I-5 and I-205 Toll Projects

Tualatin City Council

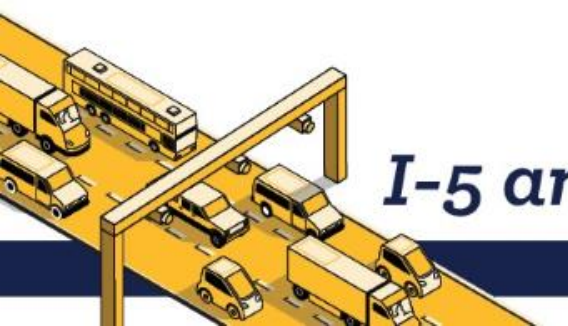
I-205 Toll Project Update

July 27, 2020

Oregon Department of Transportation

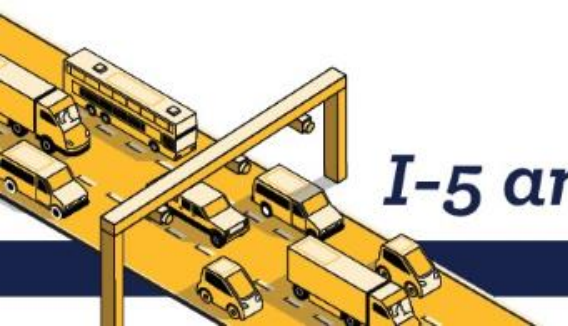
Agenda

1. Welcome Introductions and Agenda Review
2. Project Updates
3. I-205 Purpose and Need, Goals and Objectives
4. I-205 Screening Alternatives Analysis Results
5. What's Next?



Project Updates

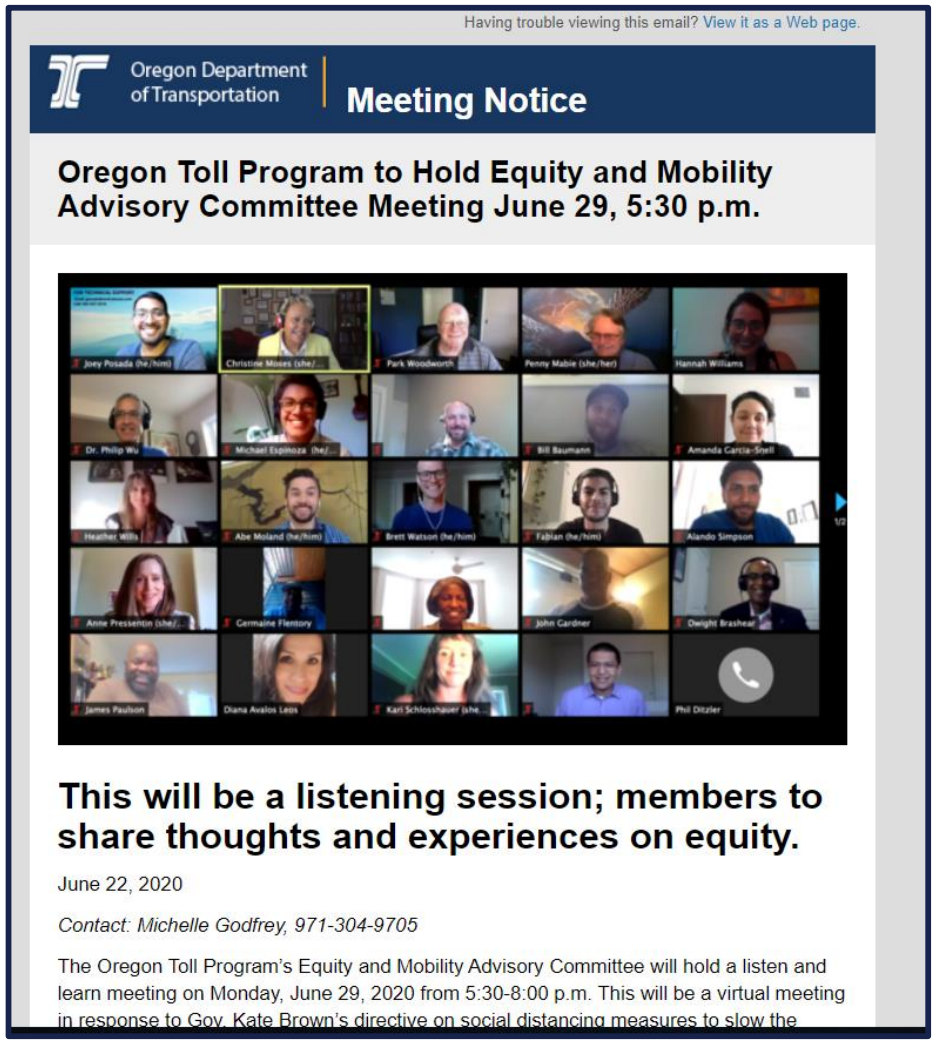
LUCINDA BROUSSARD, ODOT



Project Updates and Activities

- Region 1 Area Commission on Transportation
- Outreach to community organizations
- Orientation for engagement liaisons
- Regular communications

  E-news and news releases
- Equity and Mobility Advisory Committee
- Briefings to local and regional jurisdictions
- Regional Modeling Group – data share



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Oregon Department of Transportation | Meeting Notice

Oregon Toll Program to Hold Equity and Mobility Advisory Committee Meeting June 29, 5:30 p.m.

This will be a listening session; members to share thoughts and experiences on equity.

June 22, 2020

Contact: Michelle Godfrey, 971-304-9705

The Oregon Toll Program's Equity and Mobility Advisory Committee will hold a listen and learn meeting on Monday, June 29, 2020 from 5:30-8:00 p.m. This will be a virtual meeting in response to Gov. Kate Brown's directive on social distancing measures to slow the

Equity and Mobility Advisory Committee

May Reception

- Meeting one another

Meeting 1: Listening session

- Responding to events in our communities, nation and world

Meeting 2: July 28

- Draft charter and workplan
- Toll Projects' Equity Framework
- Update on the I-205 and I-5 Toll Projects

Given where we are in the world, at this moment, how do the demonstrations relate to the work of this committee?

Can tolls be equitable? Or, what would equitable tolls look like?

What are the historic injustices that ODOT has committed against communities of color, Albina specifically, and others in general?

EMAC Listening Session – June 29

How can tolls create benefits for everyone? What would that look like?

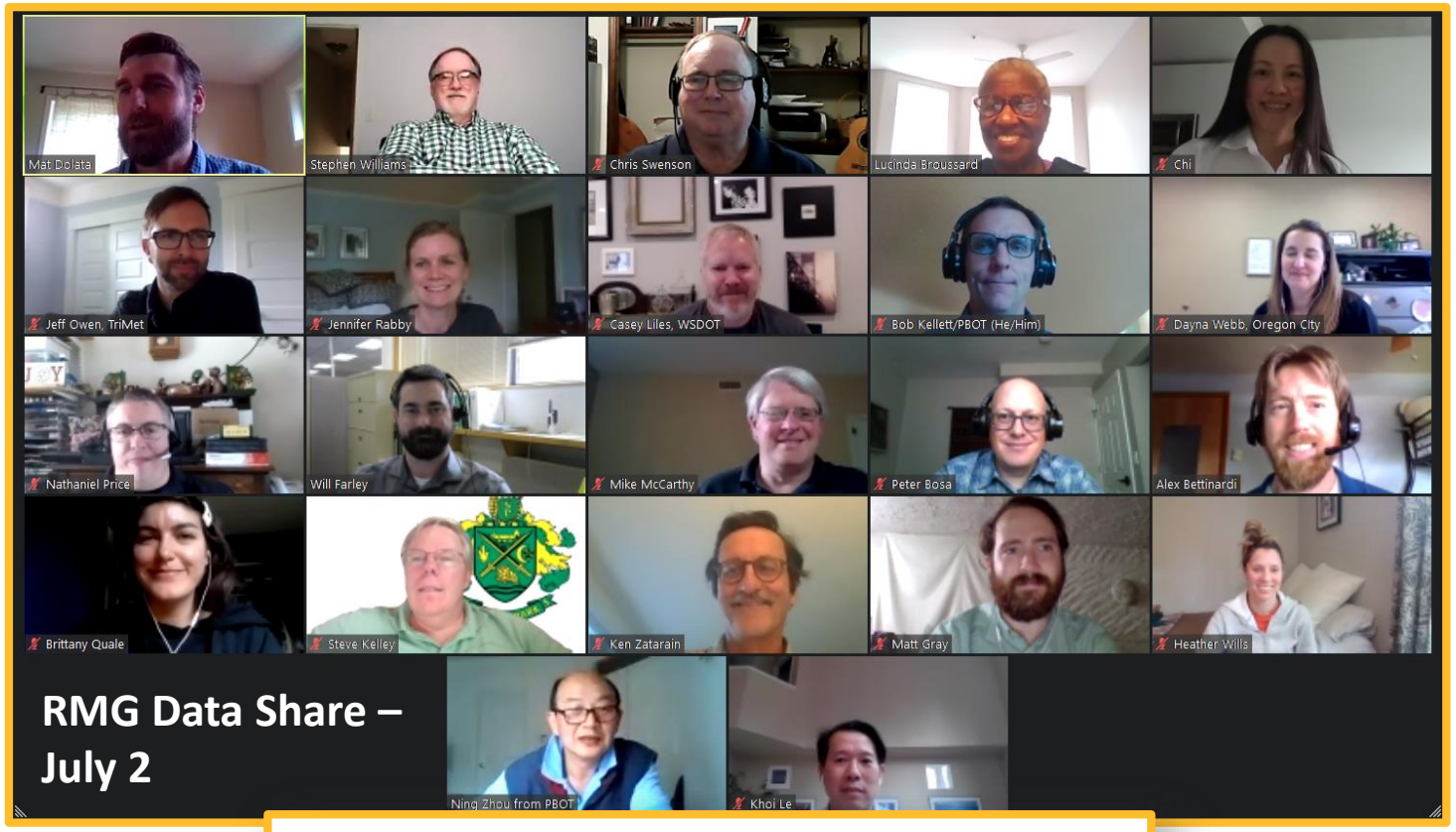
What are the metrics that demonstrate to you that ODOT is doing things differently?

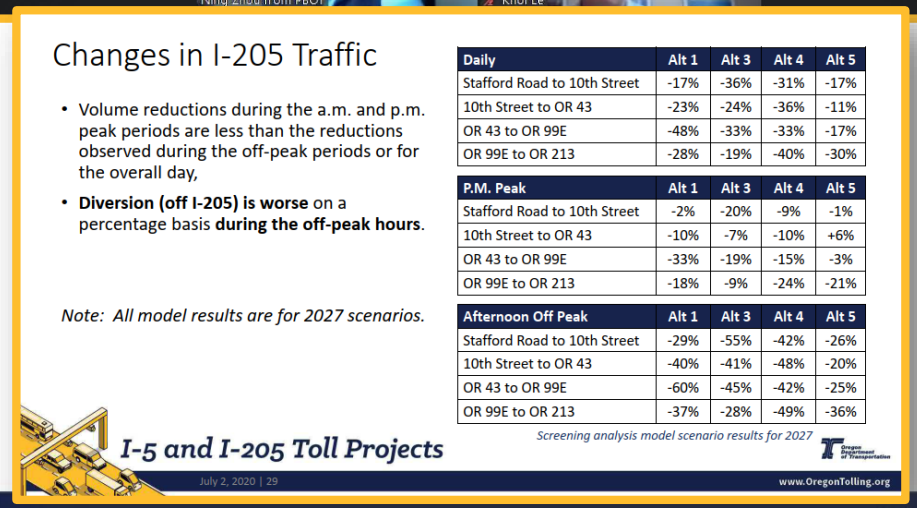
How does current transportation policy contribute to inequitable outcomes?

Are there questions / concerns / needs / fears that must be addressed in order for you to effectively work on this committee?

I-205 Regional Modeling Group *"Data Share"*

- Review early screening analysis of the five potential toll alternatives
- Setup workshops to go through the data with our data experts
- Exchange findings





Changes in I-205 Traffic

- Volume reductions during the a.m. and p.m. peak periods are less than the reductions observed during the off-peak periods or for the overall day,
- **Diversion (off I-205) is worse** on a percentage basis **during the off-peak hours**.

Note: All model results are for 2027 scenarios.

Daily	Alt 1	Alt 3	Alt 4	Alt 5
Stafford Road to 10th Street	-17%	-36%	-31%	-17%
10th Street to OR 43	-23%	-24%	-36%	-11%
OR 43 to OR 99E	-48%	-33%	-33%	-17%
OR 99E to OR 213	-28%	-19%	-40%	-30%

P.M. Peak	Alt 1	Alt 3	Alt 4	Alt 5
Stafford Road to 10th Street	-2%	-20%	-9%	-1%
10th Street to OR 43	-10%	-7%	-10%	+6%
OR 43 to OR 99E	-33%	-19%	-15%	-3%
OR 99E to OR 213	-18%	-9%	-24%	-21%

Afternoon Off Peak	Alt 1	Alt 3	Alt 4	Alt 5
Stafford Road to 10th Street	-29%	-55%	-42%	-26%
10th Street to OR 43	-40%	-41%	-48%	-20%
OR 43 to OR 99E	-60%	-45%	-42%	-25%
OR 99E to OR 213	-37%	-28%	-49%	-36%

Screening analysis model scenario results for 2027

I-5 and I-205 Toll Projects

July 2, 2020 | 29

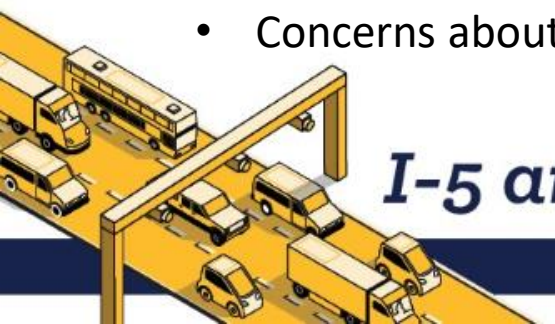
www.OregonTolling.org

I-5 and I-205 Toll Projects

Oregon Department of Transportation

What We've Heard About Tolls Over the Last 3 Years

- Tolls must be implemented equitably, including where and how revenue is used
- Questions about operation and effectiveness of modern toll systems
- Opinions about the need for roadway and transportation system expansion
- Tolls are not equitable across all income levels
- Clackamas County's transit service is not robust enough to afford residents another travel option on the I-205 Corridor
- Tolls will create additional diversion into communities along the I-205 Corridor
- Concerns about how local trips that use I-205 will be treated



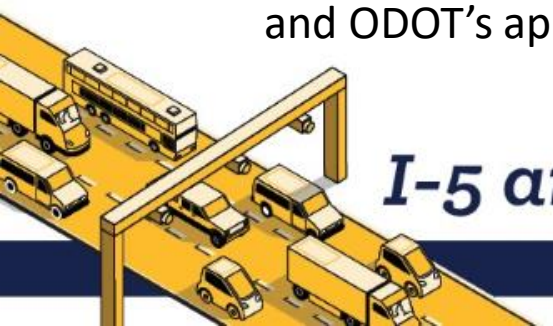
Upcoming: I-205 Toll Project Stakeholder and Community Engagement

45 day public comment period

August 3 – September 16, 2020

Purpose

- Obtain feedback on the Range of Alternatives for environmental review
- Obtain feedback on the purpose and need
- Increase awareness of toll systems (purpose, operations and benefits)
- Share information about how results of Feasibility Analysis informed I-205 Toll Project and ODOT's approach to equity



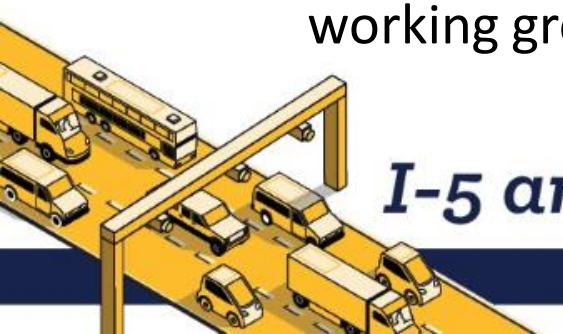
Stakeholder and Community Engagement for I-205 Toll Project

General Engagement

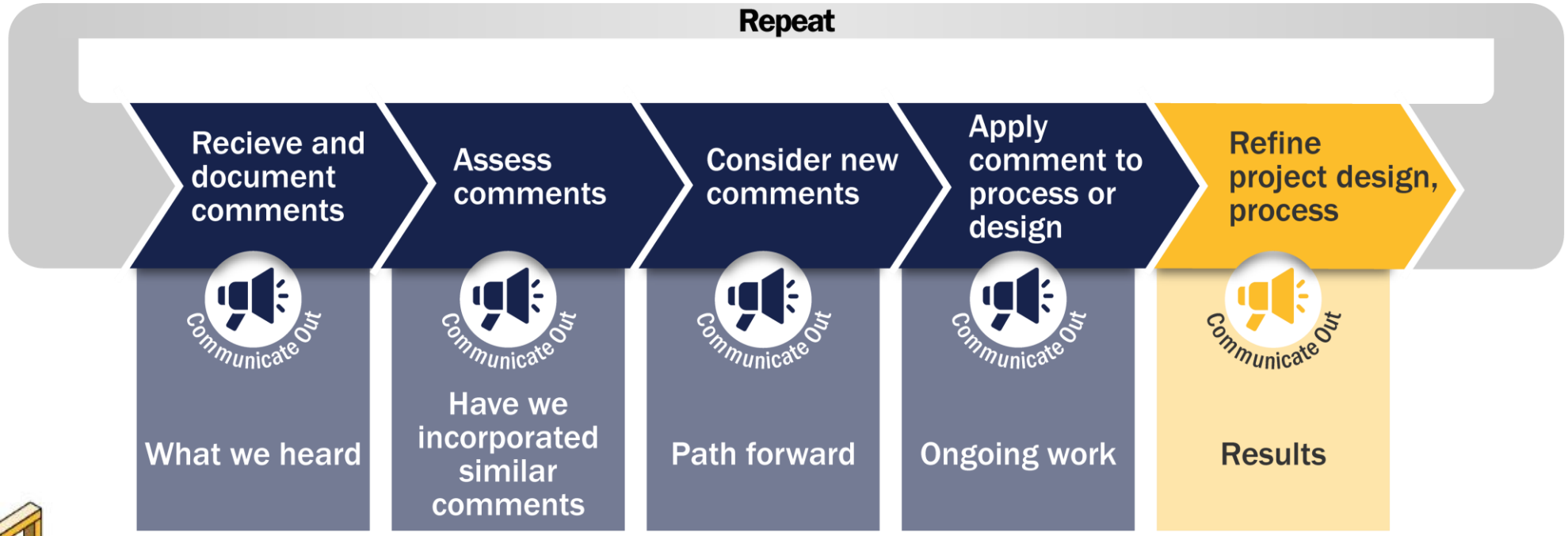
- Online open house with survey, webinars
- Information sharing: I-205 Toll Project website, social media, fact sheets, presentations
- Boards, councils, committee presentations and briefings
- Meetings with project advisory and working groups

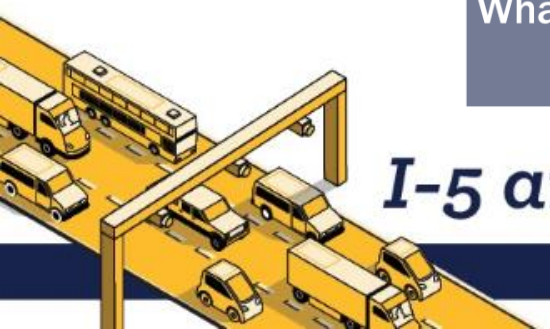
Equitable and Focused Engagement

- Stakeholder interviews
- Discussion groups with historically and currently underrepresented and underserved communities
- Community engagement liaisons

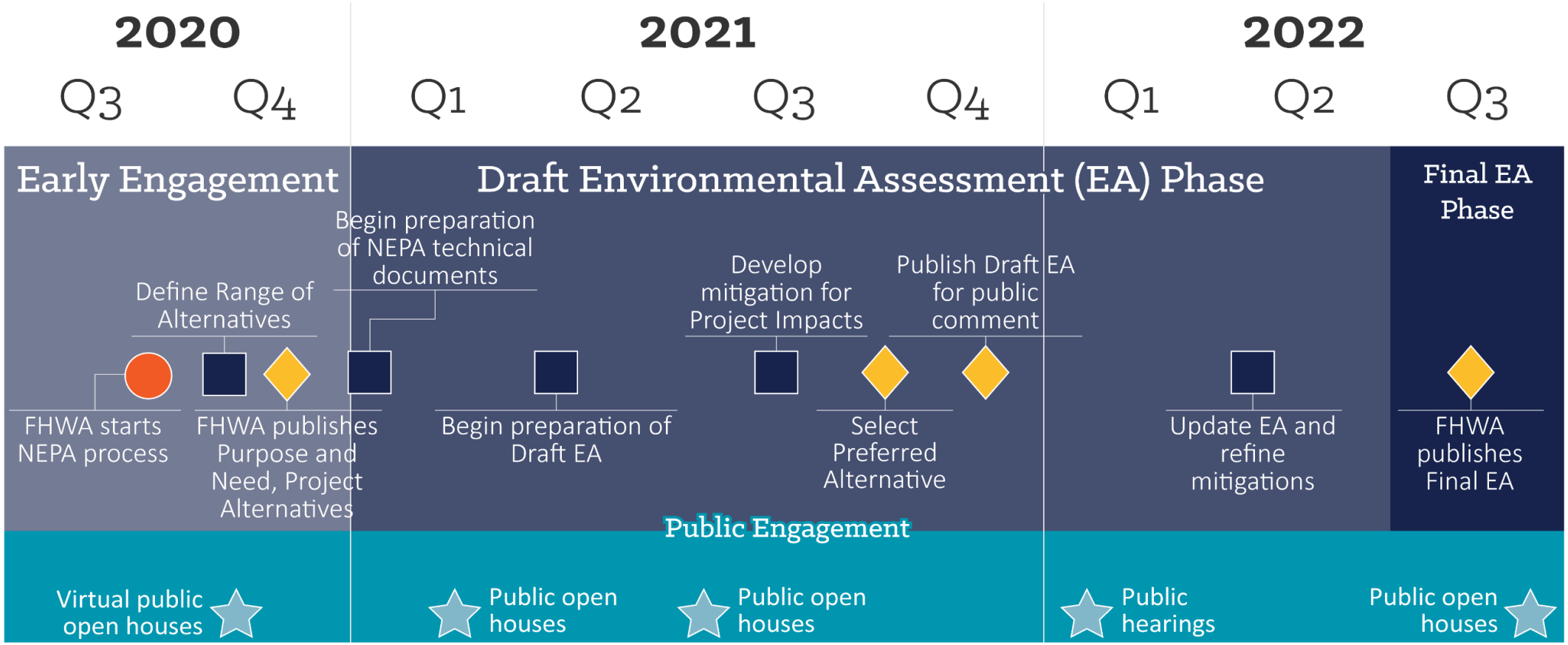


What Happens to the Input Received – Feedback Loops



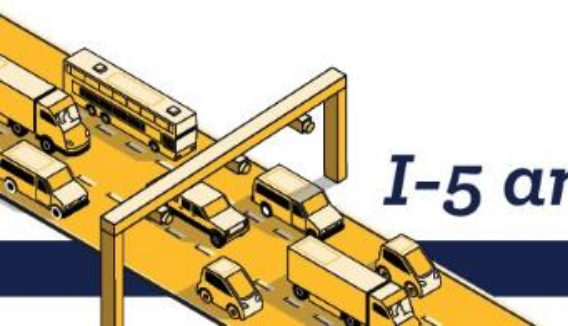


I-205 Toll Project: Project Milestones



I-205 Purpose and Need, Goals and Objectives

HEATHER WILLS, WSP



Purpose and Need Statement

What is it?

A concise statement of the transportation problem or challenge that needs to be addressed

How it's used

- Foundation for determining the range of alternatives to be considered in the environmental review
- Limits the range of alternatives - any alternative that fails to meet the project's purpose and need is dismissed from further consideration (pass/fail)

Goals and Objectives

What are they?

Desirable outcomes of the project beyond the Purpose and Need Statement

How they are used

- Comparison and evaluation of alternatives studied in the environmental analysis
- Develop qualitative and quantitative measures

Project Purpose

- Manage congestion on I-205 between Stafford Road and OR 213
- Raise revenue to fund congestion relief projects

Project Need

Regional

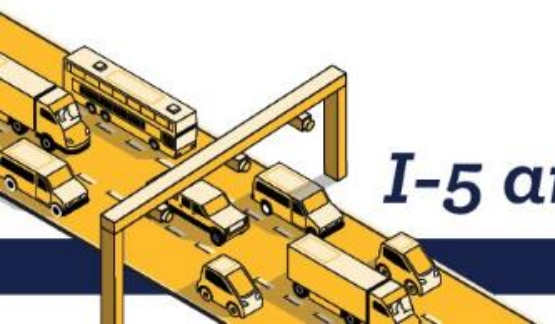
- 20.1% vehicle hours of delay increase (2015 – 2017)
- 13.4% hours of congestion increase (2015 – 2017)
- Portland metro region is expected to grow – 2.5 million residents in 2018 to over 3 million in 2040 (23%)
- Freight tonnage movements projected to double by 2040
- *Greenhouse gas (GHG) emissions from vehicles represent 39% of statewide emissions (2016)*
- *Governor's Executive Order to reduce GHG emissions 45% below 1990 levels by 2035*

I-205 Stafford Road to OR 213

- More than 6 hours of congestion daily (2017)
- Northbound direction is top reoccurring bottleneck during p.m. commute

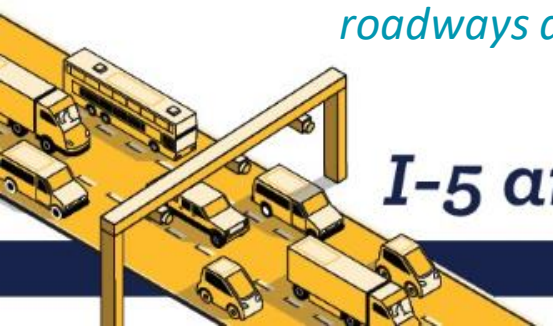
Funding needed for congestion relief projects

- Available funding not keeping pace with need
- I-205 Improvements Stafford Road to OR 213 Project, including Abernethy Bridge



Goals and Objectives

- **Provide equitable benefits for all users**
  - Populations who have been historically or currently underserved and underrepresented or negatively impacted by transportation projects
  - Engage harder to reach communities
  - *Maximize benefits, minimize burdens*
  - Equitable and reliable access to jobs, *important community places*
  - *Equitable and reliable access to health care facilities and health-promoting activities*
- **Limit additional traffic rerouting**
  - Toll system design to limit rerouting from tolling
  - Toll system design to limit additional noise
- **Support safe travel regardless of mode**
  - Reduce congestion
  - *Ensure multi-modal travel is not less safe on roadways affected by tolling*
- **Improve air quality and contributions to climate change**
  - Reduce vehicle air pollutants and GHG emissions
  - *Reduce localized air pollutants*
- **Support multi-modal transportation choices**
  - Transit, telework, ridesharing, and infrastructure
  - *Collaborate with transit providers*
- **Support regional economic growth**
  - Reliable movement of goods and people
- **Support travel demand management**
  - Efficient use of infrastructure
- **Maximize integration with future toll systems**
  - Toll system design
- **Maximize interoperability with other systems**
  - Toll system design



Next Steps in the Environmental Review Process

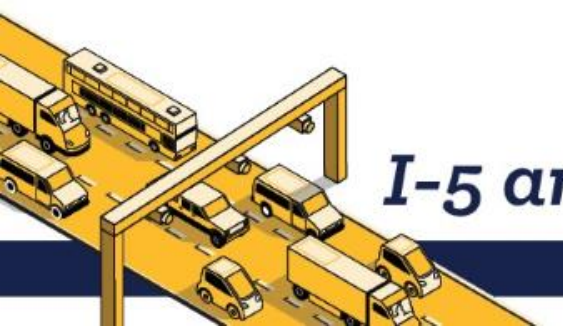
Early Public and Agency Involvement

- 45-Day comment period: Draft Purpose and Need, range of alternatives, issues to be studied
- Invite participating agencies

Prepare Draft Environmental Assessment

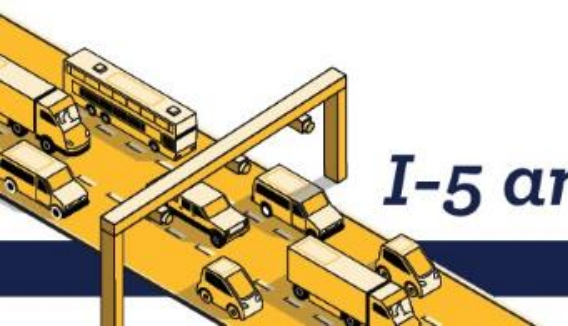
- Includes a comprehensive analysis of potential impacts/benefits
- Develop methodologies to assess these impacts
- Report on performance measures

Public Comment Period on Draft Environmental Assessment



I-205 Screening Alternatives Analysis Results

MAT DOLATA, WSP



Alternatives Analysis Framework for I-205

Feasibility Analysis: 1 alternative advanced for I-205

→ Concept E can manage traffic and generate revenue on I-205

Initial Screening (Range of Alternatives): 5 alternatives

→ Are there toll configurations that have better outcomes?

→ 2027 using Metro's regional travel demand model

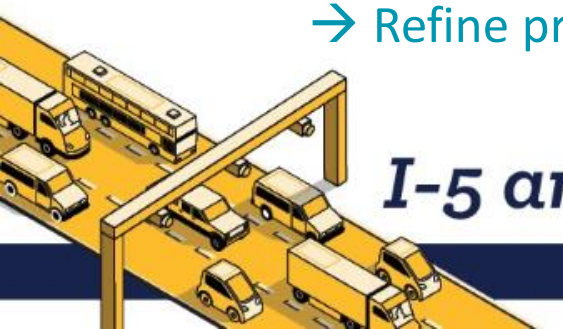
Environmental Review: 2 or 3 alternatives for detailed study

→ What are impacts of the alternatives and is mitigation needed?

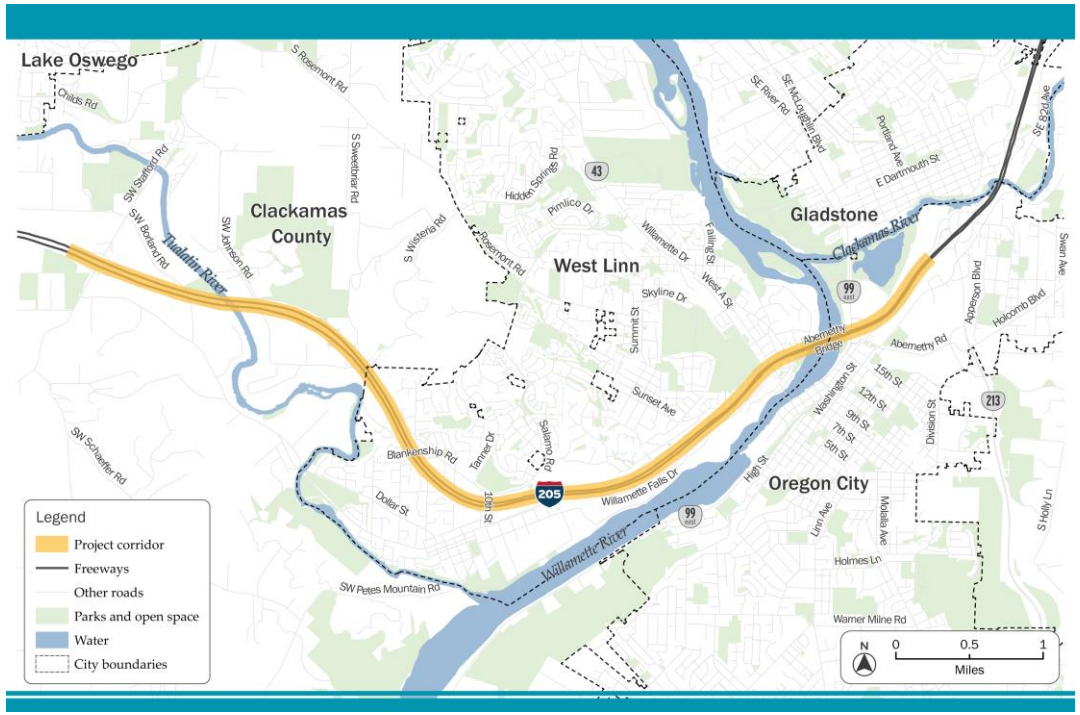
→ 2040 using more refined tools

Preferred Alternative: 1 alternative

→ Refine project and identify impacts and mitigation

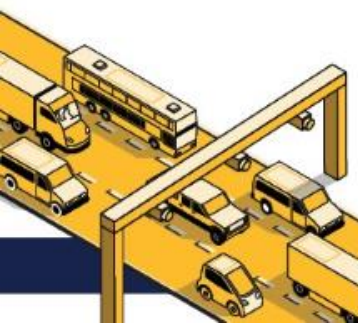


I-205 Screening Alternatives



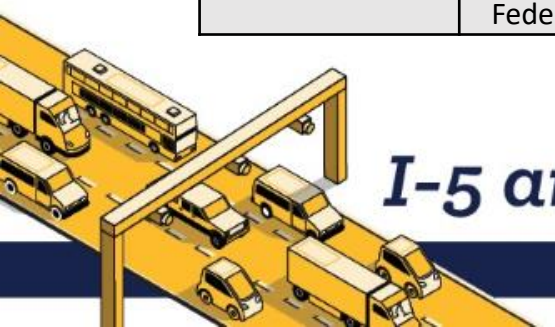
Alternatives	Considerations
1. Toll on the Abernethy Bridge (Concept E from the Feasibility Analysis)	• Simple to understand and implement • Limited ability to manage traffic demand • Concentrated rerouting through Oregon City
2. Toll Abernethy Bridge, with tolling gantries off bridge	• Refinement of Alternative 1 • Designed to limit rerouting of through trips on I-205
3. Individually Toll Multiple Bridges to be Rebuilt	• Tolls on reconstructed bridges over Tualatin River and Willamette River • Split toll amount between two locations • Through trip pays more than local access trip
4. Segment-Based Tolls – Stafford Road to OR 213	• Toll split across four segments: amount paid depends on number of segments travelled • Most flexible for traffic operations management • More complex pricing structure to communicate to users
5. Single Zone Toll – Stafford Road to OR 213	• One toll rate for all trips entering toll zone • Through trips pay the same as local access trips • More complex implementation because of the multiple toll points

Note: All of the alternatives assume that toll rates would be set to generate net toll revenues sufficient to fund the tolling infrastructure and system, seismic upgrade, and reconstruction of the Abernethy Bridge, and the third lane construction on I-205 between Stafford Road and OR 213, including associated overpass/underpass and interchange improvements.



Performance Measures for Screening Alternatives

Category	Evaluation Criteria	Performance Measures
Transportation System Demand	Change in regional system vehicle travel demand and performance	Regional vehicle miles traveled (VMT) for freeway and non-freeway travel Regional vehicle hours traveled (VHT) for freeway and non-freeway travel
I-205 Traffic	Change in vehicle throughput on I-205	Vehicle throughput on I-205 segments between Stafford Road and OR 213
Diversion Effects	Mode shift to high-occupancy vehicles (HOV), transit and active transportation, bus, pedestrians, and bike	Regional person trips by mode
	Change in volume on non-tolled roads (rerouting)	Qualitative level of rerouting
		Change in average weekday daily traffic volume on selected major roadways
Cost and Revenue	Adjusted gross toll revenue collected	Annual gross toll revenue less estimated revenue leakage in 2027
	Toll operations and maintenance costs	Cost associated with toll collections (roadway equipment maintenance, back office systems software, customer service center operations, banking fees, financial reporting, and management / administrative activities)
	Net toll revenues	Adjusted gross toll revenue collected less toll operations and maintenance costs and highway operations and maintenance costs
	Initial toll system capital and procurement costs	Capital costs associated with implementing the physical toll infrastructure and procuring toll vendor services
Implementation and Operations	Difficulty of implementation	Qualitative – Relative effort associated with implementation
	Operational Flexibility	Qualitative – Ability to react to differing traffic conditions in the Project vicinity
	Scalability to a future tolling system	Qualitative – Potential to integrate with future tolling system including other regional roadways
	Federal program eligibility	Qualitative – Eligibility under current federal tolling authority



Changes in I-205 Traffic

- 2027 model results show daily volume reductions on I-205
- **Diversion (off I-205) is worse during the off-peak hours** on a percentage basis than during peak hours.
- Diversion is less significant immediately outside of toll area, generally:
  - -10 to -20% between I-5 and Stafford
  - -5 to -10% north of 82nd Drive

Daily	Alt 1	Alt 3	Alt 4	Alt 5
Stafford Road to 10th Street	-17%	-36%	-31%	-17%
10th Street to OR 43	-23%	-24%	-36%	-11%
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P.M. Peak	Alt 1	Alt 3	Alt 4	Alt 5
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Screening analysis model scenario results for 2027

Diversion off I-205

Where does traffic divert to?

Rerouting to other roadways

- Regional
- Local – near tolled area

Transportation demand management

- Change time of day
- Change destination
- Change mode

Would demand change?

- Model results show potential for single occupancy vehicle trip reductions
- No significant difference in mode share between alternatives
- Shift is primarily from single occupancy vehicle to high-occupancy vehicle (shared ride) with 4,000 to 5,000 additional high-occupancy vehicle person trips per day
- Potential shift to transit is very small (<500 person trips)

Screening analysis model scenario results for 2027

Transportation System Demand

- All alternatives **reduce vehicle miles traveled**, with the greatest decline occurring in Alternatives 3 and 4
- All alts **reduce vehicle hours traveled**, with greatest decline in Alternatives 4 and 5
- All alts also result in a shift in vehicle demand away from **freeways to non-freeway routes**
- **Peak hours show greatest potential vehicle hours traveled** savings overall, with potential decrease on non-freeways as well as freeways
- Daily change is <1% of regional vehicle miles traveled or vehicle hours traveled

Daily VMT	Alt 1	Alt 3	Alt 4	Alt 5
Freeway	-338,000	-413,000	-463,000	-213,000
Non-Freeway	+117,000	+179,000	+185,000	+94,000
Total	**-221,000**	**-234,000**	**-278,000**	**-119,000**

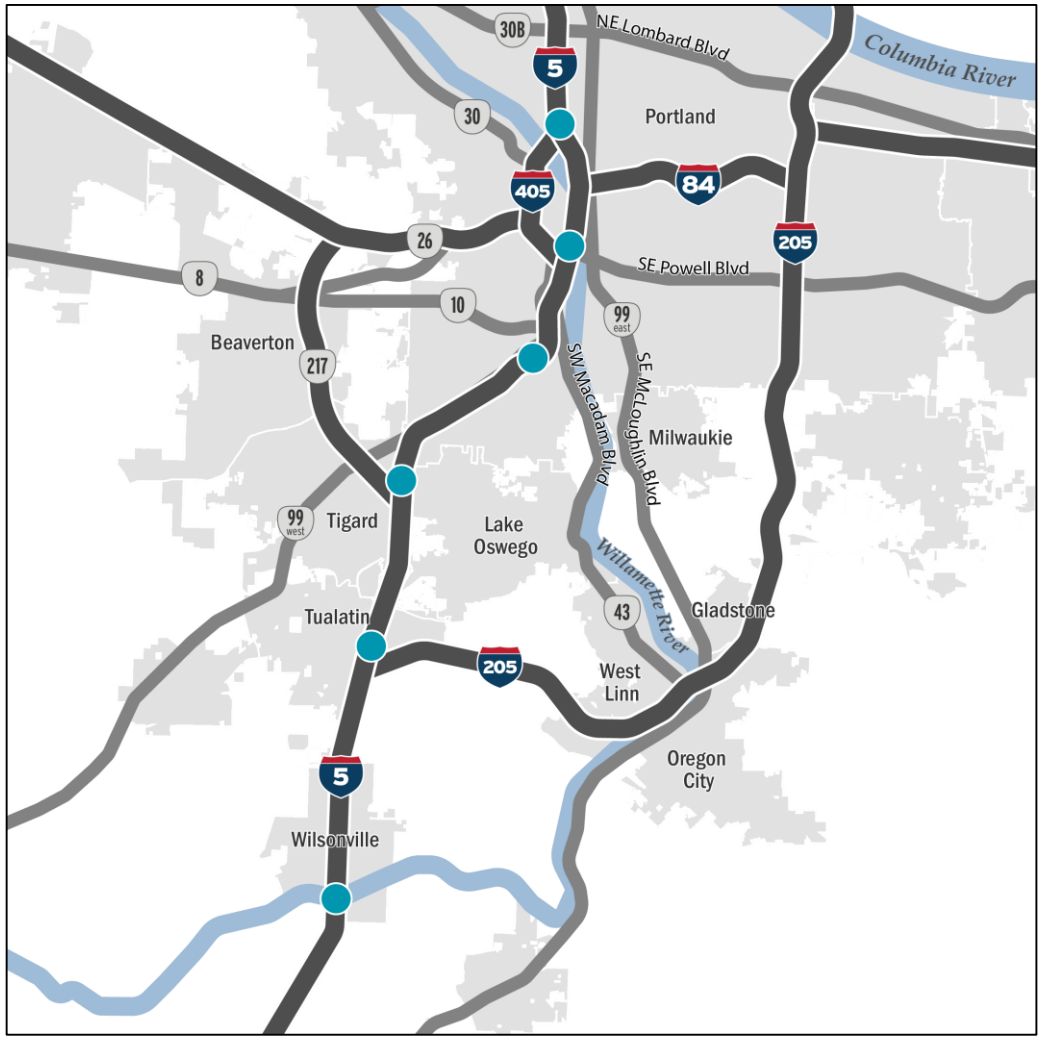
Daily VHT	Alt 1	Alt 3	Alt 4	Alt 5
Freeway	-11,400	-13,300	-14,300	-10,200
Non-Freeway	+10,300	+8,900	+9,300	+5,000
Total	**-1,100**	**-4,400**	**-5,000**	**-5,200**

Screening analysis model scenario results for 2027

Locations Assessed for Rerouting Effects on I-5

Change Relative to 2027 Baseline	Alt 1	Alt 3	Alt 4	Alt 5
I-5 north of I-405	0 to +2%	0 to +2%	0 to +2%	0 to +2%
I-5 Marquam Bridge	0 to +2%	0 to +2%	0 to +2%	0 to +2%
I-5 east of Terwilliger Blvd	+2 to +5%	+2 to +5%	+2 to +5%	0 to +2%
I-5 north of OR 217	+2 to +5%	+2 to +5%	+2 to +5%	0 to +2%
I-5 north of I-205	-0 to -2%	-2 to -5%	-2 to -5%	-2 to -5%
I-5 at Boone Bridge	-2 to -5%	-2 to -5%	-2 to -5%	0 to +2%

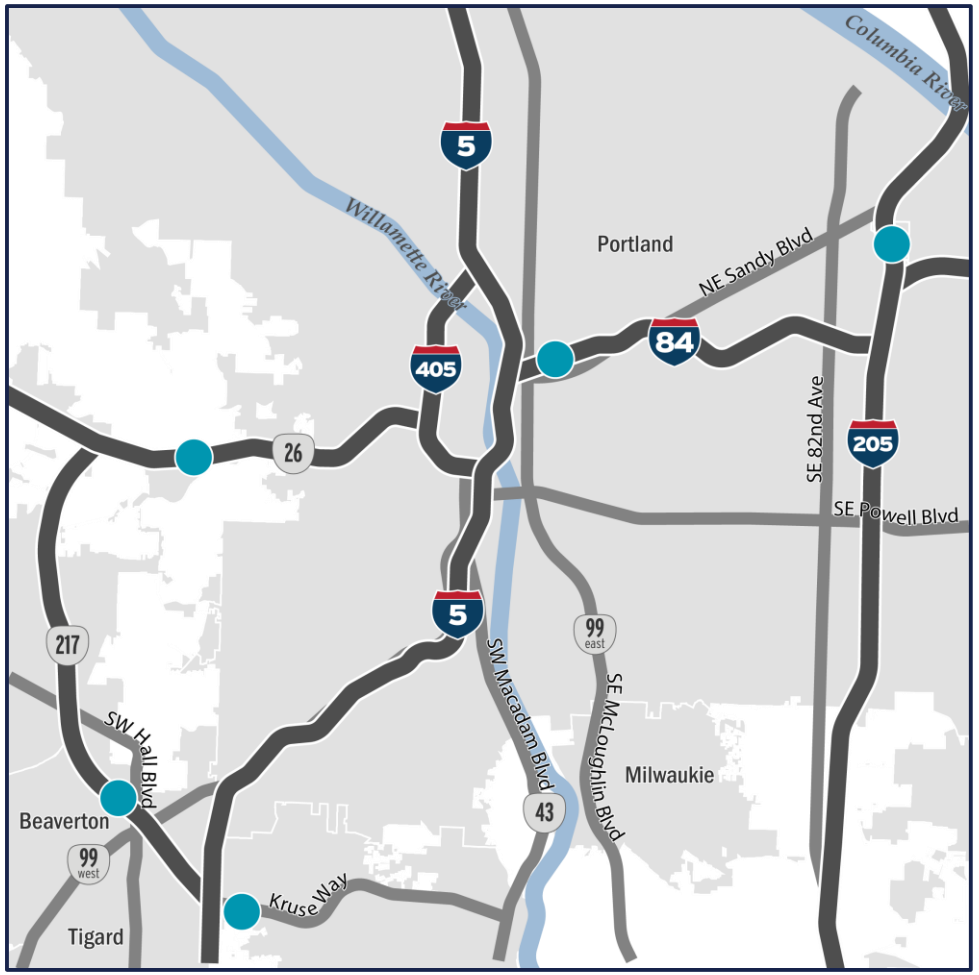
Screening analysis model scenario results for 2027



Other Regional Highways Assessed for Rerouting Effects

Change Relative to 2027 Baseline	Alt 1	Alt 3	Alt 4	Alt 5
U.S. 26 west of Skyline Blvd and Scholls Ferry Rd	0 to +2%	0 to +2%	0 to +2%	0 to +2%
OR-217 north of 99W	0 to -2%	0 to -2%	-2 to -5%	0 to -2%
OR-217 east of I-5	0 to -2%	0 to +2%	0 to +2%	0 to +2%
I-84 east of I-5	0 to +2%	0 to +2%	0 to +2%	0 to +2%
I-205 north of I-84	0 to -2%	0 to -2%	0 to -2%	0 to -2%

Screening analysis model scenario results for 2027



Alternative Routes Beyond I-205 (Daily)

Change Relative to 2027 Baseline	Alt 1	Alt 3	Alt 4	Alt 5
OR 43 south of Terwilliger Blvd	+5 to +10%	+5 to +10%	+5 to +10%	+5 to +10%
Stafford Road south of Ek Rd	-10 to -20%	-10 to -20%	-10 to -20%	-5 to -10%
Stafford Road east of SW 65th Ave	-10 to -20%	-10 to -20%	-10 to -20%	-2 to -5%
OR 99E Downtown Canby	+30 to +40%	+30 to +40%	+20 to +30%	+2 to +5%

Screening analysis model scenario results for 2027

Local Rerouting Near I-205

Change Relative to 2027 Baseline	Alt 1	Alt 3	Alt 4	Alt 5
Borland Rd east of Stafford Rd	-40 to -50%	+90 to +100%	+30 to +40%	+90 to +100%
Borland Rd east of SW 65th Ave	-10 to -20%	<+2%	-5 to -10%	+5 to +10%

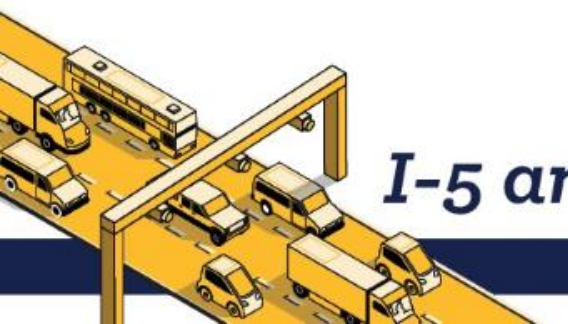
Screening analysis model scenario results for 2027

Model results do not show potential for vehicle miles traveled increase in Tualatin or Wilsonville.

Rerouting Analysis Approach (Additional Rerouting from Tolls)

Stages of Analysis	Level of Detail
Feasibility Analysis	Identify potentially impacted routes
Screening	Identify potential scale of impact at key locations during peak, off-peak, and daily
Environmental Assessment	Identify impacts to study intersections during peak hours and any needed mitigations to meet mobility standards

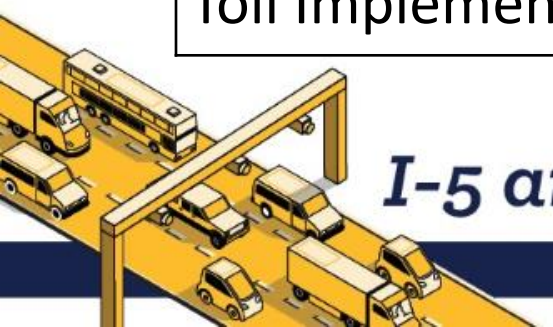
- Peak period congestion effects will be part of the environmental analysis
- Recognize and demonstrate that rerouting exists today



Cost and Revenue

Summary of Indexed Cost and Revenue Metrics and Criteria

	Alt 1	Alt 3	Alt 4	Alt 5
Unique Toll Trips	100%	152%	183%	165%
Adjusted Gross Toll Revenues	100%	114%	126%	110%
Toll Collection Operations and Maintenance Costs	100%	130%	154%	136%
Net Toll Revenue	**100%**	**109%**	**118%**	**102%**
Toll Implementation Capital Costs	100%	136%	209%	141%



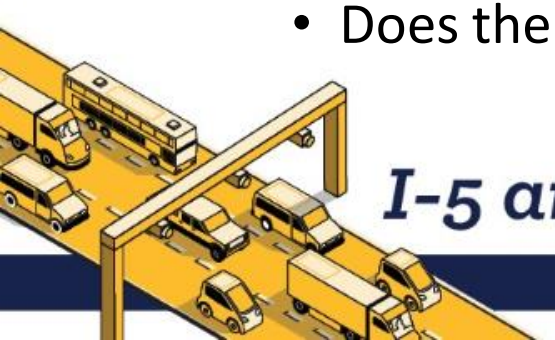
Future Systems/Operations Considerations

Current and Future Considerations

- Ability to **manage traffic operations** as demand changes
- Likelihood of creating **concentrated rerouting** "hot spots"
- **Understandable** to drivers?
- Collection costs

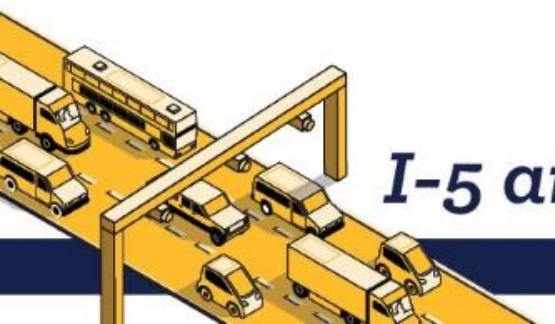
Considerations for Future Expansion

- Feasibility Analysis findings and recommendations for wider application of pricing
- Can the alternative be expanded to other segments and operate in basically the same way as the initial I-205 deployment?
- Does the structure translate to the tolling the regional freeway network?



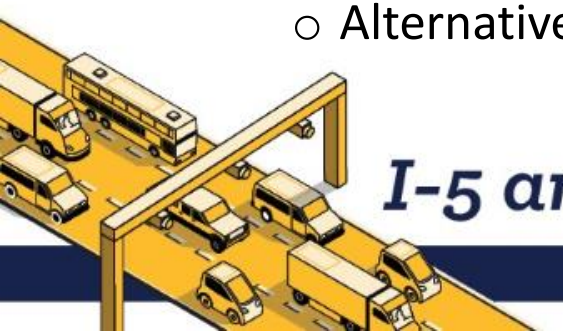
Performance Comparison Summary

Category	Alt 1	Alt 3	Alt 4	Alt 5
Transportation System Demand	**Worse** outcomes than other alternatives	**Average** or typical outcomes among alternatives	**Average** or typical outcomes among alternatives	**Better** outcomes than other alternatives
I-205 Traffic	**Average** or typical outcomes among alternatives	**Average** or typical outcomes among alternatives	**Worse** outcomes than other alternatives	**Better** outcomes than other alternatives
Diversion Effects	**Average** or typical outcomes among alternatives	**Average** or typical outcomes among alternatives	**Average** or typical outcomes among alternatives	**Average** or typical outcomes among alternatives
Cost and Revenue	**Worse** outcomes than other alternatives	**Better** outcomes than other alternatives	**Substantially Better** outcomes than other alternatives	**Average** or typical outcomes among alternatives
Implementation and Operations	**Average** or typical outcomes among alternatives	**Substantially Better** outcomes than other alternatives	**Better** outcomes than other alternatives	**Substantially Worse** outcomes than other alternatives



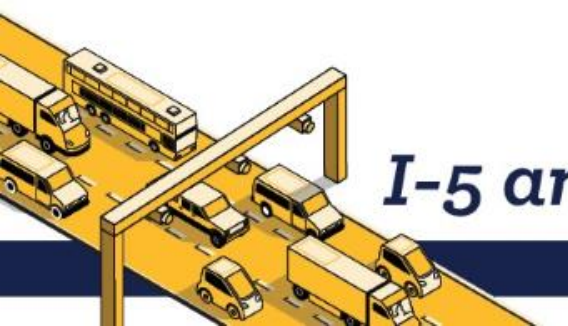
Initial Recommendations for NEPA analysis

- Advance Alternative 3 (Bridge Tolls) and Alternative 4 (Segment Tolls) to NEPA
- Do not advance Alternatives 1 or 2 (Point Tolls) or 5 (Zone Toll)
- Refine toll schedule assumptions to improve regional outcomes
- Rationale:
  - Alternative 3 is likely eligible under Section 129 federal tolling authority and generally more effective than Alternative 1 while reducing potential for concentrated impact in Oregon City
  - Alternative 4 offers greatest flexibility and potential to expand to regional system
  - “Local trips” pay less in Alternative 4, while Alternative 5 is generally cheaper for through travel
  - Alternative 5 creates concentrated local impacts near toll zone outer extents (e.g., Gladstone)
  - Alternative 4 spreads out rerouting effects (wider geography but less concentrated)



What's Next?

LUCINDA BROUSSARD, ODOT



Upcoming Activities

July

28 Equity and Mobility Advisory Committee meeting

August

3 Region 1 Area Commission on Transportation

3 Begin formal Environmental Review and Comment Period for I-205

- Online survey, online open house, webinars, discussion groups

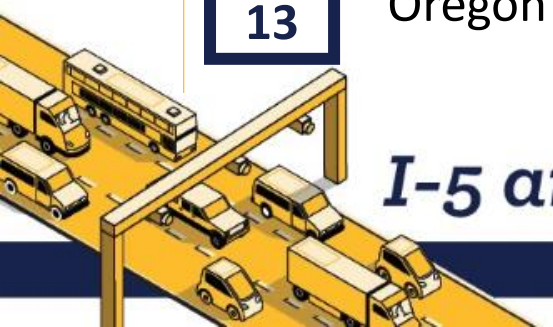
13 Oregon Transportation Commission

Summer 2020

Briefings with Boards, Councils and Committees

TBD

In-person Outreach Events

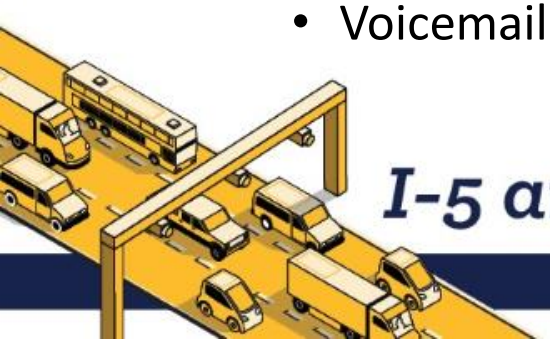


Have your say!

- **Online open house and online survey (English and Spanish):**
  - www.OregonTolling.org

- **Webinars:**
  - August 12: Noon-1pm
  - August 18: 4-5 pm
  - August 20: 6:30-7:30 pm

- **Submit comments:**
  - Email: oregontolling@odot.state.or.us
  - Voicemail: 503-837-3536



Contact Information

Lucinda Broussard, Toll Program Director (ODOT)
Lucinda.Broussard@odot.state.or.us
503.731.4980

Heather Wills, Consultant Team Project Manager (WSP)
Heather.Wills@wsp.com
503.731.4340

Mat Dolata, Alternatives Analysis Lead (WSP)
Mat.Dolata@wsp.com
503.417.936