project budget.

**In addition to the eligible and ineligible activities described above, additional guidance for the specific leverage programs is provided below:**

|  |  |                           |  |          |             |          |           |          |           |          |           |          |           |
|--|--|---------------------------|--|----------|-------------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|
| <p><b>Active Transportation Leverage</b></p> | <p>Funds building, repairing, or replacing bikeways or walkways on the state highway system not triggered by the Bike Bill or ADA requirement and therefore not otherwise funded by the project being leveraged. Suggestions include, but are not limited to: extending the project boundaries to address a nearby biking or walking need, adding or improving a crossing, installing safety equipment or features, or making better connections to public transportation (e.g. bus pullout):</p> <ul style="list-style-type: none"> <li>• Must align with policy framework established by the Oregon Transportation Plan and statewide mode and topic plans:             <ol style="list-style-type: none"> <li>a) Oregon Bicycle and Pedestrian Plan</li> <li>b) Oregon Public Transportation Plan</li> <li>c) Oregon Transportation Options Plan</li> <li>d) Oregon Transportation Safety Action Plan</li> </ol> </li> <li>• Must align with ADA Program guidelines.</li> </ul> <table border="1" data-bbox="394 781 1458 1018"> <tr> <td colspan="2">Region Funding Allocation</td> </tr> <tr> <td>Region 1</td> <td>\$7,476,000</td> </tr> <tr> <td>Region 2</td> <td>6,491,100</td> </tr> <tr> <td>Region 3</td> <td>3,101,700</td> </tr> <tr> <td>Region 4</td> <td>2,175,600</td> </tr> <tr> <td>Region 5</td> <td>1,755,600</td> </tr> </table>   | Region Funding Allocation |  | Region 1 | \$7,476,000 | Region 2 | 6,491,100 | Region 3 | 3,101,700 | Region 4 | 2,175,600 | Region 5 | 1,755,600 |
| Region Funding Allocation                    |  |                           |  |          |             |          |           |          |           |          |           |          |           |
| Region 1                                     | \$7,476,000  |                           |  |          |             |          |           |          |           |          |           |          |           |
| Region 2                                     | 6,491,100  |                           |  |          |             |          |           |          |           |          |           |          |           |
| Region 3                                     | 3,101,700  |                           |  |          |             |          |           |          |           |          |           |          |           |
| Region 4                                     | 2,175,600  |                           |  |          |             |          |           |          |           |          |           |          |           |
| Region 5                                     | 1,755,600  |                           |  |          |             |          |           |          |           |          |           |          |           |
| <p><b>Safety Leverage HB 2017</b></p>        | <p>The Safety Leverage Funds are meant to help improve the safety of the state highway system where the Agency is planning to make a separate Fix-It program investment. The intent is to improve the most important safety issues that are in the general area of a planned Fix-It project. Investment decisions from this leverage fund will follow the general priorities outlined in the 2016 Transportation Safety Action Plan (TSAP). The funds should be used for engineering countermeasures that can demonstrate a measurable cost-effective benefit and should generally follow the prioritization guidelines below:</p> <ul style="list-style-type: none"> <li>• Tier 1 - Infrastructure improvements that will reduce serious / fatal crashes within the Emphasis Areas of the 2016 TSAP, such as Intersection, Roadway Departure, Pedestrian, and Bicycle crashes.</li> <li>• Tier 2 - Regional safety priority areas, such as top 10% Safety Priority Index System (SPIS) sites, region-wide systemic safety features, or other documented crash locations.</li> </ul> <p>Safety leverage opportunities are identified by the following process:</p> <ul style="list-style-type: none"> <li>• Regions review the Fix-It programs 150% lists for Tier 1 and 2 Safety Leverage qualification.</li> <li>• Scoping teams review the Fix-It programs 150% lists for project details, including: status of each project, location, noting whether it qualifies as Safety Leverage (identifying safety mitigation as appropriate), or explaining why the project does not qualify in the “Leverage Opportunities” section of the Business Case.</li> <li>• The Safety Leverage portion of all projects is prioritized by Regions and</li> </ul> |                           |  |          |             |          |           |          |           |          |           |          |           |

|                                      |  |          |              |          |           |          |           |          |           |          |           |
|--------------------------------------|--|----------|--------------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|
|                                      | <p>ACTS within Tier 1 and 2.</p> <ul style="list-style-type: none"> <li>Funding limitations are applied: Tier 1 in priority order first, then Tier 2 if funding allows. The outcome of Safety Leverage prioritization will be documented for each eligible project in the “Leverage Opportunities” section of the Business Case.</li> </ul> <p>Region Funding Allocation</p> <table data-bbox="475 415 990 615"> <tr> <td>Region 1</td> <td>\$10,680,000</td> </tr> <tr> <td>Region 2</td> <td>9,273,000</td> </tr> <tr> <td>Region 3</td> <td>4,431,000</td> </tr> <tr> <td>Region 4</td> <td>3,108,000</td> </tr> <tr> <td>Region 5</td> <td>2,508,000</td> </tr> </table> | Region 1 | \$10,680,000 | Region 2 | 9,273,000 | Region 3 | 4,431,000 | Region 4 | 3,108,000 | Region 5 | 2,508,000 |
| Region 1                             | \$10,680,000   |          |              |          |           |          |           |          |           |          |           |
| Region 2                             | 9,273,000  |          |              |          |           |          |           |          |           |          |           |
| Region 3                             | 4,431,000  |          |              |          |           |          |           |          |           |          |           |
| Region 4                             | 3,108,000  |          |              |          |           |          |           |          |           |          |           |
| Region 5                             | 2,508,000  |          |              |          |           |          |           |          |           |          |           |
| <p><b>State Highway Leverage</b></p> | <ul style="list-style-type: none"> <li>Add enhance highway features to Fix-It projects to increase efficiency / address bottlenecks.</li> <li>Not for active transportation / public transportation features.</li> </ul> <p>Region Funding Allocation</p> <table data-bbox="475 772 990 968"> <tr> <td>Region 1</td> <td>\$8,483,573</td> </tr> <tr> <td>Region 2</td> <td>7,365,934</td> </tr> <tr> <td>Region 3</td> <td>3,519,730</td> </tr> <tr> <td>Region 4</td> <td>2,468,815</td> </tr> <tr> <td>Region 5</td> <td>1,992,210</td> </tr> </table>   | Region 1 | \$8,483,573  | Region 2 | 7,365,934 | Region 3 | 3,519,730 | Region 4 | 2,468,815 | Region 5 | 1,992,210 |
| Region 1                             | \$8,483,573  |          |              |          |           |          |           |          |           |          |           |
| Region 2                             | 7,365,934  |          |              |          |           |          |           |          |           |          |           |
| Region 3                             | 3,519,730  |          |              |          |           |          |           |          |           |          |           |
| Region 4                             | 2,468,815  |          |              |          |           |          |           |          |           |          |           |
| Region 5                             | 1,992,210  |          |              |          |           |          |           |          |           |          |           |

# 2021 – 2024 STIP Funding Allocations

All figures are three year totals for 2022-2024.

| Fix-It   |                      |
|--|----------------------|
| Fix-It   | 658,241,539          |
| Fix-It HB 2017   | 189,500,000          |
| <b>Fix-It Totals</b>   | <b>847,741,539</b>   |
| Enhance  |                      |
| Enhance HB 2017 Projects   | 662,750,000          |
| State Highway Leverage   | 23,830,261           |
| <b>Enhance Totals</b>  | <b>686,580,261</b>   |
| Safety   |                      |
| All Roads Transportation Safety (ARTS) and Rail Crossing Safety  | 116,850,000          |
| HB 2017 Safety   | 30,000,000           |
| <b>Safety Totals</b>   | <b>146,850,000</b>   |
| Non-Highway  |                      |
| <i>Discretionary Non-Highway (\$51 Million)</i>  |                      |
| Active Transportation Leverage   | 21,000,000           |
| Off-System Bike Ped  | 6,000,000            |
| Safe Routes to School (SRTS) Education   | 3,000,000            |
| Transportation Options   | 3,000,000            |
| ADA Curb Ramps   | 18,000,000           |
| <i>Required Non-Highway</i>  |                      |
| Transit Elderly & Disabled   | 37,500,000           |
| Mass Transit   | 6,000,000            |
| Transportation Alternatives Program - Recreational Trails  | 4,086,568            |
| Safe Routes to School (SRTS) Infrastructure  | 37,500,000           |
| Bicycle/Pedestrian 1%  | 22,200,000           |
| <b>Non-Highway Totals</b>  | <b>158,286,568</b>   |
| Local Programs   |                      |
| Surface Transportation Black Grant (STBGP) Program to large Metropolitan Planning Organizations (MPOs) / Transportation Management Area (TMAs) | 124,353,242          |
| Transportation Alternatives Program (TAP) to large MPOs / TMAs   | 6,062,169            |
| MPO Planning   | 13,122,882           |
| Congestion Mitigation and Air Quality Improvement (CMAQ)   | 61,708,967           |
| Local Bridge   | 80,694,822           |
| STBGP Allocation to non-TMA Cities, Counties, MPOs   |                      |
| Cities/Counties  | 76,103,260           |
| Small MPOs   | 18,065,900           |
| Immediate Opportunity Fund   | 10,500,000           |
| Transportation and Growth Management (TGM)   | 15,000,000           |
| Local Tech Assistance Program (LTAP)   | 1,170,177            |
| <b>Local Programs Totals</b>   | <b>406,781,419</b>   |
| Other Functions  |                      |
| <b>Other Functions Totals</b>  | <b>158,850,000</b>   |
| <b>TOTALS</b>  | <b>2,405,089,787</b> |
| Funding Category Contingent on Receipt of Additional Federal Funds   |                      |
| Strategic Investments  | 40,000,000           |
| <b>TOTALS</b>  | <b>2,445,089,787</b> |

| MOD EQUITY SPLITS |        |
|-------------------|--------|
| Region 1          | 35.60% |
| Region 2          | 30.91% |
| Region 3          | 14.77% |
| Region 4          | 10.36% |
| Region 5          | 8.36%  |

| REGION SPLITS                                       |                   |
|---|-------------------|
| Enhance   |                   |
| <b>Enhance Highway Program</b>                      | <b>23,830,261</b> |
| Region 1  | 8,483,573         |
| Region 2  | 7,365,934         |
| Region 3  | 3,519,730         |
| Region 4  | 2,468,815         |
| Region 5  | 1,992,210         |
| Safety  |                   |
| <b>HB 2017 Safety Leverage Funds</b>                | <b>30,000,000</b> |
| Region 1  | 10,680,000        |
| Region 2  | 9,273,000         |
| Region 3  | 4,431,000         |
| Region 4  | 3,108,000         |
| Region 5  | 2,508,000         |
| Non-Highway   |                   |
| <b>Active Transportation Leverage</b>               | <b>21,000,000</b> |
| Region 1  | 7,476,000         |
| Region 2  | 6,491,100         |
| Region 3  | 3,101,700         |
| Region 4  | 2,175,600         |
| Region 5  | 1,755,600         |
| Regional Allocations for Leverage Funds (ALL FUNDS) |                   |
| Region 1  | 26,639,573        |
| Region 2  | 23,130,034        |
| Region 3  | 11,052,430        |
| Region 4  | 7,752,415         |
| Region 5  | 6,255,810         |
| <b>TOTALS</b>                                       | <b>74,830,261</b> |



2018 REGIONAL TRANSPORTATION PLAN UPDATE

# Finalizing Our Shared Plan for the Region

## Regional Leadership Forum 4 summary

The region is looking ahead to how our transportation system will accommodate future growth and change – and what investments we should make over the next 25 years to build a safe, reliable, healthy and affordable transportation system with travel options.

On March 2, 2018, the Metro Council hosted Regional Leadership Forum 4, at the Oregon Convention Center. More than 100 city, county, and regional policymakers and business and community leaders from across the greater Portland area joined in bringing the perspectives of their constituents and communities to the conversation.

These leaders offered their views on:

- **priorities to address** in the next 10 years and beyond
- opportunities for **aligning investments with priorities** as draft project lists are refined by jurisdictions
- building a **shared path forward**.

### What did leaders say?

Let's be bold.

Economic prosperity should not be at the expense of underserved communities.

We need to build public trust and be accountable.

It's time to pivot from information to action and leadership.

### Report on community priorities

Several community leaders reported on priorities that emerged from the January 19 Community Leaders' Forum and other community transportation conversations.

Priorities include:

- Lead with equity.
- Address housing and transportation affordability and displacement in an integrated manner.
- Prioritize safety, biking, walking, and transit projects in historically marginalized communities, with a focus on people of color and households of modest means.



*“At the end of the day, communities are on the ground and those same communities are the ones experiencing decisions being made.”*

- María Hernandez, OPAL Environmental Justice Oregon

*“If we are prioritizing in a way to improve the quality of life for historically marginalized people, we, in fact, will be improving the quality of life of all people.”*

- Martine Coblentz, member of Metro's Committee on Racial Equity (CORE)

## Seven key takeaways

Leaders participated in table discussions to recommend ways for jurisdictions to refine their draft project lists to better meet the region's shared goals. What we heard follows.

### 1. We can make more near-term progress on key regional priorities – equity, safety, travel options and congestion.

Advancing projects that address these outcomes to the 10-year list will improve people's lives by making travel safer, easing congestion, improving access to jobs and community places, attracting jobs and businesses to the region, saving households and businesses time and money, and reducing vehicle emissions.

### 2. This is an opportunity to reduce disparities and barriers that exist for historically marginalized communities.

Advancing projects that improve safety and expand travel options to the 10-year list will reduce disparities and barriers, especially for people of color and households of modest means.

### 3. Prioritize projects that focus on safety in high injury corridors.

Advance projects in high injury corridors to the 10-year list and ensure all projects in high injury corridors address safety to reduce the likelihood and severity of crashes for all modes.

### 4. Accelerate transit service expansion.

Increase transit service as much as possible beyond Climate Smart Strategy investment levels. Focus new and enhanced transit service to connect transit to underserved communities to jobs and community places, in congested corridors and in areas with more jobs and housing.

### 5. Tackle congestion and manage travel demand.

Advance lower cost projects to the 10-year list that use designs, travel information, technologies, and other strategies to support and expand travel options and maximize use of the existing system. This will help ease congestion and keep people and goods moving safely and reliably. It will be important to ensure that lower income households are not financially burdened by strategies to make road use more efficient.

### 6. Prioritize completion of biking and walking network gaps.

Advance projects that fill gaps for biking and walking in high injury corridors or that provide connections to transit, schools, jobs and 2040 centers to the 10-year list.

### 7. We must continue to build public trust through inclusive engagement, transparency and accountability.

Leaders agreed that it is important to continue engaging the region's diverse communities in the planning and implementation of projects to achieve desired outcomes, including equity, safety, reliability affordability and health. We should report back whether projects deliver (or don't deliver) anticipated outcomes and adjust course as needed. Improved participation, transparency and accountability with our investment decisions will help build broad support for more investment in our communities.



*"We need leadership, and we need it from the people in this room. We need it from the elected officials, we need it from the business community, we need it from community leaders, and we need it from staff, because the stakes are so high."*

*- Jessica Vega Pederson,  
Multnomah County Commissioner*

## More information

News coverage of the forum is available at [oregonmetro.gov/leadershipforum4](https://oregonmetro.gov/leadershipforum4).

A report on the forum and other public engagement activities will be available in April 2018. Find out more about the 2018 RTP update at [oregonmetro.gov/rtp](https://oregonmetro.gov/rtp).

# 2018 REGIONAL TRANSPORTATION PLAN



**2,900** survey  
submissions

**10,613** online  
comments

**10** presentation  
responses

**19** letters and  
emails

**172,000** social  
media views

[oregonmetro.gov/rtp](http://oregonmetro.gov/rtp)



## What we heard

*From Jan. 15 to Feb. 17, Metro asked residents and businesses of the greater Portland region for their thoughts to help refine the 2018 Regional Transportation Plan project lists.*

There were four strategies used to engage residents and businesses:

- an **online survey** that focused on asking participants how they would prioritize outcomes and rate strategies to get to those outcomes
- a **community leaders' forum**, bringing together community representatives from Metro's advisory committees and other community leaders to discuss the evaluation key takeaways
- **Metro Councilor briefings** to business and community groups
- The **project website and materials**, such as the key takeaways document and an interactive map of projects, allowing for more detailed feedback via letter or email.

### Summary of what we heard

One overarching theme heard throughout the engagement period is the plan is falling short in accomplishing the outcomes our region wants to see. People want investments in better street design to improve safety, more frequent MAX and bus service to address system reliability, and better walk and bike connections to have more travel options for going to work, school or shopping. Metro staff also heard that more investment in freight is needed to reliably and safely get goods to market.

Another theme heard is direction to focus investments equitably to ensure that communities of color and other historically marginalized communities don't continue to fall behind the rest of our region. This means prioritizing investments in communities that have been underserved and targeting areas where there are inadequate and unreliable transportation options. People recognize that improving access is an important step to make sure all people in our region have opportunities to experience our region's quality of life.

# MetroQuest Survey

## What we heard

“Every neighborhood should be well served by transit, now and in the future, regardless of who lives there today or tomorrow.”

### Southeast Portland resident

“If we cannot maintain what we’ve got, why build more? Preventive maintenance is as important as ‘fixing potholes’ and should not be neglected.”

### Beaverton resident

“I live in Gladstone and work in west Beaverton where it takes me twice as long to get to and from work via TriMet because they do not have any direct routes.”

### Gladstone resident

From Jan. 15 to Feb. 17, Metro hosted an online comment opportunity in support of the 2018 Regional Transportation Plan. The online survey asked participants two questions:

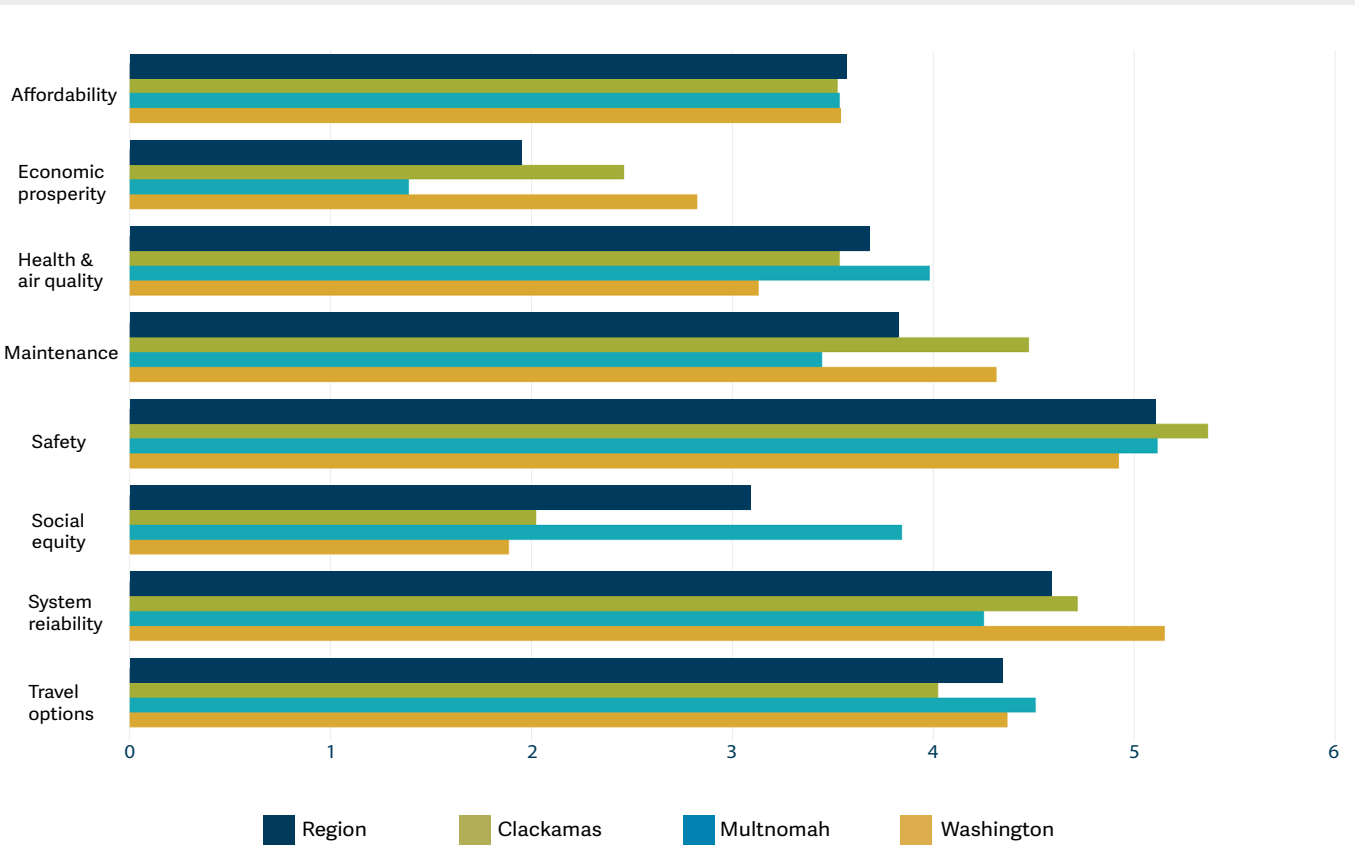
- How can we best improve our region’s transportation system over the next 10 years? Select your top 5 most important outcomes.
- For each of the top 5 priorities, what strategies will best help get us there?

Participants were asked to select and rank their top five most important outcomes from a list of eight. The outcomes were presented in random order for each user. A higher score in the chart below reflects a higher ranking by participants.

In addition to the questions above, participants were also asked about quality of life, commute patterns, history of racism in our region’s transportation investments and thoughts on increasing fees and taxes to realize the region’s shared vision for our transportation system. Over 73% of total respondents strongly or somewhat support increasing fees and taxes to fund priorities they feel are important, the majority of support coming from Multnomah County residents.

We heard from more than 2,900 people across the region. Regionwide, the top three priorities included safety, system reliability and travel options. On the county level, prioritized outcomes slightly differed. A full summary is expected in mid-March.

## Which outcomes should the region prioritize?





## Top strategies to get to priority outcomes

After prioritizing outcomes, participants were asked to identify which strategies best achieved those outcomes. Below are the top three strategies for the three highest priority outcomes.

### Safety

- Enhance street design, such as reducing speeds and putting in protected crosswalks
- Improve walk and bike connections by completing sidewalks and bikeways and increasing separation from traffic
- Enhance transit stops with safe crossings and improved lighting

### System reliability

- Improve transit service with more frequent bus and MAX
- Expand freeways and streets and improve street connections
- Technology improvements | Housing close to transit (*tied*)

### Travel options

- Improve transit service with more frequent bus and MAX
- Improve walk and bike connections by completing sidewalks and bikeways and increasing separation from traffic
- Enhance street design, such as reducing speeds and putting in protected crosswalks

## Community Leaders' Forum

On Jan. 19, 27 community leaders voiced their opinions and shared their thoughts about which outcomes they want to see prioritized in the 2018 Regional Transportation Plan. Leaders also heard updates from staff about the Southwest Corridor light rail project and equitable development strategy and other efforts around parks and nature, garbage and recycling, affordable housing and transportation.

### Three main high-level takeaways

- Lead with equity - if you address it, you get other desired outcomes.
- Explicitly articulate who will benefit from these outcomes.
- Better explain how the needs of people will be met by connecting equity to housing, jobs and transportation.

Many leaders voiced their dissatisfaction that communities of color and other historically marginalized communities are seeing less access to jobs and community places than the region as a whole in the first ten years of the plan.

### Additional comments and themes

- Perspectives of aging populations, people with disabilities and youth need to be reflected in these conversations, along with how they are being impacted by these investments.
- Profiling of black residents and low-income community members on transit needs to be addressed.
- The intersection of value pricing and affordability needs to be addressed. With limits on how the state can use the funds, mechanisms need to be in place to ensure that benefits and burdens are distributed equitably.



### What we heard from community leaders

"The region has come a long way from including equity to moving towards embedding equity [in programs and projects]. I would like to see us moving from embedding equity into prioritizing equity."

**Emily Lai**

*Momentum Alliance*

"If they don't feel safe, people won't want to take public transit."

**Carolyn Anderson**

*Transit rider*

"[Economic prosperity] seems to be the most important thing because that's where we put it. We need to put people first... if we focus on what people need first, all of the other things will fall into place naturally

**Gloria Pinzon**

*Community advocate*

If you picnic at Blue Lake or take your kids to the Oregon Zoo, enjoy symphonies at the Schnitz or auto shows at the convention center, put out your trash or drive your car – we’ve already crossed paths.

**So, hello. We’re Metro – nice to meet you.**

In a metropolitan area as big as Portland, we can do a lot of things better together. Join us to help the region prepare for a happy, healthy future.

**Stay in touch with news, stories and things to do.**

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## Metro Councilor briefings

As part of the public comment opportunity, the Metro Council engaged several business and community organizations to provide a preview of initial evaluation of the project lists and key takeaways. Some of the feedback heard is reflected below.

- Our region’s transportation system must be accessible to everyone.
- We need more bus service in East Portland and other areas where underserved communities live.
- Concern that freight projects make up a small portion of the cost of the entire plan.
- Ensure that benefits and burdens of congestion pricing are distributed equitably.
- Improve biking and walking access to transit.

## Project Website and Materials

Staff developed several materials to communicate the results of the initial evaluation and summarize the key takeaways. An eight-page discussion guide provided an overview of the plan, a summary of the project list, and key takeaways on how the plan will perform based on staff analysis. The materials were posted on the project website with an invitation to send more detailed feedback via letter or email.

Additionally, staff created an online interactive map to provide more information on specific projects, including estimated cost, primary purpose, and anticipated timing of completion, among other categories. All the materials and this map are available at [oregonmetro.gov/2018projects](http://oregonmetro.gov/2018projects).



February 25, 2018



# Regional Leadership Forum 4: Finalizing our shared plan for the region

8:30 a.m. to noon, Friday, Mar. 2, 2018 | Oregon Convention Center, Rooms B113-116

## Discussion worksheet

*Please leave with your table facilitator at the end of the forum.*

Name: \_\_\_\_\_

### Vision for the 2018 Regional Transportation Plan

In 2040, everyone in the greater Portland region will share in a prosperous, equitable economy and exceptional quality of life sustained by a **safe, reliable, healthy** and **affordable** transportation system with travel options.

*Approved by the Metro Policy Advisory Committee, Joint Policy Advisory Committee on Transportation and Metro Council in May 2017*

| Outcomes                                | What we heard through public engagement activities   | What we learned from the technical evaluation   |   | Potential opportunities for jurisdictions to refine draft project lists (offered as a starting point for the discussion)  | Your recommendations to jurisdictions as they review and refine their draft project lists |
|---|--|---|---|---|---|
|   |  | Good news   | Bad news  |   |   |
| <b>Safe</b>                             | <p><i>Highest ranked priority (region-wide)</i></p> <p>Streets need to be designed with safety as a top priority. Explicitly link safety and equity outcomes.</p> <p>Personal safety needs to be a part of transportation safety. Improve walk and bike connections by completing sidewalks and bikeways.</p> <p>Enhance transit stops with safe crossings and improved lighting.</p> <p>“First and foremost, I feel safety is crucial in protecting pedestrians who are both mobile and immobile.”</p> <p>“I’d like to feel safer and more secure riding my bike in Portland. More dedicated lanes for bicycles.”</p> <p>“We need more bike lanes and completed sidewalks.”</p> | <p>60 percent of projects are on high injury corridors (places where most serious crashes occur).</p> <p>Majority of safety projects are in historically marginalized communities.</p> <p>By 2040, we will complete 63 percent of the regional active transportation system (including 57 percent of arterial sidewalks).</p> <p>Active transportation projects are focused in historically marginalized communities.</p> | <p>Less than half of projects on high injury corridors have safety as a primary or secondary purpose.</p> <p>Currently, historically marginalized communities are disproportionately impacted by serious crashes.</p> <p>Most investments in the active transportation system are in the outer years of the plan, and most sidewalk gaps are on the arterial network.</p> | <p>Clarify or add safety element(s) to descriptions of projects located in high injury corridors and make safety the primary purpose.</p> <p>Advance projects in high injury corridors in historically marginalized communities to the first 10-years of plan or move from the strategic list to the constrained list.</p> <p>Advance active transportation projects from the strategic list to the constrained list to get closer to 100 percent completion.</p> <p>Advance active transportation projects on arterials that provide access to transit (such as completing sidewalks and bikeways within a 1/2-mile of transit stops) to the first 10 years of plan or move projects from the strategic to the constrained list.</p> <p>Add additional active transportation projects to achieve 100 percent completion in the strategic list.</p> |   |
| <b>Reliable</b><br>(managed congestion) | <p><i>Second highest ranked priority (region-wide)</i></p> <p>We need more frequent and reliable bus and MAX service. Expand freeways and streets and improve street connections. Improve technology for better traffic management of buses and cars.</p> <p>Provide more transit oriented development for housing, jobs and services.</p> <p>“Prioritize transit on streets to reduce chronic bus lateness.”</p> <p>“Reliable and efficient travel options need to extend beyond the central city.”</p> <p>“I live in the suburbs and ride my bike whenever possible. I’d take public transportation more often than I currently do if better options were available.”</p>      | <p>Our economy continues to grow, drawing more people and businesses.</p> <p>People will drive less each day.</p> <p>These projects will reduce congestion from the level we would otherwise have without the projects.</p>   | <p>More people will be traveling on our already overburdened transportation system.</p> <p>Peak travel period gets longer, impacting freight and buses and access to jobs and places.</p> <p>Buses will be delayed by increased congestion.</p>   | <p>Advance road projects that make first mile/last mile freight connections to industry and intermodal facilities more reliable or reduce conflicts between modes, such as at grade crossings.</p> <p>Advance road investments to improve network connectivity for all modes, operations of frequent transit service with bus priority treatments and safety in high injury corridors (crashes are a major contributor to congestion).</p> <p>Advance transportation system management and operations projects (such as variable speed signs; transit and freight signal priority) from the strategic to the constrained list to achieve Climate Smart level of investment, with a focus on congested corridors.</p>  |   |

*continued...*

...continued

| Outcomes  | What we heard<br>through public engagement activities   | What we learned<br>from the technical evaluation  |  | Potential opportunities<br>for jurisdictions to refine draft project lists   | Your recommendations<br>to jurisdictions as they review and refine their draft<br>project lists |
|---|---|---|--|--|---|
|   |   | Good news   | Bad news   |  |   |
| <b>Healthy</b><br>(clean air, less greenhouse gas)<br>(active travel) | <p>We need to improve technology to reduce idling and increase availability of cleaner vehicles.</p> <p>Improve and expand transit service.</p> <p>Improve walk and bike connections by completing sidewalks and bikeways.</p> <p>We need more housing next to transit.</p> <p>“Government must lead on health and air quality.”</p> <p>“Making bike lanes and sidewalks more plentiful and accessible might get more cars off the road and help with pollution!”</p> <p>“Travel options are great for carbon reduction.”</p> <p>“When people are able to use an option besides driving, it helps meet other goals...less car crashes, better air, less road wear.”</p> | <p>We will be close to our Climate Smart Strategy commitment on level of transit service.</p> <p>Advancements in vehicle technology significantly reduce greenhouse gas emissions and air pollutants, improving public health.</p> <p>Active travel options improve public health the most.</p> | <p>Not all projects that would reduce greenhouse gas emissions are in the constrained project list.</p>            | <p>Expand transit service and operational treatments as much as possible with new HB 2017 revenues to get beyond Climate Smart service levels with a focus on serving historically marginalized communities, congested corridors, areas with higher concentrations of jobs and housing today and underserved parts of the region in the near-term.</p> <p>Advance enhanced transit projects and bus priority treatments to improve speed and reliability in congested corridors and transit corridors in historically marginalized communities and areas with higher concentrations of jobs and housing today or planned in the future.</p> <p>Advance community and job connector local shuttles, especially to job centers from regional transit routes with new HB 2017 revenues.</p> |   |
| <b>Affordable</b>   | <p>Need affordable fare programs for youth, older adults, people with low incomes.</p> <p>Provide more transit oriented development for housing, jobs and services.</p> <p>We need more frequent and reliable bus and MAX service.</p> <p>Improve walk and bike connections by completing sidewalks and bikeways.</p> <p>“We cannot have economic prosperity if people cannot get to health care, food, child care, jobs, educations, etc.”</p>   | <p>More low-cost travel options will be available for people to get to jobs and more places.</p>  | <p>Travel time to get to jobs will be higher for historically marginalized communities than other communities.</p> | <p>Include TriMet and C-TRAN low-income fare program in Round 2 analysis.</p> <p><i>See opportunities identified for safe, reliable and healthy outcomes, especially as they relate to transit and active transportation.</i></p>  |   |

**Additional recommendations to jurisdictions or decision-makers:**



Metro

# UGM Analytic Process: Buildable Land Inventory (BLI)

MTAC/TPAC Joint Workshop

March 7, 2018

# Agenda

- Urban Growth Management (UGM) process & Next Steps
- Observed development trends
- Where we are now: Buildable Land Inventory
  - Retained much of 2015 process
  - A range of estimates of redevelopment
  - Accessory Dwelling Units
  - Mixed Use/Residential

# New forum: Land Use Technical Advisory Group

- Metro Research Center has gotten (and may need additional) assistance from your agencies:
  - Local knowledge
  - Advice on methods
  - Keeping your elected officials apprised
- Topics:
  - BLI, regional forecast, allocation forecast, expansion proposal assumptions...

# UGM Analytic Schedule

2018

February-  
March

- BLI Final Release
- Review assumptions

March-April

- Sensitivity tests
- Scenario forecasts

May-June

- Review full concept plans
- Additional scenario forecasts if needed

June

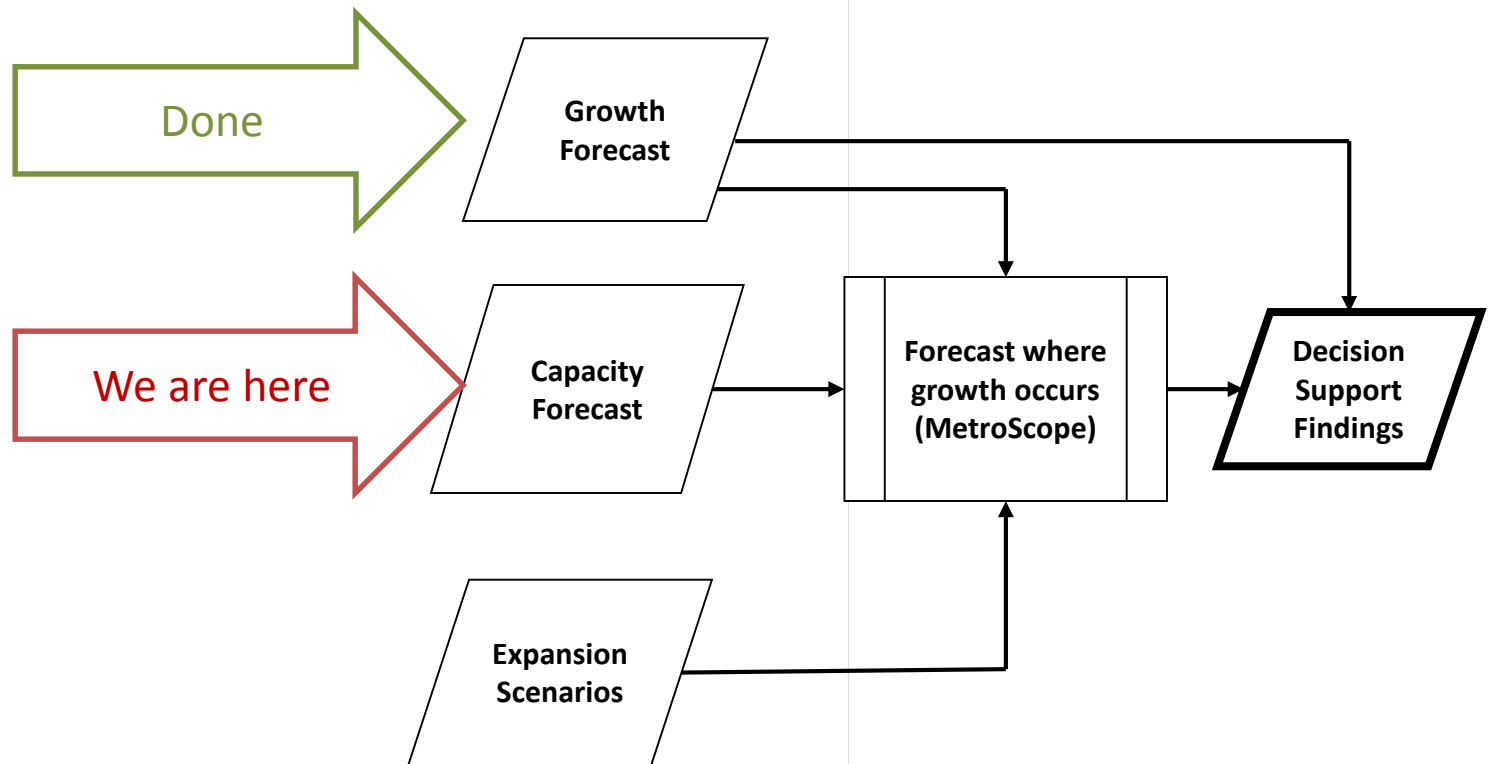
- Draft Urban Growth Report (UGR)

Autumn

- Additional Analysis as Needed



# We are mid-way through forecast work flow



# Metro Received Five UGB Expansion Proposals

- Letters of interest arrived in December:
  - Beaverton, Hillsboro, King City, Sherwood, Wilsonville
- Full proposals due to Metro by 5/31/18
- In the meantime...
  - Metro staff working with proposers to establish forecast assumptions

# New Decision Support Information



New

- Advisory group review of city proposals
- Urban Growth Report (UGR)
  - Observed data
  - Forecast data

# New concepts inform UGM analytics

- Buildable Lands Inventory identifies *capacity* by:
  - *Inventorying* vacant land
  - ***forecasting*** market-driven multi-family, redevelopment, and infill
- Being a forecast, *BLI contains uncertainty*

**New Data Helps Us  
Understand  
Redevelopment**

# Development comes from various opportunities...

Using BLI definitions, infill and redevelopment supplied more than half of new housing

Housing acres and units built from 2007 to 2015 by BLI land development type

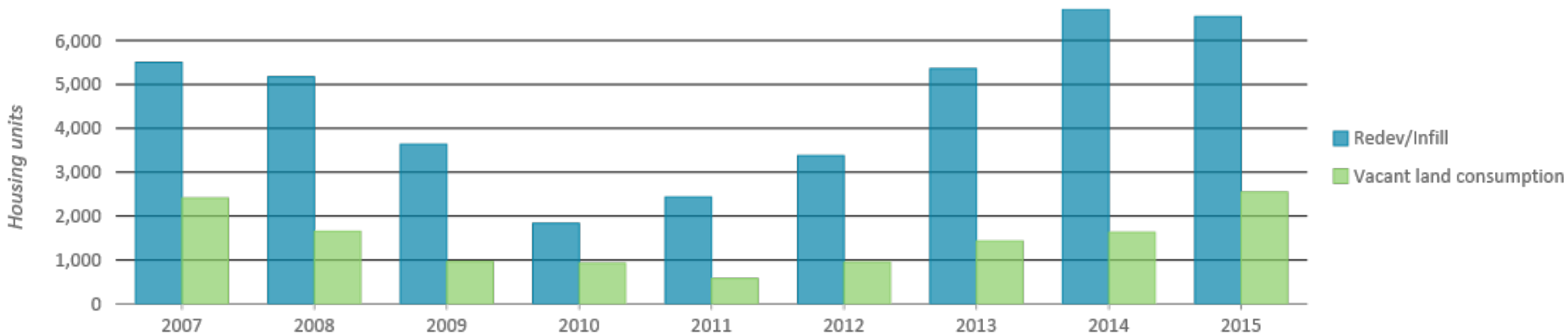
|                  | Redevelopment | Infill | Vacant land |
|------------------|---------------|--------|-------------|
| units            | 26,750        | 13,850 | 13,100      |
| acres            | 790           | 1,925  | 1,085       |
| percent of units | 50%           | 26%    | 24%         |
| percent of land  | 21%           | 51%    | 29%         |

*Note: mostly-vacant land treated as vacant*

# ...in which redevelopment & infill are increasingly important

From 2007 to 2015: ~54k new housing units

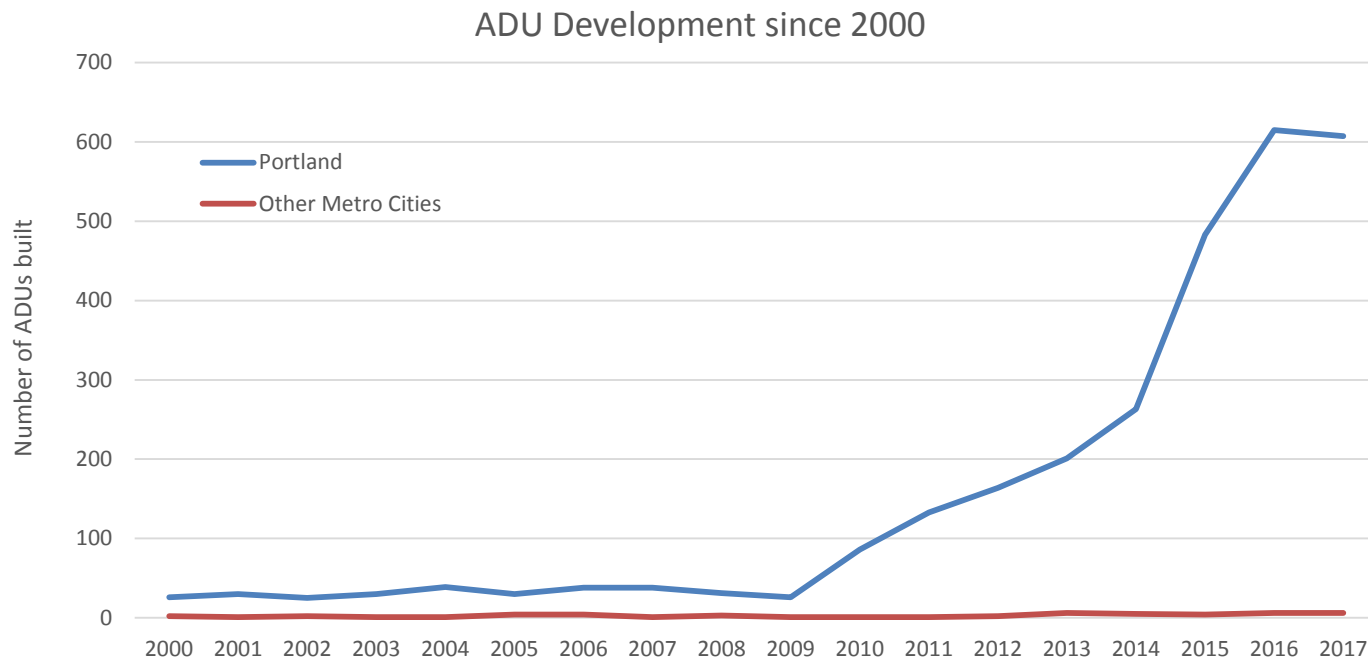
Units built over time by development type- using 95% rule on parent lots



*Note: mostly-vacant land treated as vacant*

# Recent ADU Construction Up Markedly in Portland

Metro's multifamily housing inventory includes ADUs, recently updated from variety of sources including Portland permits





# **New Data Enhanced Several BLI Aspects**

# 2018 BLI Methods Use New and Customary Data

- Many BLI methods remain the same
- New data used to enhance:
  - Multifamily and mixed use *redevelopment* capacity
  - Accessory dwelling unit (ADU) capacity
  - Residential and commercial proportional assumptions for mixed use zones

# New methods let us treat redevelopment uncertainty

- Two “scenarios” of redevelopment capacity:
  - Statistical analysis of observed 2007-2015 markets
  - Price thresholds set by “Delphi” process
- This enables Metro to...
  - Reflect uncertainty in future redevelopment capacity
  - Apply observed data (required by state law)
  - Address stakeholder feedback
  - Better understand factors influencing redevelopment
  - Give Metro Council “decision space” to manage uncertainty

**New method for one  
capacity scenario:  
Statistical analysis of  
recent redevelopment**

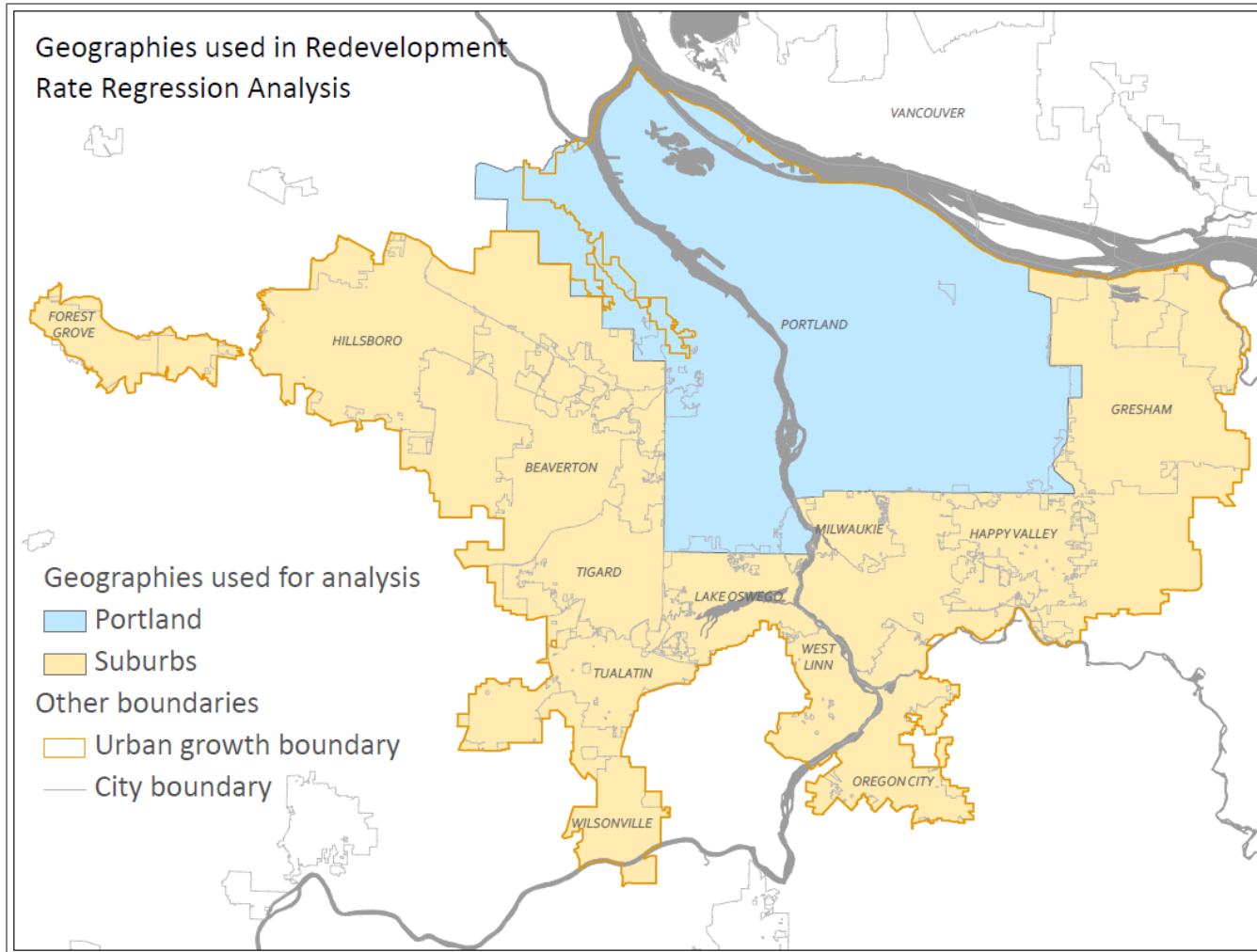
# Market-based analysis of where redevelopment did/did not occur

Discrete choice statistical analysis:

- Data: all “developed” parcels
- Observed outcomes: Redevelopment did or did not occur at some point in 2007-2015
- Statistical finding: ***Probability*** of a taxlot redeveloping

*Note: assumes observed market behaviors continue into future*

# Redevelopment differs by location



# Key factors have noticeable effects

- All variables highly statistically significant
- Factors push redevelopment in same direction regionwide but vary in scale inside vs. outside Portland
  - Higher taxlot value → *less* likely
  - Higher-value neighborhood → *less* likely
  - Larger lot → *more* likely
  - Closer to city center → more likely (included for Portland only)

# Statistical method is robust

- Forecasts on taxlot data held back from statistical analysis matched observed findings well...
- ...especially the overall number of lots that redeveloped within a zone

*Note: Method does NOT predict **exactly which** taxlots may redevelop*



# Capacity forecast based on the statistical probability

Forecast redevelopment capacity<sub>zone</sub> =

$$SUM_{zonelots} [(Forecast redev probability) X (Max zoned capacity)]$$

*Note: assumes observed market behaviors continue into future*

**Unchanged method for  
another capacity  
scenario:  
price threshold  
(aka “strike price”)**

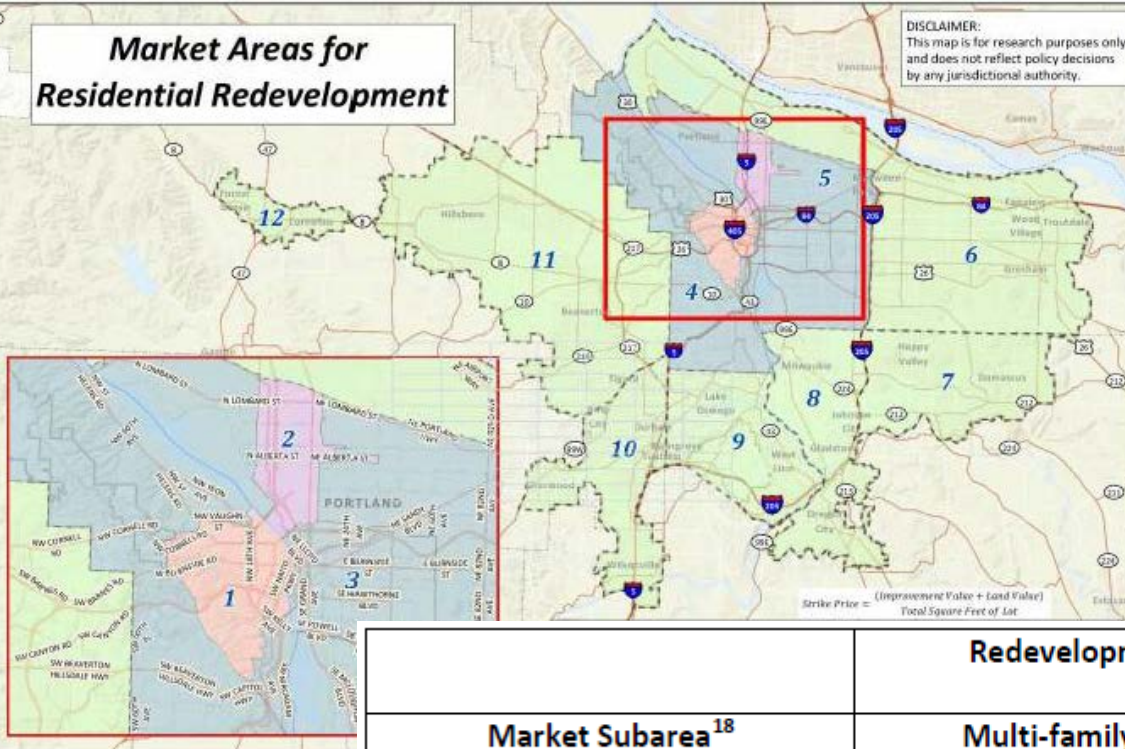
# Stakeholder-based analysis of redevelopment price point

- Developed for the 2014/2015 UGM process
- Panel of private- and public-sector experts set “strike” price threshold by broad geographies via “Delphi” discussion

# Price Thresholds and Geographies

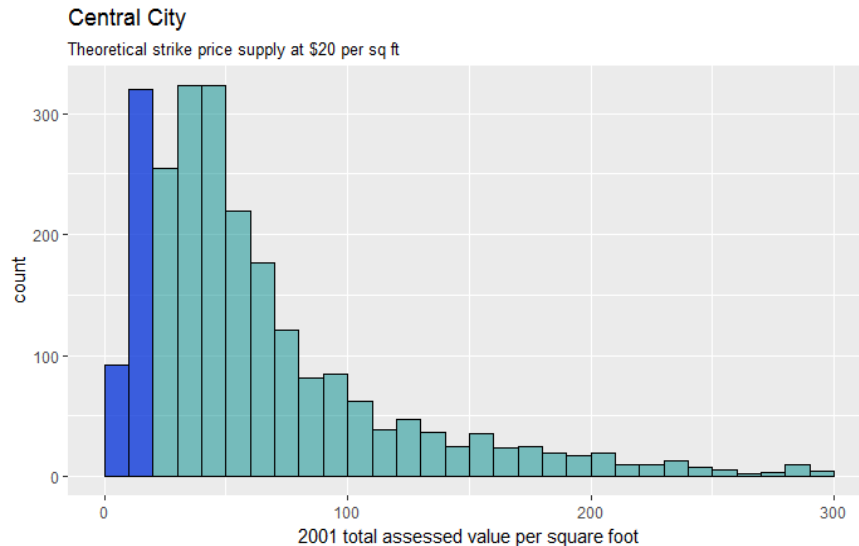
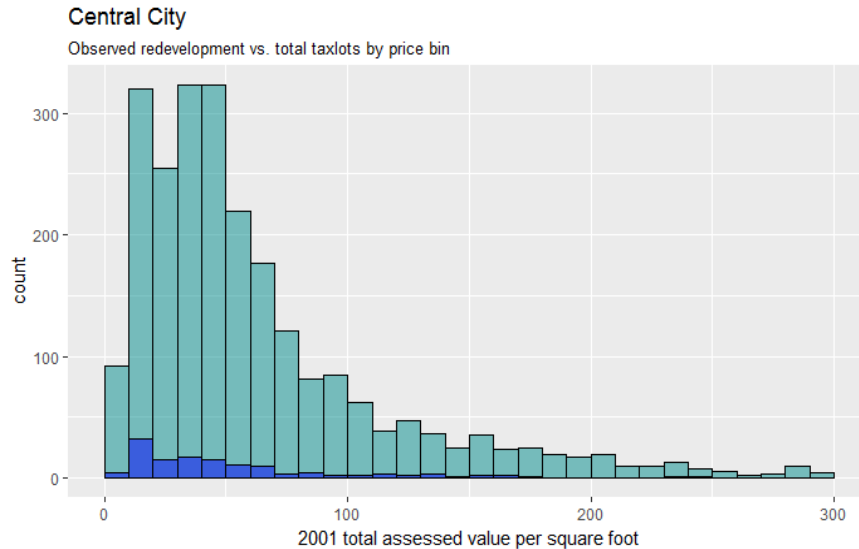
**Market Areas for Residential Redevelopment**

**DISCLAIMER:**  
This map is for research purposes only and does not reflect policy decisions by any jurisdictional authority.



| Market Subarea <sup>18</sup>    | Redevelopment strike price per square foot (land and improvements) |                              |
|---------------------------------|--|------------------------------|
|                                 | Multi-family zoning  | Mixed-use residential zoning |
| Central City                    | \$130  | \$130                        |
| N/NE Portland central corridors | \$70   | \$80                         |
| Eastside urban                  | \$70   | \$80                         |
| Suburban                        | \$10   | \$12                         |

# Central city comparison of the two BLI scenarios



Hypothetical illustration of how the two methods create different scenarios

**Accessory Dwelling Units  
(ADUs) incorporated into  
BLI using new data**

# ADU future production has uncertainties

- Uncertainty
  - Future of Portland's SDC waiver
  - Potential in other jurisdictions
  - Uses other than long-term housing (e.g. Airbnb)

# Metro analyzed Portland ADU production

- Used last five years of data (per state law)
- Five-year average\* ADU construction rate by Census tract group
- Applied to eligible \*\* single family lots as 20-year ADU probability
- Probabilities range from 0 to 9%

\* *Simple average accounts for uncertainty*

\*\* *No existing ADU and not designated for infill*





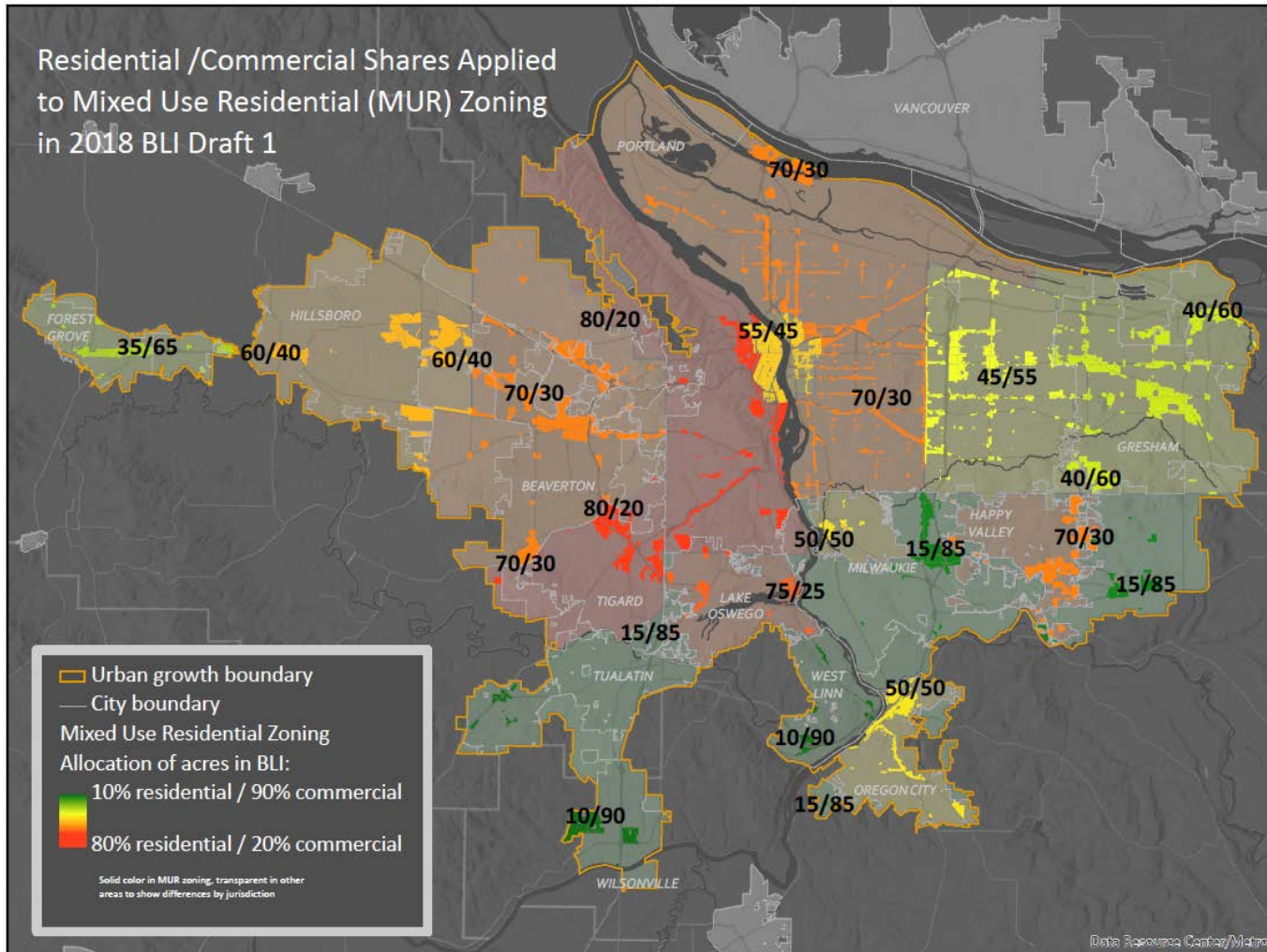
**Mixed Use/Residential  
Proportions (aka “MUR  
splits”) Updated Using  
New Data**

# Updated MUR splits based on new data and local review

- BLI applies residential/commercial proportion to MUR-zoned land to compute its capacity
- Used LDMS data to identify acreage of MUR land developed as residential vs. commercial
- Computed shares of each use for each geography
- Adjusted shares and boundaries based on jurisdiction feedback



# “MUR split” assumptions



**2018 Buildable Lands  
Inventory Draft 3  
Summaries**

| 2018 BLI 20-year Residential Dwelling Unit Capacity Forecast |                |                |
|--|----------------|----------------|
| Local Government   | Scenario       |                |
|  | Statistical    | Threshold      |
| <b>Clackamas County</b>                                      | <b>59,541</b>  | <b>65,915</b>  |
| GLADSTONE  | 435            | 599            |
| HAPPY VALLEY   | 17,492         | 21,140         |
| JOHNSON CITY   | 138            | 242            |
| LAKE OSWEGO  | 1,230          | 1,183          |
| MILWAUKIE  | 2,612          | 2,324          |
| OREGON CITY  | 8,935          | 10,066         |
| RIVERGROVE   | 11             | 11             |
| WEST LINN  | 883            | 842            |
| WILSONVILLE  | 2,175          | 2,347          |
| UNINCORP-CLACK   | 25,629         | 27,161         |
| <b>Multnomah County</b>                                      | <b>95,834</b>  | <b>222,973</b> |
| FAIRVIEW   | 884            | 954            |
| GRESHAM  | 12,242         | 13,098         |
| MAYWOOD PARK   | 5              | 5              |
| PORTLAND   | 74,815         | 198,203        |
| TROUTDALE  | 1,436          | 1,659          |
| WOOD VILLAGE   | 633            | 778            |
| UNINCORP-MULT  | 5,820          | 8,276          |
| <b>Washington County</b>                                     | <b>73,835</b>  | <b>75,435</b>  |
| BEAVERTON  | 13,071         | 11,768         |
| CORNELIUS  | 2,109          | 2,316          |
| DURHAM   | 48             | 41             |
| FOREST GROVE   | 4,882          | 4,823          |
| HILLSBORO  | 9,377          | 9,320          |
| KING CITY  | 108            | 107            |
| SHERWOOD   | 727            | 815            |
| TIGARD   | 12,861         | 13,562         |
| TUALATIN   | 704            | 797            |
| UNINCORP-WASH  | 29,947         | 31,886         |
| <b>Grand Total</b>   | <b>229,210</b> | <b>364,323</b> |

Numbers  
will  
change!

2018 BLI Draft 3

Residential Units  
Capacity Forecast

| 2018 BLI 20-year Employment Acres Capacity Forecast |               |               |
|---|---------------|---------------|
| Local Government                                    | Scenario      |               |
|   | Statistical   | Threshold     |
| <b>Clackamas County</b>                             | <b>1,628</b>  | <b>1,848</b>  |
| GLADSTONE   | 66            | 66            |
| HAPPY VALLEY  | 292           | 386           |
| JOHNSON CITY  | -             | -             |
| LAKE OSWEGO   | 10            | 7             |
| MILWAUKIE   | 19            | 21            |
| OREGON CITY   | 166           | 203           |
| RIVERGROVE  | -             | -             |
| WEST LINN   | 19            | 20            |
| WILSONVILLE   | 264           | 266           |
| UNINCORP-CLACK                                      | 793           | 880           |
| <b>Multnomah County</b>                             | <b>4,651</b>  | <b>5,134</b>  |
| FAIRVIEW  | 133           | 139           |
| GRESHAM   | 813           | 932           |
| MAYWOOD PARK  | -             | -             |
| PORTLAND  | 2,183         | 2,504         |
| TROUTDALE   | 529           | 540           |
| WOOD VILLAGE  | 38            | 44            |
| UNINCORP-MULT                                       | 955           | 976           |
| <b>Washington County</b>                            | <b>3,959</b>  | <b>4,014</b>  |
| BEAVERTON   | 114           | 116           |
| CORNELIUS   | 115           | 118           |
| DURHAM  | 1             | 1             |
| FOREST GROVE  | 268           | 262           |
| HILLSBORO   | 556           | 552           |
| KING CITY   | 2             | 2             |
| SHERWOOD  | 144           | 151           |
| TIGARD  | 112           | 119           |
| TUALATIN  | 440           | 440           |
| UNINCORP-WASH                                       | 2,207         | 2,253         |
| <b>Grand Total</b>                                  | <b>10,238</b> | <b>10,996</b> |

Numbers  
will  
change!

2018 BLI Draft 3

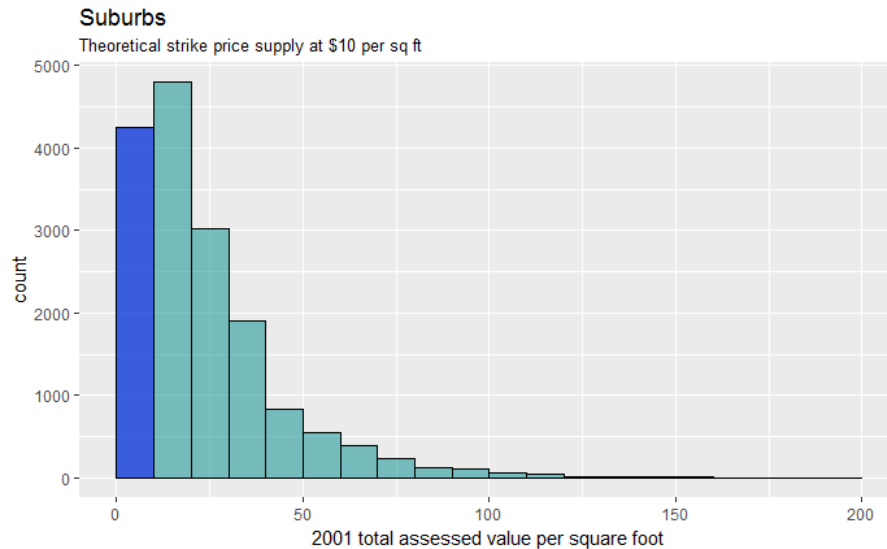
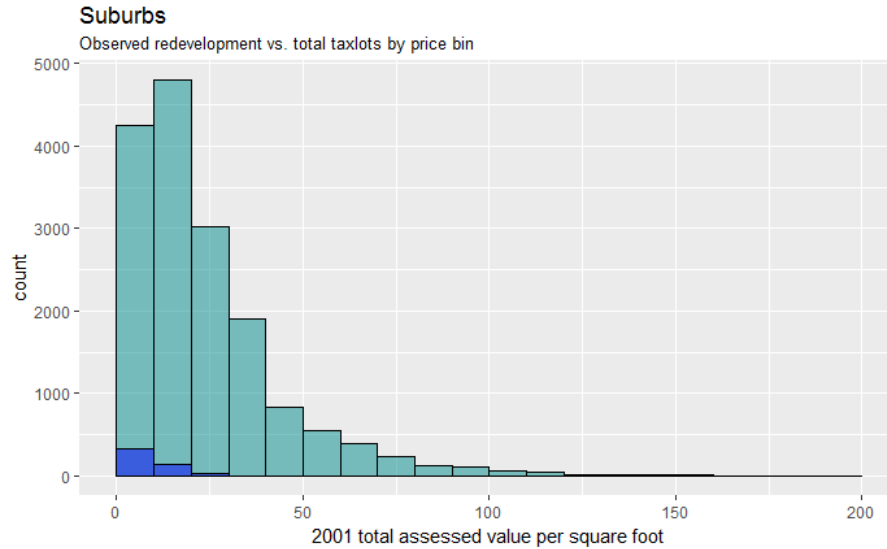
Employment  
Acres Capacity  
Forecast



**Questions?**

**How the two  
redevelopment methods  
create different  
scenarios**

# Suburban comparison of the two BLI scenarios



Statistical model distributes redevelopment across different lot values, as in observed data

# Redevelopment definition

- “95% rule”

|  |  |   |
|--|--|---|
|  | >5% of ‘parent’ property developed in 2001 vacant land inventory | >=95% of ‘parent’ property vacant in 2001 vacant land inventory |
| New single-family construction   | All ‘child’ lots are infill                                      | All ‘child’ lots are vacant land consumption                    |
| All other new construction (multifamily, commercial, industrial, etc.) | All ‘child’ lots are redevelopment                               |   |

- *Note: 2018 findings differ from 2015 UGR due to different type definitions and newer data*

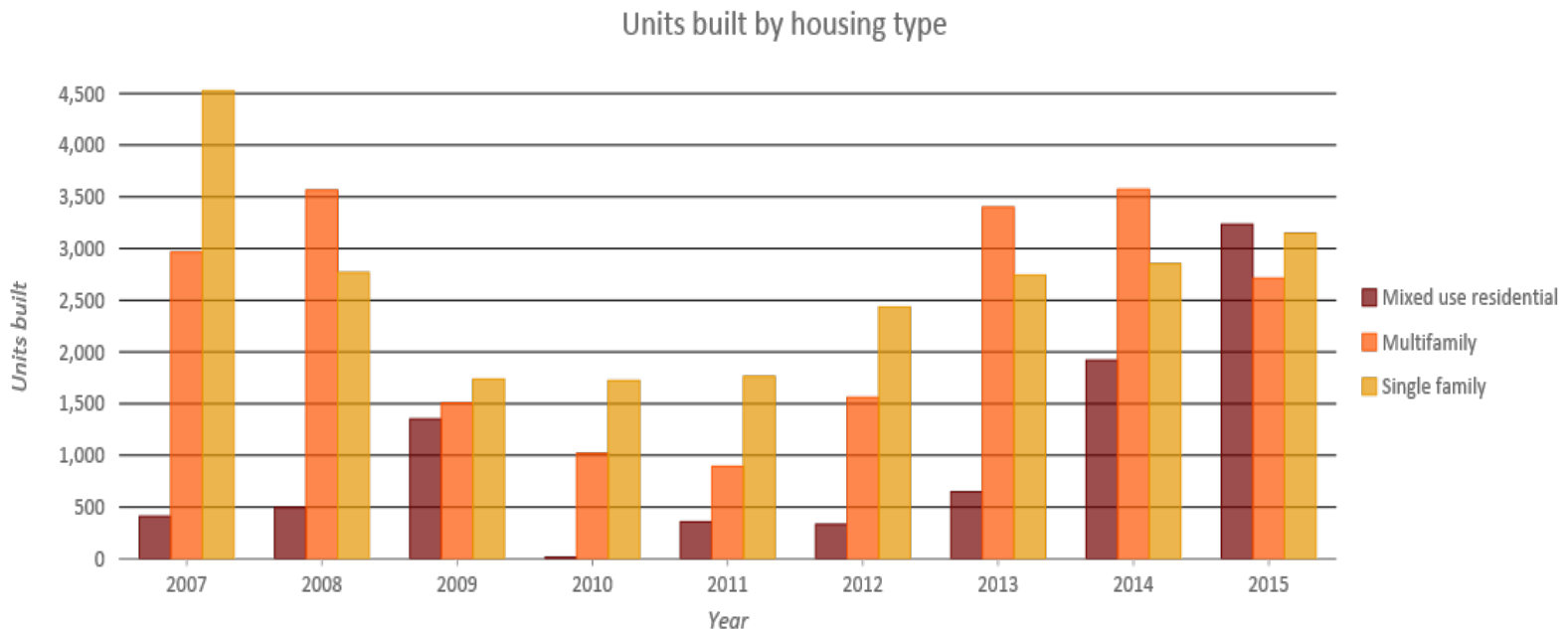
# Redevelopment definition

- “Mostly” vacant land counted as vacant
- “Part” vacant lots typically treated as developed



# Multi-Family and Mixed Use Making Larger Contributions

From 2007 to 2015: ~54k new housing units



Suburb Coefficients:

|               | Estimate | Std. Error | z value | Pr(> z )    |
|---------------|----------|------------|---------|-------------|
| (Intercept)   | -3.49263 | 0.08497    | -41.105 | < 2e-16 *** |
| LogRel Value  | -0.40199 | 0.03312    | -12.139 | < 2e-16 *** |
| LogLotSize    | 0.44765  | 0.03293    | 13.595  | < 2e-16 *** |
| LogTractValue | -0.60083 | 0.12665    | -4.744  | 2.1e-06 *** |

Portland Coefficients:

|               | Estimate | Std. Error | z value | Pr(> z )                |
|---------------|----------|------------|---------|-------------------------|
| (Intercept)   | -1.87405 | 0.10060    | -18.628 | <0.0000000000000002 *** |
| Miles         | -0.20010 | 0.01813    | -11.035 | <0.0000000000000002 *** |
| LogRel Value  | -0.42255 | 0.02690    | -15.710 | <0.0000000000000002 *** |
| LogLotSize    | 0.35714  | 0.02961    | 12.061  | <0.0000000000000002 *** |
| LogTractValue | -0.55361 | 0.06314    | -8.768  | <0.0000000000000002 *** |

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

# Sample probability calculations from Portland model

## Example 1 (median lot size)

|                              |       |
|------------------------------|-------|
| Lot size (acres)             | 0.116 |
| Relative taxlot value        | 1     |
| Relative tract value         | 1     |
| Miles                        | 4.07  |
| Probability of redevelopment | 3.05% |

## Example 3 (1 mile from city center)

|                              |       |
|------------------------------|-------|
| Lot size (median)            | 0.116 |
| Relative taxlot value        | 1     |
| Relative tract value         | 1     |
| Miles                        | 1     |
| Probability of redevelopment | 5.50% |

## Example 5 (tract value 50% of average in region)

|                              |       |
|------------------------------|-------|
| Lot size (median)            | 0.116 |
| Relative taxlot value        | 1     |
| Relative tract value         | 0.5   |
| Miles                        | 4.07  |
| Probability of redevelopment | 4.42% |

## Example 2 (1 acre lot)

|                              |       |
|------------------------------|-------|
| Lot size                     | 1     |
| Relative taxlot value        | 1     |
| Relative tract value         | 1     |
| Miles                        | 4.07  |
| Probability of redevelopment | 6.37% |

## Example 4 (value 50% of average in tract & 1 mile from city center)

|                              |       |
|------------------------------|-------|
| Lot size (median)            | 0.116 |
| Relative taxlot value        | 0.5   |
| Relative tract value         | 1     |
| Miles                        | 1     |
| Probability of redevelopment | 7.24% |

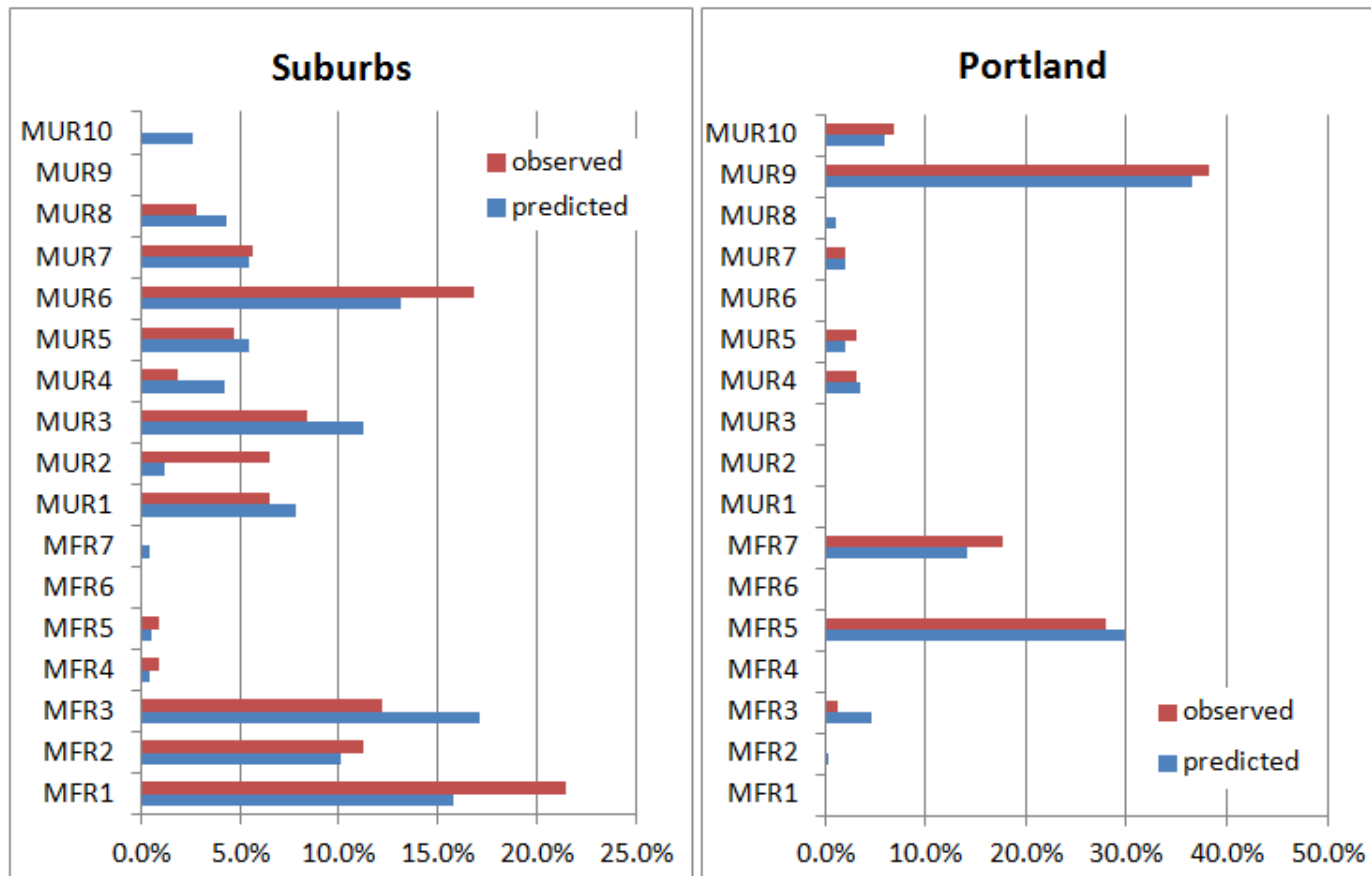
## Example 6 (value 50% of average in tract & tract value 50% of average in region)

|                              |       |
|------------------------------|-------|
| Lot size (median)            | 0.116 |
| Relative taxlot value        | 0.5   |
| Relative tract value         | 0.5   |
| Miles                        | 4.07  |
| Probability of redevelopment | 5.84% |



# Statistical Method Validation

It reasonably explains lot redevelopment by zone class.



# New Data from Varied Sources

- Built from assessor data, aerial photography, permits, etc.
- Covers observed development from 2007 to 2015 (one business cycle including “last five years”)
- Measures land change at taxlot level
- Used to inform BLI development

# New Redevelopment Methods are an Incremental Step

- Preferred approach:
  - Full integration of redevelopment decision into MetroScope
- Interim approach:
  - Retain separate BLI forecast and MetroScope
  - Use statistical approach to identify parcels with redevelopment potential based on past trends
  - Use both price threshold and statistical methods to create capacity scenarios



# 2021-24 STIP

## Background and Overview

R1ACT

Presented by:

Jon Makler, R1 Planning Manager

ODOT

March 5, 2018

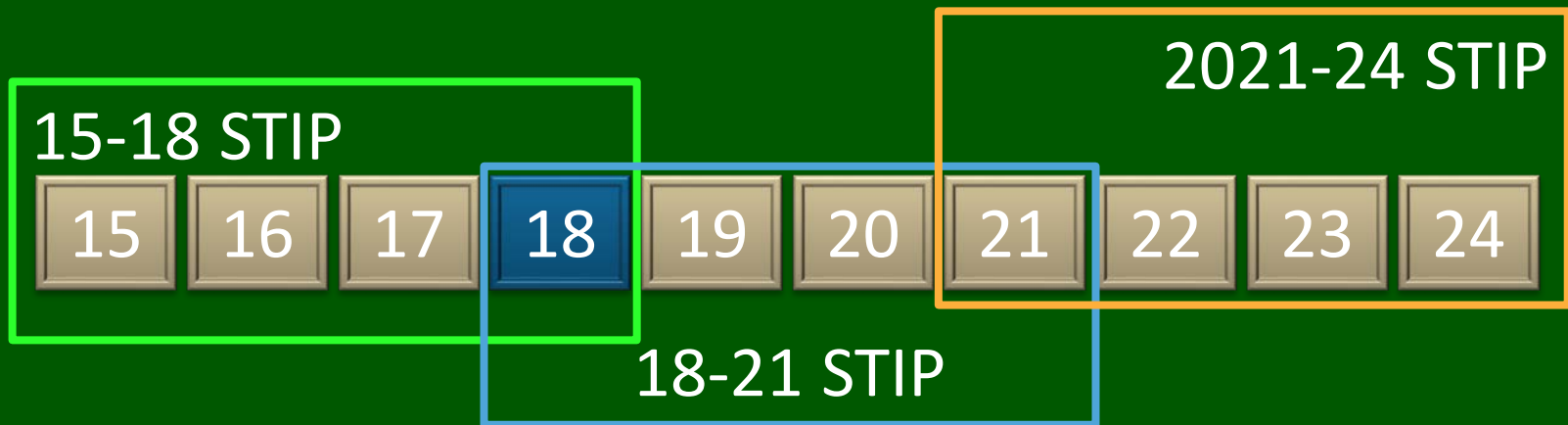


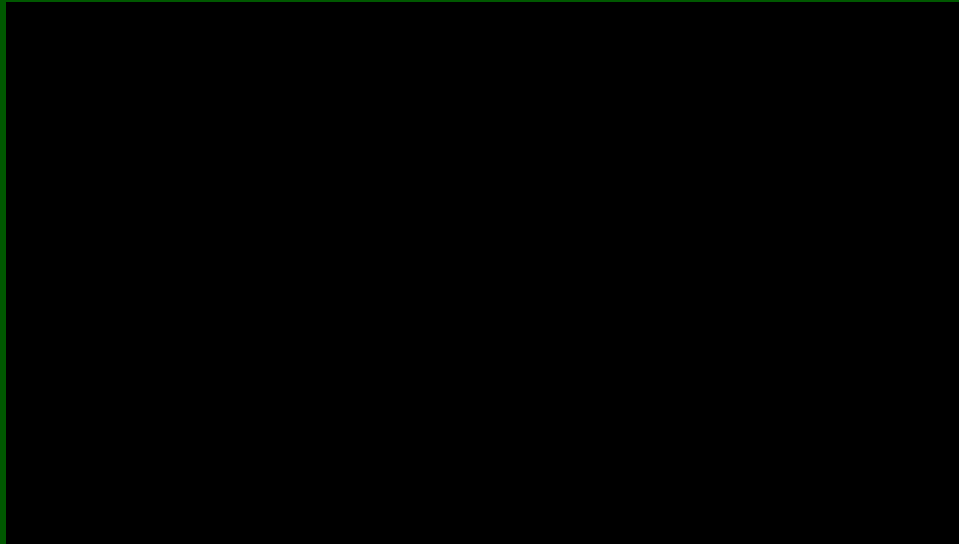
# Agenda

- Introduction
- Fix-It Program Overview
- Leverage Program Guidelines
- Timeline/Approach



# Introduction



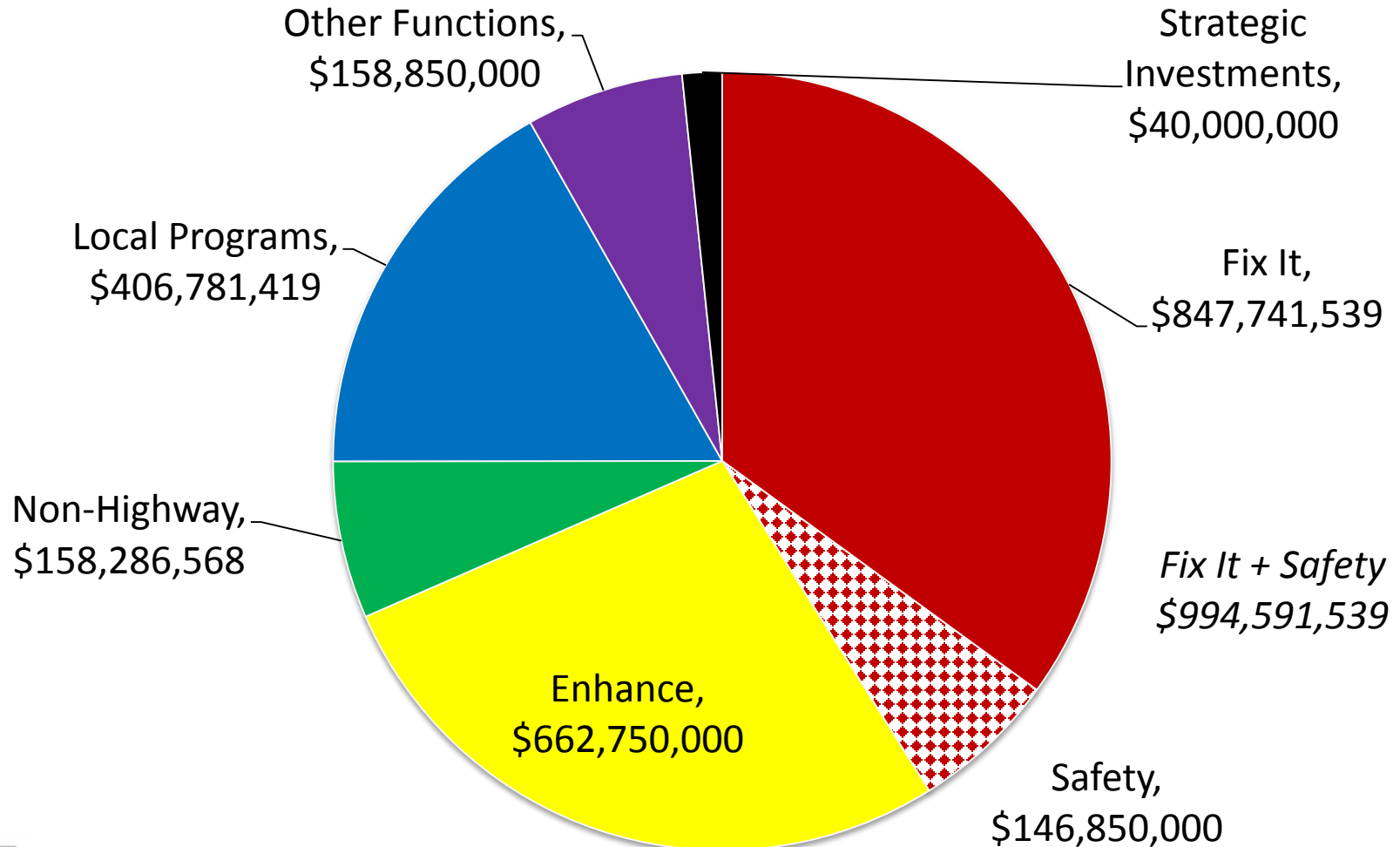


# Fix-It Program Overview

<https://www.youtube.com/watch?v=drxakQYA1c4>

# 2021-24 STIP Allocation (\$2.45B/3 years)

December OTC Decision

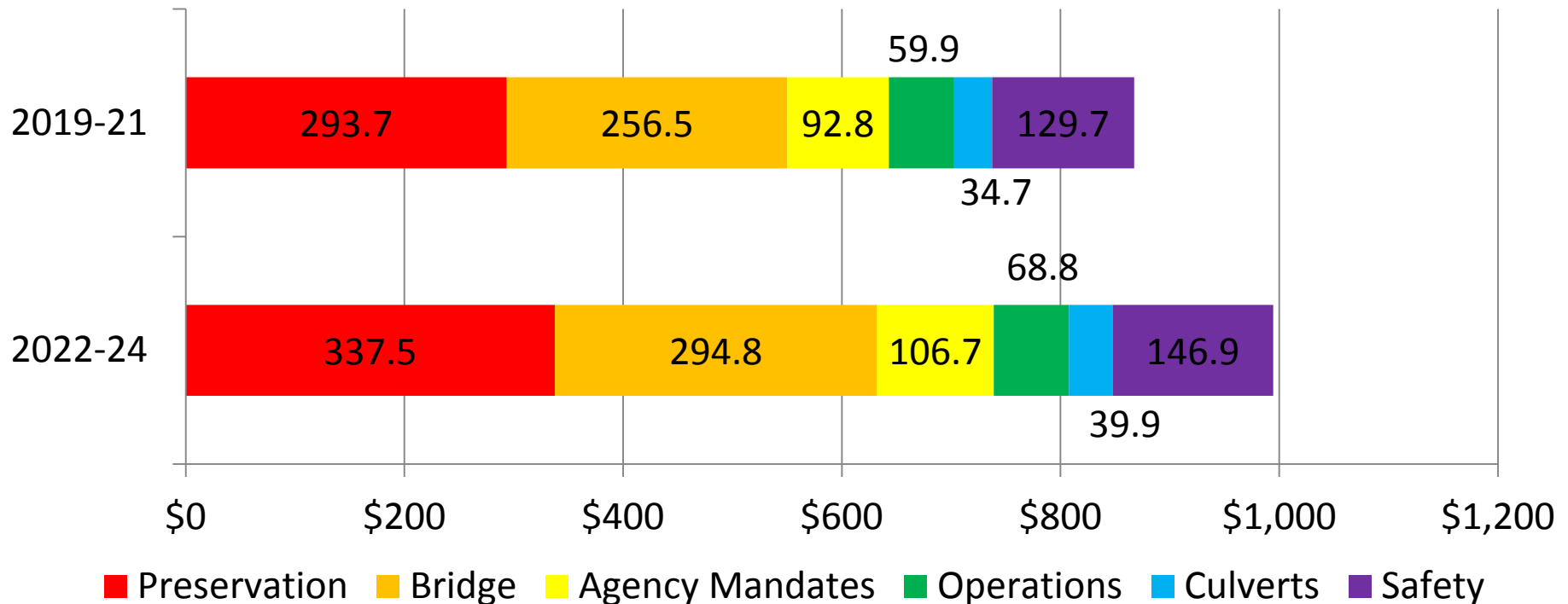




# Fix-It Program Allocation Comparison

If the next STIP follows the same distribution as the last:

## Fix-It Program Funding Levels (millions)



# Leverage Programs

2021-24 STIP



State Highway



Safety



Active  
Transportation



# Leverage Programs

## Principles for Programming



Improve the State Highway System

ACT Engagement

Meet Community Needs not addressed by Fix-It projects

Maximizing Resources by leveraging priority improvements

Allow for flexibility while maintaining transparency

Projects should be consistent with plans and on a list of identified needs

Document investments to inform outcome-based planning/programming



# Leverage Programs

## Eligible Activities



Add features to ODOT Fix-It projects on the State Highway System



# Leverage Programs

## Ineligible Activities

No swaps  
between  
programs

No bucketing

No stand-alone  
projects

Not for triggered elements (ADA, Bike Bill)



# Active Transportation Leverage

## Program Guidance

Align with  
statewide  
policy  
framework

Align with  
ADA Program  
guidelines

Region 1  
Allocation:  
\$7,746,000



# Safety Leverage

## Program Guidance

Tier 1:  
Reduce  
Serious/Fatal  
crashes

Tier 2:  
Regional  
safety priority  
areas

Region 1  
Allocation:  
\$10,680,000



# State Highway Leverage

## Program Guidance

Increase efficiency and address bottlenecks

Not for active transportation/  
public transportation features

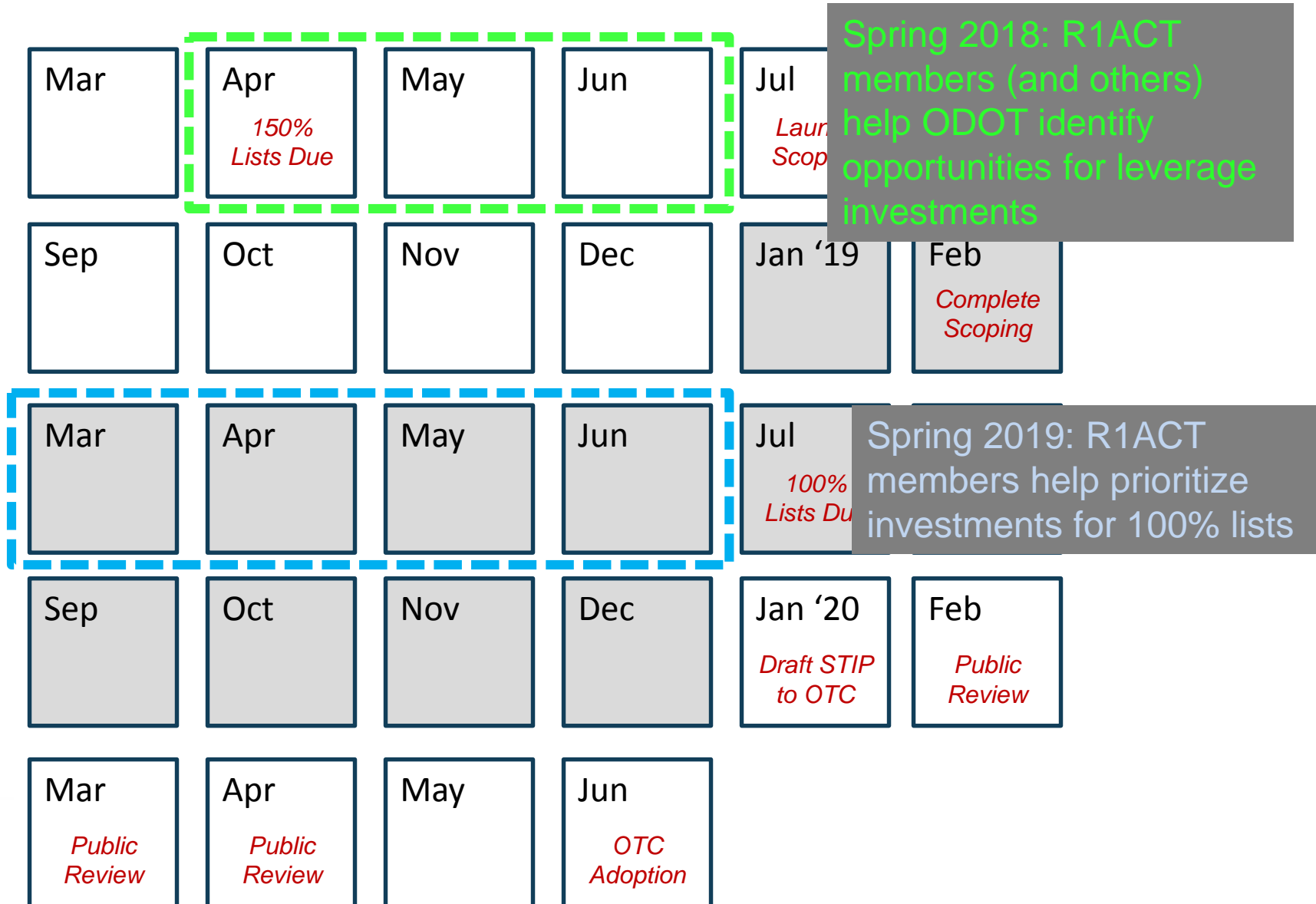
Region 1  
Allocation:  
\$8,483,573





# 2021-24 STIP Development Timeline

Who, What and When



Thank you.