

Metro | Agenda

Meeting: Metro Policy Advisory Committee (MPAC)
Date: Wednesday, March 13, 2013
Time: 5 to 7 p.m.
Place: Metro, Council Chamber

- | | | | |
|----------------|------------|---|--|
| 5 PM | 1. | <u>CALL TO ORDER</u> | Loretta Smith, Chair |
| 5:02 PM | 2. | <u>SELF INTRODUCTIONS & COMMUNICATIONS</u> | Loretta Smith, Chair |
| 5:05 PM | 3. | <u>CITIZEN COMMUNICATIONS ON NON-AGENDA ITEMS</u> | |
| 5:10 PM | 4. | <u>COUNCIL UPDATE</u> | |
| 5:15 PM | 5. | * <u>CONSIDERATION OF THE FEB. 27, 2013 MINUTES</u> | |
| | 6. | <u>INFORMATION / DISCUSSION ITEMS</u> | |
| 5:20 PM | 6.1 | Legislative Update – <u>INFORMATION</u> <ul style="list-style-type: none">• <i>Outcome:</i> Provide an update on the 2013 legislative session. | |
| 5:30 PM | 6.2 | * Climate Smart Communities Scenarios Project: Investment Choices – <u>INFORMATION /DISCUSSION</u> <ul style="list-style-type: none">• <i>Outcome:</i> MPAC members understand the investment choices represented in three scenarios to be tested this summer and begin discussion of: (1) the questions members would like answered through the evaluation, and (2) the draft assumptions for each scenario. <p>MPAC will continue this discussion on April 10. On May 8, MPAC will be requested to make a recommendation on the assumptions and questions to be addressed in the evaluation.</p> | Craig Dirksen,
Metro Council
Kim Ellis, Metro |
| 6:15 PM | 6.3 | * Climate Smart Communities Scenarios Project: Phase 1 Health Impact Assessment (HIA) – <u>INFORMATION</u> <ul style="list-style-type: none">• <i>Outcome:</i> MPAC members understand the public health impacts of strategies tested in Phase 1 and how the HIA implications and recommendations shape evaluation of scenarios moving forward. | Andrea Hamberg,
Oregon Health Authority |

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6:45 PM 7. **MPAC MEMBER COMMUNICATION**

7 PM 8. **ADJOURN**

Loretta Smith, Chair

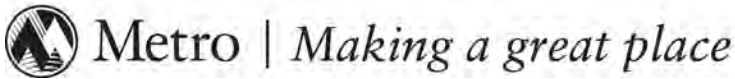
* Material included in the packet.

For agenda and schedule information, call Kelsey Newell at 503-797-1916, e-mail: kelsey.newell@oregonmetro.gov. To check on closure or cancellations during inclement weather please call 503-797-1700.

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2013 MPAC Tentative Agendas

As of 3/1/13

*Items in italics are tentative; **bold** denotes required items*

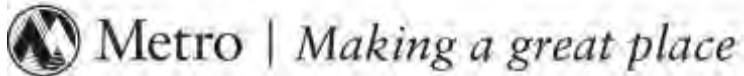
<p><u>MPAC Meeting</u> Wednesday, Feb. 27, 2013</p> <ul style="list-style-type: none">• 2013 State legislation: MPAC members update group on their priorities – Discussion• Clean Energy Works Oregon – Information• Regional Air Quality Impacts of Diesel Engines – Information• I-5 Bridge Replacement Project – Information	<p><u>MPAC Meeting</u> Wednesday, March 13, 2013</p> <ul style="list-style-type: none">• Legislative Update –Information• Climate Smart Communities Scenarios project: investment choices – Information/discussion• Climate Smart Communities Health Impact Assessment – Information <p><u>FYI: National League of Cities Congressional City Conference</u> March 9 to 13, 2013</p>
<p><u>MPAC Meeting – Canceled</u> Wednesday, March 27, 2013</p>	<p><u>MPAC Meeting</u> Wednesday, April 10, 2013</p> <ul style="list-style-type: none">• Legislative Update –Information• Update from MPAC members who attended the National League of Cities conference – Discussion• 2035 RTP Amendments – Information• Climate Smart Communities Scenarios project: presentation on the scorecard workshops – Information/discussion• <i>Community Investment Initiative Regional Infrastructure Enterprise - Information</i> <p><u>FYI: Best Practices Trip – Atlanta, GA</u> April 9 to 12, 2013</p>

<p><u>MPAC Meeting</u> Wednesday, April 24, 2013</p> <ul style="list-style-type: none"> • <i>Update from MPAC members who attended the Atlanta Best Practices trip – Discussion</i> • <i>2035 RTP Amendments – Action</i> • <i>Eco-Efficient Employment – Information/Discussion</i> • 2014 Urban Growth Report and growth management decision – present draft timeline • <i>Institutional Food Buying Alliance – presentation by Multnomah County, Clackamas County, private sector representatives – Information/Discussion</i> • <i>Brownfields – presentation by City of Portland, continued MPAC discussion of policy recommendations to advance brownfields remediation in region.</i> 	<p><u>MPAC Meeting</u> Wednesday, May 8, 2013</p> <ul style="list-style-type: none"> • <i>Climate Smart Communities Scenarios project – Recommendation to the Metro Council requested</i> • <i>Climate Adaptation Presentation (building community resilience to future climate impacts (Kent Snyder – ACSI; Tim Lynch – Multnomah County Office of Sustainability; Kari Lyons-Eubanks – Multnomah County Environmental Health; Vivek Shandas – PSU</i>
<p><u>MPAC Meeting</u> Wednesday, May 22, 2013</p> <ul style="list-style-type: none"> • <i>Legislative Update –Information</i> • <i>Presentation on health & land use featuring local projects from around the region</i> • <i>Community Investment Initiative Development – Readiness Pilot Program – Preliminary Results – Information</i> 	<p><u>MPAC Meeting</u> Wednesday, June 12, 2013</p> <ul style="list-style-type: none"> • <i>Legislative Update –Information</i> • <i>Presentation on the final draft of the Regional Active Transportation Plan – Information</i> • <i>Community Investment Initiative update</i> • <i>Metro Planning & Development grants update</i> • <i>Affordable Housing Opportunities, tools and strategies – Discussion</i>
<p><u>MPAC Meeting</u> Wednesday, June 26, 2013</p> <ul style="list-style-type: none"> • <i>Large site industrial site readiness – further discussion of policy recommendations and update on 2013 state legislation.</i> • 2040 Regional Transportation Plan Update – Information 	<p><u>MPAC Meeting</u> Wednesday, July 10, 2013</p> <ul style="list-style-type: none"> • <i>MPAC field trip?</i>
<p><u>MPAC Meeting</u> Wednesday, July 24, 2013</p> <ul style="list-style-type: none"> • <i>Consider cancellation</i> 	<p><u>MPAC Meeting</u> Wednesday, Aug. 14, 2013</p> <ul style="list-style-type: none"> • <i>Metropolitan Export Initiative</i> • <i>SW Corridor Plan</i>

<p><u>MPAC Meeting</u> Wednesday, Sept. 11, 2013</p> <ul style="list-style-type: none"> • <i>Discuss next steps on brownfields/large site industrial if needed</i> 	<p><u>MPAC Meeting</u> Wednesday, Sept. 25, 2013</p> <ul style="list-style-type: none"> • 2040 Regional Transportation Plan – Project Solicitation
<p><u>MPAC Meeting</u> Wednesday, Oct. 9, 2013</p> <ul style="list-style-type: none"> • <i>20-year population and employment forecasts</i> • <i>Climate Smart Communities: Phase II Findings–update/discussion</i> 	<p><u>MPAC Meeting</u> Wednesday, Oct. 23, 2012</p> <ul style="list-style-type: none"> • <i>Topics TBD</i>
<p><u>MPAC Meeting</u> Wednesday, Nov. 13, 2012</p> <ul style="list-style-type: none"> • <i>Topics TBD</i> 	<p><u>MPAC Meeting</u> Wednesday, Dec. 11, 2012</p> <ul style="list-style-type: none"> • <i>Climate Smart Communities: Final check-in for 2013 – update/discussion</i>

Parking Lot:

- Equitable distribution of transit services in the region
- Presentation on Metro Council work plan for 2013
- Equity indicators in the region
- Apartments without parking
- Equity Atlas
- Oregon Energy Plan
- Statewide Transportation Strategy



Metro Policy Advisory Committee
February 27, 2013
Metro Regional Center, Council Chambers

MEMBERS PRESENT

Amanda Fritz
Bill Turlay
Bob Grover
Bob Stacey
Doug Neeley
Jerry Willey
Jody Carson, *1st Vice Chair*
Josh Fuhrer
Loretta Smith, *Chair*
Marilyn McWilliams
Martha Schrader
Maxine Fitzpatrick
Sam Chase
Wilda Parks

AFFILIATION

City of Portland
City of Vancouver
Citizen, Washington Co. Citizen
Metro Council
City of Oregon City, Clackamas Co. 2nd Largest City
City of Hillsboro, Washington Co. Largest City
City of West Linn, Clackamas Co. Other Cities
City of Gresham, Multnomah Co. 2nd Largest City
Multnomah County
Tualatin Valley Water District, Washington Co. Special Districts
Clackamas County
Citizen, Representing Multnomah Co. Citizen
Metro Council
Citizen, Representing Clackamas Co. Citizen

MEMBERS EXCUSED

Andy Duyck
Annette Mattson
Charlie Hales
Charlynn Newton
Craig Dirksen
Kent Studebaker
Norm Thomas
Steve Clark
Steve Stuart
Tom Imeson

AFFILIATION

Washington County
David Douglas School Board, Governing Body of School Districts
City of Portland
City of North Plains, City in Washington Co. Outside the UGB
Metro Council
City of Lake Oswego, Clackamas Co. Largest City
City of Troutdale, Multnomah Co. Other Cities
TriMet Board of Directors
Clark County
Port of Portland

ALTERNATES PRESENT

Gretchen Beuhner
Jennifer Donnelly
John Hartsock
Marc San Soucie

AFFILIATION

City of Tigard, Washington Co. Other Cities
Oregon Dept. of Land Conservation and Development
Boring Fire District, Clackamas Co. Special Districts
City of Beaverton, Washington Co. 2nd Largest City

STAFF: Joe Montanez, Kelsey Newell, Robin McArthur, Nikolai Ursin, Andy Cotugno, Councilor Kathryn Harrington.

1. CALL TO ORDER AND DECLARATION OF A QUORUM

Chair Loretta Smith called the meeting to order and declared a quorum at 5:03p.m.

2. SELF INTODUCTIONS & COMMUNICATIONS

All attendees introduced themselves.

3. CITEZEN COMMUNICATION ON NON-AGENDA ITEMS

No citizen communication or non-agenda items were discussed.

4. COUNCIL UPDATE

Councilor Sam Chase provided an update on the following items:

- The Regional Transportation Plan amendments are available for public review and a public comment period is open until April 8, 2013. JPACT and the Metro Council will vote on the proposed amendments in May. For more information, visit www.oregonmetro.gov/rtp;
- The Southwest Corridor Project Steering Committee has approved five project bundles that are available for public review. Each project bundle evaluates how well the transit, roadway, bike and pedestrian improvements would perform if built. For more information, visit www.swcorridorplan.org;
- The City of Hillsboro was featured in the Huffington Post as one of 20 U.S. cities invited to compete in the Bloomberg Philanthropies' "Mayors Challenge". For more information and to cast your vote, visit www.huffingtonpost.com/mayors-challenge.

Ms. Robin McArthur provided an update on the following items:

- Ms. Robin McArthur also stated that Metro has received 31 applications for Community Planning and Development Grants thus far. The official deadline for applications is April 18, 2013. For more information, visit www.oregonmetro.gov/grants.

5. CONSENT AGENDA

- **Consideration of the Feb. 13, 2013 minutes**

MOTION: Ms. Marylyn McWilliams moved, Councilor Jody Carson seconded, to approve the consent agenda.

ACTION: With all in favor, the motion passed.

6. INFORMATION & DISCUSSION ITEMS

6.1 Local Jurisdictions' 2013 State Legislature Agendas

MPAC Members from Wilsonville, Happy Valley, Beaverton, Gresham and Washington County made available their State Legislative Agendas.

6.2 Clean Energy Works Oregon

Mr. Derek Smith presented on Clean Energy Works Oregon. The goal of Clean Energy Works Oregon (CEWO) is to create jobs and save energy. CEWO accomplishes this goal by making it easy for citizens to upgrade their homes for energy efficiency. CEWO optimizes public investments by matching them with existing utility energy efficiency incentive funds and by leveraging private dollars. By creating a one-stop shop for homeowners to find contractors and financing, CEWO scales and grows the energy efficiency upgrade industry much faster than it would otherwise. CEWO is currently seeking a \$10 million state investment to capture the full market opportunity in Oregon. For more information, visit www.cleanenergyworksoregon.org.

Member discussion included:

- Members inquired as to how a \$10 million state investment would be spent. Mr. Smith stated that these funds would go towards operation costs. He stated that with this investment, CEWO would be able to charge transaction fees which would allow them to expand their volume of clients;
- Members expressed concerns about seismic retrofitting. Mr. Smith stated that with a state investment, CEWO would expand its services to include seismic and radon retrofitting. Mr. Smith stated that FEMA and EPA dollars would help expanding into those services as well;
- Members expressed concerns about accountability of administrative costs, performance, and quality. Mr. Smith stated that CEWO is very focused on greater return for the public investment. Smith stated that CEWO administers quality control checks at the end of every project. Mr. Smith also noted that they focus heavily on customer education to ensure maximum energy savings and that customers voluntarily provide their utility bills as to track efficacy of the home's retrofit;
- Members inquired if CEWO works with equity organizations. Mr. Smith noted that CEWO works with good wage groups, minorities and veterans. He also stated that CEWO works locally to hire contractors;
- Members inquired as to how CEWO works with the homeowner. Mr. Smith stated that there is an energy audit that takes place, followed by a projected list of upgrades and costs. Smith noted that he considers CEWO to be the connective tissue for local contractors, construction workers, and a variety of other contracting bodies - bringing them together to achieve the goals of CEWO;
- Members inquired about loans, rebates and incentives. Mr. Smith stated that most projects cost around \$12 thousand and that the incentives are the energy savings from the home's retrofit;
- Members inquired as to how CEWO differs from Energy Trust or PCI. Mr. Smith considers CEWO a delivery vehicle of services and that CEWO enlists the service of those companies to carry out the goals of CEWO.

6.3 Regional Air Quality Impacts of Diesel Engines

Mr. Tim Lynch, Mr. Kevin Downing, and Ms. Moriah McGrath, presented on the impacts of diesel engine emissions on public air quality and public health. Diesel engines power the economy, but are harmful to public health. Diesel particulates are known carcinogens that cause respiratory disease, heart disease, even death and the smaller the diesel particulate, the greater the health hazard. Often, race, geography, income and occupation are major factors in air quality. Most diesel emissions come from freight trucks and the Portland/Multnomah Clean Diesel Partnership has

secured \$2 million in federal and state grant funding to support diesel retrofits for city and county vehicles. The retrofits are expected to reduce 7.74 tons of diesel particulate matter and save more than \$8 million in community health costs. The Oregon Clean Diesel Partnership also aims to reduce harsh diesel emissions by burning cleaner fuel, burning fuel cleaner, and burning less fuel. For more information, contact Kevin Downing, downing.kevin@deg.state.or.us.

Member discussion included:

- Members inquired about the use of alternative energy freight trucks. Mr. Downing stated that some companies use all electric freight trucks and an increased number of companies are incorporating hybrid trucks into their fleets. Some train companies have incorporated hybrid train cars as well;
- Members inquired about coal generated electricity. Mr. Downing noted that a large volume of Portland's electricity comes from hydropower, but regardless of where electric comes from, it still has benefits over diesel;
- Members inquired as to how our bodies rid inhaled diesel particulates. Ms. McGrath stated that she did not know;
- Members inquired about the cost of diesel retrofits. Mr. Downing stated that cost varies depending on the engine size, but normally a retrofit project costs approximately \$15 thousand. He also noted that the public payback benefits for these projects are less than a year;
- Members inquired as to how bicyclists are affected by diesel emissions. Mr. Downing stated the majority of particulate exposure comes from commuting in ones vehicle. He also stated that heavier breathing in a strong diesel emissions area will increase the number of diesel particulates one inhales;
- Members inquired about clean diesel engines. Mr. Downing stated that modern diesel cars have a less of an environmental impact than gasoline cars;
- Members inquired as to what is being done to reduce greenhouse gas emissions mandated by the Climate Smart Communities program. Mr. Downing stated that burning cleaner fuel, burning fuel cleaner, and burning less fuel all align with the goals of Climate Smart Communities.

6.4 **I-5 Replacement Bridge Project**

Ms. Heather Mills presented on the I-5 Replacement Bridge Project. The I-5 bridge connects the interstate system with access to deep water shipping, upriver barging, two ports, two water level rail lines, and air transport. However, this critical route is one of the worst freight bottlenecks in the nation. The proposed long-term solution includes replacing the existing bridge with a new, multimodal, 5-mile span of interchanges, light rail lines, and improved pedestrian and bicycle connectivity. The project is due for completion and opening in 2020. For more information, visit www.columbiarivercrossing.org.

Member discussion included:

- Members inquired if there was consideration of a separate structure for Hayden Island. Ms. Mills stated that a local connection does exist for Hayden Island traffic;
- Members asked about operation and management costs of the new bridge. Ms. Mills stated that there are several options for breaking down those costs, but nothing is certain at this point;

- Members expressed concerns that tolling the new bridge will increase traffic on I-205. Ms. Mills stated that after a new toll opens; traffic in the area decreases for a year. After that year, traffic will return to normal levels, despite the toll.

7. MPAC MEMBER COMMUNICATION

Chair Loretta Smith mentioned the following items:

- MPAC summer trips ideas;
- A Metro Council liaisons update about the League of Oregon Cities Washington D.C. trip;
- Congratulated Mayor Jerry Willey and the City of Hillsboro for being a finalist in the Bloomberg Philanthropies' Mayors Challenge.

8. ADJOURN

Chair Smith adjourned the meeting at 7:03 p.m.

Respectfully Submitted,



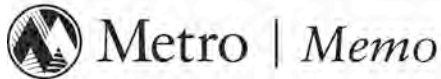
Joe Montanez
Recording Secretary

ATTACHMENTS TO THE PUBLIC RECORD FOR FEBRUARY 27, 2013

The following have been included as part of the official public record:

<u>Item</u>	<u>Doc. Type</u>	<u>Doc. Date</u>	<u>Doc. Description</u>	<u>Doc. Number</u>
6.1	Handout	N/A	City of Gresham Legislative Priorities	22713m-01
5.0	Handout	2/20/13	MPAC Minutes 2/13/13	22713m-02
N/A	Handout	2/21/13	2013 MPAC Work Program	22713m-03
N/A	Handout	2/25/13	2013 MPAC Mtg. Calendar	22713m-04
6.2	Power Point	N/A	Clean Energy Works Oregon	22713m-05

6.3	Power Point	N/A	Regional Air Quality Impacts: Diesel Engines	22713m-06
6.4	Power Point	N/A	I-5 Replacement Bridge	22713m-07



DATE: March 6, 2013
TO: MPAC, JPACT and Interested Parties
FROM: Kim Ellis, Principal Transportation Planner
SUBJECT: Climate Smart Communities Scenarios Project – Phase 2 Investment Choices Scenarios Evaluation

This memorandum outlines the approach staff will use to evaluate three scenarios for the Climate Smart Communities Scenarios Project during the summer of 2013. Findings from Phase 1, Phase 2 work and technical work group and advisory committee discussions have informed development of this approach.

The analysis will evaluate the effects of distinct land use and transportation policy and investment choices on the future of the Portland metropolitan region. The investment choices-focused approach is based on the premise that by helping communities implement their local visions and plans for main streets, downtowns and employment areas, citizens and businesses will experience all the benefits of increased transportation and housing choice, jobs, equity, cleaner air and water, and access to nature along with the added benefit of a reduction in greenhouse gas emissions from cars and small trucks.

The Oregon Legislature has required the Portland metropolitan region to reduce per capita greenhouse gas emissions from cars and small trucks by 2035.

The results of the analysis will be released in October 2013 - launching the third, and final, phase of the project. Phase 3 will use the analysis results to stimulate a regional discussion aimed at deciding which elements from each of the three scenarios should go forward into a preferred land use and transportation scenario for the Metro Council to adopt in December 2014.

The Metro Council, Metro Policy Advisory Committee (MPAC), Joint Policy Advisory Committee on Transportation (JPACT) will be asked to support moving forward with the evaluation in May 2013.

ACTION REQUESTED

- Identify questions committee members would like answered through the evaluation.
- Provide input on the draft assumptions suggested for each scenario.

JPACT and MPAC will have an opportunity to continue this discussion on April 4 and 10, respectively. MPAC and JPACT will be requested to make a recommendation on the assumptions and questions to be addressed in the evaluation on May 8 and 9, respectively.

OVERVIEW OF PHASE 1 AND 2 – UNDERSTANDING AND SHAPING LAND USE AND TRANSPORTATION CHOICES

All the work in the Planning and Development Department (e.g., East Metro Connections Plan, Southwest Corridor Plan, Regional Active Transportation Plan, Industrial Lands Readiness effort, TOD program) is focused on implementing the Region 2040 Growth Concept. The Climate Smart Communities Scenarios Project has the same focus: implementation.

Working together with city, county, state, business and community leaders, Metro is researching how land use and transportation policies and investments can be leveraged to help us create great communities, support the region's economy and meet goals for reducing greenhouse gas emissions. The adopted land use plans and zoning of cities and counties across the region are the foundation for the scenarios to be tested, with a goal of creating a diverse yet shared vision of how we can keep this region a great place for years to come – for everyone – and meet state greenhouse gas emissions goals.

PHASE 1: UNDERSTANDING OUR LAND USE AND TRANSPORTATION CHOICES

Phase 1 focused on understanding the region's choices for reducing greenhouse gas emissions from cars and small trucks. Staff tested 144 different combinations of land use and transportation policies (called scenarios) to learn what it might take to meet the region's greenhouse gas emissions reduction target. More than 90 scenarios met or exceeded the target. In addition, staff found that current plans and policies together with advancements in fleet and technology get the region close to the target.¹

A range of choices exist to meet the region's state greenhouse gas emissions reduction target and most of the strategies under consideration are already being implemented to varying degrees in communities to achieve other important economic, social and environmental goals.

Staff also conducted sensitivity analysis of the Phase 1 scenarios to better understand the GHG emissions reduction potential of individual strategies.² and ³ Assuming adopted community plans and national fuel economy standards, the most effective individual strategies for reducing greenhouse gas emissions were found to be:

- **Fleet and technology** advancements
- **Transit** service expansion
- **Pricing of transportation** (e.g., fuel price, pay-as-you-drive insurance, parking fees, mileage-based fee, and carbon fee)



Current plans and policies together with advancements in fleet and technology get the region close to the state target of 1.2 MT CO₂e per capita.

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

² Memo to TPAC and interested parties on Climate Smart Communities: Phase 1 Metropolitan GreenSTEP scenarios sensitivity analysis (June 21, 2012).

³ Memo to TPAC and interested parties on Climate Smart Communities: Updated Draft Scenario Options Framework (June 26, 2012).

The reductions found for each strategy individually do not reflect synergistic benefits that could come from combining various strategies. It is also important to note that while some strategies did not individually achieve significant GHG reductions, such as increasing walking or bicycle mode share or participation in marketing and incentives programs, they remain important elements to complement more effective strategies such as transit service expansion and building walkable downtowns and main streets as called for in community plans.

To date, no evaluation has been conducted on the potential financial, political, social equity, environmental or economic implications of the different strategies; these implications will be considered as part of the summer 2013 evaluation.

PHASE 2: SHAPING OUR LAND USE AND TRANSPORTATION CHOICES

Phase 2 is focused on shaping future choices for the region to advance implementation of community visions and meet the region's greenhouse gas emissions reduction target.

The Climate Smart Communities Scenarios Project made significant progress in 2012 and early 2013:

- **Engaged local governments and other stakeholders to share project information and early findings.** From January to September 2012, Metro councilors and staff shared the Phase 1 findings and other project information through briefings to city councils, county boards, county-level coordinating committees, state commissions, Metro advisory committees, regional and state conferences and other meetings. Staff also regularly convened a local government staff technical working group in 2012. The work group provided technical advice to Metro staff, and assistance with engaging local government officials and senior staff.
- **Convened workshops with community leaders on the public health, equity/environmental justice, and environmental outcomes that are most important to consider in the scenario evaluation process.** Reports documenting the Environmental and Equity/Environmental Justice workshops can be downloaded from the project website – www.oregonmetro.gov/climatescenarios. The public health report will be made available in the next month.
- **Partnered with business associations to host a series of focus groups to understand their challenges, opportunities and priorities.** The first four focus groups have been held in partnership with the Columbia Corridor Association, the East Metro Economic Alliance, the Clackamas County Business Alliance and the Westside Economic Alliance and Wilsonville and Greater Hillsboro Chambers of Commerce. The two remaining focus groups will be held in the next month and include small business owners in partnership with the Portland Business Alliance, and developers. A summary report will be prepared upon completion of the focus groups in April.
- **Developed a community investment choices frame to guide development of three alternative scenarios to be tested in Summer 2013.** The project's technical work group continues to serve an important advisory role to staff and helped develop the framework.
- **Researched eight case studies to spotlight local success stories and the innovative strategies they have implemented to achieve their local visions and that will also help reduce greenhouse gas emissions.** Staff expects to complete the case studies in April in consultation with local planning staff.
- **Convened workshops with local staff to affirm visions for future community development using Envision Tomorrow to make sure the latest information on local land use goals is**

incorporated into the project. Southwest Corridor project staff used Envision Tomorrow to develop the draft land use vision for the corridor last fall. All of these assumptions will be used as land use inputs in the scenarios we test this summer.

Several of these activities have been extended into early 2013 given the time it has taken to effectively engage local communities in work sessions, business leaders in focus groups and complete other activities.

WORK AHEAD IN 2013

To stimulate thinking about our choices for the future and the possibilities they present, three scenarios will be tested in 2013. Findings from Phase 1, Phase 2 work and technical work group and advisory committee discussions have informed development of this approach.

The approach is based on the premise that by helping communities implement their local visions and plans for main streets, downtowns and employment areas, citizens and businesses will experience all the benefits of increased transportation and housing choice, jobs, equity, cleaner air and water, and access to nature along with the added benefit of a reduction in greenhouse gas emissions from cars and small trucks.

Staff will request a recommendation on the assumptions to test and the questions to be addressed in the evaluation in May 2013. With regional support, staff will move forward with the evaluation, using the agreed upon key outcomes to measure – e.g., economic, fiscal, equity, community and environmental outcomes.

OVERVIEW OF INVESTMENT CHOICES TO BE TESTED IN PHASE 2

Background

The three alternative scenarios to be evaluated are conceptual in nature, and are not intended to represent a preferred scenario or future Metro Council, Oregon Transportation Commission (OTC), local government or TriMet policy intentions. The scenarios to be tested will draw from the policies tested in Phase 1 and bear greater resemblance to realistic, yet ambitious policy alternatives than the 144 scenarios tested in Phase 1 of the project. The proposed approach is consistent with OAR 660-044-0040, which requires the region to evaluate at least 3 scenarios – a reference case scenario that reflects implementation of existing adopted comprehensive plans and transportation plans and at least two alternative land use and transportation scenarios for meeting greenhouse gas reduction targets.

The adopted land use visions (as expressed in local plans and zoning codes) of cities and counties across the region are the foundation for the scenarios to be tested. The analysis will consider transportation investments together with different levels of funding, advancements to clean fuels and vehicle technologies and, to the extent possible, updated community visions identified through the Southwest Corridor Plan, East Metro Connections Plan and local planning and periodic review activities currently. The analysis will inform development of a preferred land use and transportation scenario and identification of the policies, tools, investment and actions needed to implement it. It is important to emphasize that the preferred scenario developed in 2014 will likely include elements from all 3 scenarios tested.

Purpose

The purpose of scenario planning is to test a range of potential futures that reflect choices policymakers, businesses and individuals might make. The CSCS investment scenarios analysis is intended to provide policy makers with better information about the implications and tradeoffs of different land use and transportation policy and investment choices, relative to the region's shared equity, economy, environmental and community goals.

Major objectives of the analysis are to:

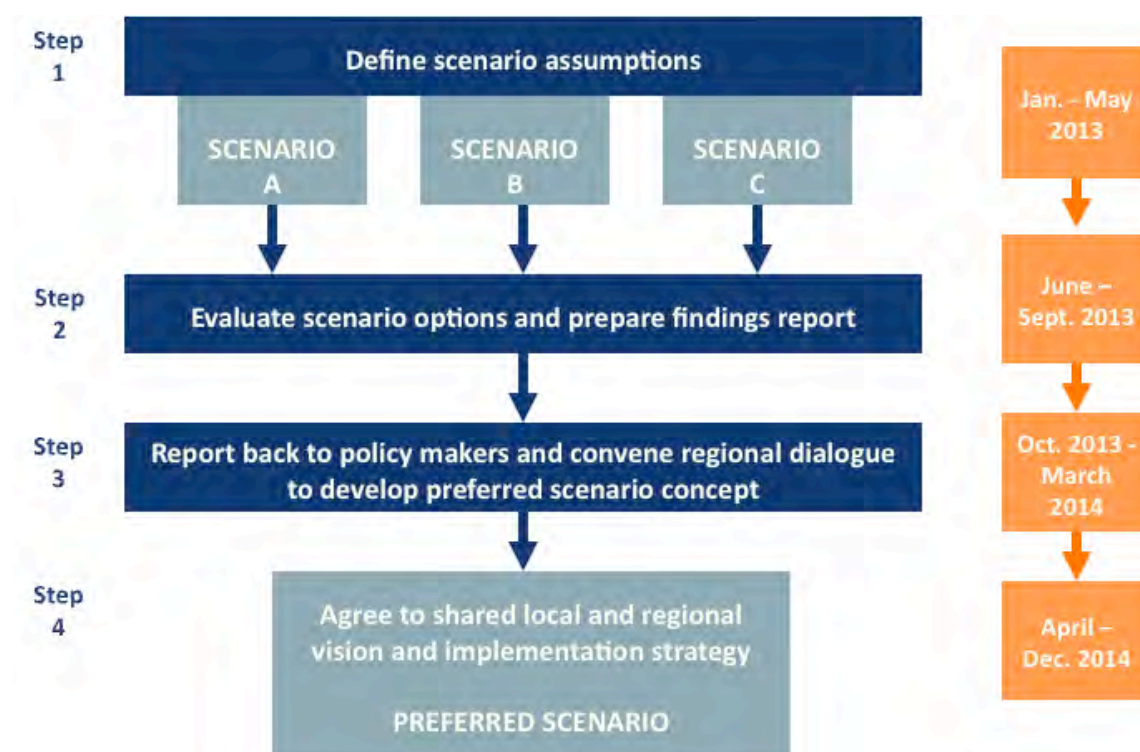
- Test distinct investment policy choices that frame the boundaries of the political landscape and public opinion to better understand the effect of different levels of investment on public health, travel behavior, development patterns, equity, the economy, the environment and greenhouse gas emissions.
- Evaluate the relative effect and cost of different investment choices in order to recommend what combinations of investments, tools and strategies are needed to best achieve community visions and state greenhouse gas emissions reductions.
- Provide recommendations to guide development of a preferred land use and transportation scenario.

General Construct and Scope

This analysis will examine three conceptual futures for their ability to serve forecast 2035 population and employment growth and meet state greenhouse gas emissions reduction targets. Each of the three scenarios is based on a “What if” policy-theme focus, resulting in a distinct mix and level of transit service, bike, pedestrian, road, system and demand management strategies that are linked to pricing strategies (revenues) assumed within in each scenario.

The three scenarios represent what the region could look like in 2035, if various transportation and land use strategies are pursued, and what it could mean for how we live, how we work and how we get around. The adopted land use plans and zoning codes of cities and counties across the region are the foundation for the scenarios to be tested. **Figure 1** shows the general construct and timeline for this analysis.

Figure 1. Climate Smart Communities Investment Scenarios Construct and Timeline



Each scenario is initiated by a “what if” question:

- **Scenario A (Recent Trends)** - What if we implement adopted plans with existing revenues?

Purpose: This scenario follows the funding trends of the past decade and shows the results of limiting community investments to existing revenues.

Scenario A represents what the future could look like if recent trends continue and we implement adopted plans with existing revenues (e.g., gas tax, payroll tax and existing local sources like urban renewal district (URD), SDCs, TIFs that have been used to fund transportation investments). Scenario A assumes the region continues to rely on existing revenues, which continue to decline in their purchasing power over time due to rising costs, inflation and improved fuel economy of vehicles. In addition, some URD are set to expire between now and 2035. This future would reflect maintaining existing TriMet service with small increases targeted to address overcrowding and delays due to congestion. Other transportation investments would also be limited as an increasing share of the revenues available are spent on maintaining the transportation system in place today. An implication of limited community investment is that cities and counties are not able to achieve their adopted plans. This scenario is not expected to meet the greenhouse gas emissions target.

- **Scenario B (Adopted Plans)** - What if we implement adopted plans and raise additional revenues as called for in the adopted Regional Transportation Plan?

Purpose: This scenario counters recent funding trends and shows the results of investing in a mix of transportation and land use strategies with revenues projected in the adopted RTP.

Scenario B represents what the future could look like if we counter recent trends and are successful implementing adopted plans with additional revenues assumed in the 2035 Regional Transportation Plan. The scenario would assume the adopted RTP levels of transit, road, operations and bike/pedestrian investment, current adopted local land use plans and planned funding as adopted in the RTP (e.g., 1 cent per year gas tax increase, increases to vehicle registration fees, some increase in the payroll tax for transit). In this scenario, TriMet is able to restore and expand frequent bus service in priority corridors, consistent with Service Enhancement Plans. Scenario B assumes the 2035 RTP Financially Constrained System of projects and programs adopted by JPACT and the Metro Council in June 2010. An implication of this scenario is that with significantly more community investment, cities and counties are better able to achieve their adopted plans –as reflected in the regionally-reviewed 2035 growth distribution adopted by the Metro Council in November 2012. *This scenario may meet the greenhouse gas emissions target.*⁴

- **Scenario C (New Plans and Policies)** - What if we more fully achieve adopted and emerging plans, and pursue new policies and revenues to meet greenhouse gas emissions reduction targets and achieve other goals?

Purpose: This scenario shows the results of more investment aimed at fully achieving adopted and emerging plans and greenhouse gas emissions reduction targets.

Scenario C represents what the future could look like if we are able to fully implement adopted plans (including the full RTP) and additional transit, bike, pedestrian and road investments needed to support new plans such as the Southwest Corridor Plan, East Metro Connections Plan, the Regional Active Transportation Plan, and updated community plans identified through

⁴ The regionally-reviewed growth distribution will be used in this analysis. A draft growth distribution was used in Phase 1. In addition, the RTP financially constrained system state gas tax increase assumption of 1 cent per year increase was not fully evaluated in Phase 1. The state gas tax was assumed in the Level 2 pricing assumptions as a mileage-based fee. Many of the Phase 1 scenarios with Level 2 pricing met or exceed the state greenhouse gas emissions target.

local planning efforts. In this scenario, TriMet is able to further expand frequent and local bus service to more parts of the region with supporting land use. This scenario also reflects a policy area (transportation pricing) that Metro and the region have not examined in great detail and more work is needed to understand the effectiveness and the potential benefits and impacts pricing policies bring, including effects on households of modest means and businesses. This scenario presents an opportunity to test new revenue mechanisms like a bike fee, mileage-based fee or a carbon fee to maintain and operate the transportation system and fund needed investments or market incentives that help reduce GHG emissions. This scenario could also be designed to explore using the mileage-based fee to test the effect of transitioning from the state gas tax to a mileage-based fee. *This scenario is expected to meet or exceed the greenhouse gas emissions target.*

The scenarios are cumulative and for research purposes. The scenarios do not represent future Metro Council, Oregon Transportation Commission (OTC), local government or TriMet policy intentions.

Methodology

The Investment Choices Scenarios Analysis is intended to be a starting point for developing a recommended land use and transportation scenario that meets the state greenhouse gas emissions reduction target. The understanding gained through this analysis will guide the design and analysis of a preferred scenario in Phase 3 of the project.

MPAC, JPACT and the Metro Council will provide direction on the assumptions to be tested in each of the scenarios and the questions to be addressed through the evaluation. The three scenarios will be developed and evaluated in the summer of 2013 using the Metropolitan GreenSTEP model, GIS analysis and workshops aimed at identifying the action needed to implement each scenario.

Evaluation

While the technical evaluation of the investment scenarios will generate an array of data, the analysis will focus on reporting how each scenario responds to shared concerns about growth in the region as expressed in the Outcomes-Based Evaluation Framework endorsed by the MPAC and JPACT in June 2011. Performance of each scenario will be compared using a set of key indicators being developed based on input provided by business and community leaders in 2012 and early 2013, and the public through an Opt-In opinion survey.⁵ The evaluation will consider public health, social equity, environmental, economic, financial, and political implications associated with each scenario.

Planning-level cost estimates for each scenario will be developed by Metro, in partnership with ODOT and TriMet. In addition, project staff will convene workshops as part of the evaluation to identify feasibility and actions needed to implement the scenarios being evaluated.

Questions to Answer with the Evaluation

The scenarios will help answer policy questions that forecasted growth and fiscal constraints in the region raise about our ability to protect the region's quality of life and economy for current residents and future generations and meet state targets for reducing greenhouse gas emissions, including:

- What will our choices cost and what can we afford?
- Which strategies are most effective for supporting community visions and reducing greenhouse gas emissions?
- What are the risks, opportunities and tradeoffs of our choices – considering public health, social equity, environmental, economic, financial, and political implications?

⁵ A series of scorecard workshops and business focus groups and an Opt-In survey will inform refinements.

OVERVIEW OF PHASE 3 - DEVELOPMENT AND SELECTION OF A PREFERRED LAND USE AND TRANSPORTATION SCENARIO

Phase 3, the final phase of the process, will begin in Fall 2013 with release of the scenarios analysis results. The results of the analysis will be reported using an Outcomes-Based Evaluation Framework being refined by Metro staff based on input provided during a series of workshops and focus groups held with community leaders working to advance public health, equity and environmental justice, protection of the environment and economic prosperity in the region.

Release of the findings will kick-off a broader regional discussion aimed at identifying which policies, investments and actions should be included in a preferred scenario - likely drawing elements from each of the three scenarios tested in Phase 2. Policy recommendations that result from this discussion will provide direction to Metro, ODOT, TriMet and local agency staff on the draft preferred scenario to be analyzed in Spring 2014. A draft preferred scenario concept is anticipated by March 2014 to allow sufficient time to meet state timeline and scenario selection requirements.

A final preferred scenario is required to be selected by the end of 2014 after public review and consultation with local governments and state and regional partners. The preferred scenario will not result in a one-size fits all vision or implementation strategy. It will allow for local flexibility to support the differences among the region's cities and counties and seek to advance achievement of their of their unique goals and visions. The preferred scenario will also include regional and state implementation actions.

The preferred scenario will initially be implemented through amendments to Metro's Regional Framework Plan and 2040 Growth Concept in December 2014. Implementation through Metro's functional plans, local comprehensive plans, land use regulations and transportation system plans will occur through future actions as defined by Oregon Administrative Rules adopted by the Land Conservation and Development Commission.⁶

TIMELINE

The timeline for the scenarios analysis and final adoption of a preferred scenario meets OAR 660-044-0040:

February - April 2013	Metro Council, MPAC, JPACT review investment choices scenarios construct and outcomes-based evaluation framework. Newsfeeds on strategies under consideration are underway, and are available the project web site: www.oregonmetro.gov/climatescenarios . Complete business focus groups. Conduct Opt In on-line survey in April to gather input on investment priorities and priority outcomes to be evaluated, and build understanding of the project and strategies under consideration
May 2013	Metro Council, MPAC, JPACT confirm scenario assumptions to be tested and questions to be addressed in analysis.
June-August 2013	Project staff and technical work group analyze investment scenarios using Metropolitan GreenSTEP and GIS.

⁶ OAR 660-044-0040 and OAR 660-044-0045.

	Convene workshops to identify feasibility and actions likely to be necessary to implement scenarios.
August-September 2013	Project staff and technical work group report analysis results in CSCS Investment Choices Findings Report.
October 2013	Staff release CSCS Investment Choices Findings Report for regional discussion; begin phase 3.
Oct. 2013 – March 2014	Report back to communities, decision-makers and regional partners on the results and decide which elements should be included in a preferred scenario.
March/April 2014	MPAC, JPACT and Metro Council confirm draft preferred scenario concept.
April-July 2014	Consult with local governments, and state and regional partners on draft preferred scenario concept and implementation strategies. Analyze draft preferred scenario using the regional travel demand model and Metropolitan GreenSTEP.
Summer 2014	Project staff prepare adoption package for public comment period.
Fall 2014	45-day public comment period on adoption package.
December 2014	MPAC and JPACT recommendation to the Metro Council on the preferred land use and transportation scenario Metro Council takes action on recommended preferred land use and transportation scenario.

CLIMATE SMART COMMUNITIES SCENARIOS PROJECT**Technical Work Group Members***March 6, 2013*

	Name	Affiliation	Membership
1.	Tom Armstrong	City of Portland	MTAC alternate
2.	Chris Deffebach	Washington County	TPAC & MTAC member
3.	Chuck Beasley	Multnomah County	MTAC member
4.	Lynda David	Regional Transportation Council	TPAC member
5.	Jennifer Donnelly	DLCD	MTAC member
6.	Denny Egner	City of Lake Oswego	MTAC member
7.	Karen Buehrig	Clackamas County	TPAC member
8.	Steve Butler	City of Milwaukie	Local government staff
9.	Jon Holan	City of Forest Grove	MTAC alternate
10.	Katherine Kelly/ Jonathan Harker	City of Gresham	TPAC member/MTAC member
11.	Nancy Kraushaar	City of Wilsonville	TPAC member
12.	Alan Lehto/ Eric Hesse	TriMet	TPAC/MTAC member TPAC/MTAC alternate
13.	Mary Kyle McCurdy	MTAC citizen/community group	MTAC member
14.	Ben Bryant	City of Tualatin	Local government staff
15.	Barbara Fryer	City of Beaverton	MTAC alternate
16.	Margaret Middleton	City of Beaverton	TPAC member
17.	Lainie Smith	ODOT	TPAC alternate and MTAC member
18.	Dan Rutzick/ Peter Brandom	City of Hillsboro	Local government staff
19.	Mara Gross	Coalition for a Livable Future	Community member

CLIMATE SMART COMMUNITIES SCENARIOS PROJECT



The Road to 2040 Choices for our future

Nearly two decades ago, the residents of this region set a course for growth with the adoption of the 2040 Growth Concept – a plan for how the region grows over the next 50 years.

The vision for 2040 calls for each community to decide the best way to create vibrant downtowns, provide good jobs, and offer affordable housing and transportation choices for its residents. Together, these community visions encourage growth in downtowns, main streets and employment areas, and preserve farms, forestland and natural areas. They help build a strong regional economy, while celebrating and strengthening individual local character.

Shaping the region with intention

The desired outcome of this shared vision is a region where people live, work and play in healthy communities with easy access to everyday needs. Where safe and reliable transportation choices connect people to jobs and goods to market. Where current and future generations benefit from the region's sustained economic competitiveness and resilience. Where everyone enjoys clean air, clean water and a healthy ecosystem. And where the benefits and costs of growth and change are equitably shared among all communities.

Shared values for livable communities guide our policy and investment choices to create a unique sense of place and quality of life that attract people and businesses to the region and inspire generations to call this place home.

Leadership on climate change

Because we have focused development where it makes sense – in downtowns, main streets and employment areas – and invested in transportation choices, we drive 20 percent fewer miles every day than other regions of a similar size.

By taking direction from the 2040 plan and working together with local communities as they develop and update community visions, we can grow in a more sustainable manner that reduces greenhouse gas emissions from transportation and improves the environment for healthier, more livable communities.

But there's more to be done.

The Oregon Legislature has required the Portland metropolitan region to reduce per capita greenhouse gas emissions from cars and small trucks by 2035.

**How we get there
is up to you.**

MAKING A GREAT PLACE





WHAT THE FUTURE MIGHT LOOK LIKE IN 2035

**Scenario A
RECENT TRENDS**



This scenario follows the funding trends of the past decade and shows the results of limiting community investments to existing revenues.

How we live

Developers provide some new housing choices near transit and downtown areas.

How we get around

Streets in my community need repair. I often drive because transit is not available in my neighborhood. There are limited new pathways for biking and walking to get me to transit.

How we work

I look for ways to lower the fuel operating costs for my business while maintaining my delivery schedule and serving customers.

How we invest

We rely on existing revenues, many of which are declining (e.g., gas tax, payroll tax, federal funds). We spend an increasing share of that revenue on maintaining what we have.

What is a scenario?

A scenario is an example of what the future might look like, based on the choices we make today.

The scenarios presented are intended to serve as a starting point for gathering input on what choices should be tested in 2013.

**Scenario B
ADOPTED PLANS**



This scenario counters recent funding trends and shows the results of investing in a mix of transportation and land use strategies with revenues projected in the adopted Regional Transportation Plan.

How we live

My community provides more housing choices, jobs and services near transit.

How we get around

Streets, highways and transit systems in my community are in good repair. Targeted investments make it easier to walk, bike or take transit to work and to meet my everyday needs.

How we work

I build on past cost saving measures to invest in new technologies and cleaner fuels to support my delivery and business needs.

How we invest

We partner with nearby city, regional and state leaders to increase existing revenues to properly maintain and expand streets, highways, transit, sidewalks and bike pathways.

**Scenario C
NEW PLANS AND POLICIES**



This scenario shows the results of more investment aimed at fully achieving adopted and emerging plans and greenhouse gas emissions reduction targets.

How we live

More young people, seniors and families live close to services and transit because of the convenience this offers. I live close to where I work and can choose to drive or take another way.

How we get around

Streets, highways and transit systems in my community are in good repair. I can easily walk, bike and take transit to work and to meet my everyday needs.

How we work

I reinvest cost savings to create more jobs and further shift operations toward energy efficiency for my business and delivery needs.

How we invest

We work together with business and community leaders to find new ways to fund maintenance and make new investments in streets, highways, transit, sidewalks and bike pathways.

WE ALL HAVE CHOICES TO MAKE

The choices we make today will determine the future of the Portland metropolitan region. While we have worked together to create strong local communities and a region with an enviable quality of life, today's uncertain economy, limited resources, rising energy costs and a growing and diverse population have brought new challenges.

In collaboration with city, county, state, business and community leaders, Metro is researching how investments and transportation and land use policies can be leveraged to respond to these challenges and meet climate goals.

Scenario planning

To stimulate thinking about our choices for the future and the possible impacts they may have on how we live, travel and work, three scenarios will be tested in 2013 to help answer the questions:

- What will our choices cost and what can we afford?
- Which strategies are most effective for supporting community visions and reducing greenhouse gas emissions?
- What are the risks, opportunities and tradeoffs of our choices?

CLIMATE SMART COMMUNITIES SCENARIOS PROJECT TIMELINE

UNDERSTAND CHOICES

2011-12

Research how strategies could impact community outcomes and GHG emissions

SHAPE CHOICES

Jan.-Sept. 2013

Develop and evaluate scenario options to learn how choices today impact our communities tomorrow

SHAPE PREFERRED SCENARIO

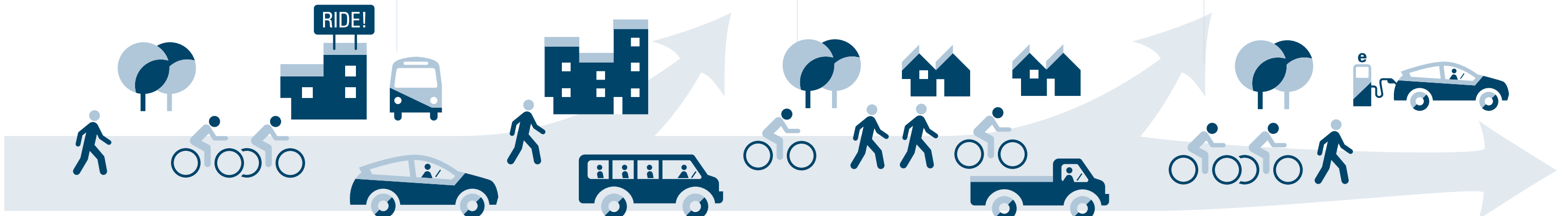
Oct. 2013-March 2014

Report back to communities and develop a preferred scenario

SELECT PREFERRED SCENARIO

April-Dec. 2014

Adopt a preferred land use and transportation scenario





About Metro

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy, and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to providing services, operating venues and making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together, we're making a great place, now and for generations to come.

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

www.oregonmetro.gov/connect

Metro Council President

Tom Hughes

Metro Councilors

Shirley Craddick, District 1
 Carlotta Collette, District 2
 Craig Dirksen, District 3
 Kathryn Harrington, District 4
 Sam Chase, District 5
 Bob Stacey, District 6

Auditor

Suzanne Flynn

New challenges call for new choices

What choices are you willing to make to respond to these challenges?

Clean fuels and technology

How can the region support state and federal efforts to transition to clean fuels and technology?

Community investment

How do we pay for investments needed to realize our shared vision for walkable communities, job creation, and affordable housing and transportation choices?

Transit

How much frequent transit should the region provide and what areas should be a priority? What other investments are needed to complement this strategy?

LOOKING AHEAD

Developing a preferred scenario

Working together, cities, counties and regional partners will decide which elements from each of the three scenarios should go forward into one preferred scenario for the region to adopt in December 2014.

Considerations for developing a preferred scenario include:

- costs and benefits across public health, environmental, economic and social equity goals
- financial implications
- public support and political will.



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ONLINE PANEL

Join Metro's online opinion panel today at www.optinpanel.org and be entered to win a \$100 gift card.



Shaping our choices for the future – a starting point for gathering input on what choices to test

A scenario is an example of what the future might look like based on the choices we make today. The three scenarios presented are intended to serve as a starting point for gathering input on what choices should be tested in summer 2013.

An analysis of the scenarios will stimulate a discussion about our choices for the future and the possible impacts they may have on how we live, travel, work and invest in our communities. Working together, cities, counties and regional partners will decide which elements from each of the three scenarios should go forward into one preferred scenario for the region to adopt in December 2014. Considerations for developing a preferred scenario will include: costs and benefits across public health, environmental, economic and social equity outcomes, financial implications, public support and political will.

The Oregon Legislature has required the Portland metropolitan region to reduce per capita greenhouse gas emissions from cars and small trucks by 2035.

NOTE: The scenarios are cumulative and for research purposes. The scenarios do not represent future Metro Council, Oregon Transportation Commission, TriMet or local government policy intentions.

WHAT THE FUTURE MIGHT LOOK LIKE IN 2035

	Scenario A RECENT TRENDS	Scenario B ADOPTED PLANS	Scenario C NEW PLANS AND POLICIES
Purpose	This scenario follows the funding trends of the past decade and shows the results of limiting community investments to existing revenues.	This scenario counters recent funding trends and shows the results of investing in a mix of transportation and land use strategies with revenues projected in the adopted Regional Transportation Plan.	This scenario shows the results of more investment aimed at fully achieving adopted and emerging plans and GHG emissions reduction targets.



FLEET AND TECHNOLOGY ASSUMPTIONS

	Scenario A RECENT TRENDS	Scenario B ADOPTED PLANS	Scenario C NEW PLANS AND POLICIES																								
Fleet and technology	<p>Target rulemaking assumptions will be used for all three scenarios.</p> <table border="1"> <thead> <tr> <th>Vehicle and Fuel Characteristics</th> <th>Target Rulemaking Assumption</th> </tr> </thead> <tbody> <tr> <td>Auto fuel economy (miles per gallon)</td> <td>68</td> </tr> <tr> <td>Light truck fuel economy (miles per gallon)</td> <td>48</td> </tr> <tr> <td>Auto fuel economy—plug-in hybrids in charge sustaining mode (miles per gallon)</td> <td>81</td> </tr> <tr> <td>Light truck fuel economy—plug-in hybrids in charge sustaining mode (miles per gallon)</td> <td>56</td> </tr> <tr> <td>Proportion of autos that are plug-in hybrids or electric vehicles</td> <td>8%</td> </tr> <tr> <td>Proportion of light trucks that are plug-in hybrids or electric vehicles</td> <td>2%</td> </tr> <tr> <td>Plug-in hybrids battery range (miles)</td> <td>35</td> </tr> <tr> <td>Electric vehicles battery range: auto and light truck (miles)</td> <td>175</td> </tr> <tr> <td>% reduction in fuel carbon intensity from current levels</td> <td>20%</td> </tr> <tr> <td>Electric power sources compared to current Renewable Portfolio Standard</td> <td>Meet</td> </tr> <tr> <td>Average vehicle replacement rate (years)</td> <td>8</td> </tr> </tbody> </table>			Vehicle and Fuel Characteristics	Target Rulemaking Assumption	Auto fuel economy (miles per gallon)	68	Light truck fuel economy (miles per gallon)	48	Auto fuel economy—plug-in hybrids in charge sustaining mode (miles per gallon)	81	Light truck fuel economy—plug-in hybrids in charge sustaining mode (miles per gallon)	56	Proportion of autos that are plug-in hybrids or electric vehicles	8%	Proportion of light trucks that are plug-in hybrids or electric vehicles	2%	Plug-in hybrids battery range (miles)	35	Electric vehicles battery range: auto and light truck (miles)	175	% reduction in fuel carbon intensity from current levels	20%	Electric power sources compared to current Renewable Portfolio Standard	Meet	Average vehicle replacement rate (years)	8
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LAND USE ASSUMPTIONS

	Scenario A RECENT TRENDS	Scenario B ADOPTED PLANS	Scenario C NEW PLANS AND POLICIES
Land use plans and zoning	Local land use plans and zoning as adopted by cities and counties for downtowns, main streets and employment areas will be the same for all three scenarios.		
Growth captured in UGB	TBD	As reflected in 2035 Regional Growth Distribution adopted by the Metro Council in November 2012.	Southwest Corridor Plan land use vision and other city and county planning efforts underway (if available).
Public/private investment	TBD		TBD


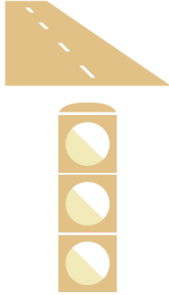

See reverse for more information




WHAT THE FUTURE MIGHT LOOK LIKE IN 2035

	Scenario A RECENT TRENDS	Scenario B ADOPTED PLANS	Scenario C NEW PLANS AND POLICIES
Purpose	This scenario follows the funding trends of the past decade and shows the results of limiting community investments to existing revenues.	This scenario counters recent funding trends and shows the results of investing in a mix of transportation and land use strategies with revenues projected in the adopted Regional Transportation Plan.	This scenario shows the results of more investment aimed at fully achieving adopted and emerging plans and GHG emissions reduction targets.


TRANSPORTATION ASSUMPTIONS

	Scenario A RECENT TRENDS	Scenario B ADOPTED PLANS	Scenario C NEW PLANS AND POLICIES
Transit 	Operations and maintenance <ul style="list-style-type: none"> Maintain existing TriMet service with small increases targeted to address overcrowding and delays due to congestion Implement SMART and C-TRAN plans Capital <ul style="list-style-type: none"> Extend MAX to Milwaukie Powell/Division BRT Extend MAX to Vancouver, WA Close Portland streetcar loop 	Operations and maintenance <ul style="list-style-type: none"> Restore and expand frequent bus service in priority corridors, consistent with Service Enhancement Plans Capital <ul style="list-style-type: none"> Streetcar extension along priority corridors Additional transit priority and pedestrian/bike access to transit projects 	Operations and maintenance <ul style="list-style-type: none"> Expand frequent bus service coverage to all major arterials with supporting land use connecting regional and town centers, consistent with TriMet Service Enhancement Plans Expand local bus service coverage and connections to frequent bus service and high capacity transit, consistent with TriMet Service Enhancement Plans Capital <ul style="list-style-type: none"> Cascadia rail connections to Eugene, Salem and Vancouver B.C. High capacity transit: Southwest Corridor and AmberGlen WES service frequency improvements Bus rapid transit serving I-205 and Tualatin-Valley Highway corridors Other Portland streetcar extensions Additional transit priority and pedestrian/bike access to transit projects
Streets and highways 	Operations and maintenance <ul style="list-style-type: none"> Fall behind on fixing potholes and repairs Implement 50% of regional TSMO strategic plan to achieve 10% delay reduction Capital <ul style="list-style-type: none"> I-5 Bridge Replacement 2016-18 STIP and MTIP projects 	Operations and maintenance <ul style="list-style-type: none"> Keep up with fixing potholes and repairs Implement full regional TSMO strategic plan to achieve 20% delay reduction Capital <ul style="list-style-type: none"> Adopted RTP including: I-5 Bridge Replacement, Sunrise Project from I-205 to 172nd Avenue, US 26 widened to 6 through lanes to Cornelius Pass Road and interchange improvements at US 26, OR 217, I-205, Troutdale/I-84 and I-84/I-5 	Operations and maintenance <ul style="list-style-type: none"> Keep up with fixing potholes and repairs Expanded TSMO strategic plan achieves 35% delay reduction Capital <ul style="list-style-type: none"> I-5/OR 217 interchange (Phase 2) State RTP project list
Bike and pedestrian 	<ul style="list-style-type: none"> Investments are limited with no dedicated funding; X% of regional system completed Complete 2016-18 STIP and MTIP projects 	<ul style="list-style-type: none"> Complete adopted RTP bike and pedestrian projects; X% of regional system completed 	<ul style="list-style-type: none"> Complete 100% of regional bike and pedestrian networks, including regional trails, further targeting short trips and access to transit and centers

EDUCATION AND INCENTIVES ASSUMPTIONS

	Scenario A RECENT TRENDS	Scenario B ADOPTED PLANS	Scenario C NEW PLANS AND POLICIES
Education and incentives 	<ul style="list-style-type: none"> 10% of households practice ecodriving and participate in travel options programs 20% of employees participate in commute programs 1% of households participate in car-sharing 10% of vehicle owners use pay-as-you-drive insurance 	<ul style="list-style-type: none"> 20% of households practice ecodriving and participate in travel options programs 20% of employees participate in commute programs 2% of households participate in car-sharing 10% of vehicle owners use pay-as-you-drive insurance 	<ul style="list-style-type: none"> 40% of households practice ecodriving and participate in travel options programs 40% of employees participate in commute programs 4% of households participate in car-sharing 10% of vehicle owners use pay-as-you-drive insurance

PRICING ASSUMPTIONS

	Scenario A RECENT TRENDS	Scenario B ADOPTED PLANS	Scenario C NEW PLANS AND POLICIES
Pricing 	Existing revenues at 2012 levels <ul style="list-style-type: none"> Fuel use and emissions fees <ul style="list-style-type: none"> Federal gas tax = 18 cents/gallon State gas tax = 30 cents/gallon Local gas tax = 1-2 cents/gallon Vehicle travel fees <ul style="list-style-type: none"> I-5 Bridge toll Other transportation fees <ul style="list-style-type: none"> Payroll tax and farebox recovery Parking fees in downtown Portland, OHSU campus and the Lloyd district Other federal, state and local revenues at existing levels 	Revenues assumed to fund adopted RTP <ul style="list-style-type: none"> Fuel use and emissions fees <ul style="list-style-type: none"> Federal gas tax = 18 cents/gallon State gas tax = 55 cents/gallon Local gas tax = 1-2 cents/gallon Vehicle travel fees <ul style="list-style-type: none"> I-5 Bridge toll Other transportation fees <ul style="list-style-type: none"> Payroll tax and farebox recovery Parking fees in more locations served by high capacity transit Other federal, state and local revenues at RTP levels 	New and expanded revenues <ul style="list-style-type: none"> Fuel use and emissions fees <ul style="list-style-type: none"> Federal gas tax = 18 cents/gallon Carbon fee = \$20-50/ton Local gas tax = 1-2 cents/gallon Vehicle travel fees <ul style="list-style-type: none"> I-5 Bridge toll VMT fee = \$.03-.15/mile Other transportation fees <ul style="list-style-type: none"> Payroll tax and farebox recovery Parking fees in new locations served by high capacity transit Bicycle fee



The region's six desired outcomes – endorsed by city and county elected officials and adopted by the Metro Council in December 2010

Climate Smart Communities Scenarios Project

Background

In 2007, the Oregon Legislature established statewide goals to reduce carbon emissions – calling for a halt to rising emissions by 2010, a 10 percent reduction below 1990 levels by 2020, and a 75 percent reduction below 1990 levels by 2050. The goals apply to all sectors, including energy production, buildings, solid waste and transportation.

In 2009, the Legislature passed House Bill 2001, directing the Portland metropolitan region to “develop two or more alternative land use and transportation scenarios” by January 2012 that are designed to reduce carbon emissions from cars, light duty trucks and SUVs. The law also mandates adoption of a preferred scenario after public review and consultation with local governments, and local government implementation through comprehensive plans and land use regulations that are consistent with the adopted regional scenario. The Climate Smart Communities Scenarios Project responds to these mandates.

For years, the region has followed the 2040 Growth Concept to grow the kind of vibrant communities where transit, jobs and services are close to neighborhoods. The policies and initiatives that have protected farmland also reduced driving and the growth of carbon emissions. Together, these policies and actions provide the foundation for better integrating land use decisions with transportation investments to create prosperous and sustainable communities and to meet state climate goals.

State response

Oregon Sustainable Transportation Initiative
The Oregon Department of Transportation and the Department of Land Conservation and Development are leading the state response through the Oregon Sustainable Transportation Initiative. An integrated effort to reduce carbon emissions from transportation, the initiative will result in a statewide transportation strategy, toolkits and specific performance targets for the region to achieve.

Regional response

Climate Smart Communities Scenarios Project

The Climate Smart Communities Scenarios Project builds on state efforts and existing plans underway in the Portland metropolitan area. The project presents an opportunity to work together to learn what will be required to meet the state carbon goals and how well the strategies support the region's desired outcomes.

A goal of this effort is to further advance implementation of the 2040 Growth Concept, local plans and the public and private investments needed to create jobs, build great communities and meet state climate goals. Addressing the climate change challenge will take collaboration, partnerships and focused policy and investment decisions by elected leaders, stakeholders and the public to identify equitable and effective solutions through strategies that create livable, prosperous and healthy communities.

Metro's policy and technical advisory committees will guide the project, leading to Metro Council adoption of a “preferred” land use and transportation strategy in December 2014.

About Metro

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy, and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to providing services, operating venues and making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together we're making a great place, now and for generations to come.

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

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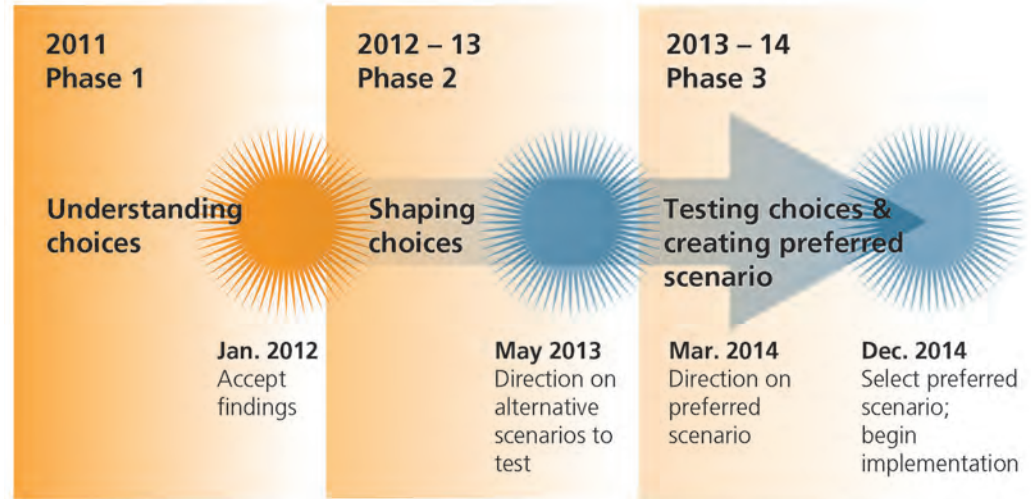
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Climate Smart Communities Scenarios Project timeline



Phase 1

Understanding the choices

Working closely with cities and counties, Metro studied regionwide combinations of strategies, called scenarios, in 2011. The work focused on learning what combinations of land use and transportation strategies could potentially meet the region's emissions target. Strategies included transportation operational efficiencies that can ensure faster, more dependable business deliveries; more sidewalks and bicycle facilities; more mixed use and public transit-supportive development in centers and transit corridors; more public transit service; incentives to walk, bike and use public transit; and user-based fees.

Regional policy advisory committees reviewed findings and recommendations from the analysis in fall 2011 before accepting them for submittal to the Legislature in January 2012.

Phase 2

Shaping the direction

In 2012-13, the region is designing more customized alternative scenarios that apply the lessons learned from Phase 1. This phase provides an opportunity to incorporate strategies and new policies that reflect community aspirations identified through local and regional planning efforts already underway (e.g., SW Corridor Plan, East Metro Connections

Plan, Portland Plan, and other local land use and transportation plan updates).

This work will involve leaders from local governments as well as businesses, equity and environmental justice, and environmental leaders. By May 2013, Metro's policy committees will be asked to provide direction on three scenarios to be tested later that year. Testing will help cities, counties and community partners decide which elements in the three options should go forward into one scenario for the region to adopt in 2014.

Phase 3

Building the strategy and implementation

The final project phase during 2013 and 2014 will lead to adoption of a "preferred" land use and transportation strategy. The analysis in this phase will be conducted using the region's most robust analytic tools and methods – Metropolitan GreenSTEP, the regional travel demand model, MetroScope and the regional emissions model, MOVES.

This phase will identify needed changes to regional policies and functional plans, and include updates to the Regional Transportation Plan and the region's growth management strategy. Implementation of approved changes to policies, investments and other actions would begin in 2014 at the regional and local levels.



What is the Climate Smart Communities Scenarios Project all about?

Working together with city, county, state, business and community leaders, Metro is researching the most effective combinations of land use and transportation policies and strategies to help us create great communities and meet Oregon’s targets for reducing greenhouse gas emissions. Adopted in 2009, House Bill 2001 requires the Portland metropolitan region to develop a land use and transportation plan that will reduce greenhouse gas emissions from cars and light duty trucks (excluding freight vehicles) to help meet state goals for a healthy environment.

Policies that for years have protected farm and forestland and preserved air quality have also reduced how much we drive, resulting in lower emissions compared with other regions. Through December 2014, Metro and local partners will study scenarios that represent what the area could look like in 2035 if various transportation and land use strategies are pursued. In the largest sense, the project is as much about where we invest to keep this region a great place to live, work and prosper as it is about reducing greenhouse gas emissions.

Why is this important?

Many of the policies and actions that can reduce greenhouse gas emissions – planning and building walkable, transit-friendly communities, facilitating advances in technology (cleaner fuels and more fuel-efficient vehicle and engine designs), and making investments in infrastructure and public awareness programs – will not only reduce harmful emissions, they will create great local communities, support good jobs and a resilient regional economy and help the region meet state greenhouse gas emissions reduction targets.

Why should I care about greenhouse gas emissions?

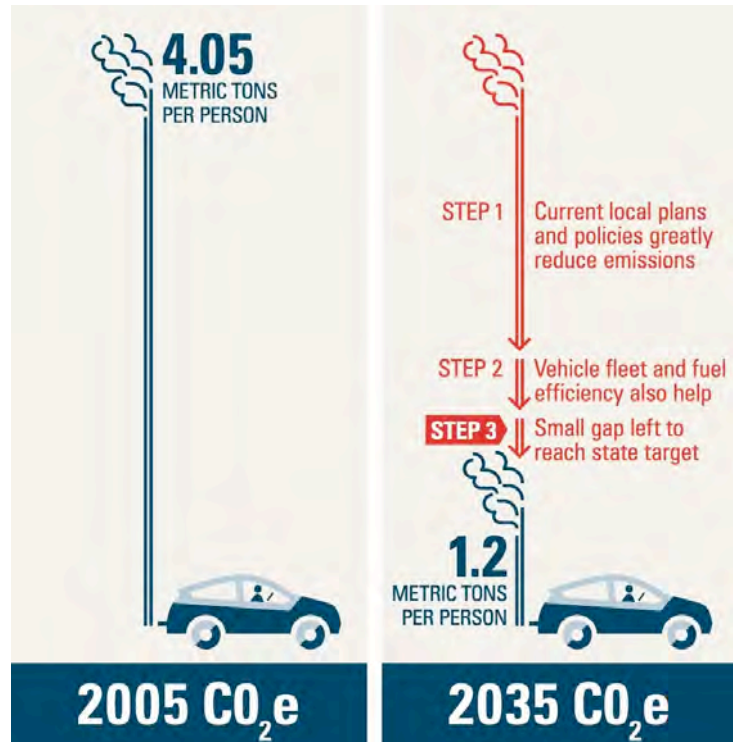
Greenhouse gas (GHG) emissions reductions are part of the state’s plan to protect public health, lower energy consumption and reduce the need for driving. Carbon emissions affect the air we breathe and the state has initiated a number of actions to respond to this public health challenge. In 2007, the Oregon Legislature adopted House Bill 3543, setting statewide greenhouse gas reduction goals that apply to all sectors — energy production, buildings, solid waste and transportation.

The first state laws to implement carbon emissions reduction goals focused on the transportation sector, which accounts for approximately 25 percent of the overall emissions in Oregon. Adopted in 2009, House Bill 2001 requires the Portland metropolitan region to develop and adopt a land use and transportation plan that will reduce greenhouse gas emissions from cars and light duty trucks (excluding freight vehicles) to meet these goals.

How much do we have to reduce emissions, and by when?

HB 2001 directs Metro to develop combined land use and transportation plans, called scenarios, that show what policies and investments are needed to accommodate growth while reducing emissions. The

law requires the region to adopt a preferred scenario after public review and consultation with local governments, and local governments are required to implement the scenario through their plans. In 2011, the state land use agency - the Land Conservation and Development Commission - adopted greenhouse gas emissions reduction targets for the year 2035 for each of Oregon's six metropolitan areas. The target for the Portland metropolitan region calls for cutting roadway tailpipe emissions to 1.2 metric tons per person by 2035.



The good news is that implementing current local plans and realizing advancements in cleaner fuels and more efficient vehicles (Steps 1 and 2) are expected to reduce emissions to 1.3 metric tons per person by 2035. Metro and local communities will need to continue working together to make those current plans a reality, and additional investment and policy action will be needed to meet the region's target. In November 2012, the Land Conservation and Development Commission adopted additional rules that provide more details as the region selects a scenario to meet the state target by December 31, 2014.

The Climate Smart Communities Scenarios Project will demonstrate to Oregonians and the nation that carbon reduction targets set by the state can be achieved while producing outcomes of equal importance to residents: clean air and water, vibrant communities, transportation choices, equity, and economic prosperity.

Why is it a *regional* target as opposed to a target for every city and town in the region?

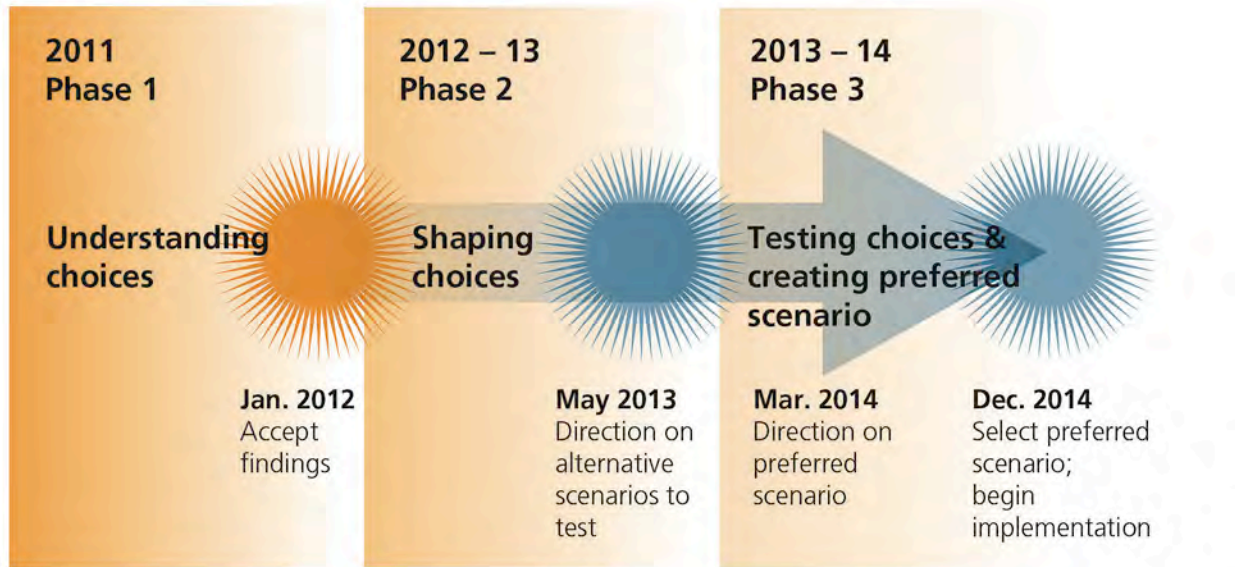
Vehicle travel in the region includes a combination of local travel (trips that begin and end within the region) plus trips that pass through the region, or that begin or end outside the region. In addition, residents of one community often work, shop or go to school in another city or county. That's why the Land Conservation and Development Commission, the state agency responsible for setting the Portland area's carbon reduction target, set the goal at a regional level rather than community by community.

Does that mean that Metro is going to create one solution for the whole region?

There is no single solution to meet the state’s greenhouse gas reduction goals. Communities will each have a role to play and a way to reduce emissions their own way. Different policies, actions, investments and technology improvements will combine to form a solution that will be implemented at state, regional and local levels. Local solutions will vary community by community.

Where are we in the project?

The project has three phases. Phase 1 focused on understanding choices. In this phase, all policy options that help reach the targets were open for consideration.



In Phase 2 the climate scenarios project team integrates community input from local government officials, community and business leaders, and the Metro Council to define the alternatives and strategies to be further evaluated. All will be tested in 2013, so cities, counties and community partners can decide which elements of the three should go forward into one scenario for the region to adopt in 2014.

Phase 3 is about building the strategy and defining how best to implement it. Metro, in partnership with local community and business leaders, will develop and recommend the preferred land use and transportation scenario and strategies needed to support implementation. In 2014, the region must adopt a scenario that supports local goals but also meets the emissions reduction target adopted for the region.

What do you mean by policies and strategies?

During Phase 1 analysis the team evaluated six categories of policies that could be evaluated using a new modeling tool called GreenSTEP, as seen below:



With as many as five different strategies in each of six categories, and including up to three levels of ambition in each category, the team analyzed 144 different combinations, called scenarios.

What is GreenSTEP?

GreenSTEP is an innovative modeling tool that supports scenario planning at the state and metropolitan area levels. It was developed at the request of the Oregon Global Warming Commission. Standard urban travel models are concerned only with forecasting traffic volumes on specific roadways in urban areas. GreenSTEP models account for household vehicle travel, energy consumption and greenhouse gas emissions regardless of where the travel occurs. But GreenSTEP can also calculate household vehicle travel, household walk and bicycle trips, amounts of money households spend on vehicle travel, and more.

Because it is a new type of model, GreenSTEP has been and continues to be peer-reviewed by state, national and international modeling experts. It is recognized by the U.S. Department of Transportation and by the American Association of State Highway and Transportation Officials.

Frequently Asked Questions (FAQ)

ODOT and Metro worked together to develop a metropolitan area version of GreenSTEP used to support Phase 1 of the climate scenarios project. This version allows planners to evaluate prospective policies at a much finer level of geographic detail than is possible with the state level version.

What has been learned so far?

The Phase 1 findings are summarized below:

1. Current local and regional plans and policies are ambitious and provide a strong foundation for meeting the region's greenhouse gas target.
2. The reduction target is achievable but will take additional effort and new strategic actions.
3. Most of the strategies under consideration are already being implemented to varying degrees in the region to achieve the 2040 Growth Concept vision and other important economic, social and environmental goals.
4. A range of policy choices exists to reduce greenhouse gas emissions; the best approach is a mix of strategies.
5. Community design and pricing play a key role in how much and how far people drive each day and provide significant greenhouse gas emissions reductions.
6. Fleet, technology and pricing strategies provide similar significant greenhouse gas emissions reductions but no single strategy is enough to meet the region's target.
7. Road management and marketing strategies improve system and vehicle efficiency and reduce vehicle travel to provide similar, but modest greenhouse gas emissions reductions.

You can download a pdf of the complete Phase 1 Findings Report at

<http://www.oregonmetro.gov/climatescenarios>

How will social equity and environmental justice be considered and achieved? Will Metro make sure that the region's most vulnerable populations – low-income households, communities of color, older adults and children, people with disabilities and households with limited English proficiency - benefit from the climate scenarios project?

We all want a region that provides good jobs, safe and reliable transportation, livable neighborhoods, and access to the opportunities that create the quality of life for which our region is known – for everyone. As part of the project, Metro is creating a “scorecard” to measure how well the chosen scenarios work to advance environmental justice and equity along with other desired outcomes. The scorecard will include a set of environmental justice and equity outcomes that the region desires, along with ways to measure each outcome. A variety of evaluation measures will be used to assess the scenario options, including housing and transportation costs, access to jobs and affordable housing and transportation choices, air quality, implementation costs, vehicle miles traveled, freight costs, and so on. Housing and transportation costs in particular will help determine the effect of certain policy actions on vulnerable communities.

Phase 2 outreach includes discussions with organizations working to advance equity and environmental justice in the region to provide guidance to this aspect of the process. Project outreach will also include

opportunities for community leaders to help identify what strategies should be included in the preferred scenario and how best to implement the strategies being considered to ensure the preferred scenario advances equity and environmental justice in the region.

What about the business community? How will business and economic interests be considered? Will Metro make sure that the region's preferred approach creates jobs and supports the area's economic competitiveness?

The community engagement strategy described for equity and environmental justice will also involve business leaders and business associations. Project outreach will include meetings with representatives from business sectors such as freight and building industries, shippers, ports, commercial and residential developers, small business owners, as well as the region's largest employers and business associations. Project outreach will also include opportunities for business leaders to help identify what strategies should be included in the preferred scenario and how best to implement the strategies being considered to ensure the preferred scenario advances job creation and economic prosperity in the region.

How much is all this going to cost and who's going to pay for it?

Cost will be one of many evaluation criteria used to guide the region's final selection and adoption of a preferred scenario in 2014. It will be a critical dimension in any discussion of implementation.

Phase 1 was intended to study a range of options to meet the target. With a variety of options still under consideration, it is not possible to estimate costs until a more specific direction is agreed upon.

Evaluation of costs as well as potential cost savings will occur in Phase 3. After Phase 3, the preferred scenario will be implemented through policies, actions and investments at the state, regional and local levels. An important outcome of the project will be documenting the investments and policies necessary to achieve local plans and visions, working together to realize those visions and finding ways to leverage or seek additional state and regional investment.

As the scenarios planning continues to be refined, policies and actions already being implemented as part of a community's planning process will likely become important building blocks in the final scenario's recommendation. The project is as much about investing in smart growth, healthy communities and a wonderful place to live and work as it is about reducing carbon emissions.

How can I stay involved?

There are many ways to stay involved in the development of the preferred scenario. Sign up to receive updates via e-mail about additional public events, forums, and web surveys at the project website at www.oregonmetro.gov/climatescenarios or by calling 503.797.1551.

Climate Smart Communities Scenarios Project: Health Impact Assessment

A collaborative approach to building livable, prosperous, equitable and climate smart communities

Working toward healthier communities

Health impact assessment (HIA) provides decision-makers with information about how any policy, program, or project may affect the health of people. The Scenarios Project HIA (Scenarios HIA) will describe the health impacts of proposed land use and transportation strategies to decision-makers and ensure that the best health-promoting elements are included in the final outcome of this work.

Health Impact Assessment: Working toward healthier projects and policies

The Oregon Public Health Division’s Health Impact Assessment initiative focuses on building Oregon’s collective capacity to evaluate the health effects of proposed projects and policies and to provide the information to decision-makers and community members.



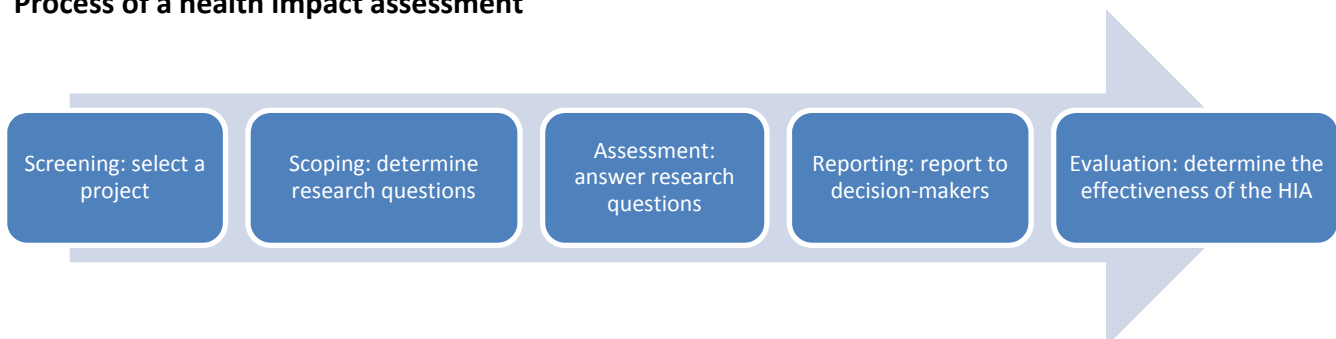
The key element that makes HIA different from traditional public health assessment is that its approach is prospective. Ideally, the health impacts of a proposal are assessed before a final decision is made, allowing the results of the HIA to be considered in the decision-making process. The ultimate goal of HIA is to utilize objective information to minimize negative health impacts and to maximize positive health impacts of a project or policy.

Equity is an integral component of all HIAs. HIA seeks to identify unequal impacts of a policy or project for people of color, people experiencing poverty, people with disabilities or chronic diseases, the young and the elderly.

Once impacts have been reviewed HIA seeks to improve health outcomes for everyone by recommending changes that improve the likelihood of positive impacts and lessen negative impacts.

HIA in Oregon has created new opportunities for collaboration between community members, local government, and the business community, and has been successfully used in Oregon to improve the health impacts of sidewalks and bike paths, parks, roads, zoning and the production of alternative energy.

Process of a health impact assessment



Climate Smart Communities Scenarios Project: Health Impact Assessment

A collaborative approach to building livable, prosperous, equitable and climate smart communities

Scenarios Project Health Impact Assessment

Transportation and health

Transportation produces 25 percent of the Portland metropolitan region’s greenhouse gas emissions, contributing to a warming climate that could severely impact our health and quality of life. Policies and investments that reduce greenhouse gas emissions can also limit exposure to air and noise pollution, encourage physical activity, and reduce traffic-related injuries and deaths. By understanding benefits, impacts, and tradeoffs the Scenarios Project will identify how to reduce greenhouse gas emissions and improve the health of everyone in the region.

Assessing health impacts

To ensure that the health impacts of the strategies in the preferred scenario are carefully considered, Metro is partnering with Oregon Health Authority to conduct a health impact assessment (HIA). The CSC HIA will present the health benefits and impacts of different land use and transportation strategies, the building blocks for regional scenarios, to help inform the scenario development and selection process. The HIA will help to ensure that public health and equitable health outcomes are considered and included in transportation and land use decisions for decades to come.

Advisory work group

The Scenarios Project HIA will bring together public health experts, land use, planning and transportation experts, and community health, environmental and community-development advocates. This advisory work group will help OHA determine the scope of the HIA, ensure that health and equity issues are considered, and offer available resources and expertise.

Assessment

In the assessment, OHA will describe the direction and magnitude of health impacts for the Scenarios Project policy strategies that have been prioritized by the advisory work group. We may use the following analytic methods, depending on our scope and resources and what will best answer the research questions: literature review, meta-analysis, stakeholder interviews, risk analysis, and health effects modeling.

Climate Smart Communities Scenarios Project

Metro is leading the Climate Smart Communities Scenarios Project to determine how building healthy, livable, prosperous, and equitable communities supports state and regional goals for the reduction of greenhouse gas emissions from light vehicle travel. Metro is collaborating with local governments and other partners to develop, analyze, and select a preferred land use and transportation scenario that reduces emissions from cars, small trucks and SUVs as directed by the Oregon Legislature in 2009. The Scenarios Project will identify the best land use and transportation policies and investments that will keep communities vibrant and prosperous for everyone and reduce greenhouse gas emissions. The project continues to be about jobs, livable communities and public health as it is about a healthy environment.



Timeline

The Scenarios project is taking place in three phases from 2011 to 2014. The HIA method will be developed during Phase 2. During Phase 1, Metro developed scenarios to identify the mix of strategies that will help the region meet state greenhouse gas reduction goals. In Phase 2, the project team—in collaboration with local governments and other stakeholders—will explore how and where different strategies could be applied in the region. Throughout 2012, Oregon Health Authority (OHA) will engage partners, including decision-makers, to develop the HIA method and apply it to the Phase 1 scenarios. In 2013 and 2014 the project team will apply the HIA method to alternative scenarios and eventually to the preferred regional scenario. OHA and Metro will collaborate with partners to develop relevant communication materials for all decision-making bodies, with an eye to assisting decision-makers in understanding alternatives, tradeoffs and mitigation opportunities when deciding between scenarios.

Implementation

The preferred scenario will be implemented through policies, investments and actions at the state, regional and local levels, including Metro’s Regional Transportation Plan, the region’s growth management strategy and local plans. Making this information clear to decision-makers will ensure that the best health-promoting elements are included throughout the scenario development and implementation process.

State-wide impact

The Oregon Sustainable Transportation Initiative (OSTI) is an integrated statewide effort to reduce greenhouse gas (GHG) emissions from transportation while creating healthier, more livable communities and greater economic opportunity. As part of this statewide strategy, ODOT has expressed interest in the Scenarios Project HIA methods and findings, further magnifying the impact of this work. Metro is the first Oregon MPO to address state mandates in partnership with the larger statewide effort. As part of this partnership, Metro is developing tools and methods that other MPOs could use in their own scenario planning efforts.



The region’s 6 desired outcomes—endorsed by city and county elected officials and adopted by the Metro Council in December 2010.

Building blocks for regional scenarios

- **Community design:** Complete neighborhoods and mixed-use areas, urban growth boundary, transit service, bike travel, parking
- **Pricing:** Pay-as-you-drive insurance, gas tax, road use fee, carbon fee
- **Marketing and incentives:** Eco-driving, individualized marketing programs, employer commute programs, car-sharing
- **Roads:** Freeway and arterial capacity, traffic management
- **Fleet:** Fleet mix and age
- **Technology:** Fuel economy, carbon intensity of fuels, electric and plug-in hybrid electric vehicle market share

The Oregon Public Health Division is the lead state agency for all public health matters including disease prevention, environmental health, maternal and child health, emergency preparedness, and community health systems planning and coordination.



The Office of Environmental Public Health, Research and Education Services section serves as Oregon Public Health Division's technical, scientific and educational public health resource. We identify, assess and report on threats to human health from exposure to environmental and occupational hazards. We advise the people and communities of Oregon to best understand potential risks where they live, work and play in order to remain healthy and safe.

www.healthoregon.org/hia

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy, and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.



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www.oregonmetro.gov/climatescenarios.

Materials following this page were distributed at the meeting.



www.oregonmetro.gov/climatescenarios



Investment Choices Evaluation Approach

Metro Policy Advisory Committee

March 13, 2013

Kim Ellis, project manager

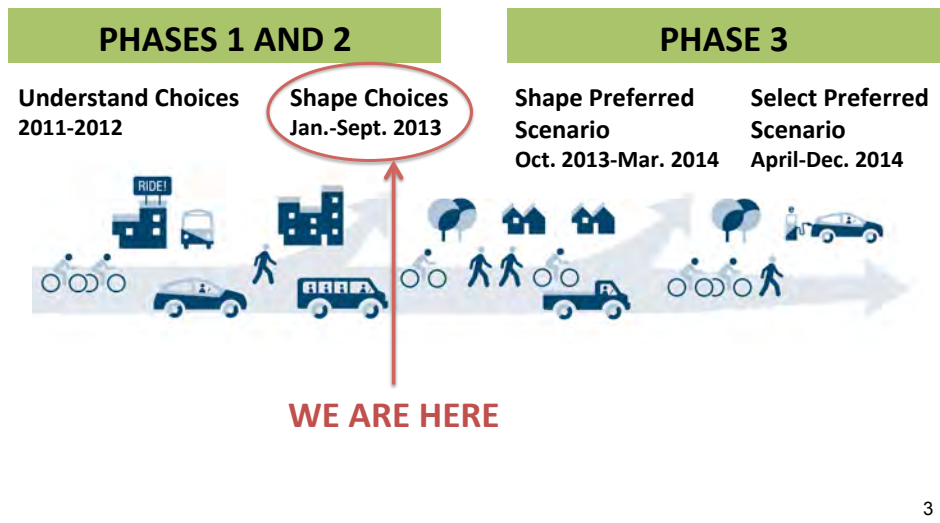


Climate Smart Communities Scenarios Project

- Working together with city, county, state, business and community leaders
- Researching how land use and transportation strategies can be leveraged to
 - meet state targets for reducing carbon emissions
 - create great communities
- Required by Oregon law



Where We've Been and Where We Are Headed



2012 MPAC/JPACT/Council direction

- Continue engaging local officials on project
- Engage community leaders on outcomes to evaluate
- Confirm local land use visions
- Compile case studies to showcase local visions and actions
- Conduct sensitivity testing of strategies
- Develop approach for testing three scenarios in 2013

Three-part discussion

March - Kick-off

- Investment choices to test
- Questions to answer
- Draft assumptions

April - More discussion

- Local case studies
- Community leaders' input on outcomes to evaluate

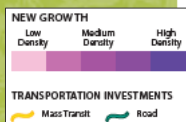
May - Action

- Request support to move forward with evaluation

5

What is a scenario?

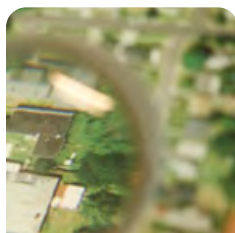
- A possible future
- Used to test the effect of different investment choices
- Results will compare risks, opportunities and tradeoffs of choices



from www.PlaniTulsa.org

6

Investment choices evaluation approach



INVESTMENT CHOICES TO TEST

Recent trends
Adopted plans
New plans and policies

QUESTIONS TO ANSWER

Cost? What can we afford? Most cost-effective? Impact on public health, economy, business, social equity and the environment? Public support? Feasibility?

OUTCOMES TO MEASURE

VMT, physical activity, delay, GHG emissions, air pollution, land consumption, housing and transportation costs by income, infrastructure costs,

7

Next steps

Jan. – May

Define scenario assumptions and questions to answer in the evaluation

May

Request JPACT, MPAC and Council support to move forward with evaluation

Summer

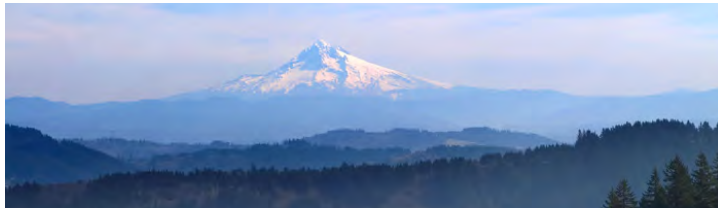
Conduct evaluation

**Oct. '13 –
March '14**

Report findings and begin developing preferred scenario

8

Today's discussion



1. What questions do you want answered in the evaluation?
2. What input do you have on the scenario assumptions?

Climate Smart Communities Scenarios Project Health Impact Assessment Summary

Oregon Health Authority

March 13, 2013

Health Impact Assessment

Health impact assessment (HIA) provides decision-makers with information about how a proposed policy, program or project may affect the health of people. HIA differs from traditional public health assessment in one important way - the health impacts of a proposal are assessed before a final decision is made, allowing the results of the HIA to be considered in the decision-making process. HIA provides objective information that can be used to increase the positive health impacts of a project or policy and mitigate negative impacts.

In the Climate Smart Communities Scenarios HIA, the OHA's recommendations apply to the f the three scenarios to be tested in 2013, as well as the development and adoption of a preferred scenario in 2014. The HIA aims to support Metro and its partners in the consideration of public health and health equity in the selection and implementation of transportation and land use decisions related to GHG reduction policy in the Portland metropolitan region.

Findings

Through modeling and an extensive review of current literature, OHA found:

1. Most all of the policies under consideration could be positive for health, and certain policies were more beneficial than others.
2. The majority of the health benefits result from:
 - a. increased physical activity,
 - b. followed by reductions in road traffic injuries and fatalities and
 - c. lower exposure to particulate air pollution.
3. Strategies that meet GHG reduction goals by decreasing vehicle miles traveled (VMT) will have the most positive impact on human health by
 - a. increasing physical activity through walking, biking and using transit and
 - b. reducing injuries and fatalities from collisions.
4. Strategies resulting in the highest increases in walking, biking and use of transit may also be the most successful in decreasing air toxics emissions and exposures because of lower VMT.
5. The scenarios found to be the most health-promoting in our quantitative comparison all had similar elements which led to the most positive health outcomes: most ambitious levels of community design policies, intermediate and ambitious levels of pricing and incentives, highest levels of active transportation (including transit), lowest levels of single occupancy vehicle driving, and lowest levels of particulate air pollution.

CSCS HIA Recommendations

OHA strongly recommends the development and implementation of a preferred scenario that meets or surpasses greenhouse gas emissions reduction target set for the region.

Active transportation and physical activity recommendations

- 1. Prioritize strategies, such as community design, pricing, and incentives that will best increase active transportation and physical activity by reducing vehicle miles traveled.** Strategies to improve fleet, technology and roads will have a smaller health co-benefits in the region than strategies and investments that increase physical activity, decrease collisions and reduce air pollution.
- 2. Implement active transportation strategies with an understanding of existing local health conditions and inequities.** Metro and partners should implement strategies in ways that do not worsen these health conditions and inequities, such as planning for necessary safety infrastructure. Increasing the number of people biking and walking could cause a small increase in injuries and deaths from collisions. Additionally, not all Portland Metro region residents have equal access to active transportation opportunities.
- 3. Prioritize strategies that lead to increases in active travel for all populations in the region, in particular for children, seniors, people with low incomes, communities of color, and people with chronic health conditions or disabilities.** Example strategies include marketing and incentive programs targeted to these populations, improved active travel infrastructure on routes to schools, and improved public transportation service in areas where these populations live. Providing the highest per-capita-VMT population with active transportation strategies would have a positive impact on all residents of the region.

From the report: “People who commute by walking, bicycling or public transit are more likely to meet physical activity recommendations, and they do twice as much total physical activity (transportation and recreation combined) as those who commute by automobiles. Children who walk or bike to school are more likely to meet physical activity recommendations, and to attain healthier body composition and cardiorespiratory fitness.”

Air pollution recommendations

- 1. Prioritize strategies that lead to decreases in air pollution exposure for all populations in the region.** In particular for low income communities, children, seniors, people with low incomes, and people with chronic health conditions or disabilities. An example strategy may be creating and promoting walking and biking routes adjacent to low-traffic roads specifically to these groups).

From the report: “Low-income communities and communities of color are more likely to live in close proximity to high-traffic roads and have higher exposures to harmful air pollution as a result. These groups may also live in lower quality housing with poor indoor air quality. Their cumulative exposure to indoor and outdoor air pollution may be significantly higher than other groups.”

2. **Follow through with implementation of the recommendations identified in the [Portland Air Toxics Solutions Report](#).** The report identifies a number of recommendations that will reduce air pollution from light vehicles and have also been linked to reducing greenhouse gas emissions.

Road traffic injury and fatality recommendations

1. **Prioritize strategies that lead to decreases in road traffic injuries and fatalities for all populations in the region;** in particular for children and older adults. The community design, pricing and incentives strategies that lead to reductions in VMT may also increase safety in the region.
2. **Mitigate potential increases in pedestrian and bicyclist injuries and fatalities through proven design strategies,** such as increasing the visibility of vulnerable road users; separate facilities like sidewalks, bike boulevards or cycle tracks; and traffic calming or speed control measures (133, 135). The feeling of safety given by these mitigations may also expand the percentage of the population willing

From the report:

“Motor vehicle crashes are the leading cause of death for individuals between the ages of 5 and 24.”

CSCS HIA limitations and recommendations for future health assessment

1. OHA recommends that future related HIAs include consideration of land use, housing affordability, location relative to employment, gentrification and displacement, and other air pollutants beyond PM_{2.5}.
2. OHA recommends that Metro and/or other partners carry out additional quantitative health impact assessment of the three scenarios that are identified for further evaluation in spring 2013 to further inform development and adoption of a final preferred scenario. OHA recommends the use of ITHIM or a similar health impacts model for this future assessment.
3. This HIA found that the most significant health benefits of the GHG reduction policies under consideration in the CSCS project were from increased physical activity through increased walking, biking and use of transit. Future assessments should include this health determinant and should attempt to answer additional questions, such as how can policies or programs be implemented to result in increases to walking, biking and use of transit in the region? And, how can Metro and local governments assure equal access across the region to these transportation options?
4. OHA recommends that when the CSCS Project develops the preferred scenario in 2013-14, health stakeholders (in particular local health departments) be consulted in order to take local health expertise into account and to continue building relationships between public health and planning professionals and policymakers. The healthiest scenario could result in hundreds of premature deaths prevented and years living with disability averted in the region. Health should be a key consideration in Metro’s scenario planning process as it moves forward.

For more information

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Copies of the full report will be available at OHA’s website: www.healthoregon.org/hia

Presentation to the Metro Policy Advisory Committee

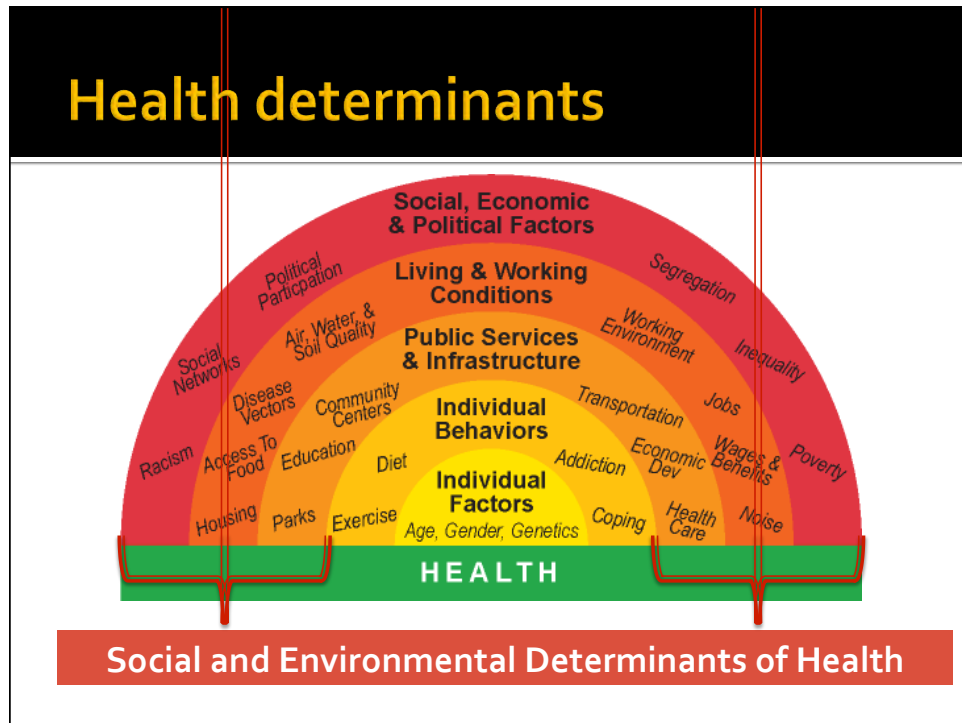
Climate Smart Communities Scenarios HIA

Jae P. Douglas, PhD, MSW
Oregon Health Authority, Public Health Division
HIA and EPHT Programs
March 13, 2013

What an HIA is...

A structured, but flexible, process that:

- predicts anticipated health outcomes of a policy decision/project
- Translates that information into recommendations for balanced, well-informed policies
- Helps you weigh trade-offs and understand the direct and indirect health impacts of your work
- HIA's purpose is to improve health, track unintended consequences and mitigate risk

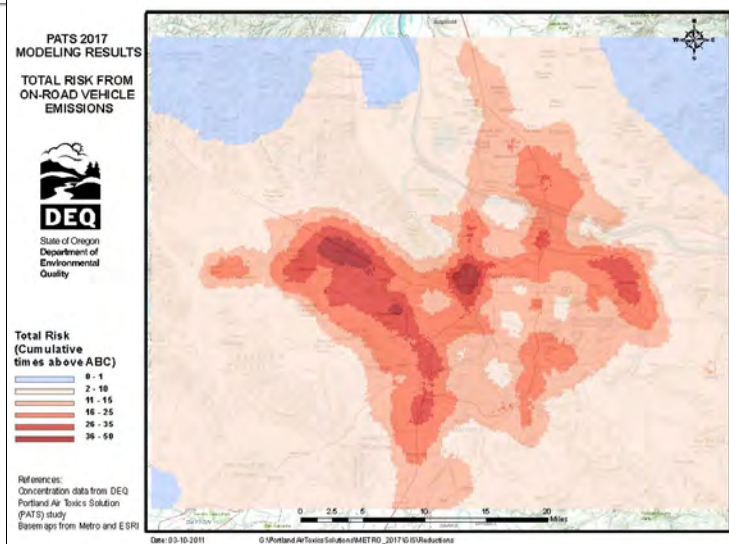


- # HIA Partners
- | | |
|---|---|
| <ul style="list-style-type: none"> 1000 Friends of Oregon DEQ DLCD City of Beaverton City of Gresham, Urban Design and Planning Department City of Forest Grove City of Hillsboro City of Milwaukie City of Oregon City City of Portland City of Tualatin Coalition for a Livable Future Metro Multnomah County Health Department | <ul style="list-style-type: none"> Multnomah County Planning ODOT OHSU OPAL Oregon Environmental Council Oregon Health Authority Oregon Public Health Institute Oregon Transportation Research and Education Consortium PSU Regional Transportation Council The Resource Innovation Group TriMet Upstream Public Health Washington County |
|---|---|
- Dr. James Woodcock, Cambridge

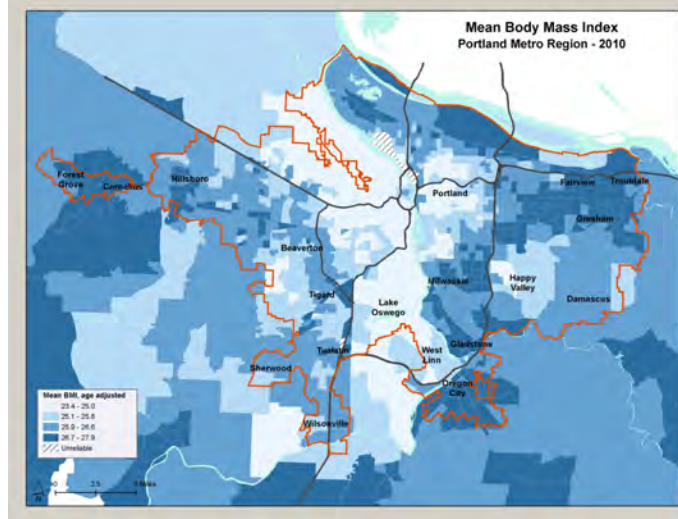
Health impacts of climate change



Air quality



Existing conditions

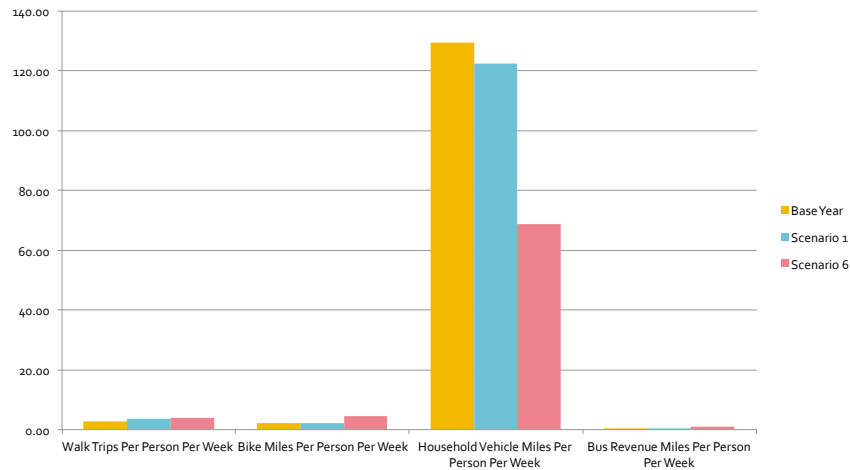


Source: Oregon Health Authority, Environmental Public Health Tracking report: DMV records are valuable for obesity surveillance in Oregon, September 2012

Collisions and fatalities



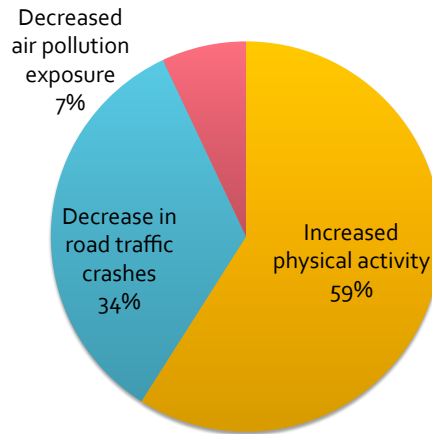
Differences in mode choice by scenario



Scenario 6 health impacts - 2035

- 5% fewer premature deaths
- 6% fewer years of life lost for cardiovascular disease, heart attack and stroke
- 4% reduction in years of life lost for diabetes
- Overall decrease in injuries and fatalities from traffic collisions (small increase injuries/fatalities in bike crashes, from 10 to 12)
- Overall the region would experience 208 fewer premature deaths and 3,240 years of life gained

Scenario 6 health impacts - 2035



Key recommendations

- Develop and implement a preferred scenario that meets or surpasses the greenhouse gas emissions reduction target set for the region.
- Emphasize strategies that best increase active transportation and physical activity: community design, pricing and incentives – to maximize public health benefits and meet the state target.
- Include strategies, such as community design, that can lead to decreases in road traffic injuries and fatalities for all populations in the region, in particular for children



Questions?

