

Agenda



Metro

600 NE Grand Ave.
Portland, OR 97232-2736

Meeting: Transportation Funding Task Force (TF2) Meeting 7
Date: Wednesday, May 29, 2019
Time: 5:30 to 8:00 p.m. (Dinner served from 5 p.m.)
Place: Metro Council Chambers | 600 NE Grand Avenue Portland, OR 97232
Purpose: Develop final recommendation to Council on corridor tiering.
Outcomes: Build agreement on a recommendation to forward Council.

- 5:30 p.m. Welcome and Introduction
- 5:40 p.m. Public Comment
- 6:10 p.m. Walk Down Memory Lane
Objective: Review the information provided to Task Force, and the major outcomes produced by Task Force thus far
- 6:30 p.m. What's Next?
Objective: Ensure the Task Force understands the next phase of work to get to a funding package.
- 6:40 p.m. Goals for Today
Objective: Identify the ways the Task Force could forward a recommendation to Council.
- 6:50 p.m. Discussion: Corridor Tiers
Objective: Discuss the corridors identified by the Task Force and identify feedback to be included in a recommendation.
- 7:50 p.m. Wrap Up and Next Steps
- 8:00 p.m. Adjourn

METRO TRANSPORTATION FUNDING TASK FORCE (TF2)

MEETING 6 SUMMARY

May 15, 2019 – 5:30-7:30 PM

Metro Council Chambers

600 NE Grand Ave.

Portland, OR 97232

ATTENDEES

Michael Alexander, *PSU | Albina Vision*

Jim Bernard, *Clackamas County Board of Commissioners Chair*

Emerald Bogue, *Port of Portland*

Cooper Brown, *Oregon Transportation Commission*

Mayor Steve Callaway, *City of Hillsboro*

Leslie Carlson, *Street Trust Board*

Meredith Connolly, *Climate Solutions*

Mayor Denny Doyle, *City of Beaverton*

Karylenn Echols, *City of Gresham*

Commissioner Chloe Eudaly, *City of Portland*

Elaine Friesen-Strang, *AARP*

Mayor Mark Gamba, *City of Milwaukie*

Stephen Gomez, *Project PDX | BBPDX*

Sheila Greenlaw-Fink, *Community Housing Fund*

Kayse Jama, *Unite Oregon*

Nolan Lienhart, *ZGF Architects*

Amanda Manjarrez, *Latino Network*

Nate McCoy, *NAMC-Oregon*

Councilor Eddy Morales, *City of Gresham*

Marcus Mundy, *Coalition of Communities of Color*

Dave Nielsen, *Home Builders Association*

Vivian Satterfield, *VerdeNW*

Linda Simmons, *TriMet Board*

Nate Stokes, *Union of Operation Engineers*

Co-Chair Commissioner Pam Treece, *Washington County*

Co-Chair Commissioner Jessica Vega Pederson, *Multnomah County*

Kathryn Williams, *NW Natural*

Dave Robertson, *PGE | Portland Business Association Board*

NOT IN ATTENDANCE

Marie Dodds, *AAA*
Debra Dunn, *Synergy Resources Group*
Senator Lew Frederick, *State of Oregon*
Mary Ellen Glynn, *Columbia Sportswear*
Mayor Tim Knapp, *City of Wilsonville*
Representative Susan McLain, *State of Oregon*
Chi Nguyen, *APANO*

STAFF

Craig Beebe, *Metro*
Margi Bradway, *Metro*
Karynn Fish, *Metro*
Tyler Frisbee, *Metro*
Andy Shaw, *Metro*
Allison Brown, *JLA Public Involvement*
Hannah Mills, *JLA Public Involvement*

Note: At the first meeting, Task Force chairs suggested referring to the members by their first names due to the nature of this as a working group. The Task Force members agreed and therefore members will be identified by first names for the purposes of this summary document.

WELCOME AND AGENDA

Co-chairs Commissioner Pam Treece, Washington County, and Commissioner Jessica Vega Pederson, Multnomah County, welcomed and thanked the group for their work thus far and explained that they would be working on tiering the corridors at this and the next meeting.

Allison Brown, facilitator with JLA Public Involvement, reviewed the agenda. The agenda was as follows:

1. Public Comment
2. Project Readiness Presentation
3. Corridor Tiering
4. Next Steps and Close

PUBLIC COMMENT

A total of 17 people provided written and/or verbal public comment.

Terry Dublinski-Milton, SE Uplift Neighborhood Coalition, submitted the following summarized comment which was also provided in written form. The comment also included a map of the Reedway Pedestrian/Bicycle Overcrossing location. The full comment has been posted online to this meeting's calendar page.

SE Uplift unanimously approved that the Reedway Overpass be included in the priority timeline for construction in Metro's Regional Transportation Plan. This project should also be included in the 2020 Metro bond. The Reedway Overpass is the highest transportation priority in all five proximate neighborhoods. This overpass would fill a 2.1 mile gap between SE Bybee and the LaFayette overpass and would serve a whole series of apartment complexes that currently can't get across McLoughlin and the railroad tracks.

Kem Marks, Rosewood Initiative and the Getting There Together Coalition, provided the following summarized comment which included a TriMet map illustrating where east Portlanders work, which is included in the Appendix.

This bond offers the opportunity to invest in the communities with the most need. Most of the members of these communities are impacted by a lack of safe transportation options, specifically in east Multnomah County around East 82nd Ave. Almost all these communities are equity areas with high exposure to toxins. There is only one service line on 82nd, and the TriMet map I provided shows where people actually work – most work in the Columbia corridor. Corridors 122nd, 162nd, and 181st should be funded for connection.

Kassandra Griffin, Community Cycling Center and the Getting There Together Coalition, provided the following summarized comment.

The priorities need to reduce impacts to climate change and to increase equity. People need to be able to travel without cars safely, and should be able to use the transportation and transit systems safely. This bond is an opportunity to make the future we need, so please be bold and be brave. Make sure to pick corridors that advance those priorities. Highway 212, I-5 through downtown, and Hwy 217 should not be prioritized.

Sabrina Gogol, Portland Bus Lane Project, submitted the following summarized comment.

The Portland Bus Lane Project asks this Task Force to prioritize and invest in transit to improve the bus network and prevent climate change. This is an opportunity to increase transit ridership. Investments in public transit will increase reliability and equity. We urge you to consider the most congested corridors and focus on value pricing for those corridors.

Alicia Cohen, The Climate Emergency, provided the following summarized comment which was also submitted in written form which is included in the Appendix.

Currently, 40% of carbon emissions are due to transportation in Portland. As a mom, I am fearful my kids won't be able to have kids of their own, but despite this, there are solutions that can produce a better world. Southeast Portland is so congested and it feels unsafe to bike or walk with my kids. Create a more bike-friendly, pedestrian-friendly transportation system that creates a better future.

Suzanna Kassouf, Sunrise Movement, provided the following summarized comment.

The latest estimate is that we have 10 years before our climate fate is sealed, and transportation justice is at the heart of addressing this issue, as well as supporting low income communities and people of color who bear the largest impact. These communities are being pushed further from the urban core, and 40% of carbon emissions come from transportation. Making carbon intensive investments would be a mistake. We have an opportunity to fund a green new deal for Portland. Young people will be the ones that feel the impacts. Investing in fossil fuels would be devastating. Be brave, be bold. Please do the right thing, we will be watching.

Victoria Fernandez, Sunrise Movement, provided the following summarized comment.

As a 17 year old, climate change will impact me, as will people not caring. Our leaders need to take bold action. I should be focusing on the fact that I'm graduating, and I'm begging you to make the right choice. There are obvious solutions and it takes critical courage. I will be old enough to vote in 2020. Every dollar not spent on alternative modes of transportation is a mistake.

Kari Schlosshauer, Safe Routes Partnership and Getting There Together Coalition, provided the following summarized comment. A packet from the Getting There Together Coalition was also provided to the Task Force and is included in the Appendix.

As you continue to prioritize corridors, communities of color and vulnerable users need to be considered. We urge you to not make any more investments in approaches that support people driving. Corridors need to be focused around equity and transit. Support people that are most in need of safe transportation options.

John Carter provided the following summarized comment.

Congestion on I-5 and US-26 will not be solved by widening. You need to consider how to make communities resilient and have people live where they work. Any dollar spent on fossil fuel-based infrastructure is a waste. Cars will never stop asking for more space. Focus on transit solutions that can be implemented in the short-term. Invest in carpooling and ridesharing that is run by the region. Prioritize bus rapid transit over commuter rail.

Bradley Bondy provided the following summarized comment.

As a Clackamas County resident and bike and transit user I witness how the system fails us. The luxury of not having to walk significant distances to transit is not something that is afforded to everyone. I support the prioritization of McLoughlin Blvd and 82nd Ave, but Highway 212 would only enable more sprawl. Highway 212 should be dropped from consideration. Set a ground rule that any corridor that does not reduce VMT be rejected.

Xavier Stickler provided the following summarized comment.

It's important that transportation be developed in the right way to support improved transit and access to housing and jobs. The periphery of the region suffers the most issues related to traffic. It is essential that we listen to the facts. Extend the WES, connect to the SW suburbs.

Ramtim Rahmani provided the following summarized comment.

On my personal commute to work there are unsafe biking conditions. I would like options that make me feel safe as a rider. People want safe streets, but may not know about urban planning enough to answer open-ended questions about it. I will not support road and freeway expansion.

Ben Pollack, OPAL and Bus Riders Unite, provided the following summarized comment.

Use this opportunity to focus on community-driven investments. Ridership is down, and the region is in need of increased ridership. A 10% fare increase leads to a decrease in ridership. Public transportation should be free at the point of use. It is time to make smart decisions – enhanced transit corridors, fareless youth passes, and removing the threat of police for people of color.

Bob Sallinger, The Audubon Society, provided the following summarized comment.

This is an opportunity to radically transform the transportation system. The bond is doomed if it does not move us towards a sustainable transportation system. There isn't representation for natural resources on this Task Force, and 70% of the projects in the RTP impact high value natural resource areas, 16% of which are in historically marginalized communities. Consider natural resources as this develops.

Mitch Taylor provided the following summarized comment which was also provided in written form which is available in the Appendix.

As a resident of Forest Grove, Pacific Highway, Tualatin Valley Highway, and the Council Creek Trail would help reduce congestion, improve mobility, and increase jobs and security. I ride 25 miles from Forest Grove to Hillsdale on a bike, and there is not a good bike lane available. Imagine if people could take their bikes between these places safely. Equity is a big deal, and the lowest income people in these areas need to get where they need to go.

Ron Swaren provided the following comment.

There is a need for a western route to take pressure off I-5.

Nora Lehmann, Mothers Out Front, submitted the following summarized comment via email which is included in the Appendix.

The top principle of this effort should be to understand that we are in a state of climate emergency. I demand that you take the boldest, bravest possible agenda to move us faster to a net zero greenhouse gas emissions transportation system. We have been told that we have until

2030 to cut our greenhouse gas emissions in half. We are currently failing at our goals. Reimagining and de-carbonizing our transportation network must be front and center.

The co-chairs thanked the members of the public that provided testimony and encouraged any others to submit written comments to getmoving@oregonmetro.gov.

PROJECT READINESS PRESENTATION

Margi Bradway, Metro, introduced Brian Ray and Camilla Dartnell of Kittelson for a presentation on how corridors were scored for project readiness. Below is a summary of their presentation.

The team worked with local agencies to determine how close projects on these corridors are from implementation. The high-level scoring for readiness and risk factors included:

- *Planning work status*
- *Quality of scoping/design level of detail*
- *Cost estimate sufficiency*
- *Environmental review and permitting*
- *Complexity of the corridor*

The process for determining readiness included:

1. *Checking the 2018 RTP project list*
2. *Speaking to local planning and project delivery agencies*
3. *Assessing the available plans and designs*

To best illustrate this process the team chose three corridor scoring examples including 82nd Ave, Tualatin Valley Highway, and McLoughlin Blvd.

The group was walked through the readiness assessment for the three corridors included in the presentation, which can be viewed in more detail online in the packet for this meeting. Camilla explained that when the Task Force receives the scores for each corridor they will be rolled up in the bubbled scores. Readiness and opportunity assessment was emailed to the Task Force on Friday, May 17, and posted to Metro's website for Meeting 6.

CORRIDOR TIERING

Jessica expressed the hope that with the information on project readiness the Task Force sees that there is an opportunity and need for investment. She explained that now the group will begin thinking about the tiering proposal for Metro Council, and introduced Andy Shaw, Metro, to give a summary on the feedback from the last meeting and review the corridor tiers. Below is a summary of Andy's presentation.

The initial list of corridors has been narrowed down to 26 corridors of greatest interest. The three tiers are defined as:

- *Tier 1: High potential to advance outcomes and high project readiness*
- *Tier 2: Less potential and/or readiness – could be further developed and included in the package, or specific improvements could be funded through programs*
- *Tier 3: Least potential and/or readiness – specific improvements could be funded through programs*

The goal is to get to a list of between eight and ten corridors. Metro is currently working to identify people to serve on Local Investment Teams. There will be one team per county and eight to ten community members per team. Each team will be supported by jurisdiction staff and run from June to September 2019. The goal of these teams will be to use the values and evaluate how potential investments in the corridors address them.

Metro Council has asked the Task Force to consider other types of investments outside the corridors, such as Safe Routes to Schools. These investments could be opportunities to invest in lower-tier corridors and other places around the region.

At the last meeting we heard the importance of prioritizing corridors that improve the regional system, invest in underserved areas, take action on climate change, support better transit, and have equitable, community-focused options.

Metro staff presented an assessment of potential Tier 1 corridors based on Task Force discussions and evaluations, project readiness, and equity and transit. These corridors include:

- *NE/SE 82nd Ave.*
- *Tualatin Valley Highway*
- *NE/SE 181st Ave. and Clackamas-to-Columbia corridor*
- *SW 185th Ave.*
- *McLoughlin Blvd*
- *Hwy 212*
- *Burnside*
- *Downtown Portland*
- *I-5 downtown*
- *SW Corridor*

Allison opened the floor for discussion on the potential Tier 1 corridors. Task Force members' comments are summarized below:

- Every member of the public that has provided testimony has spoken to the issue of climate change, and how this investment can directly impact how we address that. This could very well be the only chance we get to make an investment of this size before our 10 years of climate reversal is up. Project readiness should be a lower priority, below climate change, ridership, and safety, with climate change as the number one consideration. We need better data on climate impact reduction.

- Another member seconded this, adding that it is not a priority to decrease congestion for cars, rather to support alternative modes of transportation.
- It would be helpful to have more information on the projects on these corridors, as well as on the enhanced corridors. Anything that expands road capacity will not be supported. We need to prioritize options, climate, and people of color.
- This needs to show forward thinking, not just that we're doing what we've always done. It's surprising that we do not have climate metrics. This should be a course correction.
 - Andy responded: *The Metro Council asked us to pursue a corridor concept. Once we identify the key projects we can get better metrics on climate.*
 - Margi added: *We are aware that the strategies to reduce climate impacts are related to VMT. Once we identify projects we can assess the climate impact, but a lot of these corridors have not had projects planned, or are not project ready. Without the design in hand, we can't guarantee the impacts to climate.*
- It would be helpful to have a reminder of the value statement in the room at meetings and a way to connect the values with the corridors.
- Why is Hwy 212 showing up on the list? How does it address safety, congestion, etc.?
 - Andy responded: *Metro Council directed us to invest in the highway system to make the facilities work and promote connectivity to I-5. There is a description in your packet about how this was tiered.*
 - A member added: *Happy Valley is one of the fastest growing communities in the region, and one of the things mentioned was the goal of balancing jobs and housing. Hwy 212 offers that opportunity for Happy Valley. Happy Valley has no affordable housing and this investment could promote that effort.*
- If we make corridor choices and find they aren't ideal, do we get to choose again?
 - Andy responded: *If we come back to the Task Force in the fall and you don't support the project list, we can reset.*
- Transit ridership and equity didn't make it onto this list – maybe in project readiness, but we need to be able to describe how the benefits will be realized. Were some of the corridors kicked off the list because of project readiness?
 - Andy responded: *Some corridors were removed due to lack of readiness. It is generally true that voters respond better to projects that have ribbon cutting ability. Metro Council has asked us to blend project readiness and the values so we're trying to balance being more aggressive toward meeting goals and also having some immediate benefits.*
- In order to increase transit ridership there needs to be affordable housing along the transit lines. Transit ridership potential needs to be a part of the criteria.
- Sunset Hwy was short listed, and should be on the second tier for transit ridership. There are currently only 150 single seat transit rides in Sunset. Putting express buses on the shoulders would help increase ridership, because we are currently losing riders due to the time it takes to use transit.
- SE 122nd is an unsafe corridor and has a high opportunity for increasing transit ridership. SE 122nd should be on the list.

- A member seconded this adding that SE 122nd is a high priority for Portland because it is a high crash corridor and serves an equity area.
- SE 82nd Ave and Burnside are good priorities.
- Metro needs to consider the reiterative process for tiering. Until we have the information on greenhouse gas emissions, it will be hard to feel confident in making tier decisions in a meaningful way.
- How does Metro staff feel about what was said today about the data and timeline?
 - Andy responded: *We understand that if we had the data it would make the decision process easier. We have ways to provide more information on transit ridership and access, and they have already informed some of the information we've provided to you.*

NEXT STEPS AND CLOSE

Pam expressed her belief that the Task Force is ready to move forward, especially considering that there will be opportunities to readjust as need be. A member noted the importance of engaging with community partners to help the Task Force make decisions. Jessica highlighted the importance of putting forth a package that represents the Task Force and its values.

Andy noted that there is a survey asking for the public's experience on the corridors that will be used to guide the local investment teams, and encouraged the Task Force to share it with their constituents. It can be found at <http://bit.ly/getmoving2020> and will be open until June 30, 2019.

Pam thanked the group for their participation, noting that the next meeting would be taking place on May 29, and closed the meeting.



Memo

Date: Friday, May 17, 2019
To: Transportation Funding Task Force Members
From: Anthony Buczek, Risk Assessment Project Manager, Planning and Development
Margi Bradway, Deputy Director, Planning and Development
Subject: Corridor Readiness and Opportunity Assessment

Over the course of the Task Force meetings, members have often asked Metro staff, “If we prioritize Corridor Y, how can we be confident there are projects to improve that corridor and meet our values?”

To help answer that question, Metro staff evaluated each of the Task Force’s key corridors of interest for readiness and project opportunities. Kittelson and Associates provided key engineering analysis and review for this assessment.

This assessment also provides the Metro Council with an early understanding of the potential risks of including a corridor in a regional investment measure, given that they must be confident that any commitments made to voters can be delivered.

Readiness

Readiness measures whether projects have been identified in a corridor, and whether these projects have well-understood costs and risks.

To assess readiness on potential corridors, Metro identified potential projects using existing project plans, concepts or designs. For a starting place, Metro reviewed the following for potential projects:

- 2018 Regional Transportation Plan Project List (Constrained and Strategic)
- 2018 Regional Transportation Plan Corridor Plans in Chapter 8
- Other Regional Transportation Plan Strategies that call for an investment on a corridor (e.g. 2018 Transit Strategy, 2018 Safety Strategy)
- Local Transportation System Plans and other local plans
- Regional Programs (e.g., Safe Routes to School, Oregon Department of Transportation’s All Roads Transportation Safety Program)

For readiness, existing identified projects on each corridor were reviewed by an engineering team using standard principles of planning, design and construction. This early assessment of readiness was based entirely on existing plans. The readiness assessment is intended to give the Task Force and the Metro Council an idea of how much planning and design is needed for a corridor. The level of readiness in a corridor does not by itself mean a corridor should be included or excluded from consideration by the Task Force and the Metro Council.

Metro evaluated projects based on planning, design and construction. Projects that are low-cost and low-complexity require less planning and design. This assessment takes that into account. Similarly, when it comes to construction, Metro took into account the project complexity for permitting, bidding, procurement and final construction.

Below are the factors used to assess project readiness in each corridor. Corridors were given one point for each:

- Planning work is sufficient and planning has been complete for all or most of the corridor (+1)
- Significant project design has been completed on the corridor. This may be conceptual design but must be recorded somewhere and must show specific locations for improvements. (+1)
- Cost estimates are provided, seem appropriate, and are trackable. More significant projects with higher risk need to have greater certainty for their cost estimates to earn this point. (+1)
- Permitting (likely environmental) is either not needed, has been performed and will not need to be revisited, or is currently ongoing with expected near-term completion. Projects that impact rivers/streams and widening projects are likely to require some permitting. (+1)
- Potential projects do not impact rail, bridge, or other major facilities, and does not require right-of-way acquisition (+1)

Readiness is related to risk. In general, the earlier the project is in planning or design or the less is known about a project, the higher the risk and potentially the higher the contingency needed.

Project Opportunities

Metro's project opportunities assessment looked across whole corridors for opportunities to connect projects or add to existing projects in order to meet the Task Force and Metro Council values.

The Metro Council directed the Task Force and staff to consider regional travel corridors that reach across multiple jurisdictions. In order to work across jurisdictional boundaries, Metro looked for opportunities to link together projects in corridors, as well as areas where projects might not be "ready" but there is both a clear need and a relatively straightforward set of possible solutions.

Some projects are based on conceptual planning-level recommendations and have not been formally scoped or defined. These will require additional planning/pre-scoping level work before their benefits can be adequately assessed and measured against the outcomes set out by the Task Force and the Metro Council. These projects may not score well on readiness, but may still provide a significant opportunity.

There can also be gaps between identified projects on a single corridor. Metro intends to work with jurisdictional partners to look for ways to fill these gaps, or amend identified projects to extend throughout the corridor, if possible. The project opportunities assessment takes that into account, recognizing that some parts of a corridor made need more planning while other portions

may be ready to go to construction. This is in alignment with Metro's design guidelines, which use performance-based design.

The project opportunities assessment was based on the following factors. Corridors meeting these conditions were awarded one point for each.

- **Low hanging fruit:** Potential projects are expected to be relatively low-cost and could be constructed in one to five years (or can be easily phased to have an impactful early completion stage). Examples: ability to add pedestrian crossings, ability to restripe to add or improve bike lanes , etc. (+1)
- **Connecting corridors:** Potential projects could tie corridors together by providing enhanced transit (near-term Enhanced Transit Corridor/ETC projects) or significant multimodal improvements (i.e. add bicycle or walking facilities where there are none). (+1)

Corridor Scoring including Readiness and Project Opportunities

Corridor Name	#	Safety	Congestion	Equity	Options	Job Access	Affordability	Readiness	Project Opportunities
TV Highway	2-4-13	●	●	●	●	○	●	●	●
82nd Ave	53-56	●	●	●	●	●	●	●	●
Burnside	22-44-54	●	●	●	●	●	●	●	●
Powell Blvd	52-73	●	●	●	●	○	●	●	●
122nd Avenue	64-65	●	●	●	●	○	●	●	●
SE McLoughlin Blvd	38	○	●	●	●	○	●	●	●
NE/SE 181st/C2C	71-72	●	●	●	●	●	●	●	●
SW 185th Avenue	7	●	●	●	●	○	●	●	●
Highway 212	68	●	○	●	●	○	●	●	●
Downtown Portland	29	●	●	●	●	●	●	●	●
NE/SE MLK Blvd/Grand Ave	34-35	●	●	●	●	●	●	●	●
Interstate 5, downtown Portland	26	●	●	●	●	●	●	●	●
Beaverton-Hillsdale Hwy	17	●	●	○	●	○	●	○	●
Columbia Blvd	32	●	○	●	●	○	●	●	○
SE Foster Road	50-66	●	●	●	●	○	●	○	●
SE Division St.	67	●	●	●	●	○	●	●	●
162nd Avenue	69	●	○	●	●	○	●	●	●
Highway 99W	9	●	○	○	●	○	●	●	●
SW Tualatin-Sherwood Road	10	●	●	●	●	●	●	●	●
OR-217	19	○	●	●	●	●	●	●	○
Hwy 43/Macadam	31	●	○	○	●	○	○	●	●
NE Sandy	46-70	●	●	●	●	●	●	●	●
OG-LO Bridge	36	n/a	○	●	●	○	●	●	●
242nd/Hogan	75	●	●	●	●	○	●	●	●
Interstate 205	58-63	○	●	●	●	○	●	●	●
NE Airport Way	62	○	○	○	●	●	●	○	○
NE/SE 11th/12th	37	●	○	●	●	●	●	●	●
N Mississippi/Albina	27	○	○	●	●	○	●	●	○
NE Halsey Street	74	●	●	●	●	○	●	●	●



Metro

CLEAN AIR ANALYSIS | FRAMEWORK & FINDINGS

May 29, 2019 | Regional Transportation Funding Task Force

Margi Bradway, Metro Deputy Planning Director

Council direction: Outcomes

Protects Clean Air

- Overall decrease in vehicle miles traveled
- Overall decrease in greenhouse gas emissions that meets the regional Climate Smart Strategy targets to the extent achievable by the scale of the overall investment
- Overall increase in transit reliability and speed
- Overall reduction in diesel particulate matter in the air



Climate Smart Transportation

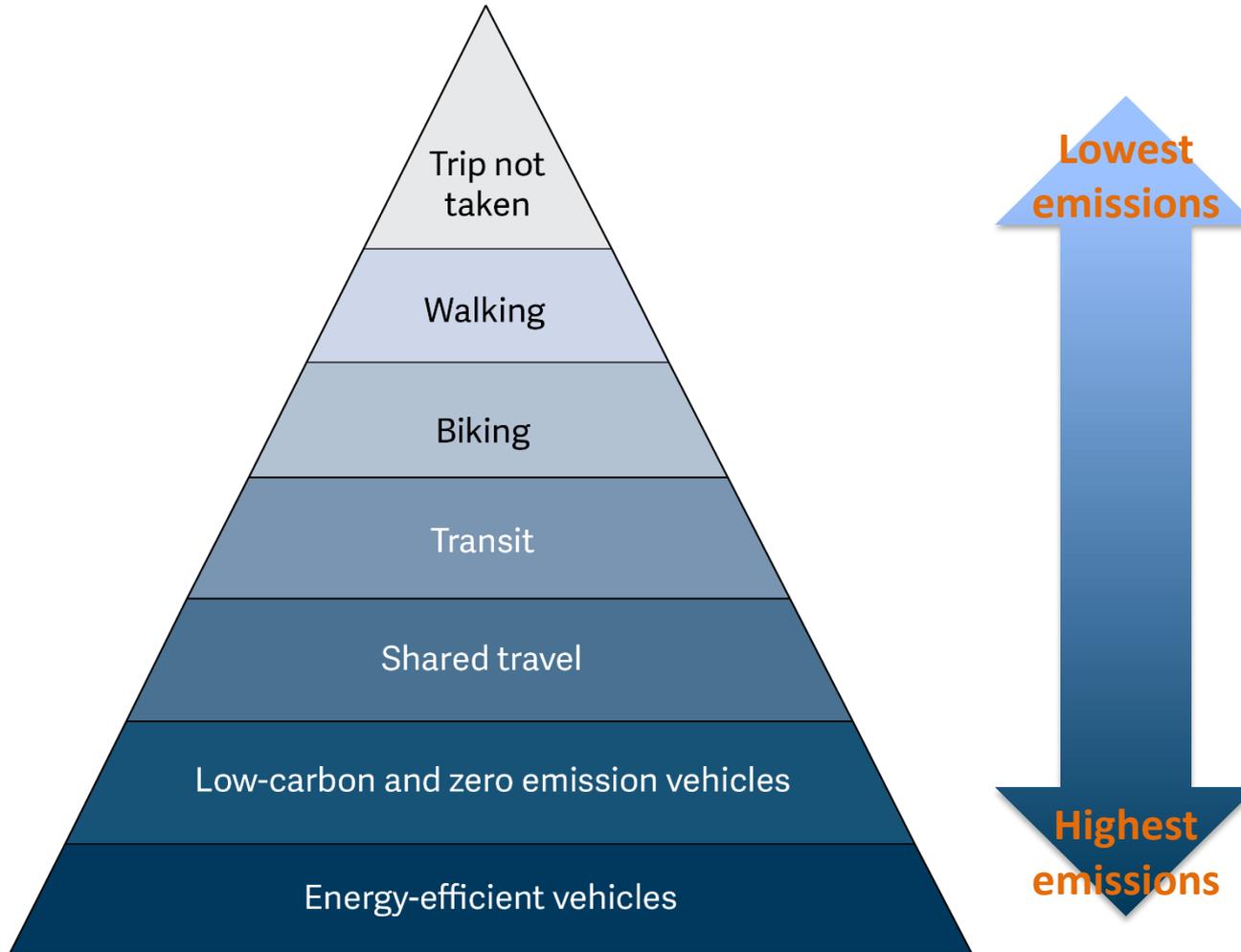
Increase low carbon travel options and travel efficiency

- Low carbon and zero emissions vehicles
- Expand transit service (coverage and frequency)
- Complete biking and walking networks
- Provide incentives for walking, biking, transit and shared travel
- Use “smart” transportation technology



Climate Smart Transportation

Carbon and air pollution emissions by mode



Strategies with the **largest** carbon reduction potential

Climate Smart Strategy | Largest potential carbon reduction impact*



Vehicles and Fuels (Investment)

- Newer, more fuel efficient vehicles
- Low- and zero-emission vehicles
- Reduced carbon intensity of fuels



Pricing (Policy)

- Carbon pricing
- Gas taxes
- Per-mile road usage charges (e.g., OReGO)
- Parking management and pricing
- Pay-as-you-drive private vehicle insurance



Community Design (Policy with Investment)

- Walkable communities and job centers facilitated by compact land use in combination with walking, biking and transit connections



Transit (Investment)

- Expanded transit coverage
- Expanded frequency of service
- Improvements in right-of-way to increase speed and reliability of buses and MAX

Strategies with **moderate** carbon reduction potential

Climate Smart Strategy | Moderate potential carbon reduction impact*



Active Transportation (Investment)

- New biking and walking connections to schools, jobs, downtowns and other community places



Travel Information and Incentives (Investment)

- Commuter travel options programs
- Household individualized marketing programs
- Car-sharing and eco-driving techniques



System Management and Operations (Investment)

- Variable message signs and speed limits
- Signal timing and ramp metering
- Transit signal priority, bus-only lanes, bus pull-outs
- Incident response detection and clearance

Source: *Understanding Our Land Use and Transportation Choices Phase 1 Findings* (January 2012), Metro.

Strategies with **low** carbon reduction potential

Climate Smart Strategy | Low potential carbon reduction impact*



Street and Highway Capacity (Investment)

- New lane miles (e.g, general purpose lanes, auxiliary lanes)
-

Source: *Understanding Our Land Use and Transportation Choices Phase 1 Findings* (January 2012), Metro.

Step 1: Determine scope of the analysis

Strategies best evaluated at a regional scale

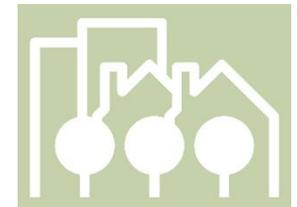
(and not included in analysis)

Vehicles and fuels

Pricing

Land use/community design

Travel information and incentives/demand management

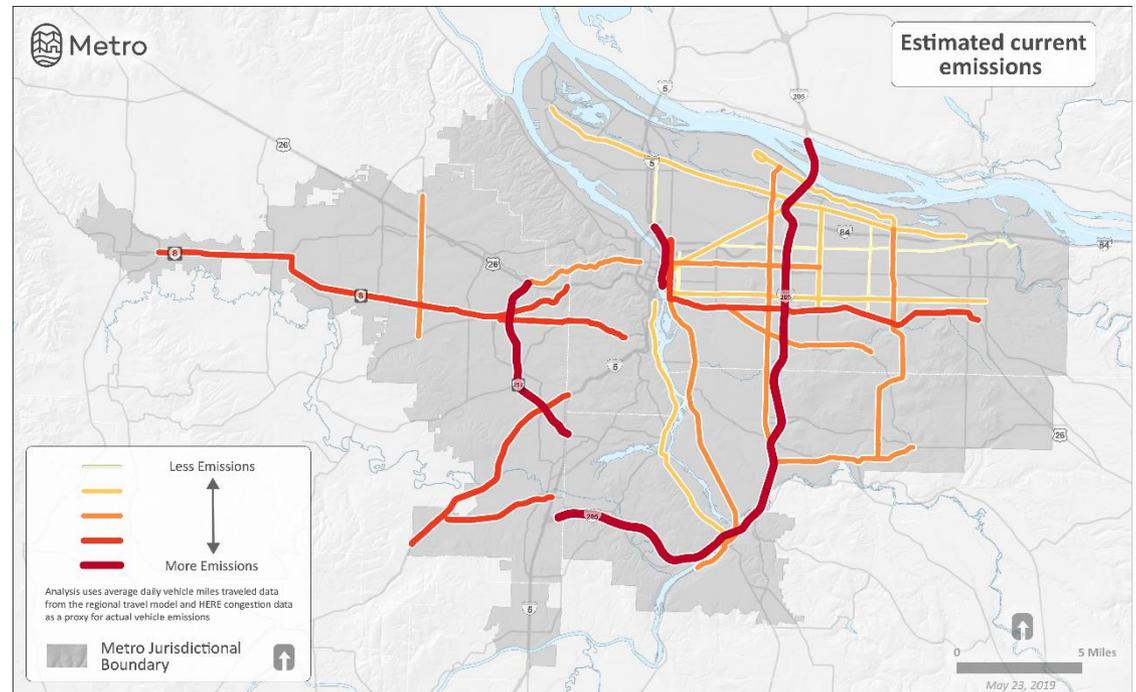


Step 2: Estimate current emissions for each corridor

Relative estimated carbon and air pollution emissions

- average daily vehicle miles traveled per mile
- duration of congestion per day

Corridors compared relative to each other



Analysis uses corridor-level VMT from the regional travel model and HERE congestion data as a proxy for actual vehicle emissions.

Step 3: Estimate the emissions reduction potential of each corridor

Relative estimated emissions reduction potential of each corridor

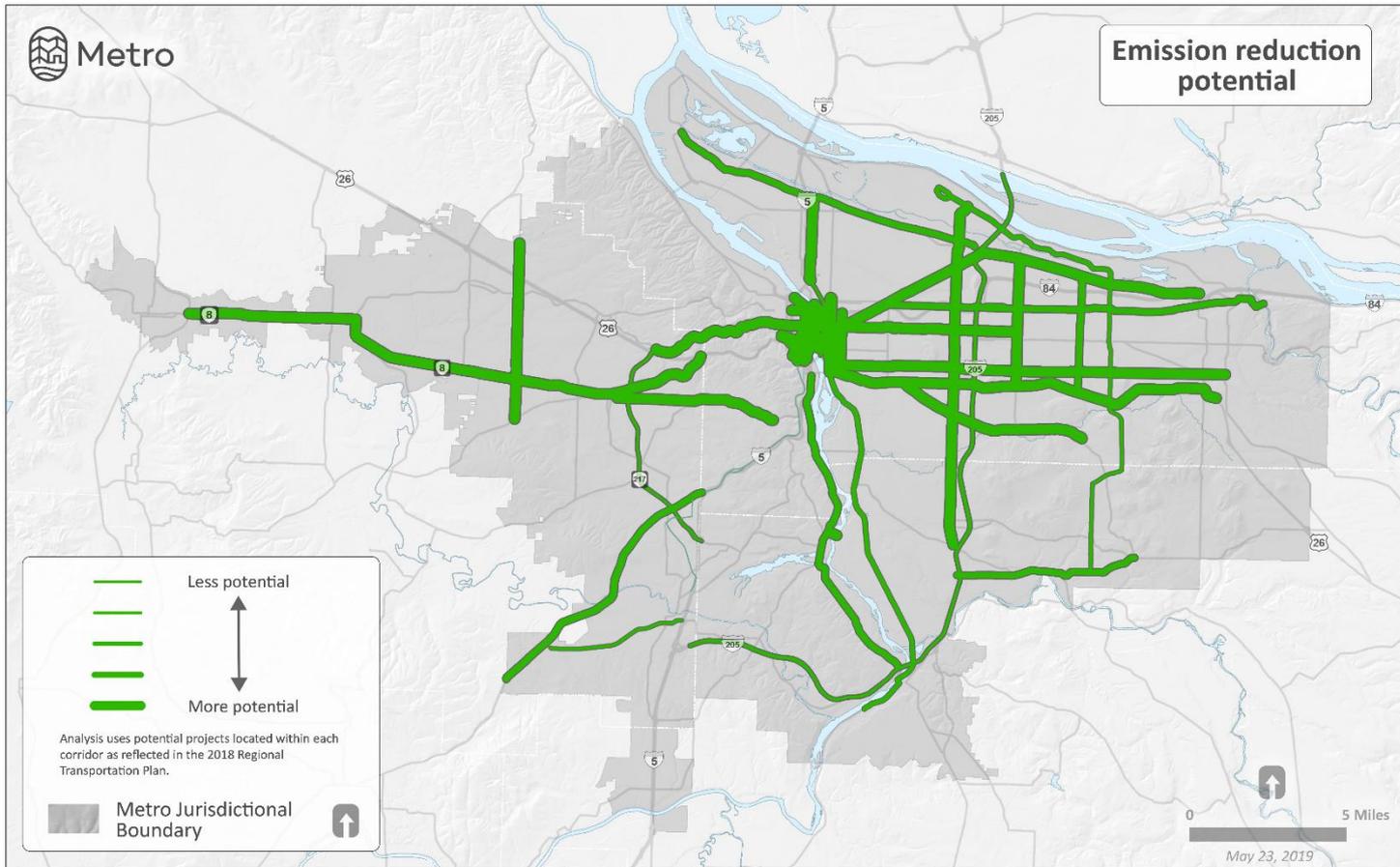
Points assigned based on how well potential projects avoid or reduce vehicle emissions

- Transit (high)
- Bike and walking network completion (moderate)
- System management & operations (moderate)
- Road capacity (low)

Corridors compared relative to each other



Emission reduction potential of corridors



Analysis uses potential projects located within each corridor as reflected in the 2018 Regional Transportation Plan.