



Metro

# Regional Congestion Pricing Study

Joint Policy Advisory Committee on Transportation

April 15, 2021

# Agenda

- Study Update
- Review Technical Findings for Pricing Scenarios
  - High Level Findings, Costs and Benefits
- Expert Review Panel on 4/22
- Schedule and Next Steps

# Regional Congestion Pricing Study

## *RCPS Goal:*

*To understand how our region could use congestion pricing to manage traffic demand to meet climate goals without adversely impacting and potentially improving safety and equity.*

Not recommending or implementing any pricing measures

# Expected Outcomes

RCPS findings will:

- Inform future discussions on implementing congestion pricing and policy recommendations
  - *Informing ODOT and PBOT efforts*
- Outline next steps for evaluation and further study

# Pricing strategies will be measured against the Region's 4 Priorities (RTP 2018)



**Equity-**  
Reduce disparity



**Climate Smart –**  
Reducing GHG  
emissions



**Safety-**  
Getting to  
Vision Zero



**Congestion**

# Key Performance Measures

- Vehicle Miles Traveled (VMT)
- Percent of people using different modes
- Accessibility to Jobs – Transit + Auto
- Vehicle Delay
- Emissions
- Cost - *total cost of travel for the region and cost per traveler paying a charge*

# The Four Families of Tools We Considered

- Focus on 4 tools with multiple possible program designs
- Provide assessment of overall value, not a recommendation



## **VEHICLE MILES TRAVELED FEE** (Road User Charge)

*Drivers pay a fee for every mile they travel*



## **CORDON PRICING**

*Drivers pay to enter an area, like downtown Portland (and sometimes pay to drive within that area)*



## **ROADWAY PRICING**

*Drivers pay a fee to drive on a particular road, bridge or highway*



## **PARKING PRICING**

*Drivers pay to park in certain areas*



# Summary of Scenarios

Scenario	Pricing Charge	Type of Charge	Additional Details
VMT B	\$0.0685/mile	Charge per mile driven	32% increase over Baseline Scenario
VMT C	\$0.132/mile	Charge per mile driven	Charge is approximately doubled compared to VMT B; 63% increase over Baseline Scenario
COR A	\$5.63	Charge to enter cordon area	Higher end of price range based on other cities
COR B	\$5.63	Charge to enter cordon area	Higher end of price range based on other cities; cordon boundaries are larger compared to Cordon A
PARK A	Varies	Charge to park vehicle	Parking assumptions drawn from 2018 RTP's 2040 Financially Constrained scenario
PARK B	Varies	Charge to park vehicle	Parking assumptions are doubled compared to Parking A
RD A	\$0.132/mile	Charge per mile driven on highways	Charge on highways equivalent to the VMT C per mile charge
RD B	\$0.264/mile	Charge per mile driven on highways	Charge on highways is doubled compared to Roadway A

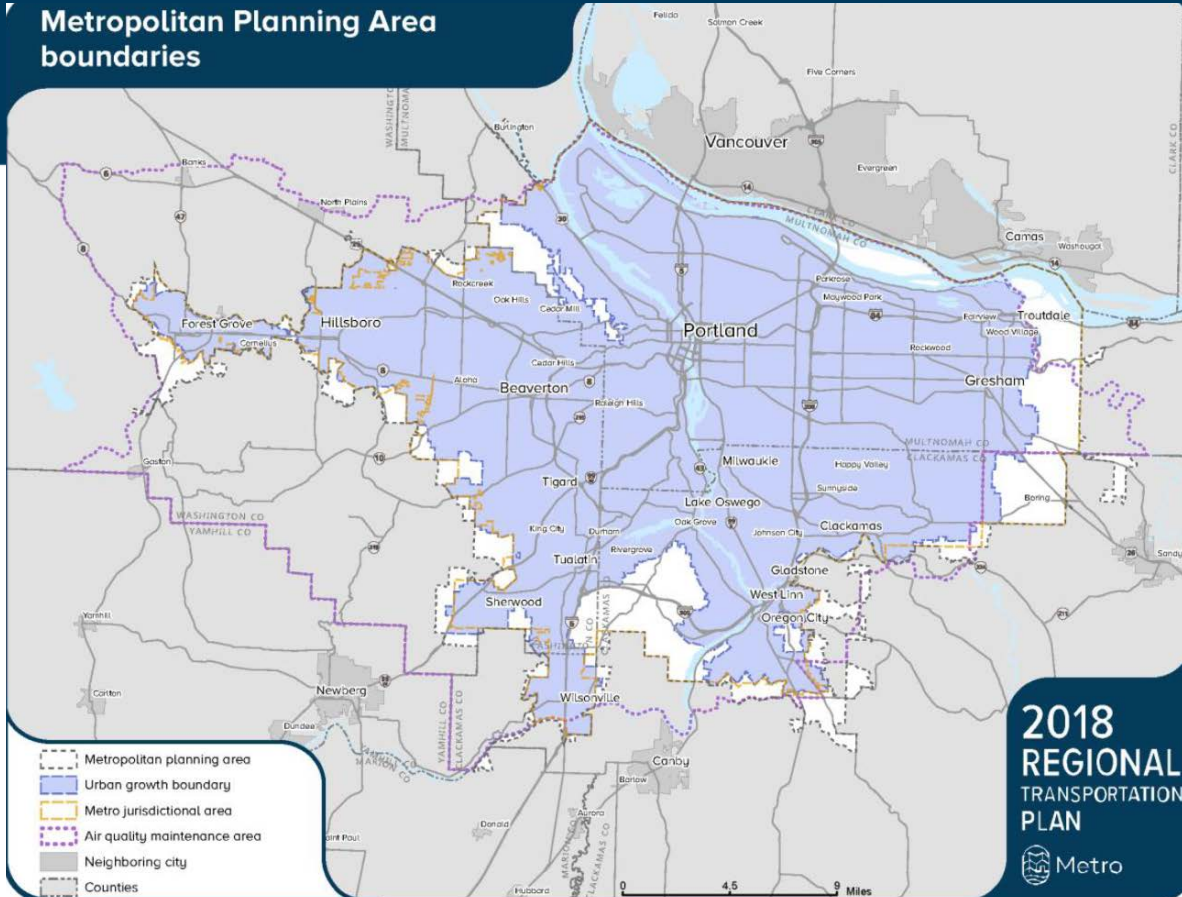
- 8 scenarios (two from each family)
- Charges assessed within MPA boundaries only (in \$2010)
- Compare effects of different types of charges and amount charged



# VMT Scenarios

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## Metropolitan Planning Area boundaries

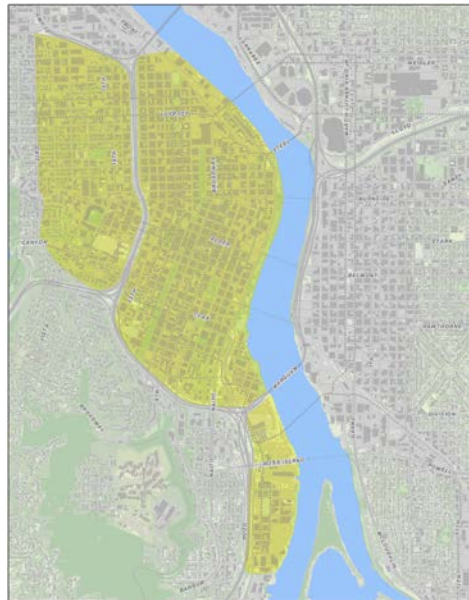


- Charges assessed within MPA boundaries for each mile driven for VMT B and VMT C

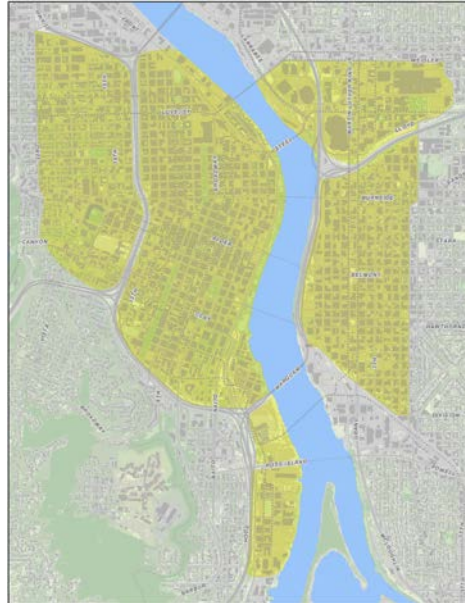
# Cordon Scenarios

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Cordon A

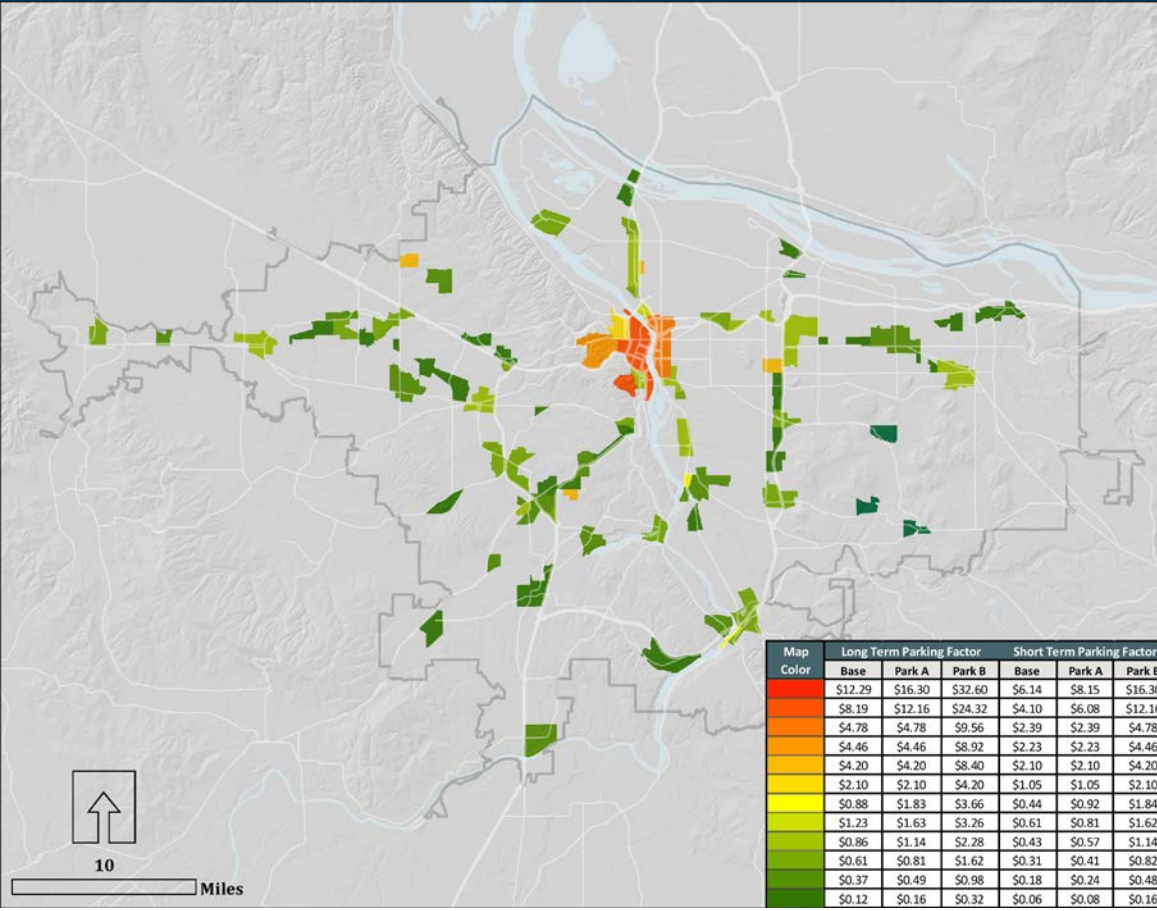


Cordon B



- Cordon A encompasses downtown Portland, South Waterfront, portions of NW Portland
- Cordon B expands to include Lloyd District and CEID
- Travel through the cordons on freeways/highways (i.e. I-5/I-405, or US-26 to Ross Island Bridge) are not charged

# Parking Scenarios

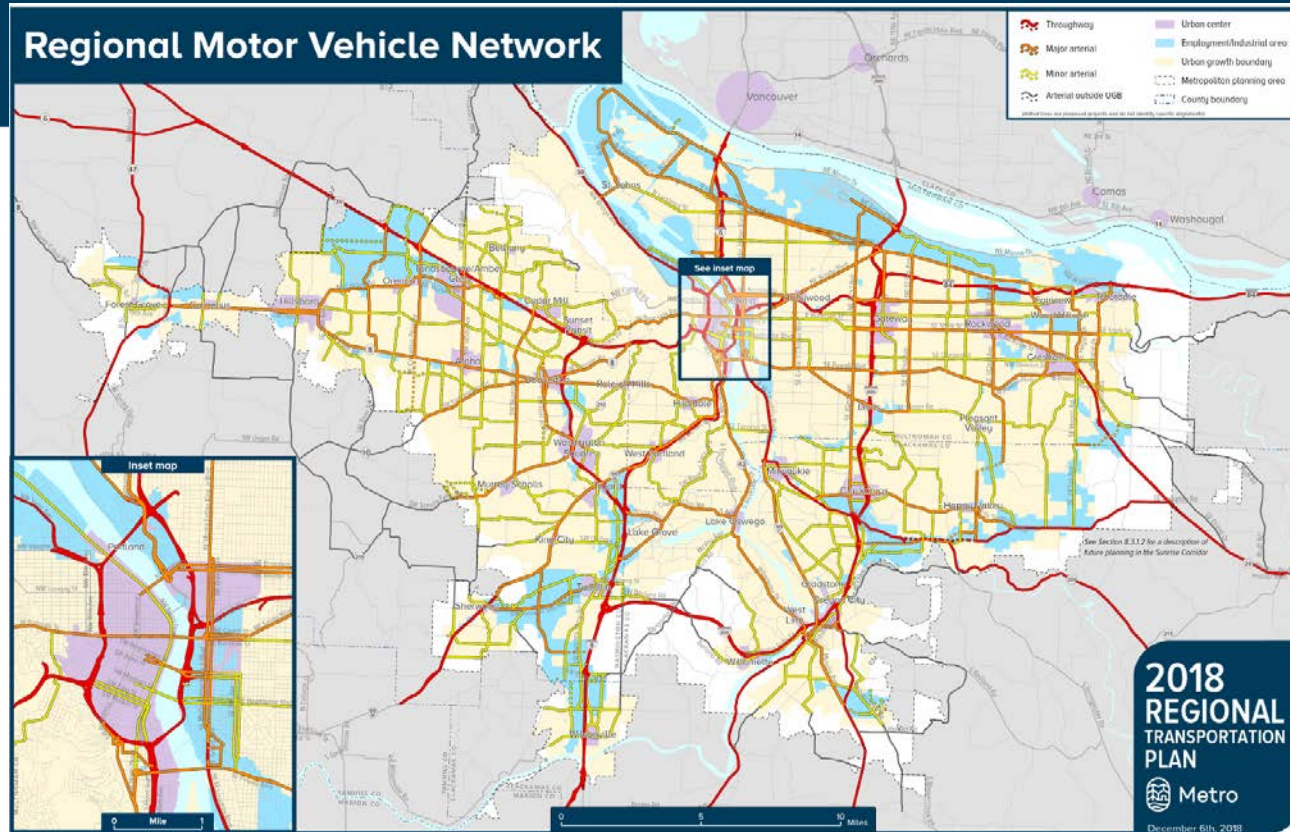


- Parking A and B do not include changes to parking charges outside of MPA boundaries
- Parking B is double the charge of Parking A
- Rates in Vancouver remain at 2027 Base level



# Roadway Scenarios

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- All throughways (shown in red) within MPA boundaries are charged in Roadway A and Roadway B
- Roadway A charges the same rate as VMT C, while Roadway B doubles that rate

# Summary of Scenario Performance

- All four pricing types **addressed climate** and **congestion** priorities.
- **All eight scenarios** reduced the drive alone rate, vehicle miles traveled, and emissions, while increasing daily transit trips.
- Geographic distributions of **benefits and costs varied** by scenario.
- There were **tradeoffs** for implementing pricing scenarios.

# High-Level Findings from Modeling

RTP Goal	Metrics	VMT B	VMT C	COR A	COR B	PARK A	PARK B	RD A	RD B
Congestion & Climate	Daily VMT								
	Drive Alone Rate								
	Daily Transit Trips								
	2HR Freeway VHD								
	2HR Arterial VHD								
Climate	Emissions								
Equity	Job Access (Auto)								
	Job Access (Transit)								
Total Regional Travel Cost		Medium-High	High	Medium-Low	Medium-Low	Low	Low	Medium	Medium

Note: Green indicates better alignment with regional goals when compared to the Base scenario.

Legend	
	Large Positive Change
	Moderate Positive Change
	Small Positive Change
	Minimal Change
	Small Negative Change
	Moderate Negative Change
	Large Negative Change

\*Positive and Negative refer to progress toward regional goals, and not to numerical values (i.e. a reduction in VMT is "positive")

- VMT and Parking scenarios show the most positive changes, no negative changes
- Cordon and Roadway scenarios see some increases in delay and reductions in job access
- These results are before any discounts/exemptions, reinvestment of revenues, or iterations of program design

# Summary of Cost Impacts

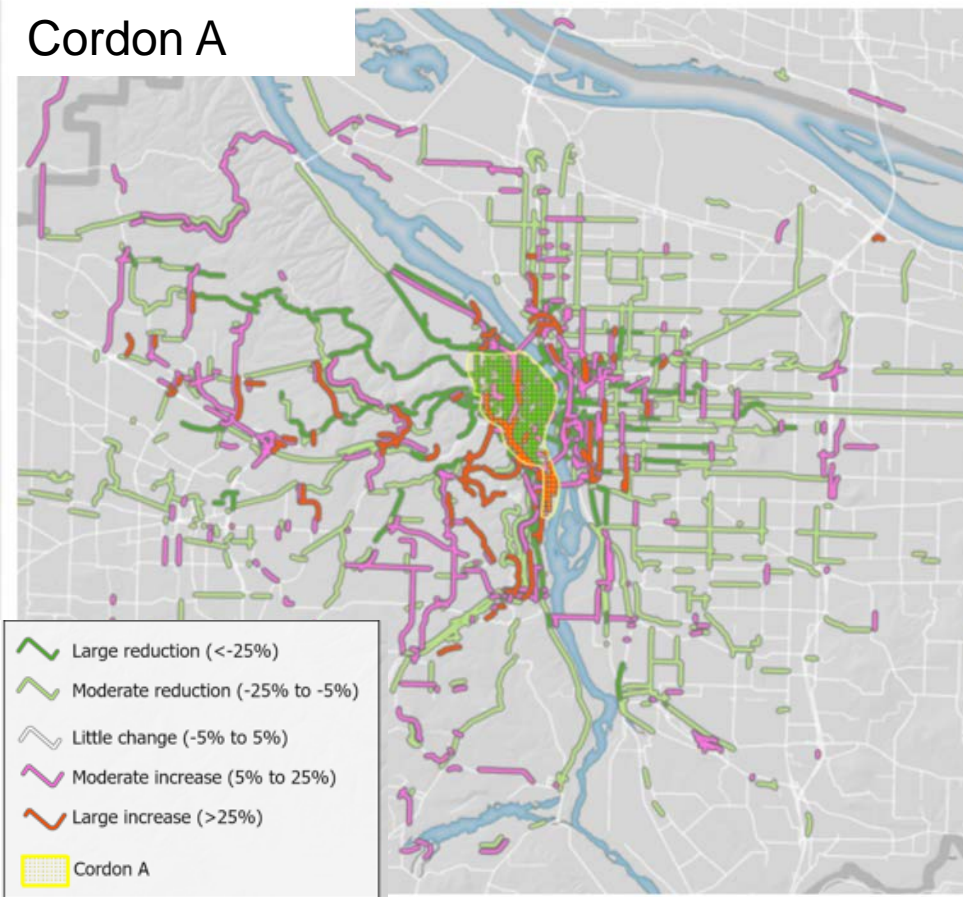
- All eight scenarios increase the overall cost for travel for the region, but some scenarios distribute the costs widely while others concentrate them on fewer travelers. Those that distribute the costs also have the highest overall cost for the region.
- Overall regional transportation costs and individual traveler costs vary by scenario.
- Distribution of costs and benefits have implications for where fee discounts and revenues could be targeted.



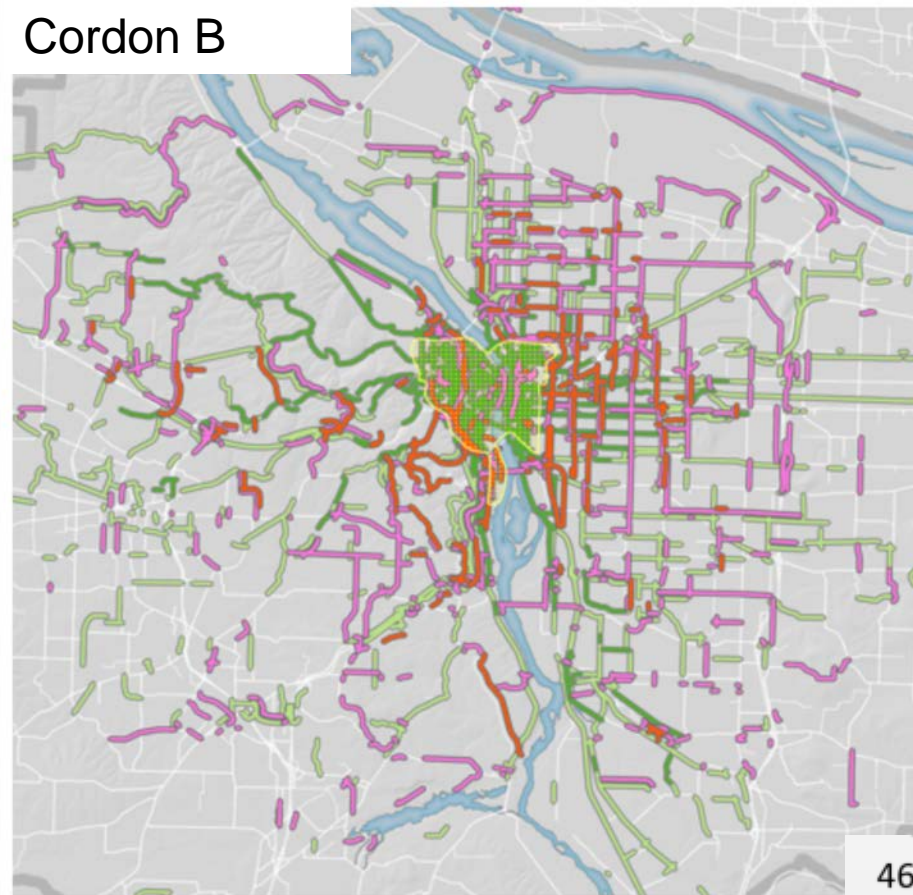
# Change in Volumes Compared to Base (2-hr PM Peak)

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Cordon A



Cordon B



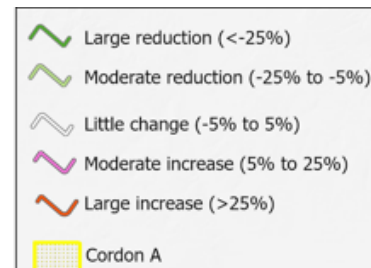
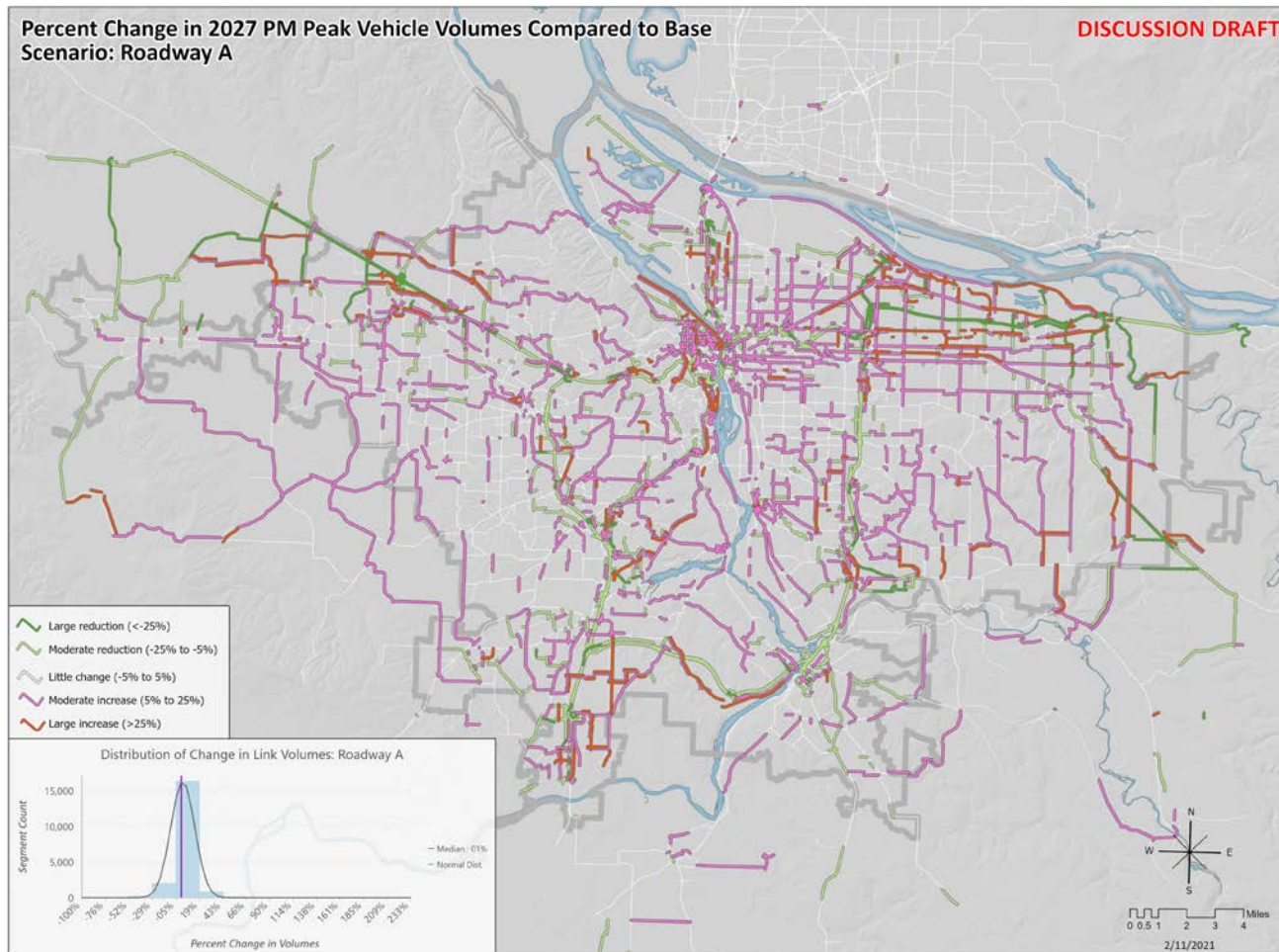
Percent Change in 2027 PM Peak Vehicle Volumes Compared to Base  
Scenario: Roadway A

DISCUSSION DRAFT

# Roadway A

Volumes drop across the freeway network as drivers divert to arterials to avoid charge.

Most arterials near freeways see an increase in volumes.



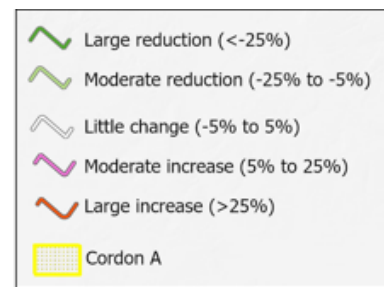
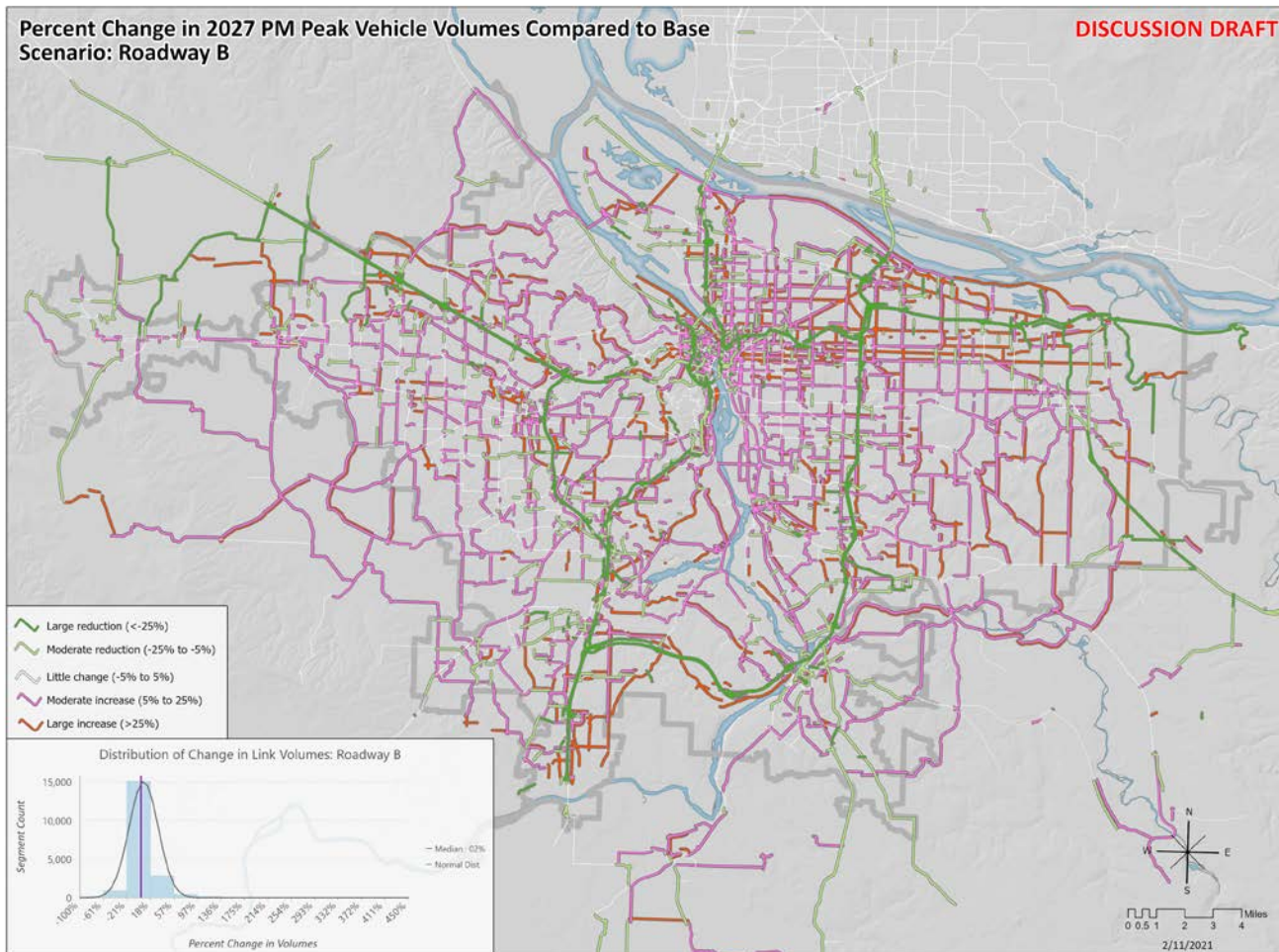


Percent Change in 2027 PM Peak Vehicle Volumes Compared to Base Scenario: Roadway B

DISCUSSION DRAFT

# Roadway B

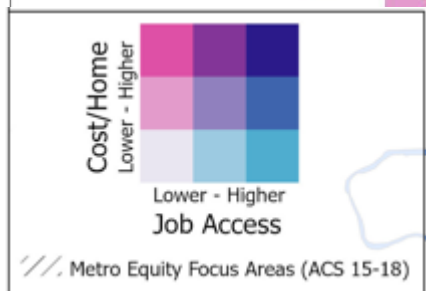
Changes are magnified with Roadway B, with more arterials seeing volume increases, and freeways seeing increasingly lower volumes.



## 2027 Auto Access to Jobs vs. Change in Cost per Household Scenario: Roadway A

DISCUSSION DRAFT

Percent change in the number of jobs accessible within 30 minutes by auto in the peak vs. change in cost per household to travel, compared to Base



# RD A

With RD A, many areas near freeways see increased job access by auto along with higher costs to travel, but the negative impacts in outer areas are prominent.

# High-Level Findings from Modeling

RTP Goal	Metrics	VMT B	VMT C	COR A	COR B	PARK A	PARK B	RD A	RD B
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# Expert Review Panel - April 22, 2021

**Jennifer Wieland - moderator**

Managing Director. Expert in congestion pricing and equity-focused studies

*NelsonWygaard*

**Daniel Firth**

Transport and Urban Planning Director; Congestion pricing leader in London, Stockholm and Vancouver

*C40*

**Rachel Hiatt**

Assistant Deputy Director for Planning; Project manager of the Downtown Congestion Pricing Study

*San Francisco County Transportation Authority*

**Sam Schwartz**

Founder and CEO; Father of NYC congestion pricing

*Sam Schwartz Transportation Consultants*

**Christopher Tomlinson**

Executive Director; Expert in political, policy and legal aspects of tolling

*State Road and Tollway Authority, Georgia  
Regional Transportation Authority,  
Atlanta-region Transit Link Authority*

**Clarrissa Cabansagan**

Director of Programs; National leader in transportation policy and mobility justice

*TransForm*



# Expert Review Panel

- Provide input on our methods and technical findings
- Share insights gained from their work
  - Atlanta, San Francisco, New York, Seattle, Vancouver, Stockholm, and London among other locations
  - Technical, implementation, and equity considerations
- Discussion and Q & A
  - Moderated discussion
  - Opportunity for Metro Council and JPACT to ask questions



# Expert Panel Discussion

Given our technical findings and knowing the report will include further equity and implementation considerations...

- What would you would like to hear from the panel?
- Key questions or areas for discussion?

# Next Steps – Incorporating Feedback

Incorporate feedback from Expert Review Panel, Metro Council and JPACT. Combine findings with additional information on equity and implementation considerations.

## Regional Congestion Pricing Report

- How well do the different tools perform for our region?
- Are there are areas of concern? Areas that should be studied further?
- Considerations for policy makers and projects going forward?

# Next Steps

- Expert Review Panel – April 22
- TPAC, MPAC– June 2021
- JPACT final report in June 17, 2021
- Metro Council June and July 2021
  - June - Work Session on final report
  - July - Metro Council Meeting with a Resolution accepting the final report

# Regional Congestion Pricing Study

Thank you for  
your feedback!

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