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Environmental Scorecard Workshop Report

A Summary of the Climate Smart
Communities Scenarios Project Workshop
of July 17, 2012

November 2012



 Metro | *Making a great place*

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.

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Metro collaborated with 1000 Friends of Oregon and the Oregon Environmental Council in planning and executing the Environmental Scorecard Workshop. The opinions, findings and conclusions expressed in this report are not necessarily those of our partner organizations.

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CLIMATE SMART COMMUNITIES SCENARIOS PROJECT

Executive summary

Introduction

This report summarizes what happened at the Environmental Scorecard Workshop held in the Metro Council Chamber from 8:30 a.m. to noon on Tuesday, July 17, 2012. The workshop was part of the 2012 communications and outreach strategy for the Climate Smart Communities Scenarios Project.

Background

At the time of the environmental scorecard workshop, the scenarios project was nearing completion of engagement with local elected officials to achieve understanding of Phase 1 findings and was making progress into the next period of engagement. During this new period, outreach would involve more detailed communications and more in-depth methods of communicating to strengthen connections with communities and build relationships with key community members. Extending beyond elected officials and local planning staff, this phase mainly targeted leaders of the business, environmental, and equity and environmental justice communities. Workshops with these community leaders were among several activities planned to achieve the communication goals.

For the environmental workshop, Metro partnered with 1000 Friends of Oregon and the Oregon Environmental Council. Partners encouraged their contacts to attend and advised on the workshop agenda and activities. Many workshop attendees were unfamiliar with the Scenarios Project prior to the workshop; others had attended the April 2011 Climate Leadership Summit where summit participants explored ways the Portland area could build vibrant neighborhoods and spread economic growth while reducing emissions that are linked to climate change.

The workshop was intended to inform and engage community leaders and foster collaboration, mutual learning and relationship building between the planning staff and the environmental community. Participants were invited to discuss how to measure the benefits and impacts of land use and transportation policy actions in environmental terms. Pre-workshop materials explained that planning staff would use the input gathered at the workshop to develop a scorecard that could measure how well various combinations of land use and transportation strategies could help maintain clean air and water, among other environmental goals, while also meeting goals for carbon emissions reduction.

Overview of workshop format

The workshop followed a format of short, engaging presentations by invited guests and project leaders combined with open discussion and question/answer periods involving all 26 attendees, and also small group discussion. The meeting flowed as follows:

- **Welcome and introduction** – Councilor Rex Burkholder welcomed participants and thanked them for their attendance.
- **Workshop description and expectations** – Jeanne Lawson, facilitator of JLA Associates, reviewed the workshop purpose, goals, and tools to be used.
- **Metro staff overview of the CSC Scenarios Project** – Kim Ellis, Metro’s project manager for the scenarios effort, summarized activity to date.
- **Examples of environmental indicators** – Mike Hoglund of Metro, Mary Kyle McCurdy of 1000 Friends of Oregon, Chris Hagerbaumer of the Oregon Environmental Council, and Angus Duncan of the Oregon Global Warming Commission each spoke. They commented briefly on the relevance of the Greater Portland Pulse indicators to their organizations and, in some cases, offered other starting points.
- **Open discussion of presentations** – Jeanne Lawson facilitated discussion.
- **Discussion of proposed outcomes** – A facilitated discussion where messages emerging from attendees regarding the outcomes were noted; Kim Ellis provided further information and clarification on the outcomes.
- **Break**
- **Small group discussion** – Participants organized themselves into three groups focused on (1) Community design and Roads, (2) Marketing and incentives and Pricing, and (3) Fleet and Technology for a facilitated exercise in connecting strategies to outcomes.
- **Group reports** – One member of each group presented a summary of the small group’s discussion to the full gathering.
- **Prioritization** – Each attendee completed a prioritization sheet indicating his/her top three priority outcomes.
- **Thank you and next steps** – Kim Ellis thanked participants and explained how the material would be used going forward. Councilor Rex Burkholder closed the meeting, encouraging attendees to stay in touch on the project.

This document provides a description of what happened and what project members heard during each stage of the workshop. The report is followed by five appendices:

- Appendix A: Workshop attendance
- Appendix B: Workshop presentations
- Appendix C: Workshop materials
- Appendix D: Small group discussion charts
- Appendix E: Workshop feedback

Workshop narrative

Welcome and introduction

Council Rex Burkholder welcomed participants to the meeting and thanked them for their participation. He provided a brief background of the Climate Smart Communities (CSC) Scenarios Project. Councilor Rex Burkholder noted that the goal of today's meeting is to create an evaluation tool to measure the success of scenarios from an environmental perspective. He then introduced facilitator Jeanne Lawson and Metro staff on the project, and participants introduced themselves.

Workshop description and expectations

Jeanne Lawson explained the workshop and expectations and reviewed the agenda. She noted that Metro is hosting workshops on public health, the environment, equity and environmental justice, and business. The input gathered at these workshops will be used to develop scorecards to measure scenarios. In an effort to build on work and research that has already been done on environmental indicators and outcomes, Metro has decided to begin with the Greater Portland Pulse environmental outcomes as a starting point for the environmental scorecard.

Overview of CSC Scenarios Project

Kim Ellis of Metro provided an overview of the CSC Scenarios Project. She made the following main points:

- **Project Timeline:** The CSC Scenarios Project has three phases in 2011-2014. In Phase 1, Metro looked at 144 combinations of land use and transportation strategies, called "scenarios." These included a wide array of vehicle and fuel technologies, community design, roads, pricing, and marketing/incentives. Phase 1 also produced a list of the most effective greenhouse gas (GHG) emission reduction strategies, which include cleaner fuels, more efficient vehicles, more transit with bike and pedestrian access, and efficient pricing. Currently, the project is in Phase 2, which is focused on shaping and narrowing down to a few scenarios for further testing. It also involves creating a scorecard to evaluate in 2013 how well the scenarios perform in environment, equity/environmental justice, and business terms. In Phase 3, two or three scenarios will be evaluated in greater detail.
- **What is a scenario?** A scenario is a combination of land use and transportation strategies and levels of effort that describes a possible future condition. Scenarios help inform and compare different ways to meet climate change objectives and other community goals. The CSC Scenarios Project builds on the region's six desired outcomes adopted by the Metro Council in 2010. It also builds on the 2040 Growth Concept and integrates local planning efforts and aspirations. Scenarios are created using adopted community plans and visions, statewide policies, and other strategies tested in Phase 1.

- **Target:** The target for the CSC Scenarios Project is to reduce light vehicle roadway emissions to 1.2 metric tons of greenhouse gas emissions per capita by 2035. Implementation of local plans already on the books is forecast to reduce emissions to just above 1.2 metric tons, but the CSC Scenarios Project aims to help the region fully achieve the target.
- **Scorecard:** The purpose of today's workshop is to help develop an environmental scorecard to measure the scenarios and allow comparison among scenarios to see how well they support environmental goals. Kim Ellis presented examples of scorecards used in other regions.
- **Next Steps:** In the coming months, Metro will host an Equity/Environmental Justice Scorecard Workshop, business focus groups, and an Opt In survey. There will also be a summit later to bring all of these interest groups together.

Examples of environmental indicators

Four environmental experts presented perspectives on the most important outcomes to include as part of the scorecard.

Mike Hogle, Metro

Mike Hogle provided a background on the Greater Portland Pulse project. The pulse focused on finding ways to measure a variety of factors that go in to creating a great community. It went through a systematic process to develop indicators with the help of a national expert and an advisory team. The pulse identified nine categories, and used indicator teams to develop outcomes for each category. The environment indicator team developed seven outcomes and drivers for each. From those drivers, the team came up with indicators representing what needs to be measured in order to monitor progress toward the desired outcomes. The pulse's seven environmental outcomes are the starting point for today's conversation.

Mary Kyle McCurdy, 1000 Friends of Oregon

Mary Kyle McCurdy explained that 1000 Friends of Oregon is focused on the built environment and protection of farms and forests. The organization will be looking at outcomes and indicators that best achieve those objectives, as well as climate change reduction. 1000 Friends of Oregon was involved with the legislation that led to Metro's scenario planning, and is also involved with the Coalition for a Livable Future's Equity Atlas, which looks at regional indicators for equity. 1000 Friends of Oregon seeks environmental outcomes that link economic, equity and environmental issues. For example, a robust sidewalk and bikeway network has multiple benefits in all three areas, and also reduces GHG emissions, improves air and water quality, improves public health, helps people save money, and connects people to where they need to go.

Chris Hagerbaumer, Oregon Environmental Council

Chris Hagerbaumer explained that the Oregon Environmental Council's goals include climate protection, clean and plentiful water, toxic-free environments, sustainable economy, and equity. Chris also described the Mosaic Least Cost Planning (LCP) tool currently being developed by the Oregon Department of Transportation (ODOT). House Bill 2001 directs ODOT to develop an LCP

tool for transportation, which takes into account the social, economic and financial costs and benefits of transportation investments. The LCP tool will quantify data that has not traditionally been quantified and integrate qualitative data to come up with optimal solutions. Through Mosaic, ODOT has developed a set of indicators that includes equity and environment categories, and has identified what kind of data should be used to measure these.¹

Angus Duncan, Oregon Global Warming Commission

Angus Duncan explained that climate change planning is important, but must be implemented well. Metro, ODOT, and various cities, counties, and communities around Oregon are doing climate change planning. It is important that all of these processes link together and reinforce each other, rather than starting from zero every time. Scarce resources should not be spent on short-term, isolated climate change projects. It is important to integrate projects, and to set up a scientific evaluation process to measure and evaluate whether Oregon is hitting benchmarks or not. Benchmarks must have a long life and look beyond the current economic situation. Benchmarks must also be broken down into measurable parts. The benchmarks developed by the Governor's 10-year Energy Strategy last fall are a good example; they include three kinds of outcomes: direct outcomes; indirect outcomes such as economic development; and unwelcome collateral outcomes to avoid, such as disproportionate effect on different communities.

Open discussion on presentations

Participants had an open discussion on the environmental outcomes, noting which outcomes they felt were most important and adding any missing outcomes. They made the following points and comments:

- The planning timeframe is important. The process should include both short and long term goals. There are also some choices that may help meet the near-term goals, but which would prevent meeting long-term goals. It will be important to be able to measure the short-term impact of strategies.
- Beginning with the Mosaic and Greater Portland Pulse outcomes is a good starting point.
- It is appropriate to include Equity and Environmental Justice as part of the Environmental Scorecard, even though there will be a separate Equity and Environmental Justice Scorecard. However, the goal should be to not create brownfields in the first place—thus the indicator should evaluate whether there is a “reduction of” rather than just “proximity to.”
- Participants discussed where “levels of transit service” should fit in to the outcomes. Levels of transit service could be embedded in all of the outcomes. Increased transit service can be both a strategy and an outcome. Increased transit service is a strategy in that it is a means of getting to environment and equity goals. It is also an outcome

¹ More information on MOSAIC can be found on ODOT's website at <http://www.oregon.gov/ODOT/TD/TP/pages/lcp.aspx>

in that other strategies (such as denser cities) lead to increased transit service. “Access to Transit” could be added as an outcome.

- Participants discussed the role of the economy in the outcomes. The ability to pay for transit service, sidewalks, bicycle facilities, etc. will be very important; thus the economy is an underlying driver that we need to keep in mind. Also, there may be some outcomes that are not cost-effective to measure or are too difficult to measure.
- Participants recommended the addition of an outcome on Water Supply and Quantity, which goes beyond just clean water.
- Participants discussed whether or not GHG Emissions/Climate Change should be added as its own outcome. Some noted that reduction of GHG emissions is a means to get to some other outcome like clean air, but reduction of GHG emissions is not itself an outcome sought. GHG emissions are also different from clean air. Clean air is about good air days, not GHG emissions. Some noted that including GHG emissions as an outcome seems to be circular.
- One participant suggested adding smart buildings to the strategies or outcomes. Metro staff responded that the focus of the CSC Scenarios Project is to focus on roadways and GHG emissions only. While smart buildings are important, they are not part of this scope.
- The process should indicate what the growth rate assumption is. A growth rate assumption of two percent may be too ambitious.

Small group discussion – “pathways” exercise

Participants broke out into three groups to identify “pathways” between strategies and outcomes. The three groups focused on: 1) Community design and roads, 2) Marketing and incentives and pricing, and 3) Fleet and technology. Nuin-Tara provided an explanation of the pathways exercise, using a similar exercise done as part of the Health Impact Assessment (HIA) workshop as an example. Each small group was facilitated by a staff person and included a technical work group member to help answer questions.

Participants used felt boards to help them arrange links between the identified strategies and outcomes, identifying both direct impacts and intermediate outcomes. Appendix D includes the charts that show their final pathways arrangements. After working in small groups on the pathways exercise, each group provided a brief presentation on the results.

Pricing

The participants who worked on the Pricing pathways commented that the impacts of all pricing strategies depend on how the revenue is used. If revenues are used to support public transit, pedestrian and bicycle infrastructure, there could be a positive impact on nearly all of the outcomes. However, if revenues are used to increase roads and highways, there could be a negative impact. If gas tax revenues and road-use fees are spent on roads, this would result in an increase in driving, which is contrary to the outcomes. Participants also noted that pricing strategies can be a burden on bedroom communities commuting to work, and is an equity concern.

They also discussed the carbon fee in British Columbia is an example of a carbon fee that addresses the equity concern. In British Columbia, the carbon fee goes to reducing other taxes, such as the

income tax. One participant suggested adding a strategy to change the Oregon Constitution to broaden the use of the gas tax beyond just road use.

Participants added a new strategy of including a parking lot fee, which could provide revenue for transit. If implemented, the parking lot fee may want to distinguish between pervious and impervious parking lots.

Marketing and Incentives

Participants who worked on the Marketing and Incentives pathways commented that there should be more transit-related marketing and incentives. They commented that strategies that lead to decreased car use could lead to less use of natural areas outside of the metro area, if these cannot be easily accessed by transit. Increased statewide transit could lead to more access to nature outside of the metro area. Participants suggested that there should be greater marketing of the urban trail system, so that people know about it and use it, and support expansion of the trail system.

Fleet and Technology

Participants who worked on the Fleet and Technology pathways exercise were hopeful that strategies not identified in this category were being addressed in other areas, including: VMT, transit vehicle fleet (newer, less energy consumption, etc.), fewer vehicles on the roads, and including bicycles as part of the fleet. They commented that the Fleet and Technology strategies should consider the age and life cycle of vehicles.

Participants noted that many of the strategies can have negative or positive impacts, depending on how they are implemented and other factors. For example, the impact of less carbon intensive fuels depends on the method of production. Strategies involving changing fuels or changing to more electric vehicles might have a positive impact on reducing GHG emissions locally, but could have a negative impacts at the source of power/fuels production. They asked how the CSC Scenarios Project will capture the whole life cycle of GHG emissions.

Participants suggested that the definition of the Native Species outcome needs to be clarified. They asked if 'Native Species' means a healthy ecosystem in general. They noted that there is a tension between "green power" and some of the environmental outcomes; use of "green power" can contribute to species impacts and soil and water impacts in different land areas, such as rural areas.

In general, the group ended up connecting nearly every strategy to every outcome. Most pathways have either positive or negative impacts, depending on how the strategy is implemented. They also rearranged the outcomes, so that Native Species is an outcome of Clean Water and Healthy Soils; and Resiliency is an outcome of Clean Water, Healthy Soils and Native Species. Access to Nature was the only outcome that was not linked to any of the strategies.

Community Design

Participants who worked on the Community Design pathways exercise commented that many of the strategies can have a positive or negative impact on outcomes, depending on how they are implemented. You need to understand the quality of a direct impact in order to understand its pathway to the outcome. For example, increased bike/ped infrastructure and increased transit could have a positive or negative effect on Equity and Environmental Justice, depending on how these strategies are implemented. There needs to be a mediating effort to be *intentional* about affordability and equity. Similarly, an increase in freeways and arterials can be a good thing for all outcomes depending on how it is designed, located and managed.

Participants noted that the strategies, including the mixed use neighborhoods strategies and maintaining a tight UGB, relate to traffic congestion and delay. One participant commented that a dense neighborhood with more people and more buildings does not necessarily mean it is a good and pleasant place to live.

Participants commented that some existing regulations and systems could help meet the outcomes; they just aren't always followed properly. However, some current regulations and systems are unhelpful. For example, fish mitigation done in a cookie-cutter way can be unhelpful and ineffective.

Participants also suggested that local connectivity could be included as a measure. Local connectivity and access to freeways, bike paths, etc. is important.

Prioritization exercise

Participants were asked to fill out a worksheet to prioritize the environmental outcomes.

How important is it to evaluate each of the outcomes?

The worksheet asked participants to indicate *how important* is it to evaluate or measure each of the environmental outcomes as part of the Environmental Scorecard on a scale of 1 to 5. Participants indicated that it will be very important to evaluate Clean Air, Environmental Justice and Equity, Healthy Soils, and Clean Water. It will be important to measure Resiliency, Access to Nature, Water Supply and Quantity, and Native Species.

The following chart indicates how participants rated each outcome:

Indicator	1 (Not Important)	2	3	4	5 (Very Important)
A. Access to Parks and Nature	●	●●●●	●●	●●●●● ●●●	●●●
B. Healthy Soils		●●	●●	●●●●	●●●●●● ●●●
C. Clean Water		●●	●	●●●●● ●	●●●●●● ●●
D. Environmental Justice and Equity			●●	●●●●	●●●●●● ●●●●●
E. Native Species	●	●●	●●● ●	●●●●● ●●●	●●
F. Resiliency	●			●●●●● ●●●●	●●●●●● ●
G. Clean Air				●●	●●●●●● ●●●●●● ●●●
H. Water Supply/Quantity	●		●	●●●●●	●●●●●
I. GHG/Climate Change	●	●		●	●●●●●

Most important outcomes to evaluate

The worksheet then asked participants to indicate the top three *most important* outcomes to evaluate or measure as part of the Environmental Scorecard. Participants gave the highest priority to Clean Air, Environmental Justice and Equity, Clean Water, and Healthy Soils.

Indicator	#1 Priority	#2 Priority	#3 Priority
A. Access to Parks and Nature			●●
B. Healthy Soils	●	●●●	●●●
C. Clean Water	●●	●●●●	●●
D. Environmental Justice and Equity	●●●	●●	●●●●
E. Native Species			
F. Resiliency	●●		●●●●●
G. Clean Air	●●●●	●●●●●	●
H. Water Supply/Quantity	●●	●	●
I. GHG/Climate Change	●●		

Comments on prioritization exercise

Some participants provided additional comments on prioritization of outcomes.

For the Environmental Justice and Equity outcome, one person indicated that this is not an environmental outcome in the same way as the others. Another person noted that this outcome captures air, water, and soil in relation to people.

One person noted that the Resiliency outcome represents multiple outcomes. The indicator chosen to measure resiliency is linked to it and to water quality and healthy soils.

For the Water Supply/Quantity outcome, one person commented that this should be captured in the Clean Water outcome, and not added as its own outcome. One person suggested that the Benthic Index gets at aquifer health.

For the GHG/Climate Change outcome, a couple of people noted that this should not be added as an outcome because it is captured across the other outcomes. GHG reduction is a means to an end to achieve the other outcomes, but may not be an outcome itself. One person commented that some environmental factors will be reduced outside of the UGB with these measures in order to achieve reduced roadway GHG emissions in the Metro region.

One person commented that, from the local government perspective, especially at the elected level, the direct outcomes will be most important, such as congestion, delay, gas tax revenue, and costs.

A couple of people made comments on the prioritization exercise itself. One person commented that the focus should not be on measuring outcomes, but on measuring indicators that represent the outcome. The outcome itself is often hinged on a value or set of shared interests; people may

have different individual preferences, but all of them are important. Another person commented that, if the project seeks to track progress and anchor strategies to each, then measures are important.

Thank you and wrap up

Kim Ellis thanked everyone for their attendance and participation. She explained that the ideas from this workshop will be shared with all workshop participants and Metro's advisory committees. She added that Metro will organize a summit in the coming months to combine all of these interest areas, and all participants will be invited to attend.

Councilor Rex Burkholder closed the meeting and encouraged all participants to continue working with Metro in this process. He thanked 1000 Friends of Oregon and the Oregon Environmental Council for their partnership and participation.

Appendix A: Workshop attendance

Ben Bryant	City of Tualatin
Jim Desmond	Metro
Chris Hagerbaumer	Oregon Environmental Council
Tia Henderson	Upstream Public Health
Eric Hesse	TriMet
Sarah Higginbotham	Environment Oregon
Jim Howell	Association of Oregon Rail and Transit Advocates
Stacy Humphrey	City of Gresham
Chips Janger	Clackamas County Urban Green
Evan Manvel	Willamette Pedestrian Coalition
Susan Peithman	Bicycle Transportation Alliance
Sean Penrith	Earth Advantage Institute
Bruce Roll	Clean Water Services
Dan Rutzick	City of Hillsboro
Tyler Ryerson	City of Beaverton
Jennifer Snyder	Clackamas County
Lainie Smith	ODOT
Jeffrey Stocum	Oregon Department of Environmental Quality
Tara Sulzen	1000 Friends of Oregon
Mike Wetter	The Intertwine

Metro Staff

Janna Allgood

Kim Ellis

Mike Hoglund

Nuin-Tara Key

Dylan Rivera

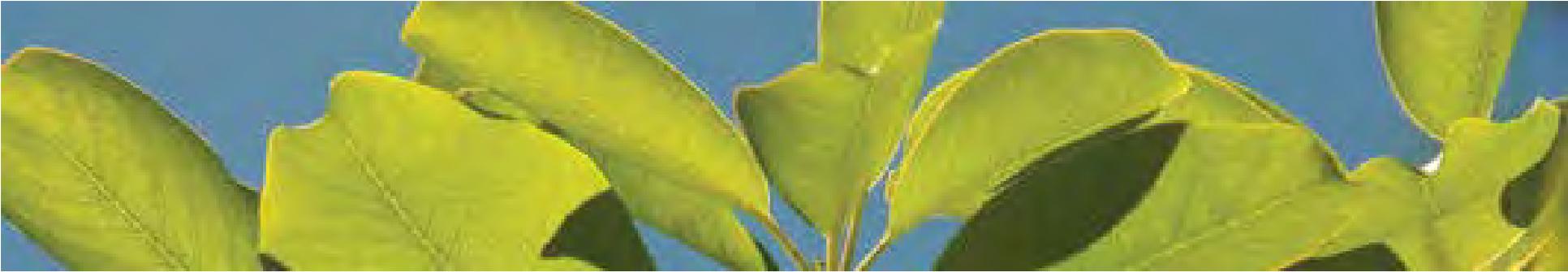
Patty Unfred

Facilitation Team

Sylvia Ciborowski

Jeanne Lawson

APPENDIX B: WORKSHOP PRESENTATIONS



Climate Smart Communities

Scenarios Project

Environmental Scorecard Workshop

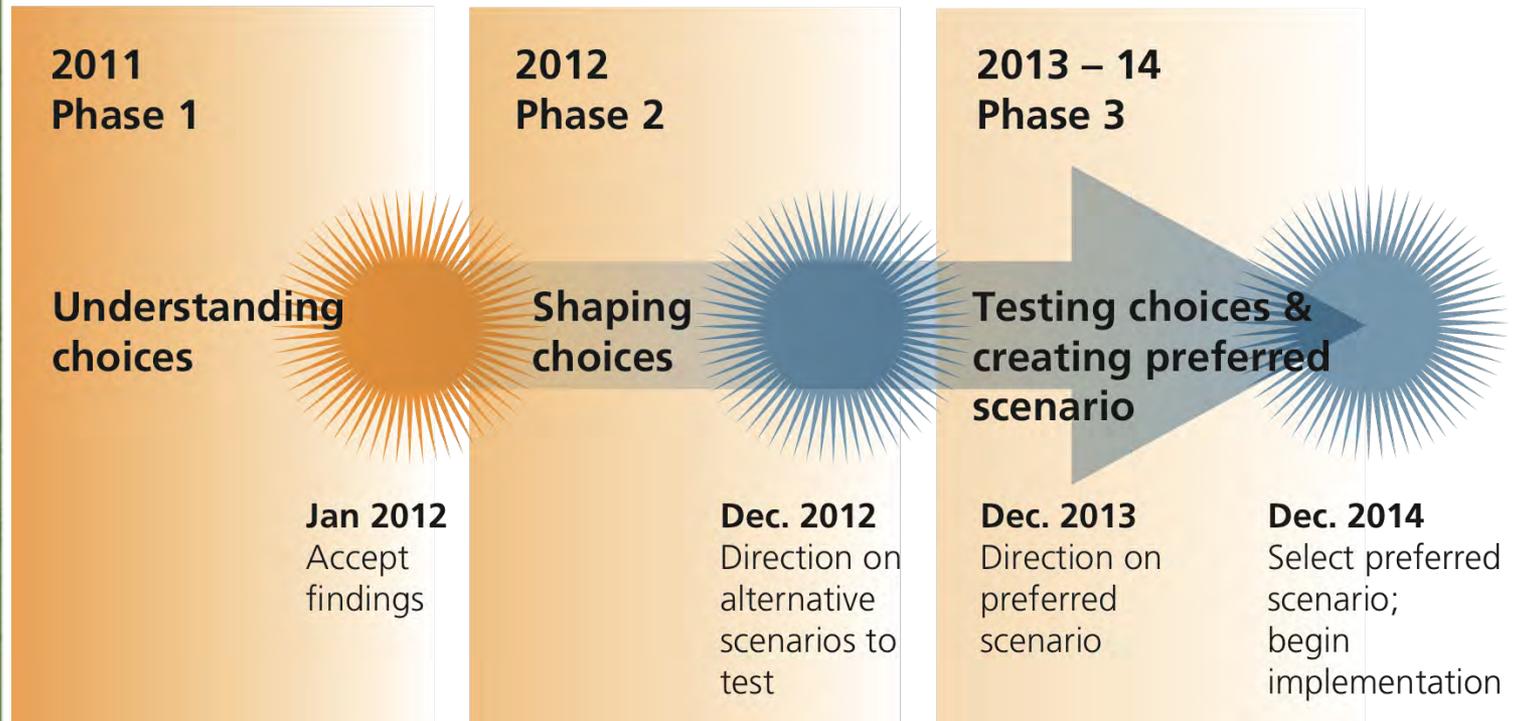
Kim Ellis, project manager

July 17, 2012



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Climate Smart Communities Timeline



We are here.

Building toward six desired outcomes



Vibrant communities



Equity



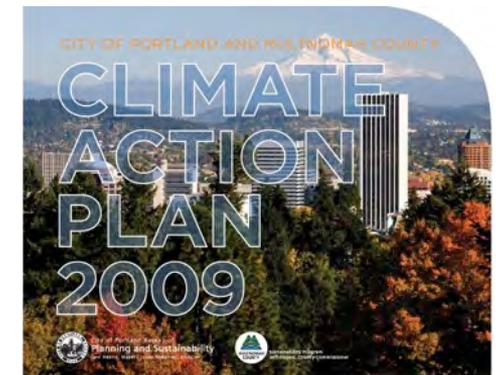
Economic prosperity



Transportation choices



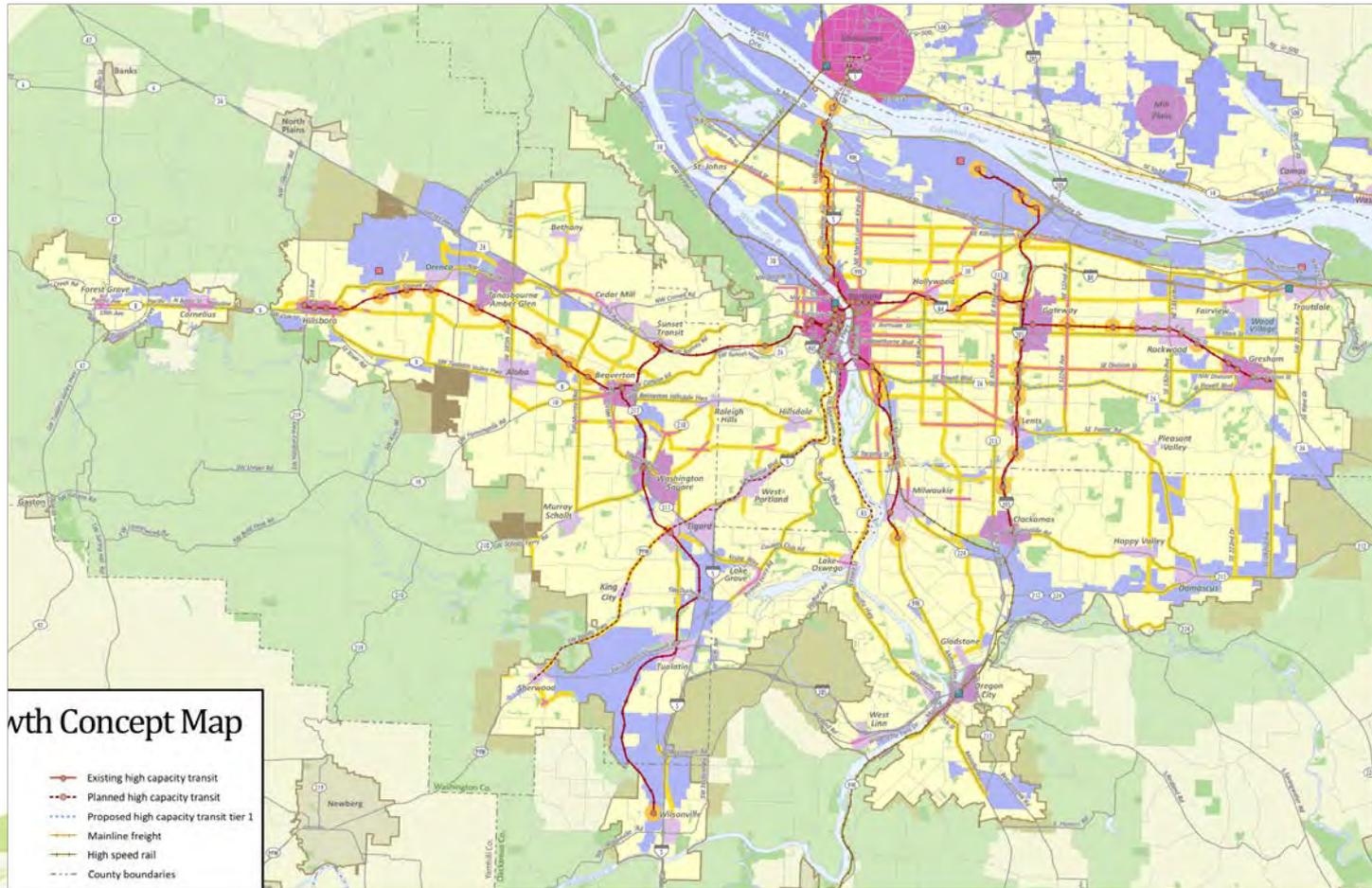
Clean air & water



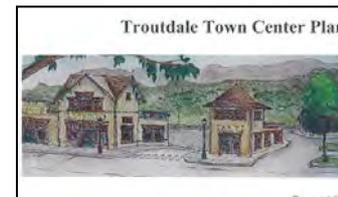
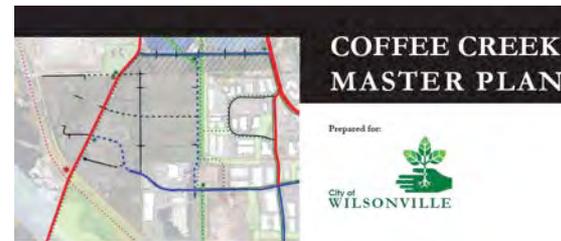
Climate leadership

Climate Smart Communities

Unique local approaches to implement regional growth strategy



Building on community aspirations



Climate Smart Communities

Phase 1 strategies tested

Vehicle and Fuel Technologies

- More fuel-efficient and lower emissions vehicles
- Cleaner fuels



Community Design and Roads

- Compact, mixed-use development
- Limited urban growth boundary expansion
- Transportation system operations optimization (*e.g., ITS, incident management, traffic signal timing*)
- Investments to shift more local trips to low or zero-emission modes (*e.g., transit, bicycling, walking*)
- Road expansion
- Managing supply and cost of parking

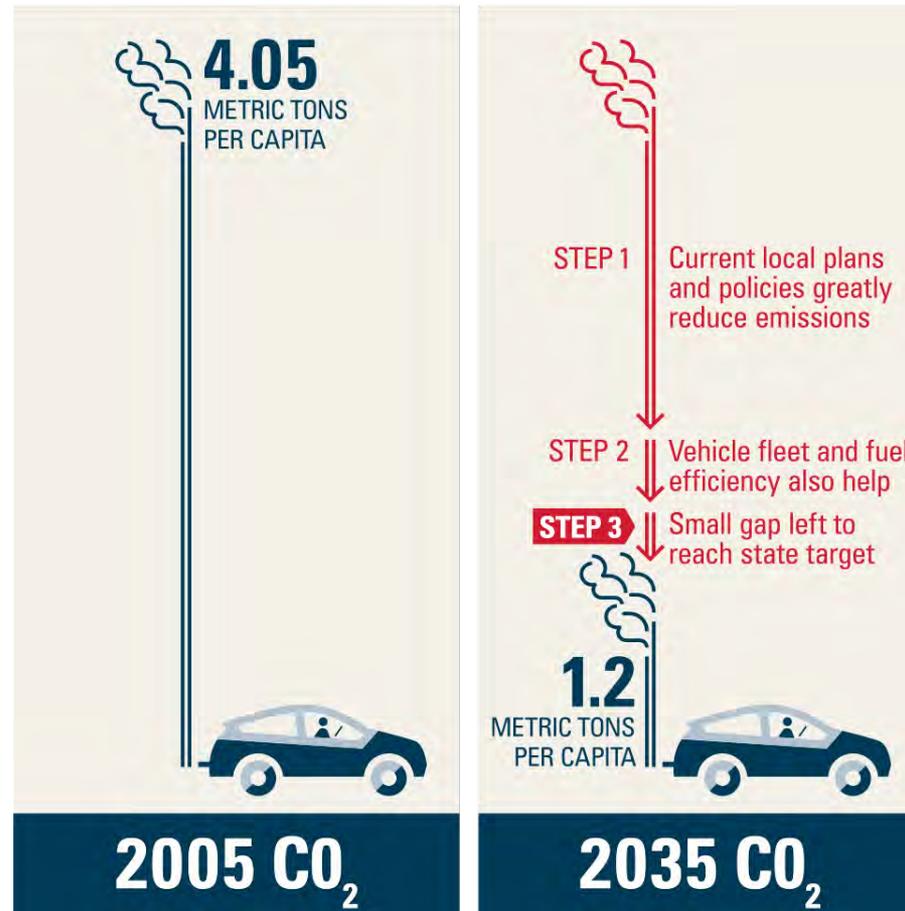


Pricing and Marketing/Incentives

- Ecodriving, carsharing, household marketing and commuter programs
- Market signals to promote and support desired travel behavior (pricing, pay-as-you drive insurance)

Climate Smart Communities – Phase 1 Findings

Current plans **plus** cleaner fuels and vehicles get us close



2035 GHG target for region
per capita light vehicle roadway GHG emissions reduction below 2005 levels

Most effective GHG emissions reduction strategies

- Cleaner fuels and more efficient vehicles
- More fuel-efficient and zero emissions travel
- More transit with supportive land use and bike and pedestrian access
- Efficient pricing: use of market signals to promote and support desired travel behavior



Climate Smart Communities

Phase 2 Purpose

- Define 2-3 scenario options to evaluate in detail
- Create a scorecard to evaluate options

Shape local and regional choices, not choose a preferred alternative

Climate Smart Communities – Phase 2

What is a scenario?

- Shows a possible future
- Combines a variety of strategies and actions
- Compares choices and consequences
- Informs strategies to optimize outcomes
- Allows you to discover new strategies



from www.PlaniTulsa.org

Climate Smart Communities – Phase 2

Framing the scenarios

the ingredients

- Adopted community plans and visions serve as the foundation
- Statewide Transportation Strategy complements adopted plans
- Other strategies tested in Phase 1



Climate Smart Communities – Phase 2

Creating a scorecard

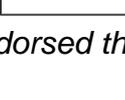
Community and business leaders provide input on what outcomes are most important to evaluate and compare scenarios

Outcomes-based Evaluation Framework

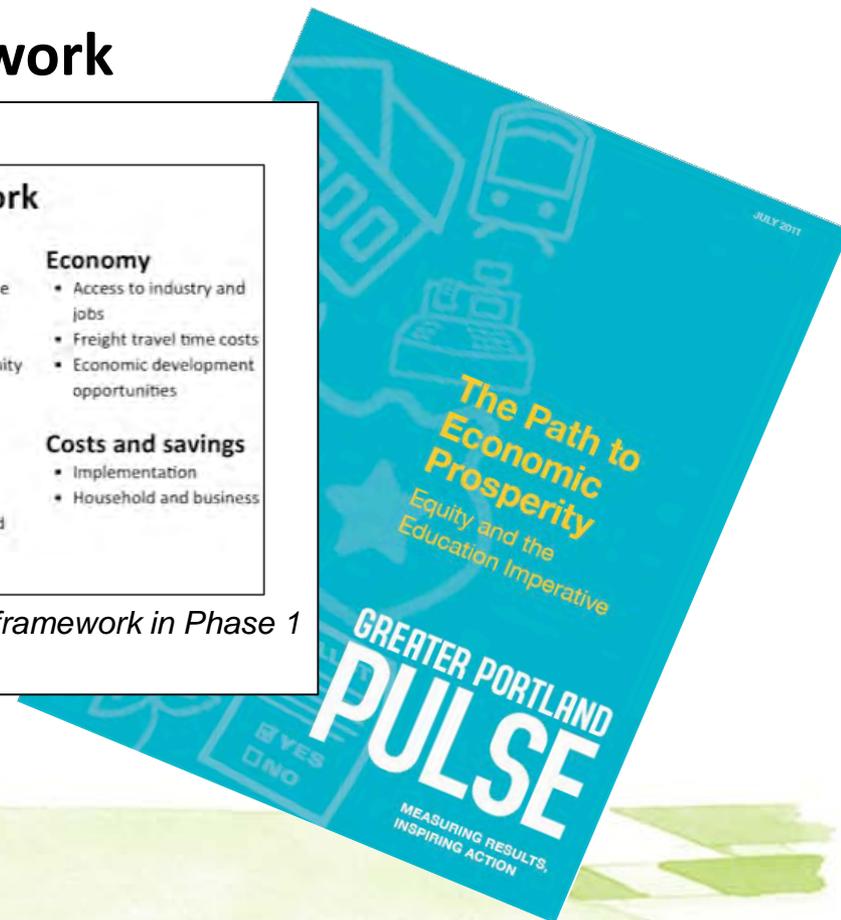
Building toward six desired outcomes

 <p>Vibrant communities</p>	 <p>Equity</p>	 <p>Economic prosperity</p>
 <p>Transportation choices</p>	 <p>Clean air & water</p>	 <p>Climate leadership</p>

Evaluation framework

 <p>Equity</p> <ul style="list-style-type: none">• Access to affordable housing and travel options• Access to opportunity• Public health	 <p>Economy</p> <ul style="list-style-type: none">• Access to industry and jobs• Freight travel time costs• Economic development opportunities
 <p>Environment</p> <ul style="list-style-type: none">• Greenhouse gas• Air quality• Access to parks and natural areas	 <p>Costs and savings</p> <ul style="list-style-type: none">• Implementation• Household and business

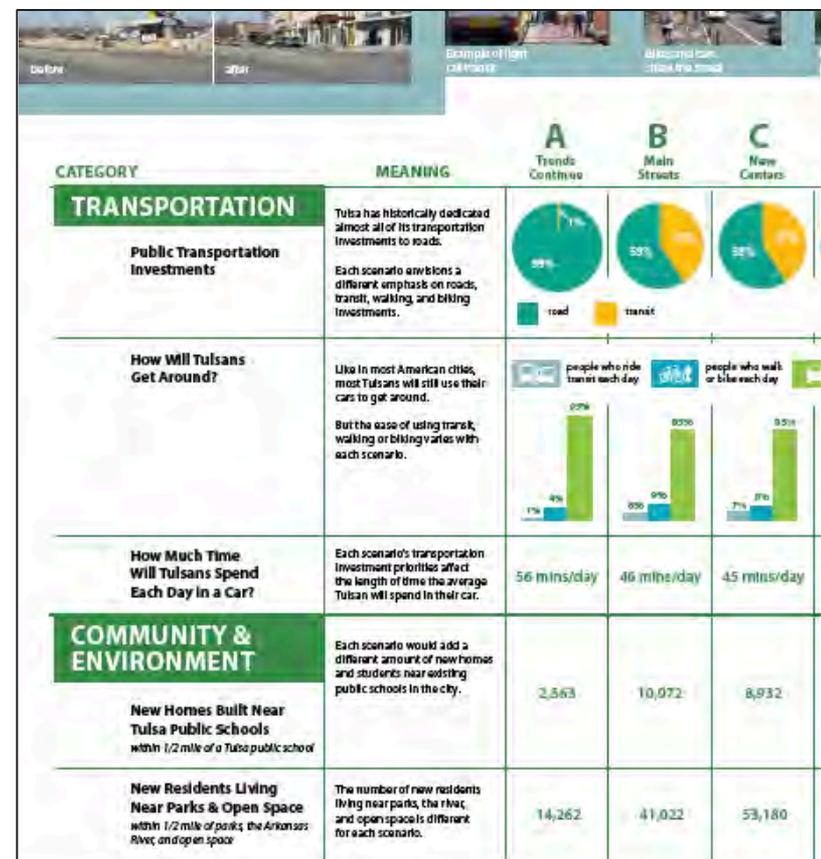
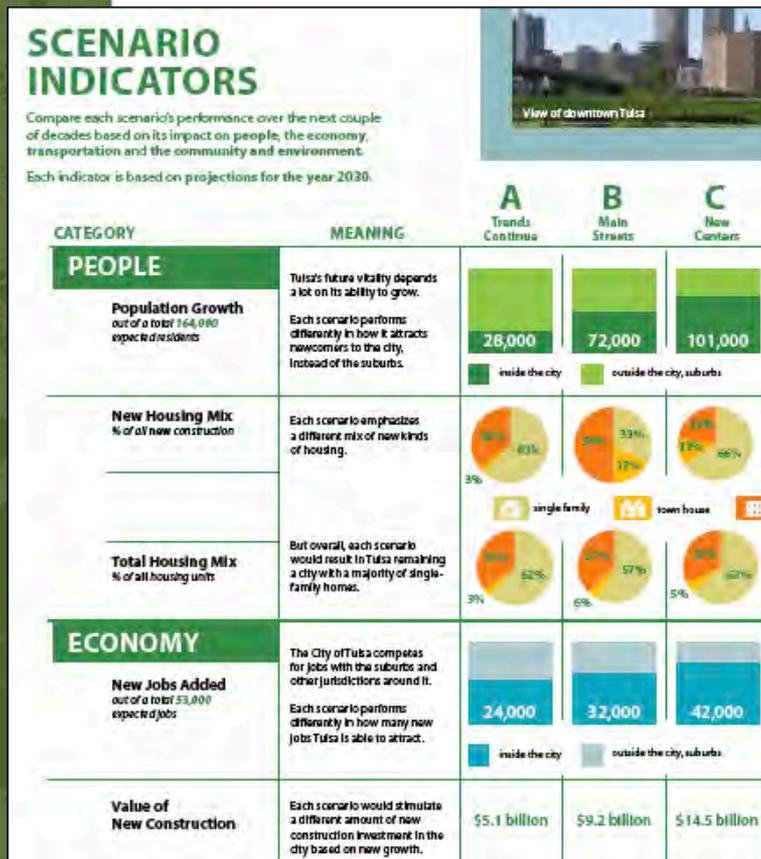
MPAC, JPACT and the Metro Council endorsed the evaluation framework in Phase 1 (June 2011)



Climate Smart Communities – Creating the scorecard

What is a scorecard?

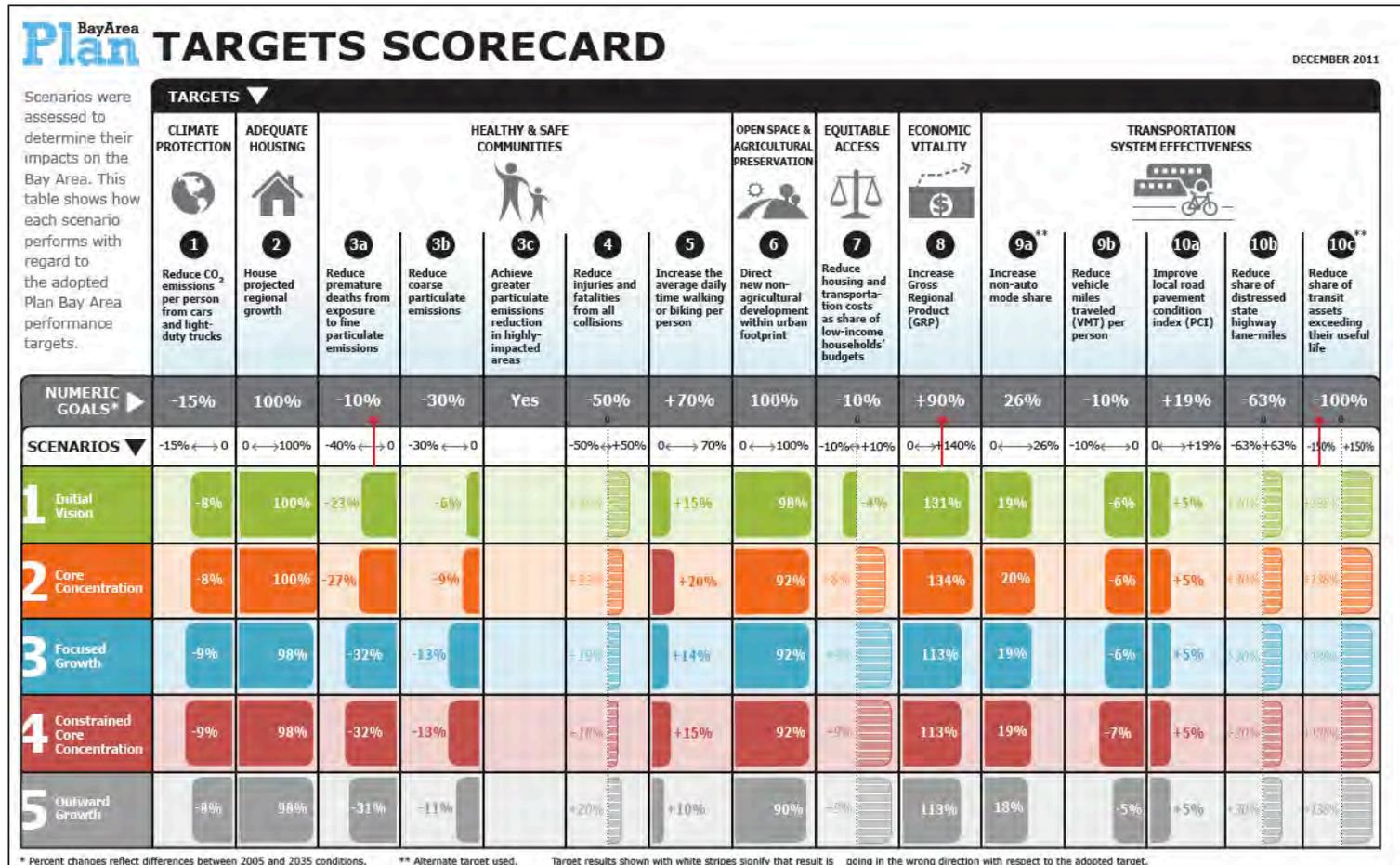
priority outcomes/results to communicate tradeoffs



from www.PlaniTulsa.org

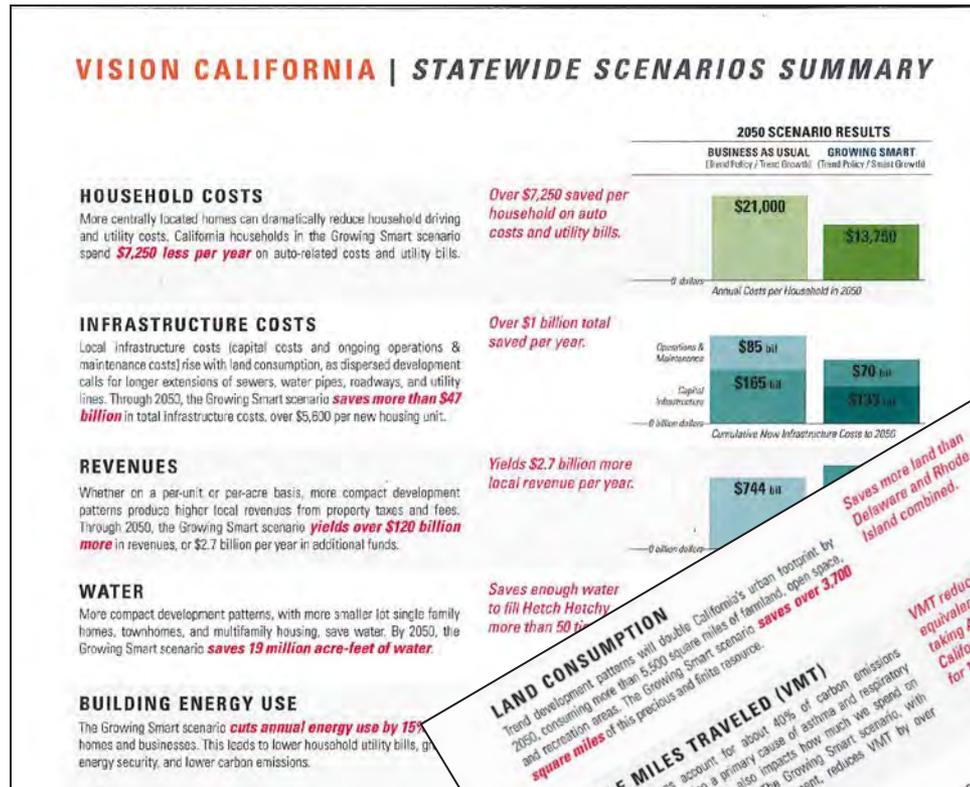
Climate Smart Communities – Creating the scorecard

Bay Area example

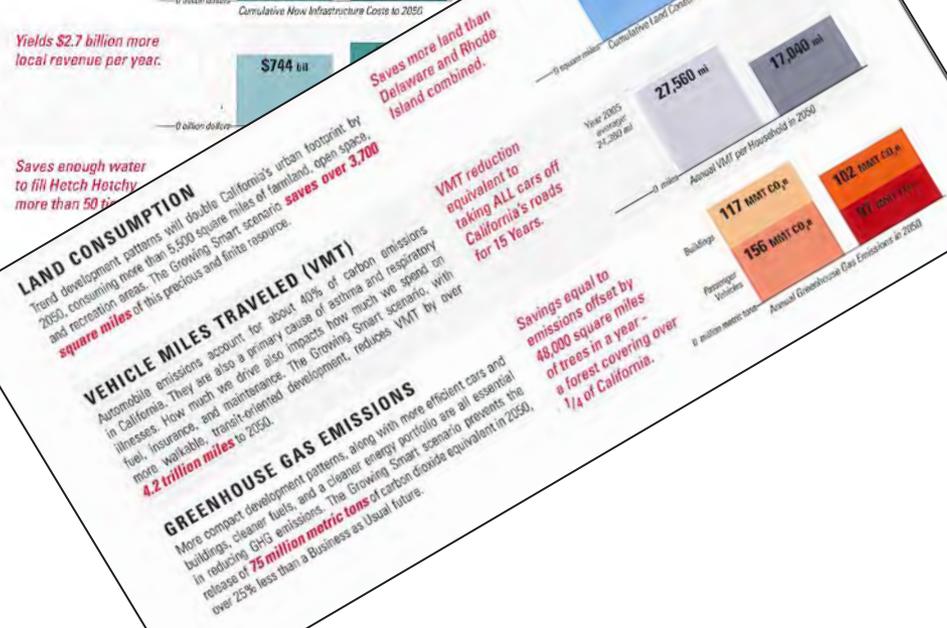


from www.onebayarea.org

Climate Smart Communities – Creating the scorecard California example



from www.visioncalifornia.org



Climate Smart Communities – Creating the scorecard

Measuring what matters

Outcomes

What are the most important results or outcomes to measure for the region?

Strategy Pathways

How do different strategies affect the achievement of those outcomes, positively or negatively?

Indicators

What is the best way to measure progress toward the outcomes when comparing the scenarios?

Focus of today's workshop



Climate Smart Communities – Creating the Scorecard

Scorecard next steps

Conduct equity/environmental justice workshop	July 31
Conduct business focus groups	August
Report results of workshops and focus groups	September
Gather input with Opt In survey on scorecard and scenarios	Mid-fall
Convene summit	Late-fall

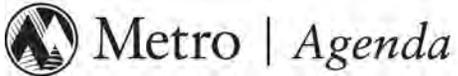
Learn more about Climate Smart Communities Scenarios



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Sign-up for updates at climatescenarios@oregonmetro.gov

APPENDIX C: WORKSHOP MATERIALS



Meeting: Environmental Scorecard Workshop
Climate Smart Communities Scenarios Project

Hosted by Metro in partnership with
1000 Friends of Oregon and Oregon Environmental Council

Date: Tuesday, July 17, 2012

Time: 8:30 a.m. to noon (light breakfast available 8 a.m.)

Place: Council Chamber, Metro Regional Center, 600 NE Grand Ave., Portland 97232

Purpose: To prioritize measurable outcomes to be later used in the development of a scorecard for measuring the success of scenarios identified in the Climate Smart Communities (CSC) Scenarios Project.

Goals: To inform and engage environmental leaders in the CSC Scenarios Project.
To foster collaboration, mutual learning, and relationship building between CSC Scenario Project planners, technical work group members, and regional environmental leaders.

Draft Agenda

8:30 to 8:35 a.m.	Welcome and introduction	Metro Councilor Rex Burkholder
8:35 to 8:55 a.m.	Metro staff overview of the CSC Scenarios Project	Kim Ellis, Metro staff
8:55 to 9:00 a.m.	Workshop description and expectations	Jeanne Lawson, facilitator
9:00 to 9:30 a.m.	Examples of environmental indicators	1. Mike Hogle, Metro, Greater Portland Pulse 2. Chris Hagerbaumer, Oregon Environmental Council 3. Mary Kyle McCurdy, 1000 Friends of Oregon 4. Angus Duncan, Oregon Global Warming Commission
9:30 to 10:00 a.m.	Open discussion of presentations: Areas of overlap? Common interests?	Facilitated discussion
10:00 to 10:10 a.m.	Break	

<p>10:10 to 11:15 a.m.</p>	<p>Small Group Discussions <i>Participants break into three groups to identify “pathways” between strategies and environmental outcomes:</i></p> <ol style="list-style-type: none"> 1. <i>Community design and Roads</i> 2. <i>Marketing and incentives and Pricing</i> 3. <i>Fleet and Technology</i> 	<p>Facilitated discussion Nuin-Tara Key, Metro staff</p>
<p>11:15 to 11:30 a.m.</p>	<p>Report out: each team summarizes their results in five minutes</p>	<p>Facilitated discussion</p>
<p>11:30 to 11:45 a.m.</p>	<p>Prioritization exercise</p>	<p>Facilitated discussion</p>
<p>11:45 to Noon</p>	<p>Thank you and next steps</p>	

Metro Council Chamber
600 NE Grand Ave., Portland, OR 97232
503-797-1400.

Get here by transit: TriMet bus #6. MAX light rail Northeast Seventh Avenue stop.

By bike: Covered bicycle parking is available near the main entrance.

By car: Vehicle garage parking is \$6 for the day or in metered spaces on street.

For more information, contact Dylan Rivera, 503-797-1551, dylan.rivera@oregonmetro.gov



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

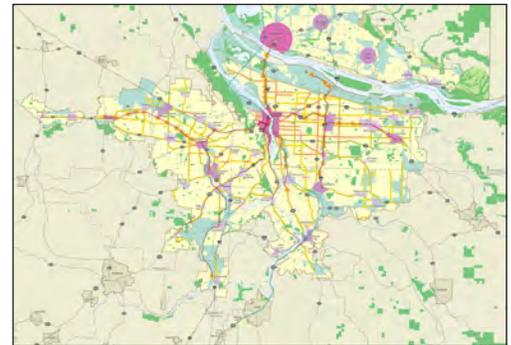
Climate Smart Communities Scenarios Project

Background

In 2007, the Oregon Legislature established statewide goals to reduce carbon emissions – calling for an end to increases in 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 Oregon Legislature passed House Bill 2001, directing the region to “develop two or more alternative land use and transportation scenarios” by January 2012 that are designed to reduce carbon emissions from cars, small trucks and SUVs. The legislation 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 and Senate Bill 1059, which provided further direction to scenario planning in the Portland metropolitan area and the other five metropolitan areas in Oregon.

Metro’s Making the Greatest Place initiative resulted in a set of policies and investment decisions adopted in the fall of 2009 and throughout 2010. These policies and investments focused on six desired outcomes for a successful region, endorsed by the Metro Council and Metro Policy Advisory Committee in 2008: vibrant communities, economic prosperity, safe and reliable transportation, environmental leadership, clean air and water, and equity. Making the Greatest Place included the adoption of the 2035 Regional Transportation Plan and the designation of urban and rural reserves. 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.



The 2040 Growth Concept - the region's adopted growth management strategy

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 will build on the state-level work and existing plans and efforts underway in the Portland metropolitan area. The project presents an opportunity 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 this multi-faceted challenge will take collaboration, partnerships and focused policy and investment discussions and decisions by elected leaders, stakeholders and the public. Identifying equitable and effective solutions through strategies that create livable, prosperous and healthy communities is essential to the process.

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 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.

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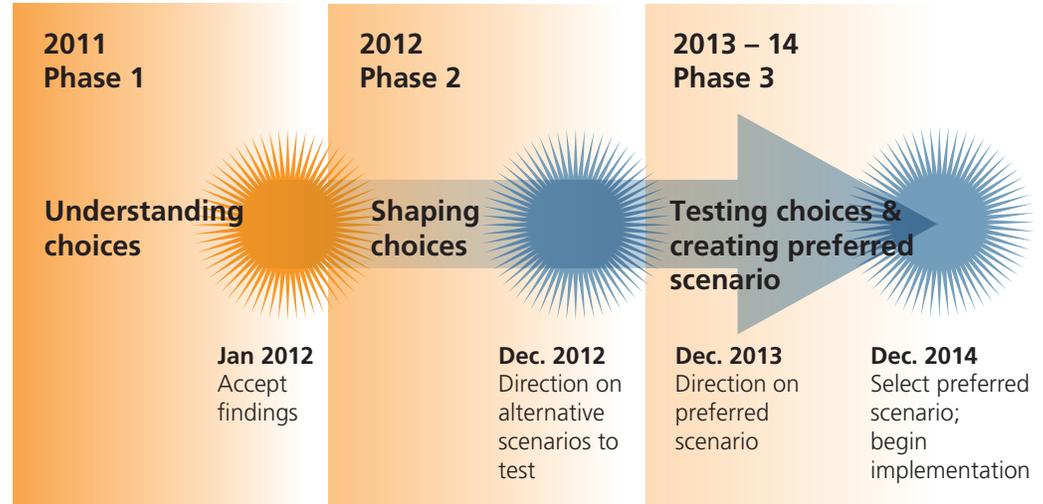
Rex Burkholder,
District 5

Barbara Roberts,
District 6

Auditor

Suzanne Flynn

Climate smart communities scenarios project timeline



Phase 1

Understanding the choices

The first phase of regional-level scenario analysis occurred during summer 2011 and focus on learning what combinations of land use and transportation strategies are necessary to meet the state greenhouse gas emissions targets. 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 corridors; more public transit service; incentives to walk, bike and use public transit; and user-based fees.

Findings and recommendations from the analysis were reported to Metro's policy committees in fall 2011 before being finalized for submittal to the Legislature in January 2012.

Phase 2

Shaping the direction

In 2012, 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 in the region (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 and communities. By the end of 2012, Metro's policy committees will be asked to provide direction on alternative scenarios to be tested in 2013.

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 – the regional travel demand model, MetroScope and regional emissions model, MOVES. Additional scoping of this phase will occur in 2012 to better align this effort with mandated regional planning and growth management decisions.

This phase will identify needed changes to regional policies and functional plans, and include updates to the Regional Transportation Plan and 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 to realize the adopted strategy.



UNIQUE LOCAL APPROACHES, ONE COMMON GOAL – to make our region a great place to live in the years ahead

From downtown Gresham to Orenco Station to Oregon City, the region is rich with unique places to live where parks, schools and jobs are close by. As a result, we drive 20 percent fewer miles a day than most people in urban areas our size, so we spend less time in traffic and more time with our families and friends.



The things we have done to make this a great place are more important now than ever. The same efforts that helped protect farmland and revitalize downtowns and main streets over the last generation are essential to meeting statewide climate goals for the years ahead. Rising energy prices, a state mandate to reduce pollution and a growing eagerness to live in walkable neighborhoods make it essential for us to create places for people to work, shop and play – without having to drive far away. With federal and local resources lagging, we need to work together to make our visions a reality.

The Climate Smart Communities Scenarios Project will help the region's cities and counties define their goals for the next 20 years. It will show how those goals might help the region reduce carbon emissions. There are many ways we can reduce pollution, create healthy, more equitable communities and nurture the economy, too. Investing in main street businesses, expanding transit service, encouraging electric cars and providing safer routes for biking and walking can all help.

A one-size-fits-all approach won't meet the needs of our diverse communities. Instead, a combination of many local approaches, woven together, will create a diverse yet shared vision for how we can keep this a great place for years to come.

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Working together with city, county, state, business and community leaders, Metro is researching the most effective combinations of policies and strategies to help us meet Oregon's targets for reducing greenhouse gas emissions.

**MAKING A
GREAT
PLACE**



COMMUNITY BENEFITS, MANY OPTIONS EMERGE FROM EARLY RESEARCH

Metro staff researched land use and transportation strategies that are used to reduce emissions in communities across the nation and around the world. In December 2011, this work was summarized in a toolbox describing policies for community design, pricing, marketing and incentives, roads, fleet, and technology.

These strategies also provide many community benefits:

- Fewer emissions means less air pollution.
- Investment in main streets and downtowns can boost job growth, save public money and make it easier to get to work and entertainment.
- Safe places to walk can improve public health, increase transit use and lower obesity rates.
- Creating vibrant commercial areas combined with transportation options can increase dollars spent locally while taking cars off the road.

Working closely with cities and counties, Metro tested 144 combinations of strategies, called scenarios. No single strategy was enough to meet the state target, but more than 90 combined scenarios met or surpassed it.



Encouraging findings from early results

- Current local and regional plans provide a strong foundation for meeting our carbon emissions reduction target.
- The cities and counties in our region are already implementing most of the strategies under consideration to achieve other economic, social or environmental goals.
- If the state achieves its own expectations for vehicle fleet and fuel efficiency characteristics, the local plans and policies already adopted in our region will get us very close to our emissions reduction target.

STRATEGIES EVALUATED

	<p>COMMUNITY DESIGN</p> <p>Walkable communities, vibrant downtowns, job centers, housing and transportation options, walk and bike-friendly facilities, frequent transit service, urban growth boundary</p>
	<p>PRICING</p> <p>Gas tax, fees and pay-as-you-drive insurance options</p>
	<p>MARKETING AND INCENTIVES</p> <p>Education and marketing programs that encourage efficient driving, car sharing and use of travel options</p>
	<p>ROADS</p> <p>Clearing breakdowns and crashes quickly, adding capacity and using ramp metering, traffic signal coordination and traveler information to help traffic move efficiently</p>
	<p>FLEET</p> <p>Replacing older cars with more efficient new ones; shifting from light trucks to cars</p>
	<p>TECHNOLOGY</p> <p>More fuel-efficient vehicles, cleaner fuels, use of hybrid and electric vehicles</p>



LOCAL INGREDIENTS FOR A REGIONAL VISION

With many options available to the region, the natural next step is to test some potential future ways the region could grow and invest, called scenarios, to see what might work best. In building those alternatives in 2012, Metro will start local, gathering the most recently adopted community plans and visions to serve as the foundation of each scenario. Efforts such as the Beaverton Civic Plan, McLoughlin Area Plan, South Hillsboro Plan, AmberGlen Community Plan, Portland Plan, Gresham Downtown Plan and transportation system plans from across the region are the ingredients that will make up the alternatives we consider going forward. A work group of local planning staff continues to help guide the project.

Since community investment is such a powerful tool for helping grow jobs and protecting our clean air, the region will consider a range of investment levels - low, medium and high – to demonstrate what communities and the region can accomplish on our current path with existing resources and tools, and what could be accomplished with more. Current local plans will comprise the medium option. Each option will consider how we can stretch our dollars for the greatest impact on the things that will make the region a more prosperous, healthy and equitable place for all.

Through a series of case studies, community partner workshops and a regional summit, Metro and local elected officials will decide what should go into the three scenarios. 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. As with the 2035 Regional Transportation Plan and the 2040 Growth Concept, the region’s preferred scenario will vary from place to place within the metropolitan area, responding to local goals.

One scenario – many options for local communities.



Driving less, saving money

By driving just four fewer miles a day, the average car owner driving 10,000 miles a year can save \$1,126 a year, according to AAA.

WHAT'S NEXT?

- Start with common vision
- Evaluate scenarios
- Shape scenarios to test
- Engage public

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HELP SHAPE THE FUTURE OF YOUR COMMUNITY

Beginning summer 2012, city, county, community and business leaders will be asked to share their community visions. These visions will set the direction for regional scenario options to be tested.

In 2013-14, Metro will engage the public in evaluating the regional

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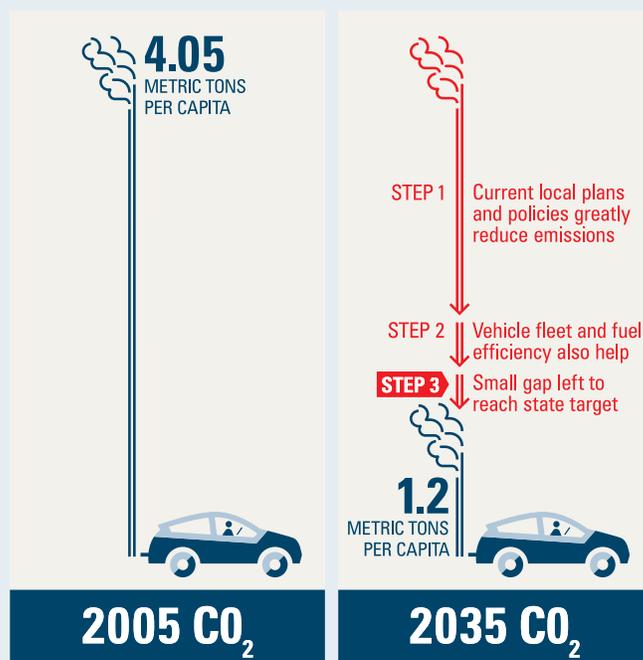
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scenario options. Leaders from across the region will adopt a regionwide scenario in 2014.

OREGON'S EMISSIONS TARGET FOR 2035 FOR THE PORTLAND AREA

The Land Conservation and Development Commission established a 2005 baseline for the Portland area: 4.05 metric tons annual, per capita roadway greenhouse gas emissions. (One metric ton CO₂ equals 112 gallons of gasoline.)

The 2035 target calls for cutting emissions to 1.2 metric tons. Implementing our local plans and realizing advancements in cleaner fuels and more efficient vehicles reduce emissions to 1.3 metric tons. Additional policy actions will be needed to reach the target (Step 3, on right).



optin
ONLINE PANEL

STAY CONNECTED Sign up to receive periodic updates about the scenarios project at www.oregonmetro.gov/connect.

SHARE IDEAS Share ideas or suggestions with your local elected officials and your Metro Councilor.

OPT IN Voice your opinion by signing up for Metro's online opinion panel at www.optinpanel.org. Upcoming survey topics will include the scenarios project.





TIMELINE FOR ENGAGING CITIES, COUNTIES AND COMMUNITIES

Description	Participants	Time frame
 <p>Technical work group – Meets regularly to review and provide input on analysis</p>	City, county, TriMet, state and Metro planning staff, and community representatives	Ongoing throughout project (2011-2014)
 <p>Accept Phase 1 Findings Report</p>	Metro Policy Advisory Committee, Joint Policy Advisory Committee on Transportation, Metro Council	January 2012
 <p>Discuss findings with local leaders – Presentations at city councils and county boards</p>	Metro councilors and staff, and city and county elected officials	Spring-Summer 2012
 <p>Envision Tomorrow introductory training – Learn how to use scenario planning software for regional and local applications</p>	Planning staff from Beaverton, Gresham, Hillsboro, Oregon City, Portland, West Linn, Clackamas County, Washington County, Metro and TriMet	June 2012
 <p>Scorecard workshops and focus groups – Identify evaluation criteria and outcomes to measure in scenario analysis</p>	Leaders representing the public health, equity and environmental justice, environmental and business communities	March, July-August, 2012

Description	Participants	Time frame
 <p>Case studies – Analysis of five different types of community developments to illustrate community visions and the strategies needed to achieve them</p>	Five local communities TBD	Summer 2012
 <p>Community partner work sessions – Use Envision Tomorrow software to assess and affirm community visions for future development; results will inform scenarios options</p>	Elected officials and planning staff from communities around the region	Summer-Fall 2012
 <p>Southwest Corridor land use vision work sessions – Use Envision Tomorrow software to assess and affirm community visions for future development; results will inform Southwest Corridor and scenarios projects</p>	Elected officials and planning staff from SW Corridor partners	Summer 2012
 <p>Online engagement – Opt In survey tool for input on scenario options and how they will be evaluated</p>	General public	Fall 2012
 <p>Summit – Community leaders showcase local actions that are already reducing emissions and provide input on the three scenarios to test in 2013</p>	JPACT, MPAC, Metro Council, other elected officials and community leaders	Late fall 2012
 <p>Community partner workshops and online engagement – Discuss findings, benefits and tradeoffs of choices</p>	Public, elected officials and community leaders	2013 and 2014
 <p>MPAC, JPACT, Metro Council – Direct staff 2011, accept findings January 2012, agree on three scenarios to test December 2012, select a scenario in 2014</p>	MPAC, JPACT, Metro Council	2011-2014

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Healthy, Natural Environment

Desired Outcomes	Proposed Key Indicators	Drivers (policy considerations)
HEALTHY SOILS. Maintenance of working lands. Reduction of external food and fiber needs of the region.	1. LAND COVER. Acres of land devoted to natural ecological communities, forest, and farm/agriculture.	<ul style="list-style-type: none"> Working land management practices (including welfare of the health and safety management practices of farm and forest workers) Land conversion or preservation of working lands Land use and development practices and patterns Local markets for food, fiber and products Environmental literacy Policies and programs (conservation, preservation, restoration, regulations) Economic viability of urban forest and farms Legacy practices and pollutants (includes environmental justice and cultural practices)
CLEAN WATER and healthy aquatic ecosystems.	2. ECOLOGICALLY HEALTHY WATERWAYS. Benthic Index of Biological Integrity, a measure of the health of invertebrate species in our waterways.	<ul style="list-style-type: none"> Land use and Development patterns (impervious coverage) Extent and distribution of tree canopy, green streets, ecoroofs and other natural features that provide ecological function Abundance, diversity, complexity and health of riparian and wetland habitats Environmental literacy Individual behaviors (household and landscape chemicals, driving habits) Infrastructure design and its impacts (Sanitary/stormwater, water supply, transportation) Working land management practices Business practices, large and small Policies and programs (e.g. restoration/conservation/protection programs, institutional barriers) Legacy practices and pollutants
CLEAN AIR	3. GOOD AIR DAYS. Percent of days with “good” air quality index and air toxics health risks.	<ul style="list-style-type: none"> Environmental Literacy Individual behaviors: burning wood for home heat; driving choices Fuel emissions (heavy duty diesel) Transportation management Business practices, large and small Programs and policies (e.g. institutional barriers to working at home) Extent and distribution of tree canopy, green spaces and vegetation Availability of alternative fuels, Bio-methane Land use and development patterns Sources and efficiency of energy
RESILIENCY. Environment of the region is able to avoid, minimize, withstand, or adapt to hazards (fire, floods, earthquakes, infestations and landslides), disasters or climate change so it can	4. PROTECTED LANDS. Acres of sensitive lands protected or restored (vs. developed).	<ul style="list-style-type: none"> Diversity, complexity and health of habitats (plant and animal species) Extent /distribution of tree canopy and vegetation Cumulative effect and extent of climate change (e.g. increased CO2 inputs, deforestation) carbon mgmt resulting in increased rainfall and decreased snow pack and subsequent increased dependence on natural and engineered water storage (e.g., groundwater, cisterns) Policies and programs (water conservation, energy conservation, emergency response, regional strategic planning and economic investment)

Appendix D – Outcomes, drivers and indicators

Desired Outcomes	Proposed Key Indicators	Drivers (policy considerations)
<p>continue to provide ecosystem services necessary to life.</p>		<ul style="list-style-type: none"> • Land use and development practices and patterns • Sources and efficiency of energy (where we get energy and how we use it). • Historical influences and affects – hydrology and geology
<p>ACCESS TO NATURE. All people can experience nature in their daily lives, and have easy access to parks, natural areas, trails, vegetation and wildlife (in order to enhance their health, sense of place, quality of life, and environmental stewardship).</p>	<p>5. PROXIMITY TO NATURE AND PARKS. Percentage of the population within ¼ mile walking distance of dedicated open space; ½ mile walking distance to a public park, trail corridor, or natural area; and ¼ mile of a natural area (public or private).</p>	<ul style="list-style-type: none"> • Accessibility and proximity of parks, trails, and natural areas (especially for children, seniors, differently-abled and lower income households). • Extent and distribution of tree canopy, green streets, ecoroofs and other natural features that provide ecological function. • Health and diversity of the regional ecosystem. • Affordability of transportation choices to reach community and regional parks, trails and natural areas • Health and environmental literacy • Connectivity of natural areas, trails and parks. • Stewardship and civic engagement in environmental protection (volunteerism and charitable contributions) • Community walkability • Policies and programs • Land use and development patterns
<p>ENVIRONMENTAL JUSTICE AND EQUITY. All people have access to clean air and water, to a clean and safe environment and to nature.</p>	<p>6. PROXIMITY TO COMPROMISED ENVIRONMENTS. Developmental Indicator.</p>	<ul style="list-style-type: none"> • Accessibility and proximity of parks, trails, and natural areas (especially for children, seniors, differently-abled and lower income households). • Land use and development practices and patterns • Working land management practices (including welfare of the health and safety management practices of workers) • Legacy practices and pollutants (includes environmental justice and cultural practices) • Extent and distribution of tree canopy, green streets, ecoroofs and other natural features that provide ecological function. • Stewardship and civic engagement in environmental protection (volunteerism and charitable contributions) • Policies and programs • All residents are fully involved as equal partners in decision making about issues that affect the quality of the environment in their neighborhoods, including clean air and water
<p>NATIVE SPECIES. Native Plants and Animals and the habitats/ecological processes that support them.*</p>	<ul style="list-style-type: none"> • Percent (acres/miles) of FUNCTIONAL CORRIDORS as defined by the Regional Conservation Strategy. • Number of NATIVE VERTEBRATE TERRESTRIAL SPECIES by watershed. 	<ul style="list-style-type: none"> • Abundance, diversity, complexity and health of habitats • Land use and development patterns (economic pressures) • Regional and local scale anchor habitats, connectivity and wildlife corridors • Policies and programs (e.g. restoration/conservation/protection programs, institutional barriers) • Protection, restoration and expansion of special status habitats and plant and animal species (manage invasive plants and animals) • Environmental literacy • Cumulative effect and extent of climate change • Altered fire and water regimes • Stewardship • Individual behaviors

CLICK HERE FOR FULL REPORT

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Climate Smart Communities: Scenarios Project

Strategy Toolbox

for the Portland metropolitan region

Review of the latest research on greenhouse gas emissions reduction strategies and the benefits they bring to the region

October 2011

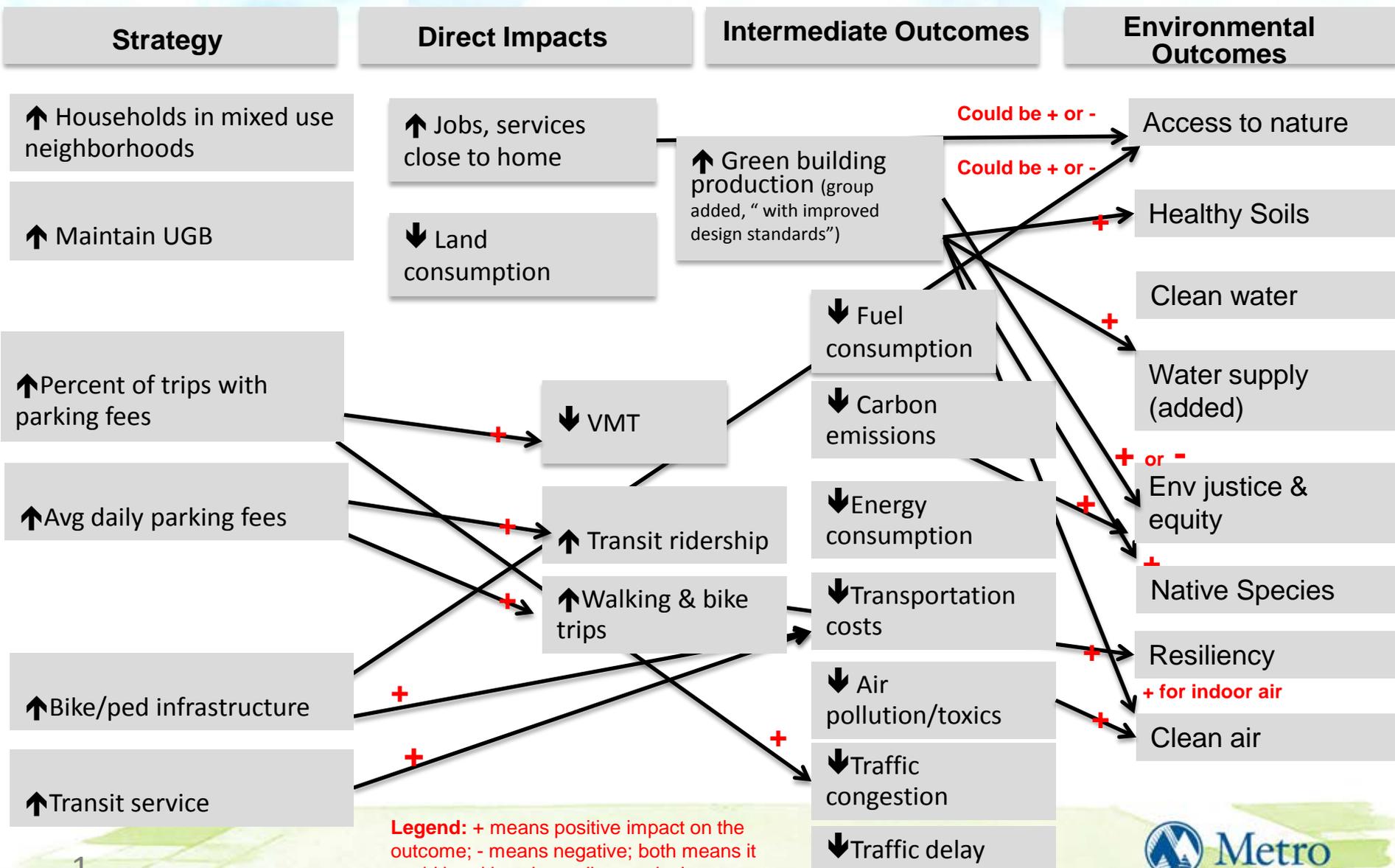


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APPENDIX D: SMALL GROUP DISCUSSION CHARTS

CSC Scenarios Project - Environmental Workshop

Community Design Pathways

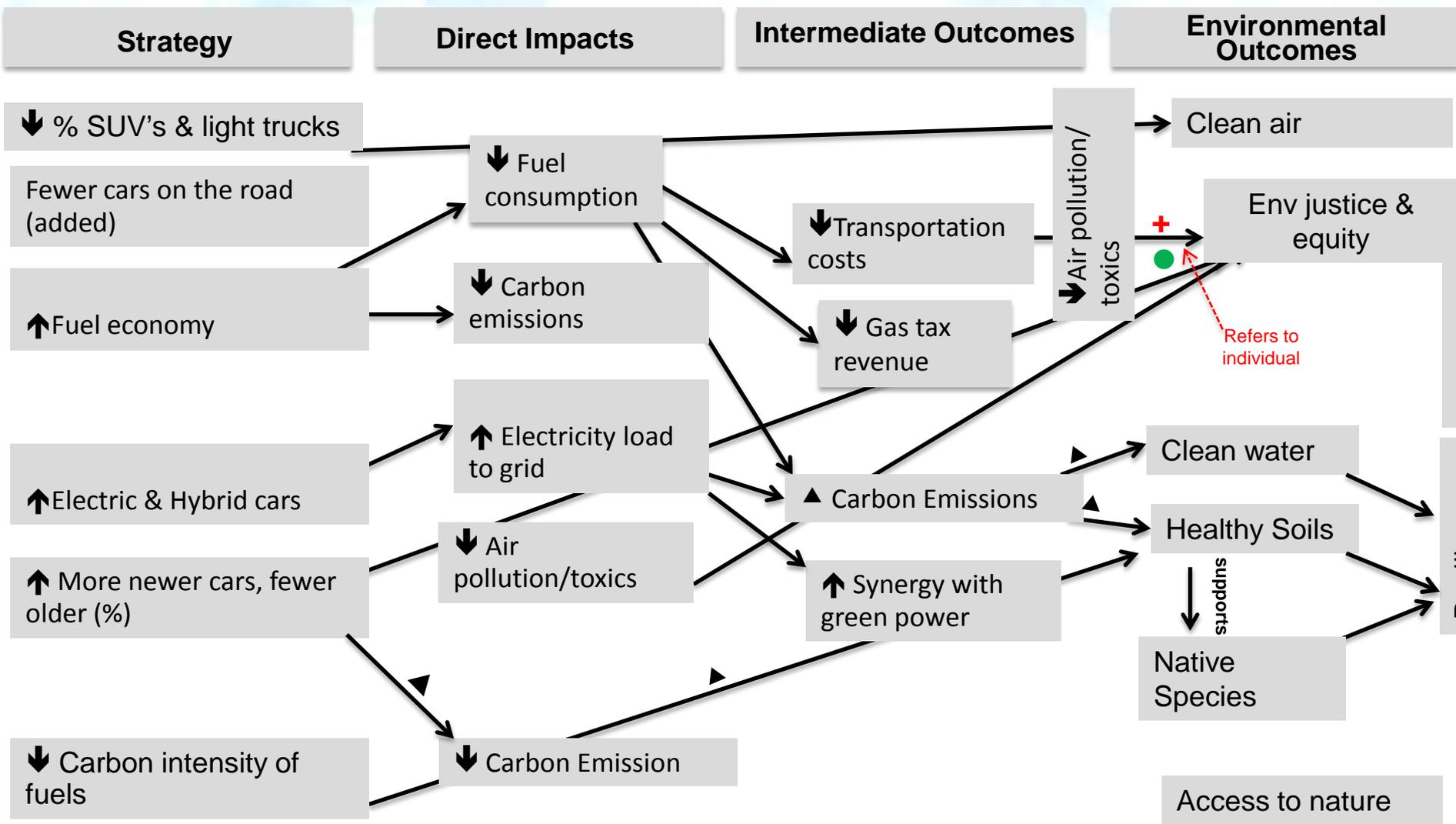


Legend: + means positive impact on the outcome; - means negative; both means it could be either depending on design or implementation



CSC Scenarios Project - Environmental Workshop

Fleet & Technology Design Pathways

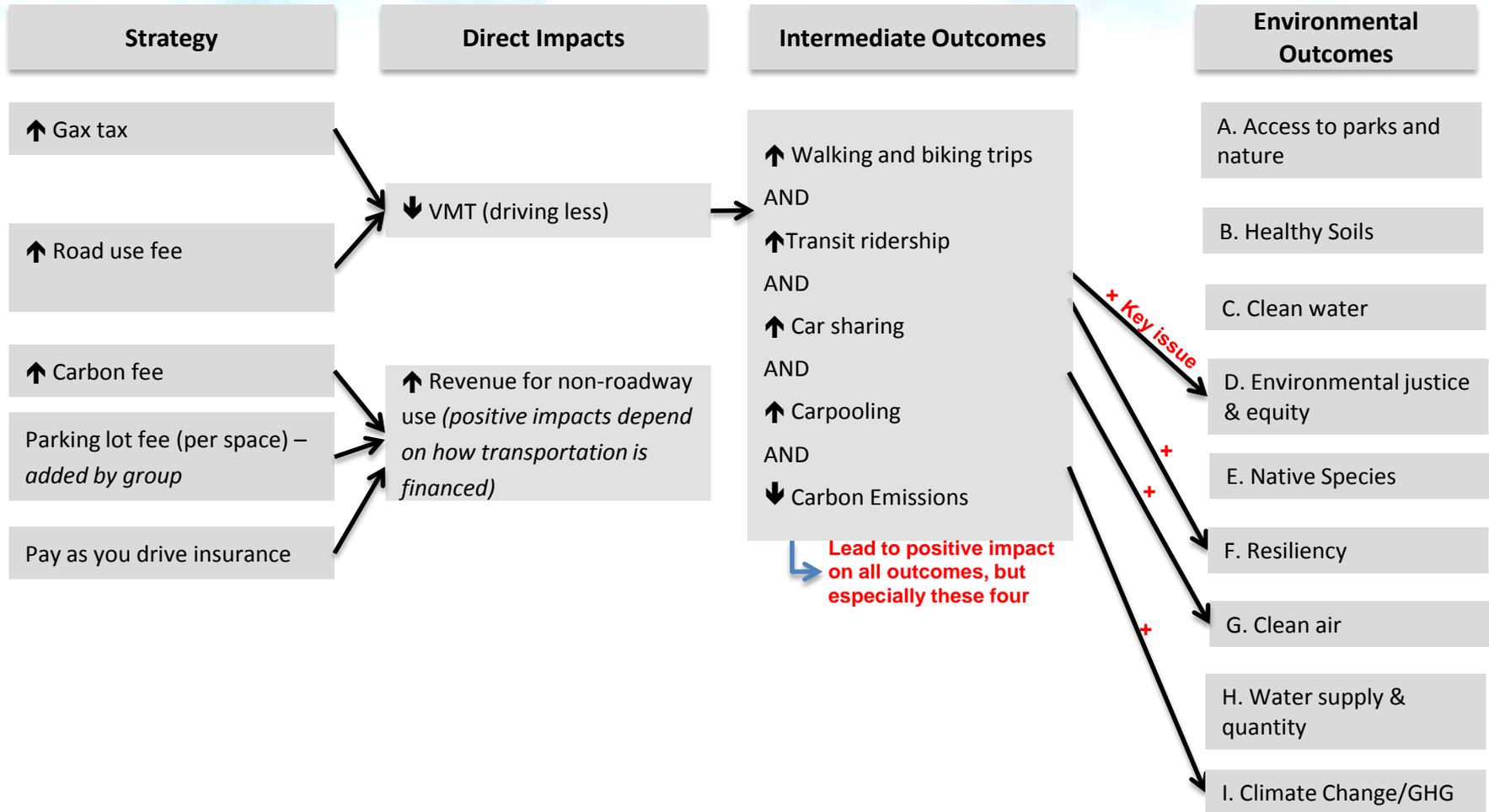


Legend: + or ● means positive impact on the outcome; - means negative; ▲ means it could be either depending on design or implementation



CSC Scenarios Project - Environmental Workshop

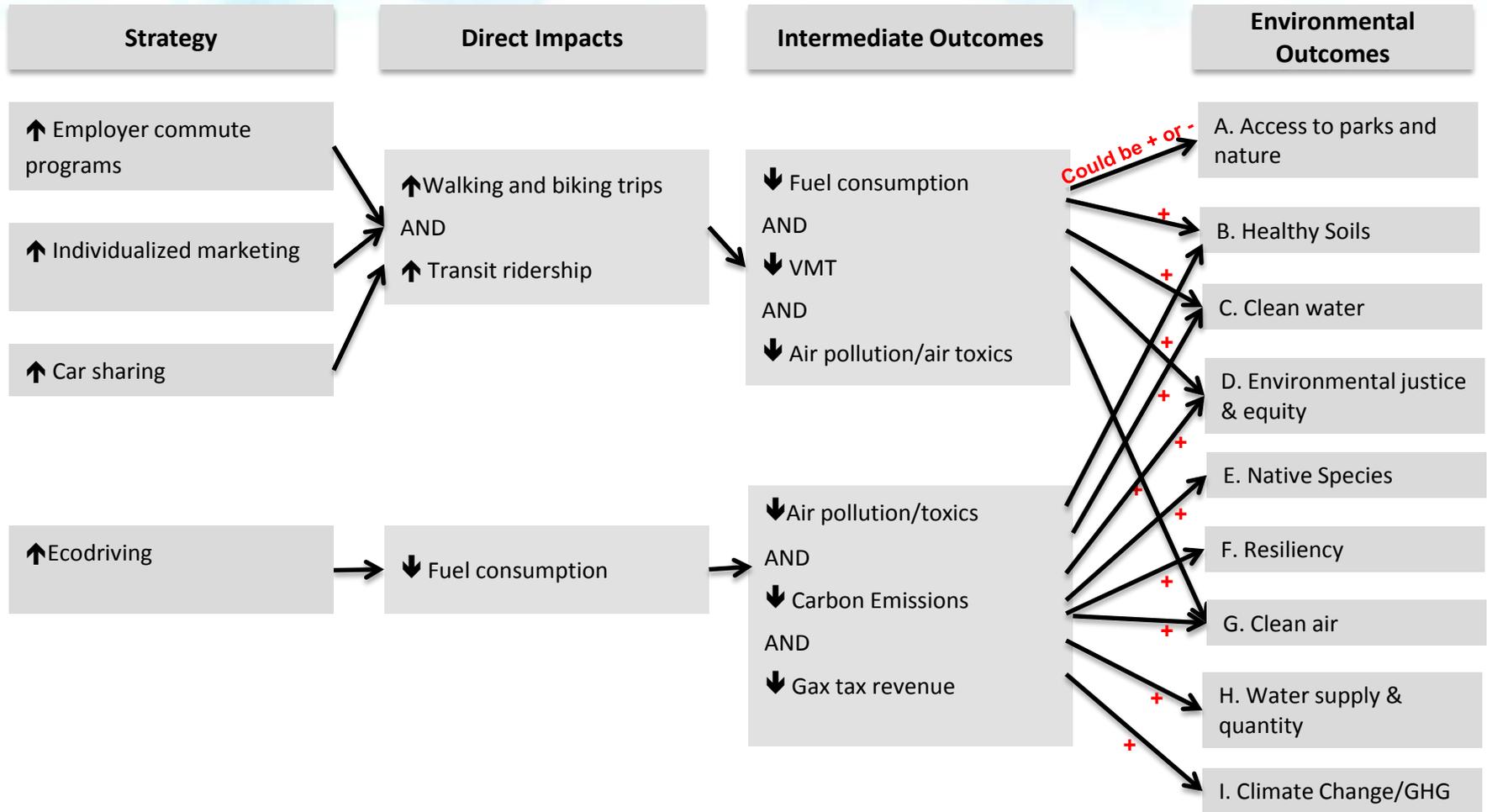
Pricing Pathways



Legend: + means positive impact on the outcome; - means negative; both means it could be either depending on design or implementation

CSC Scenarios Project - Environmental Workshop

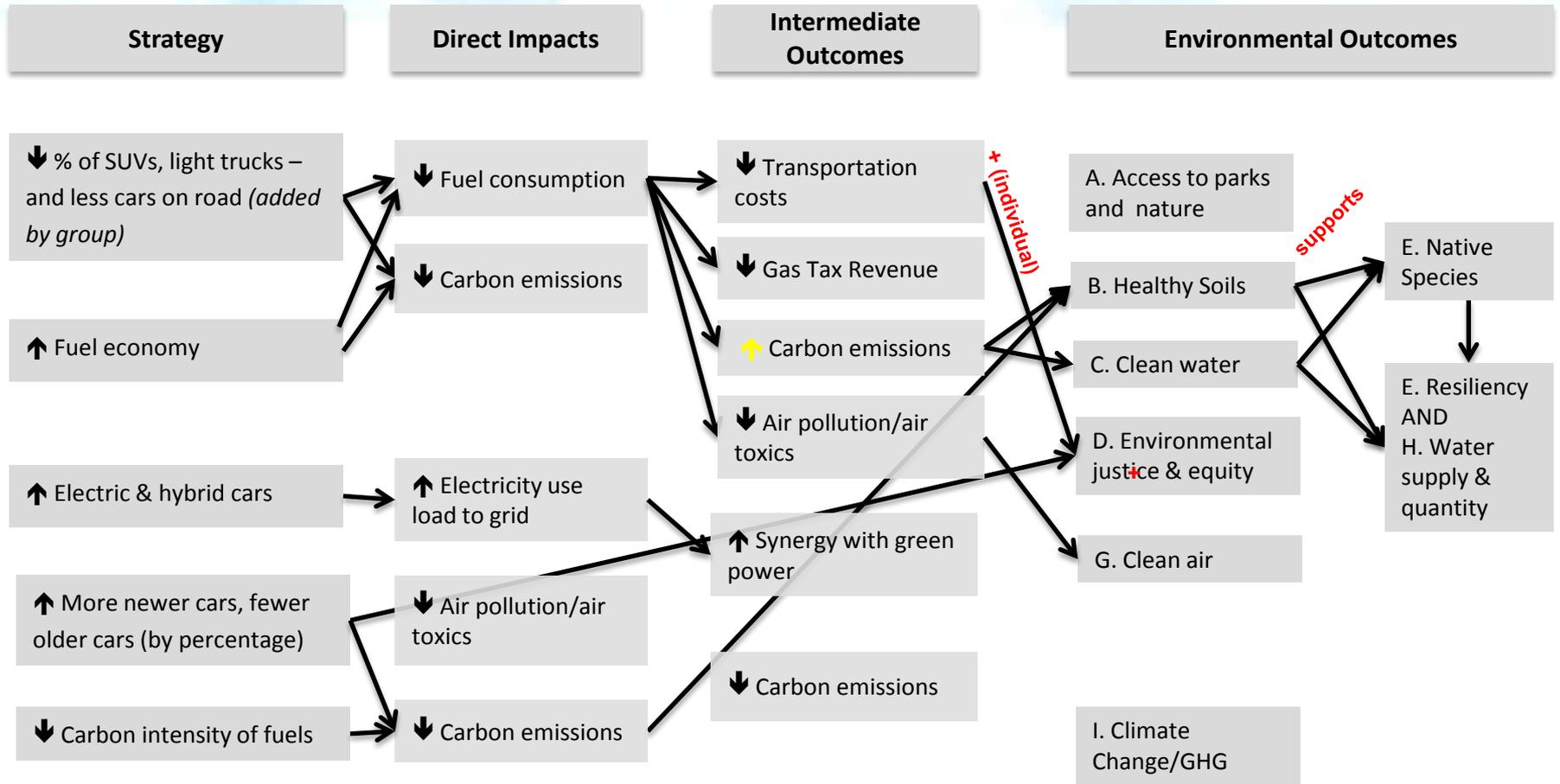
Marketing & Incentives Pathways



Legend: + means positive impact on the outcome; - means negative; both means it could be either depending on design or implementation

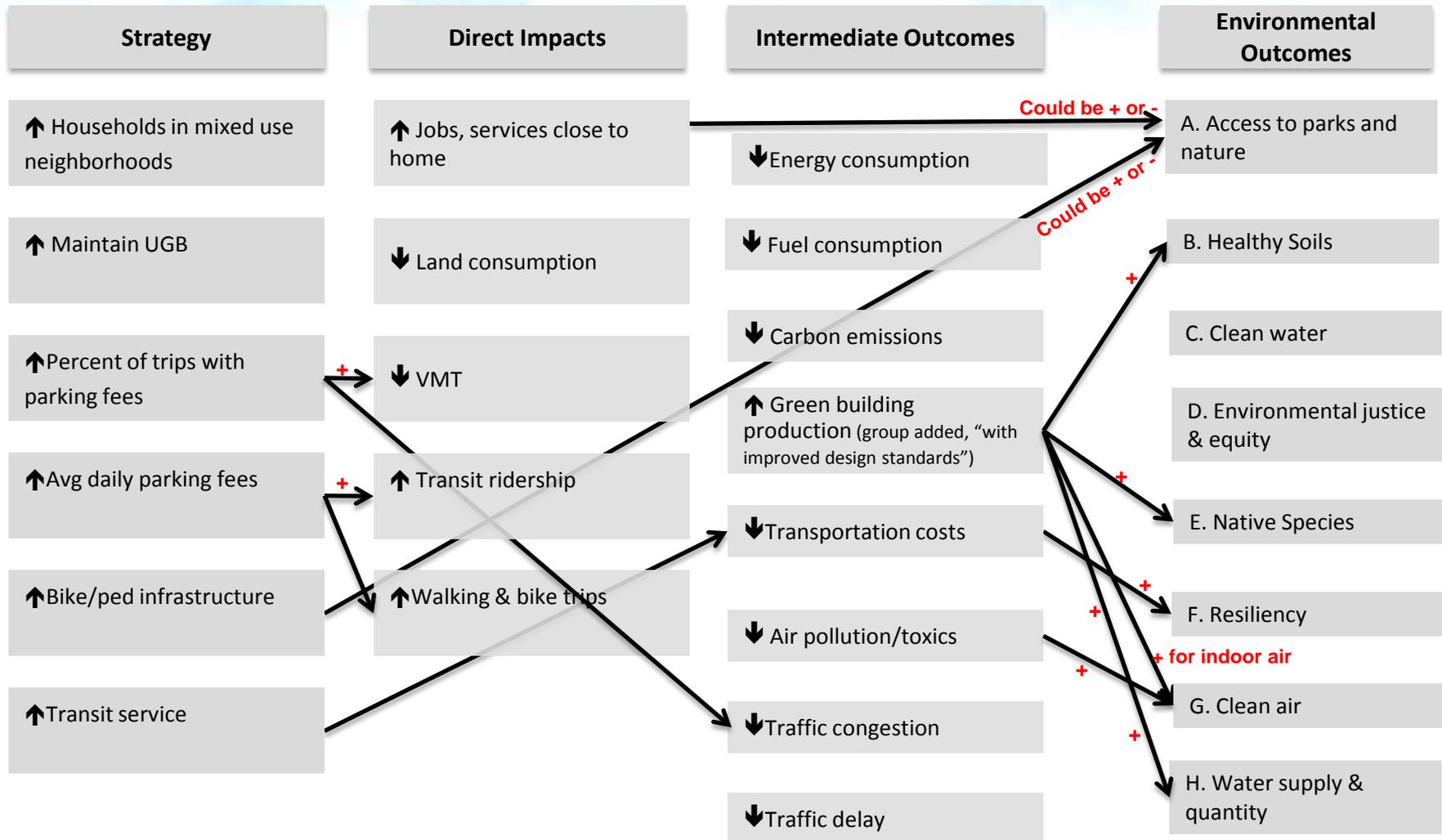
CSC Scenarios Project - Environmental Workshop

Fleet & Technology Pathways



CSC Scenarios Project - Environmental Workshop

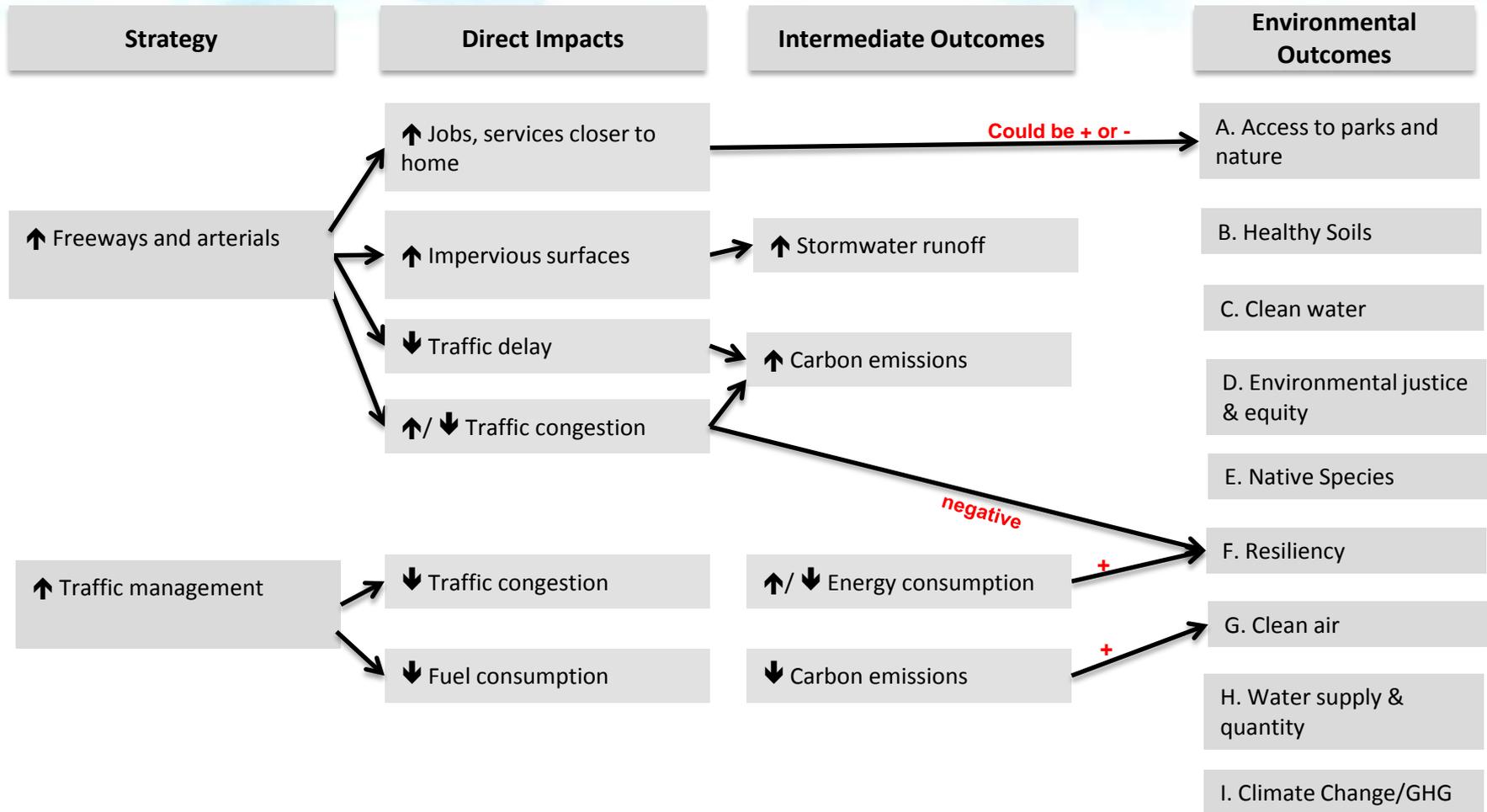
Community Design Pathways



Legend: + means positive impact on the outcome; - means negative; both means it could be either depending on design or implementation

CSC Scenarios Project - Environmental Workshop

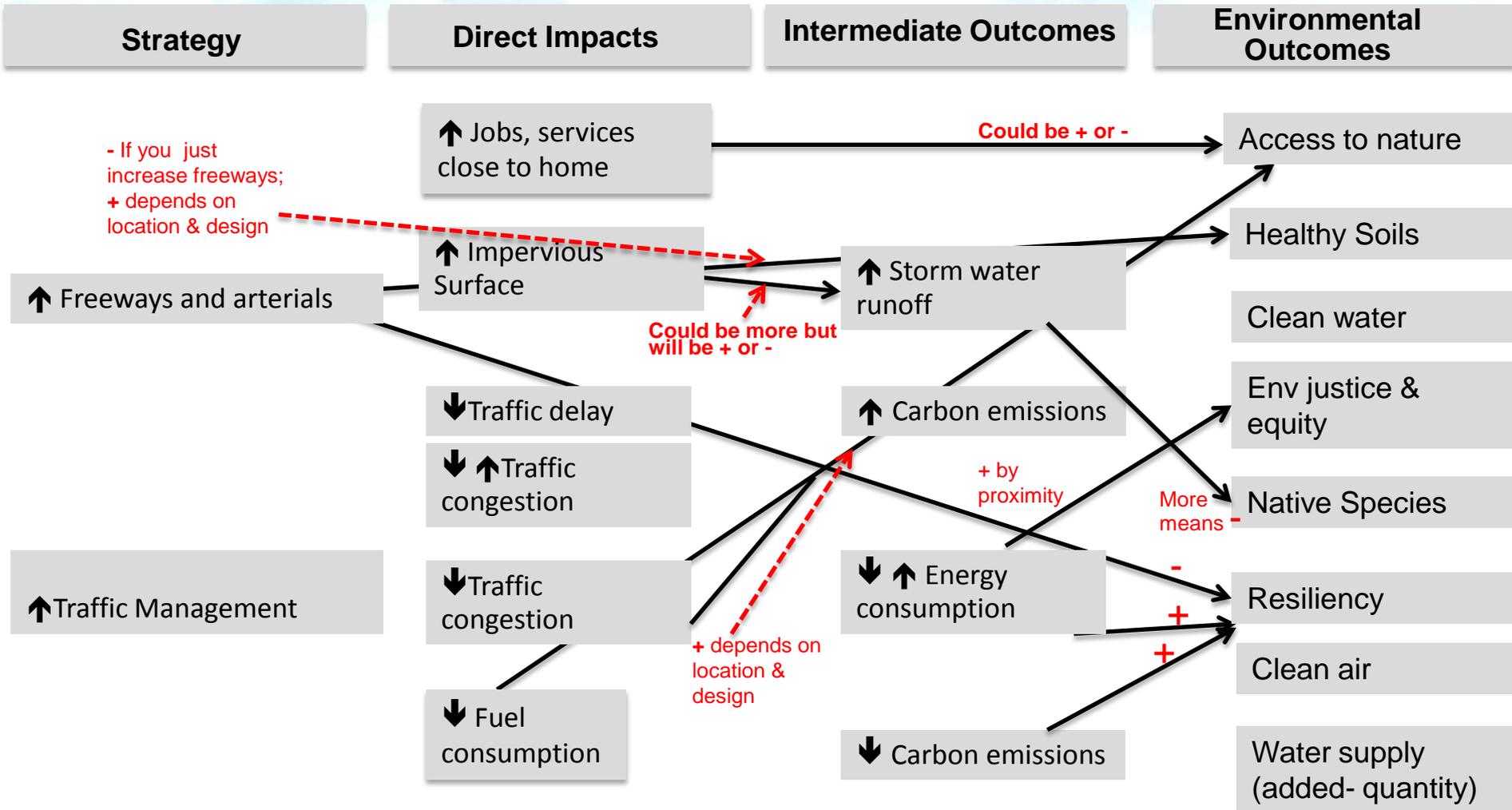
Roads Pathways



Legend: + means positive impact on the outcome; - means negative; both means it could be either depending on design or implementation

CSC Scenarios Project - Environmental Workshop

Roads Pathways



Legend: + means positive impact on the outcome; - means negative; both means it could be either depending on design or implementation

APPENDIX E: WORKSHOP FEEDBACK

Group	Q1 Effectiveness of what was presented to help you understand the project						Q2 Effectiveness of the pathway exercise						Q3 Overall effectiveness of workshop						Overall comments	
	1	2	3	4	5	Comments	1	2	3	4	5	Comments	1	2	3	4	5	Comments		
Fleet and technology					X		X					I don't think this exercise added anything that the Metro team working on it couldn't arrive at itself. Spending only 20 minutes thinking about these is quite inadequate.		X				What was concluded? That air was voted #1 by 4 people?	Rex's invite email said we would provide input on how to measure the benefits and impacts...well, did we really? Did we help develop a scorecard? Walking out I'm not at all sure where each of the 6-8 outcomes fall on a scorecard.	
						Missed first hour. Not sure.					X	Worthwhile discussion and clarifying of diff. ideas/perspectives						? Hope it was for <u>you</u>		
			X								X					X			A more effective overall context would be helpful at the beginning of this workshop. Obviously these are "complex"--difficult to do this "lite"--very much enjoyed the interaction and the excellent participation	
					X	may not be best judge as have been heavily involved already.					X	Probably (?) to get everyone on the same page but I'd like to delve into what the intermediate outcomes could tell us about indicators.					X	Would like to have seen some cross work (?) with Mosaic outcomes to validate that the GPP outcomes are aligned	Seemed to be some tension between focusing on the outcomes and trying to tease out the pathways. I think we got valuable input but it may have confused folks a bit as (?) were working through the exercises. Glad we're coming back together with all the groups in the fall.	
				X		Better explanation and justification of policy strategies necessary.					X	Synergies could be better emphasized					X	Brought new people into conversation and expanded project		
					X							I don't know. I won't be using the (?) in your project.						I don't know what your measure of effectiveness is.	I found the exercise useful (as many of these are) to review (?) the complexity of these challenges. I think it's beneficial for leaders in the community to discuss tradeoffs collectively; however I can't judge how much you can use/or how effective the workshop was for your process. It was fun!	
Community Design and Roads		X									X						X		Workshop provided enough time for a <u> cursory </u> review and pathway eval <u> only </u> with extremely minimal consideration.	
Fleet and Technological				X							X						X		Look forward to seeing the pathways from the breakout groups.	
Community Design and Roads					X							X						X		I will bang my drum again to say "community design" that advocates vibrant communities should and could include "smart" green homes that have the tangible and positive impacts on the environmental outcomes indentified in the workshop.
						On the technical work team so the basis of discussion as already valid. This discussion helped me connect the strategy to environmental outcomes.						X	See next comment				X		This helped some with understanding CSC a bit, but it is very complex to say that effectiveness of the workshop was real high but is a very good way to get people thinking about the strategic outcomes	The linkages are difficult (strategies>>outcomes)and can only be touched upon here today Many decisions will have context challenges in order to properly communicate the links.
Community Design and Roads				X		The materials sent out ahead are great handouts; they have the right balance of technical and graphical information					X	I think for most of the cities involved the elected officials will be less concerned about the environmental outcomes and more interested in the direct outcomes (i.e. congestion, gas tax, revenue, transportation costs, etc.)				X				

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