600 NE Grand Ave.
Portland, OR 97232-2736


# Metro | *Agenda*

Meeting: Joint Policy Advisory Committee on Transportation (JPACT)
Date: Thursday, March 1, 2012
Time: 7:30 to 9 a.m.
Place: Metro Regional Center, Council Chamber

| | | | | |
|---|---|---|---|---|
| **7:30 AM** | **1.** | | **CALL TO ORDER, DECLARATION OF A QUORUM & INTRODUCTIONS** | **Carlotta Collette, Chair** |
| **7:32 AM** | **2.** | | **CITIZEN COMMUNICATIONS ON JPACT ITEMS** | **Carlotta Collette, Chair** |
| **7:35 AM** | **3.** | | **COMMENTS FROM THE CHAIR & COMMITTEE MEMBERS**<br>• Climate Smart Communities Phase 2 Update<br>• Process to comment on 2015-18 State Transportation Improvement Plan (STIP) Eligibility | |
| **7:45 AM** | **4.** | * | **CONSIDERATION OF THE JPACT MINUTES FOR FEB. 9, 2012** | |
| **7:50 AM** | **5.** | | TriMet's "Challenges and Choices" Proposal – INFORMATION / DISCUSSION | **Olivia Clark, TriMet** |
| **8:10 AM** | **6.** | * | 2012-15 Metropolitan Transportation Improvement Program (MTIP) and Air Quality Conformity Determination – ACTION REQUESTED<br>• **Resolution No. 12-4332**, For the Purpose of Approving the 2012 – 2015 Metropolitan Transportation Improvement Program for the Portland Metropolitan Area<br>• **Resolution No. 12-4333**, For the Purpose of Approving the Air Quality Conformity Determination for the 2012-15 Metropolitan Transportation Improvement Program (MTIP) | **Amy Rose** |
| **8:20 AM** | **7.** | * | 2012-17 Regional Travel Options Strategic Plan – INFORMATION<br>*JPACT action anticipated for April 12, 2012* | **Daniel Kaempff** |
| **8:40 AM** | **8.** | | TIGER IV and JPACT Regional Funding Subcommittee Update – INFORMATION / DISCUSSION | **Carlotta Collette, Chair** |
| **9 AM** | **9.** | | **ADJOURN** | **Carlotta Collette, Chair** |

Upcoming meetings:
- The next regular JPACT meeting is scheduled for April 12, 2012 from 7:30 to 9 a.m. at the Metro Regional Center, Council Chamber.

* Material available electronically.
# Material will be sent in a supplemental mailing.

*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.

**2012 JPACT Work Program**
**2/23/12**

| | |
|---|---|
| **January 12, 2012 – Regular Meeting**<br>• 2010-13 MTIP Amendment to add the City of Portland Peer-to-Peer Carsharing Project – Action<br>• RTP & MTIP amendments – Action<br>o Northbound Cornelius Pass Rd. to Eastbound US 26 Project (City of Hillsboro)<br>o Construction Phase of Sellwood Bridge Replacement Project (Multnomah County)<br>o Bike Sharing Project (City of Portland)<br>o Removing Allen Blvd. and Nimbus Ave. Extension Projects (City of Beaverton)<br>• Climate Smart Communities Scenarios – Accept of the Phase 1 Findings<br>• Transportation Electrification Executive Council (TEEC) and Drive Oregon – Information<br>• ODOT Congestion Pricing – Discussion<br>• Federal Authorization Priorities – Discussion | **February 9, 2012 – Regular Meeting**<br>• Federal Authorization Priorities – Action<br>• ODOT Congestion Pricing – Comments/Action<br>• Greater Portland Metro Export Initiative – Information<br><br>**February 27 –JPACT Washington, DC Prep Meeting**:<br>Location: Metro, Room 370A/B<br>When: Monday, Feb. 27, 5 p.m. |
| **March 1, 2012 – Regular Meeting**<br>• 2012-15 MTIP/STIP Approval and Air Quality Conformity – Action<br>• Briefing on RTO Strategic Plan – Information<br>• TriMet budget update – Information/Discussion<br><br>**March 5 to 8, 2012 – Annual Washington, DC Trip** | **April 12, 2012 – Regular Meeting**<br>• FY2012-13 UPWP – Action<br>• RTO Strategic Plan – Action<br>• Review and comment on draft 2015-18 STIP Prioritization Criteria - Information / Discussion<br>• Climate Smart Communities Scenarios Phase 2 work plan – Discussion<br>• Oregon Sustainable Transportation Initiative (OSTI) - Information<br>o Statewide Transportation Strategy (STS)<br>o LCDC Rulemaking on selection of preferred scenario |
| **May 10, 2012 – Regular Meeting**<br>• OSTI draft Statewide Transportation Strategy (STS) – Discussion<br>• Briefing on Regional Safety Action Plan – Information<br>• East Metro Connections update – Information | **June 14, 2012 – Regular Meeting**<br>• Climate Smart Communities Scenarios Phase 2 – Discussion |
| **July 12, 2012 – Regular Meeting** | **August 9, 2012 – Regular Meeting** |

| | |
|---|---|
| **September 13, 2012 – Regular Meeting**<br>• Oregon Sustainable Transportation Initiative (OSTI) - LCDC Rulemaking on selection of preferred scenario – Informational<br>• Climate Smart Communities Scenarios – Discussion | **October 11, 2012 – Regular Meeting**<br>• Oregon Sustainable Transportation Initiative (OSTI) - LCDC Rulemaking on selection of preferred scenario - Discussion |
| **November 8, 2012 – Regular Meeting**<br>• Climate Smart Communities Scenarios Phase 2 scenarios analysis – Discussion | **December 13, 2012 – Regular Meeting**<br>• Climate Smart Communities Scenarios Phase 2 scenarios analysis – Discussion |

Parking Lot:

- Regional Indicators briefing

600 NE Grand Ave.
Portland, OR 97232-2736
www.oregonmetro.gov

Metro | *Making a great place*

JOINT POLICY ADVISORY COMMITTEE ON TRANSPORTATION
FEBRUARY 9, 2012
Metro Regional Center, Council Chamber

| MEMBERS PRESENT | AFFILIATION |
|---|---|
| Sam Adams | City of Portland |
| Shane Bemis | City of Gresham, representing Cities of Multnomah Co. |
| Rex Burkholder | Metro Council |
| Jack Burkman | City of Vancouver |
| Carlotta Collette, Chair | Metro Council |
| Shirley Craddick | Metro Council |
| Nina DeConcini | Oregon Department of Environmental Quality |
| Craig Dirksen | City of Tigard, representing Cities of Washington Co. |
| Donna Jordan | City of Lake Oswego, representing Cities of Clackamas Co. |
| Ann Lininger | Clackamas County |
| Jason Tell | Oregon Department of Transportation, Region 1 |
| Don Wagner | Washington State Department of Transportation |

| MEMBERS EXCUSED | AFFILIATION |
|---|---|
| Deborah Kafoury | Multnomah County |
| Neil McFarlane | TriMet |
| Roy Rogers | Washington County |
| Steve Stuart | Clark County |
| Bill Wyatt | Port of Portland |

| ALTERNATES PRESENT | AFFILIATION. |
|---|---|
| Susie Lahsene | Port of Portland |
| Diane McKeel | Multnomah County |

STAFF: Andy Cotugno, Kim Ellis, Alison Kean Campbell, Nuin-Tara Key, Robin McArthur, Lake McTighe, Dylan Rivera, Randy Tucker, Elissa Gertler, Kelsey Newell, Sheena VanLeuven, Marc Week, John Williams

## 1. CALL TO ORDER AND DECLARATION OF A QUORUM

Chair Carlotta Collette declared a quorum and called the meeting to order at 7:32 a.m.

## 2. CITIZEN COMMUNICATIONS ON NON-AGENDA ITEMS

Mr. John Charles of the Cascade Policy Institute expressed concern over TriMet's decrease in service while there will be a payroll tax rate increase every January through 2024. He was also concerned about the cost of fringe benefits to TriMet's employees and the expense of the Westside Express Service (WES) project. He also expressed unease over using federal money to pay for light rail. Mr. Charles noted two citizen initiatives and another to be filed that would stop light rail expansion in Clackamas County.

Mr. Steve Schopp of Tualatin stated his concern that Clackamas County citizens did not want light rail expansion nor do they want Metro asking the federal government for funds. He also expressed concern over removing an Elks community center in place of Section 8 housing near a proposed Max stop. Mr. Schopp stated that Clackamas County residents would vote in opposition of light rail. Chair Collette clarified that the Elks community center is not under plans to be removed.

Mr. John Ludlow of Wilsonville expressed concern over adverting budget funds from other public sections such as Police and Fire. Mr. Ludlow noted that Clackamas Country is short 50 million dollars for road maintenance and that is the same amount as the Rail Flex Fund. Mr. Ludlow was also concerned about committees of Clackamas County and Metro deciding funding projects without direct voting.

Mayor Tim Knapp of Wilsonville announced that the City of Wilsonville last year had a record year in construction building permits. The City of Wilsonville also saw was a strong uptick on industry, expansion and relocation. Mayor Knapp informed that the committee that private sectors interest in freight travel, transportation impacts and planning for continued growth in the area.

## 3. COMMENTS FROM THE CHAIR & COMMITTEE MEMBERS

Chair Collette reminded the committee that the 30 day public comment period on the 2012-2015 Metropolitan Transportation Improvement Program (MTIP) ends noon on Monday, February 13, 2012. The comment period addresses project schedules, air quality conformity, determination and staff administrative authority.

Chair Collette informed the committee of two initiatives filed in Clackamas County and the city of Milwaukie related to light rail transit. The initiatives would require approval to use city/county resources to finance, design, construct, or operate any public rail transit system. In Milwaukie, the earliest initiative could come to voters in the September 12th special election.

Chair Collette announced that round IV Transportation Investment Generating Economic Recovery (TIGER) grants are now available. Congressman Earl Blumenauer recommends that the committee submit one project from Washington County. The City of Portland also has a project the city is considering for submission. Chair Collette asked the committee what process they wanted to use to decide what should be submitted for the TIGER IV grant. The committee expressed desire to go through a ranking process and include other regional leaders who are not at the table to have time to give input.

The committee viewed a televised speech from Congressman Blumenauer from the floor of the United States House of Representatives honoring Ms. Gail Achterman, who passed away recently. Mr. Jason Tell of the Oregon Department of Transportaion (ODOT) added that at a time of deep separation Ms. Achterman was an inspiration and he hoped people could make it to her memorial scheduled for the afternoon of February 9th.

## 4. CONSIDERATION OF THE JPACT MINUTES FOR JAN. 12, 2012

MOTION: Councilor Rex Burkholder moved, Ms. Susie Lahsene seconded, to approve the JPACT minutes for January 12, 2012.

ACTION TAKEN: With all in favor, the motion passed.

## 5. ACTION ITEMS

**5.1 Resolution No. 12-4330, For the Purpose of Endorsing a Regional Position on the Authorization of a Surface Transportation Act in the US Congress**

Mr. Andy Cotugno of Metro introduced Resolution No. 12-4330. The resolution, if adopted, would approve a position paper to send to the federal Oregon delegation from the Portland Region urging Congress to take action on transportation authorizing legislation. Mr. Cotugno briefly provided an overview of the transportation bills recently approved in committees of the United States House of Representatives and Senate, the similarities and differences between the two and how each could affect the metro region. The resolution calls out 10 major principals in which the Portland metro region has concern. Mr. Cotugno noted that due to the recent Highway Bill in the US House , one recommendation, relating to streamlining the permitting processes, was recently added but was not given to TPAC because the House bill was approved by the house committee on transportation and infrastructure after the January 27th TPAC meeting.

MOTION: Mr. Jason Tell moved, Mayor Craig Dirksen seconded, to approve the Resolution No. 12-4330.

ACTION TAKEN: With all in favor, the motion passed.

**5.2 ODOT's Congestion Tolling Policy**

Mr. Cotugno introduced ODOT's Congestion Tolling Policy. In September 2011ODOT proposed a draft policy concerning ways to implement tolling in the State of Oregon. The Portland metro region supports moving forward with consideration of the Oregon Transportation Commissions congestion/tolling policy but would like to add its own regional interests to the discussion. Since there is little application of tolling/congestion pricing outside of Portland, the JPACT needs to be closely connected with the Oregon Transportation Commission when implementing tolling/congestion pricing policy. Mr. Cotugno outlined the concerns brought forth in the paper specifically on how to better evaluate tolling/congestion pricing projects and asked the committee for acceptance of the comment letter.

MOTION: Councilor Burkholder moved, Councilor Donna Jordan seconded, to submit a letter to Mr. Jason Tell of ODOT outlining the regions components on Congestion Tolling Policy.

DISCUSSION:

Mayor Shane Bemis expressed concerns that the acceptance of the letter could be interpreted by the public as an endorsement of tolling.

Councilor Burkholder clarified the letter is not an endorsement of tolling/congestion pricing, but merely outlines issues, the region believes the State and region should consider if and when deciding to implement tolling/congestion pricing.

ACTION TAKEN: With all in favor, and one abstained (J. Tell), the motion passed.

## 6. INFORMATION/DISCUSSION ITEMS

**6.1 Greater Portland Metro Export Initiative**

Mr. Noah Siegel of the City of Portland presented the Greater Portland Metro Export Initiative strategy assessment. In developing the market assessment and the Metro Export Initiative (MEI) strategy the Portland Development Commission(PDC) has attempted to identify policy issues and suggest changes at

different levels that will increase the success of Portland area exports. These recommendations are intended to compliment the 2001 National Export Strategy with specific suggestions for effective implementation at the state and local level.

The committee discussed the following items:

- The completed project findings will officially be released on February 15th and will be presented to the federal government in March.
- Key transportation needs to assist export initiatives especially freight transit. Specifically short and long term issues. Short term issues would be improvements such as intelligent Transfer Systems. Long term issues could be bigger projects like relieving freight choke points
- The new focus on service exports and the issue of the Federal Government not tracking service as an export.
- How to improve the accessibly of exports to manufacturers beyond the City of Portland.
- How to diversify the export market. Technologies currently dominate export market in the area.
- Updating the lock systems in Clackamas County and opening up barge traffic along the river.
- Talk about priorities. The difficult reality of not being able to support every project.

## 7. ADJOURN

Chair Collette adjourned the meeting at 8:45 a.m.

Respectfully submitted,

Marc Week
Recording Secretary

ATTACHMENTS TO THE PUBLIC RECORD FOR FEBRUARY 9, 2012
The following have been included as part of the official public record:

| ITEM | Document type | Doc Date | Document Description | Document No. |
|---|---|---|---|---|
| | Work program | 02/09/12 | Updated work Program | 020912j-01 |
| **3** | Handout | 02/12 | US DOT TIGER IV Grant Program | 020912j-02 |
| **3** | Handout | 2/12 | TriMet Service Trends | 020912j-03 |
| **5.1** | Resolution | 02/09/12 | RESOLUTION NO. 12-4330 | 020912j-04 |
| **5.1** | Handout | 2/12 | American Energy and Infrastructure Jobs Act Summary of surface transportation provisions | 020912j-05 |
| **5.1** | Handout | 2/12 | Summary of MAP-21 | 020912j-06 |

| | | | | |
|---|---|---|---|---|
| **6.1** | PPT | 2/9/12 | Greater Portland Metro Export Initiative abbreviated for JPACT: Updated | 020912j-07 |
| **6.1** | Handout | 2/9/12 | Greater Portland Metro Export Initiative Policy Memo | 020912j-08 |

BEFORE THE METRO COUNCIL

| | | |
|---|---|---|
| FOR THE PURPOSE OF APPROVING THE 2012-2015 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM FOR THE PORTLAND METROPOLITAN AREA | ) ) ) ) | RESOLUTION NO. 12-4332<br><br>Introduced by Councilor Carlotta Collette |

WHEREAS, the Portland metropolitan area Metropolitan Transportation Improvement Program (MTIP), which reports on the programming of all federal transportation funds to be spent in the region, must be updated every two years in compliance with federal regulations, and

WHEREAS, the Metro Council and Joint Policy Advisory Committee on Transportation (JPACT) have proposed programming of the regional flexible funds portion of the federal allocation of transportation funds to this region, and

WHEREAS, the Oregon Department of Transportation has proposed programming of federal transportation funds for projects in the Portland metropolitan area through the State Transportation Improvement Program (STIP), and

WHEREAS, the transit service providers TriMet and South Metropolitan Area Rapid Transit (SMART) have proposed programming of federal transit funds, and

WHEREAS, these proposed programming of funds must be found in compliance with all relevant federal law and administrative rules, including a demonstration of compliance with the Oregon State implementation plan for air quality, and

WHEREAS, the draft MTIP for the Portland, Oregon metropolitan area, attached as Exhibit A, demonstrates compliance with all relevant federal law and administrative rules, and

WHEREAS, 2010-13 projects were adopted by Resolution No. 10-4186 (For the Purpose of Approving the 2010-13 Metropolitan Transportation Improvement Program for the Portland Metropolitan Area), and

WHEREAS, the companion Metro Resolution No.12-4333, (For the Purpose of Approving the Air Quality Conformity Determination for the 2012-15 Metropolitan Transportation Improvement Program), demonstrates compliance with the federal Clean Air Act and the Oregon State implementation plan for air quality, and

WHEREAS, the proposed MTIP is consistent with the Regional Transportation Plan, adopted by Metro Ordinance No. 10-1241B.

WHEREAS, a public process has provided an opportunity for comments on the programming of federal funds to specific projects in specific fiscal years and whether that programming meets all relevant laws and regulations, in addition to extensive public processes used to select projects to receive these funds,

WHEREAS, on March 1, 2012 JPACT recommended approval of this resolution and the 2012-15 MTIP; now therefore

BE IT RESOLVED that the Metro Council adopt the Metropolitan Transportation Improvement Program for the Portland metropolitan areas as shown in Exhibit A; and

BE IT RESOLVED that projects in the existing 2010-13 MTIP that do not complete obligation of funding prior to September 30, 2012 will be programmed into the 2012-15 MTIP.

ADOPTED by the Metro Council this___day of March 2012.

Tom Hughes, Council President

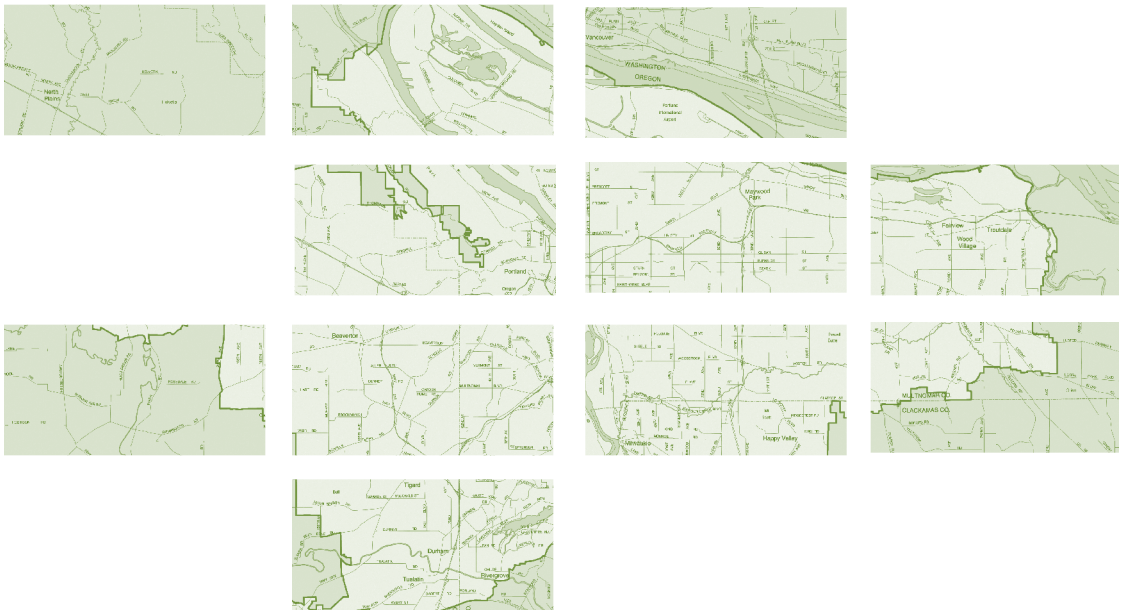
Approved as to Form:

Alison Kean Campbell, Metro Attorney

Exhibit A to Resolution No. 12-4332

CLICK HERE FOR REPORT

www.oregon**metro.gov**



Metropolitan Transportation Improvement Program

# 2012-15

## Adoption draft

Portland metropolitan area

Federal fiscal years 2012 through 2015

**February 2012**

Metro | *Making a great place*

**STAFF REPORT**

IN CONSIDERATION OF RESOLUTION NO. 12-4332 FOR THE PURPOSE OF APPROVING THE 2012-2015 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM FOR THE PORTLAND METROPOLITAN AREA

---

Date: March 15, 2012 Prepared by: Ted Leybold, 503-797-1759

**BACKGROUND**

The 2012-15 Metropolitan Transportation Improvement Program (MTIP) is a report that summarizes all programming of federal transportation funding in the metropolitan region for the federal fiscal years 2012-2015 and demonstrates that the use of these funds will comply with all relevant federal laws and administrative rules. The MTIP and the State Transportation Improvement Program (STIP) are required to be coordinated and approved in the same time period every two years.

Acting on this resolution would:

- Approve the scheduling of previously allocated federal funding to projects by project phase and fiscal year,
- Define administrative authority to add or remove projects from the MTIP (defined in Section 1.7),
- Affirm the region meets federal planning and programming rules and submission of documentation to the Governor of Oregon, the Federal Highway Administration and the Federal Transit Administration.

Generally, there are three sources of proposed programming of federal transportation funds that are reflected in the MTIP:

- Regional flexible funds – projects in the regional flexible fund allocation (RFFA) process, selected by JPACT and the Metro Council,
- Projects and maintenance on the national highway system proposed by the Oregon Department of Transportation through the State Transportation Improvement Program (STIP) process,
- Transit projects proposed by the region's transit agencies.

Federal regulations designate JPACT and the Metro Council as the bodies responsible for approving the comprehensive package of federal highway and transit funds for the Portland metropolitan area.

The projects and programs selected by JPACT and Metro Council to receive regional flexible funds for the years 2014 and 2015 have been assigned to their respective years of allocation and fund type (Surface Transportation Program or Congestion Mitigation/Air Quality) in the MTIP. Previous programming of these funds for the years 2012 and 2013 has been updated to reflect changes in construction schedules and project costs.

The programming of state highway funds is proposed by the Oregon Department of Transportation and is summarized in Tables 3.1.4.

The programming of federal transit funds to the metropolitan region is summarized in Table 3.1.3 In addition to the regional flexible funds programmed to transit activities through the RFFA process, there

are several types of federal funds summarized, including rail new starts, a program for jobs access for low income citizens, allocations for bus purchases and allocations for maintenance of the bus and rail systems. The proposed programming of funds is consistent with the TriMet Transit Investment Plan, a 5-year rolling capital improvement program that guides the short term Implementation of the 20-year regional Transportation Plan.

Programming changes since publication of the draft 2012-15 State Transportation Improvement Program (STIP) will be tracked on Attachment 1. These changes will be effective immediately following federal approval of the STIP.

Adoption of this resolution would fulfill JPACT and Metro Council's role within federal law to program federal funds, consistent with federal regulations as documented in Exhibit A; the Metropolitan Transportation Improvement Program for the Portland metropolitan area, federal fiscal years 2012-2015.

## Public involvement for Draft MTIP

The Federal Highway Administration requires Metro and other regional agencies nationwide to make the schedule of MTIP projects available for public comment prior to final adoption. In addition, Metro's Public Involvement Policy for Transportation Planning requires a 30-day public comment period for a draft MTIP.

On Friday, Jan. 13, 2012, Metro opened a public comment period, closing the comment period 32 days later at noon on Monday, Feb. 13. The opportunity also described Metro's determination that the region will continue to meet federal and state clean air standards. It also provided an opportunity to comment on the capital program of City of Wilsonville's SMART (South Metro Area Regional Transit) transit agency.

The comment period was advertized with a legal notice in The Oregonian on Friday, Jan. 13, a newsfeed posted to Metro's News web site on Jan. 18 and an email notices to more than 500 addresses on the TPAC and JPACT members and interested parties lists. Both the advertisement and the newsfeed directed the public to a web page that provided copies of the Draft MTIP document, Draft Air Quality Conformity and proposed program for SMART. Because of the scope of the comment opportunity was limited to project schedules and recent JPACT approval of allocation of funds, staff determined that translation and specific environmental justice outreach were not required.

Two comments were received during the comment period. Marguerite Truttman, a Realtor from Gresham, said she was opposed to having a MAX line from Portland to Gresham via Powell Boulevard. John Charles, of the Cascade Policy Institute, said the calculation of Transportation Control Measures (TCM) was flawed because it didn't account for bus service cuts.

Staff proposes the following responses to the comments:

- On the potential for new high capacity transit in the Southeast Powell corridor, that project is not part of the 2012-15 MTIP. The work plan for a "next corridor" planning process will be reviewed as part of the next Unified Planning Work Program.
- On the TCM issue, the measurement of whether the control measure has been met is based on the amount of transit capacity the region provides, not on its ridership. Transit ridership, as with other transportation outputs such as vehicle trips, can vary based on the economy and other factors.

## ANALYSIS/INFORMATION

1. **Known Opposition** None known at this time.

2. **Legal Antecedents** This resolution programs transportation funds in accordance with the federal transportation authorizing legislation (currently known as SAFETEA-LU). The allocation process is intended to implement the Regional Flexible Fund Allocation (RFFA) process for years 2012 through 2015 as defined by Resolution Nos. 09-4017 and 11-4313. This MTIP must be consistent with the Regional Transportation Plan, adopted by Metro Ordinance No. 10-1241B. This MTIP must also be determined to be in conformance with the federal Clean Air Act, which was accomplished through action on Metro Resolution No. 12-4333.

3. **Anticipated Effects** Adoption of this resolution is a necessary step to make the transportation projects and programs defined in the MTIP, provided as Exhibit A, eligible to receive federal funds to reimburse project costs.

4. **Budget Impacts** Adoption of this resolution is a necessary step in making eligible federal surface program funds for planning activities performed at Metro. These impacts have been previously described as a part of the actions on Metro Resolution Nos. 09-4017 and 11-4313. This includes $5,873,176 of federal funds to be used for planning activities at Metro between 2012-15. Grant funds allocated to Metro planning require a match totaling 10.27% of project costs. This would include $672,211 through the course of the 2012-15 time period. An additional $9,946,000 of planning and programming activities scheduled and funded to take place in the 2012-15 MTIP. These funds are subject to being sub-allocated to Metro or other agencies. The total required match for funding of these activities is $1,138,364, although Metro would only be responsible for matching to the portion of funds sub-allocated to Metro. Under current sub-allocation patterns, staff estimates approximately $450,000 of the $1,138,364 match requirement could be required of Metro. Further action through the annual Unified Planning Work Program (UPWP) and individual Intergovernmental Agreements (IGA) will be needed to execute these planning activities.

## RECOMMENDED ACTION

Staff recommends approval of Resolution No. 12-4332.

**Attachment 1**

Programming Changes: 2012-15 MTIP Public Comment Draft to Final Adoption Draft

| ODOT Key # | Lead Agency | MTIP ID # | Project Name | Year | Amount | Fund Type | Action |
|---|---|---|---|---|---|---|---|
| 17305 | SMART | 70338 | SMART Preventive Maintenance FY12 | 2012 | $180,000 | STP | Delete programming. |
| 17306 | SMART | 70339 | SMART Preventive Maintenance FY13 | 2013 | $180,000 | STP | Delete programming. |
| 18052 | TriMet | 70518 | Bus & Rail Preventive Maintenance-2 (FY14) | 2014 | $1,500,000 | STP | Delete programming. |
| 18053 | TriMet | 70519 | Bus & Rail Preventive Maintenance-2 (FY15) | 2015 | $1,500,000 | STP | Delete programming. |
| 15553 | TriMet | 70011 | Rail Prev Maint (Bus Stop Dev/Streamline Prog)(FY13) | 2013 | $707,000 | STP | Add programming. |
| 18036 | TriMet | 70522 | TriMet RTO Program (FY14) | 2014 | $437,750 | CMAQ | Delete programming until RTO sub-allocation complete. |
| 18037 | TriMet | 70523 | TriMet RTO Program (FY15) | 2015 | $450,883 | CMAQ | Delete programming until RTO sub-allocation complete. |
| 18054 | TriMet | 70520 | Portland to Milwaukie Light Rail (FY14) | 2014 | $100,000,000 | 5309 | Add funding for fiscal years 2012 ($85,000,000) and 2013 ($100,000,000). |
| 18016 | Metro | 70495 | Corridor & Systems Planning 2014 | 2014 | $500,000 | STP | Advance program year to 2013. |
| 18023 | Portland | 70483 | Burgard/Lombard @ North Time Oil Road intersection | | | STP | Change project name to: Burgard @ N Time Oil Road intersection. |
| 18025 | Portland | 70498 | Portland Bike Sharing Project | | | STP | Change project name to: Portland Bike Share Project. |

BEFORE THE METRO COUNCIL

| | | |
|---|---|---|
| FOR THE PURPOSE OF APPROVING THE AIR QUALITY CONFORMITY DETERMINATION FOR THE 2012-2015 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM. | ) ) ) ) ) | RESOLUTION NO. 12-4333<br><br>Introduced by Councilor Carlotta Collette |

WHEREAS, clean air contributes to the health of Metro residents and their quality of life; and

WHEREAS, the federal Clean Air Act and other federal laws, including CFR 93.100 through CFR 93.129 contain air quality standards designed to ensure that federally supported activities meet air quality standards, and these federal standards apply to on-road transportation plans, programs and activities in the Metro area; and

WHEREAS, Chapter 340, Division 252, Transportation Conformity, of Oregon Administrative Rules was adopted to implement section 176(c) of the federal Clean Air Act, as amended, and these rules also apply to Metro area on-road transportation plans, programs and activities; and

WHEREAS, these federal and state regulations require an air quality conformity determination on any updated Metropolitan Transportation Improvement Program; and

WHEREAS, in March 2012 as a part of companion Resolution 12-4332, the region proposes to update the MTIP for the federal fiscal years 2012 through 2015, subject to air quality conformity determination; and

WHEREAS, on January 9, 2012, Metro staff consulted with state and federal air quality regulatory agencies on the draft Air Quality Conformity Determination for the 2012-15 MTIP and received their input and concurrence as to its meeting state and federal rules; and

WHEREAS, on February 17, 2012, the Transportation Policy Alternatives Committee (TPAC), as the official consultation body within the Metro region for consultation on meeting the transportation elements of the State Implementation Plan for Air Quality, recommended adoption of this resolution; and

WHEREAS, the Air Quality Conformity Determination dated February 17, 2012, included in Exhibit A and attached hereto, demonstrates that the 2012-2015 MTIP can be implemented and the resulting total air quality emissions are forecast to be substantially less than the maximum allowable transportation source emission levels and that other air quality related rules have been met; now, therefore,

BE IT RESOLVED that the Metro Council hereby:

1. Approves the air quality conformity determination attached to this resolution as Exhibit A.

2. Directs the Chief Operating Officer to forward the Air Quality Conformity Determination dated February 17, 2012, to the Federal Highway Administration and Federal Transit Administration for approval.

ADOPTED by the Metro Council this ___ day of March, 2012.

Tom Hughes, Council President

Approved as to form:

Alison Kean-Campbell, Metro Attorney

Exhibit A to Resolution No. 12-4333

CLICK HERE FOR REPORT











# Air Quality Conformity Determination

**February 17, 2012**

# 2012–15
## METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM

Metro | *People places. Open spaces.*

**STAFF REPORT**

IN CONSIDERATION OF RESOLUTION NO. 12-4333, FOR THE PURPOSE OF APPROVING THE AIR QUALITY CONFORMITY DETERMINATION FOR THE 2012-2015 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM.

---

Date: Februry 14, 2012 Prepared by: Matt Bihn and Ted Leybold

## BACKGROUND

Overview

Federal regulations require that an air quality conformity determination be completed for any updated Metropolitan Transportation Improvement Program. The air quality conformity determination must demonstrate compliance with all federal and state determined air pollutants for the area so that the region, the Oregon Department of Transportation and local jurisdictions can continue to be eligible to receive federal funds for transportation projects within the region.

To accomplish the determination, the region must demonstrate through travel demand and motor vehicle emission modeling that its planned transportation investments will not result in emissions from transportation-related sources exceeding the budget, or maximum allowed amounts, as adopted for the region in the State Implementation Plan for Air Quality.

The Metro area is in compliance with the standards for all air pollutants regulated by federal and state regulations. However, the current status of air quality in the Metro region is that it is a "maintenance" area for carbon monoxide. That is, while the region has greatly reduced carbon monoxide levels and has not exceeded maximum levels since 1989, it still must monitor carbon monoxide levels and complete air quality conformity determinations for carbon monoxide emissions from on-road transportation sources. This analysis is produced using Metro's travel forecasting model, assuming the region's projected growth to the transportation plan horizon year (2035) and the transportation investments included in the financially constrained RTP (of which the MTIP is a subset). The travel model results are then used with the Environmental Protection Agency's approved MOBILE 6.2 air quality model to determine air pollutant levels from on-road sources. These emission levels are then compared with the motor vehicle emission budgets, or maximum air pollution levels of carbon monoxide from on-road transportation sources, as determined by the Oregon Environmental Quality Commission based on the analysis and recommendations of the Oregon Department of Environmental Quality.

To be consistent with the State Implementation Plan for Air Quality, the region has also agreed to implement a minimum amount of growth in transit service and new pedestrian and bicycle facilities during the effective period of the current air quality implementation plan (2007 – 2016). This growth in transit service and new facilities are referred to within the air quality plan as Transportation Control Measures (TCMs).

Prior Carbon Monoxide Conformity Determination

Exhibit A to Resolution No. 10- 4150A, "For the Purpose of Approving the Air Quality Conformity Determination for the 2035 Regional Transportation Plan and the 2010-2013 Metropolitan Transportation Improvement Program," is the Air Quality Conformity Determination (dated May 14, 2010) that includes a carbon monoxide emission analysis of on-road transportation sources from the region based on the 2035 RTP and 2010-2013 MTIP.

The analysis showed that federal and state air quality standards for carbon monoxide can easily be met now and in the future in the Metro region considering the combined emissions generated from on-road vehicles using: 1) the existing transportation system, and, 2) the projects included in the 2010-13 Metropolitan Transportation Improvement Program; and, 3) all of the other improvements included in the financially constrained system of the 2035 Regional Transportation Plan; and 4) all other local transportation projects that are considered regionally significant.

Accordingly, this determination was adopted by Metro Council and approved by the Federal Highways Administration and Federal Transit Administration (after conferring with the US Environmental Protection Agency).

2012-15 MTIP Conformity Determination

The update to the existing 2010-13 MTIP to a proposed 2012-15 MTIP requires a new determination. Metro staff provided updates to air quality conformity documentation to reflect new projects being prioritized for funding in the updated 2012-15 MTIP.

The new projects being proposed for funding were all determined to be either exempt from regional air quality emissions analysis or to be consistent with the previous modeling and analysis of project implementation for determining air quality conformity. Therefore, no new travel demand or emissions analysis were determined necessary for demonstrating conformity with transportation emissions budgets.

New projects were also analyzed for maintaining consistency with the region's transportation control measures (TCMs). The new projects were added to the analysis of TCMs and demonstrated that the region remains in compliance with meeting the measures.

This draft determination was shared with state and federal air quality regulatory agencies to receive their input and concurrence as to its meeting state and federal rules on January 9, 2012. The participants did provide their concurrence at that meeting on the adequacy of the determination.

The determination was then released for public comment between January 10th and February 13th. Finally, the Transportation Policy Alternatives Committee (TPAC), as the official consultation body within the Metro region for consultation on meeting the transportation elements of the State Implementation Plan for Air Quality, recommended adoption of this resolution at its meeting February 17, 2012.

Summary of Comments Received and Responses/Recommendation Actions

The Federal Highway Administration requires Metro and other regional agencies nationwide to make the draft of the air quality report for the schedule of MTIP projects available for public comment prior to final adoption. In addition, Metro's Public Involvement Policy for Transportation Planning requires a 30-day public comment period for a draft air quality report for the MTIP.

On Friday, Jan. 13, 2012, Metro opened a public comment period, closing the comment period 32 days later at noon on Monday, Feb. 13. In addition to describing the MTIP schedule, the comment opportunity described Metro's determination that the region will continue to meet federal and state clean air standards. It also provided an opportunity to comment on the capital program of City of Wilsonville's SMART (South Metro Area Regional Transit) transit agency.

The comment period was advertized with a legal notice in The Oregonian on Friday, Jan. 13, a newsfeed posted to Metro's News web site on Jan. 18 and an email notices to more than 500 addresses on the TPAC and JPACT members and interested parties lists. Both the advertisement and the newsfeed directed the public to a web page that provided copies of the Draft MTIP document, Draft Air Quality Conformity Determination and proposed program for SMART. Because of the scope of the comment opportunity was

limited to project schedules and recent JPACT approval of allocation of funds, staff determined that translation and specific environmental justice outreach were not required.

No comments were received on the air quality conformity determination report. Two comments were received on the MTIP schedule.

**ANALYSIS/INFORMATION**

1. **Known Opposition** None.

**2. Legal Antecedents**

Federal regulations include:

- Clean Air Act, as amended [42 U.S. C. 7401 and 23 U.S.C. 109(j)], as amended].
- US EPA transportation conformity rules (40 CFR, parts 51 and 93).

State regulations include:

- Oregon Administrative Rules for Transportation Conformity, (OAR Chapter 340, Division 252).
- 2006 State Implementation Plan (SIP).
- 2006 Portland Area Carbon Monoxide Maintenance Plan and 2007 Portland Area Ozone Maintenance Plan.

Metro legislation includes:

- Resolution 10-1241B, "For the Purpose of Approving the 2035 Regional Transportation Plan".
- Resolution 10-4186, "For the Purpose of Approving the 2010-13 Metropolitan Transportation Improvement Program for the Portland Metropolitan Area".
- Resolution 10-1450A, "For the Purpose of Approving the Air Quality Conformity Determination for the 2035 Regional Transportation Plan and the 2010-13 Metropolitan Transportation Improvement Program".
- Resolution 12-4332, "For the Purpose of Adopting the 2012-15 Metropolitan Transportation Improvement Program".

**3. Anticipated Effects**: Approval of this resolution allows for funding of proposed transportation projects in the 2012-2015 MTIP and advancing the goals of the 2035 Regional Transportation Plan. With approval, staff will submit the Air Quality Conformity Determination and findings to the U.S. Department of Transportation for approval.

4. **Budget Impacts:** None directly by this action.

**RECOMMENDED ACTION**
Staff recommends approval of Resolution No. 12-4333.


METRO REGIONAL TRAVEL OPTIONS

# 2012 – 2017 STRATEGIC PLAN

## Draft

December 2011

NELSON
NYGAARD

# EXECUTIVE SUMMARY

Metro's Regional Travel Options (RTO) program supports Metro's mission of creating a great place by increasing the awareness of non-single occupancy vehicle (SOV) travel options such as biking, walking, taking transit, and ridesharing. The RTO program is an important, low-cost component of the region's aggressive goal to reach a non-SOV mode-share of 50 percent or more by 2035. In fiscal year 2009-2010, the RTO program accounted for only half of one percent of the region's transportation budget, yet it funded over 20 regional partners and helped to reduce between 98 and 145 million vehicle miles traveled.[1] At its core, the program is designed to help make the best use of the region's existing transportation infrastructure and service investments.

To accomplish this, the RTO program provides strategic investments in a range of programs, including: individualized marketing, employer and commuter travel options, Transportation Management Associations, and traveler information tools and services. These investments contribute to the economic, environmental, and socio-economic health and prosperity of the region in the following ways:


RTO Investments contribute to making a great place

- **Economic:** The RTO program helps to reduce traffic congestion by encouraging non-SOV modes. Decreased traffic congestion ensures the efficient movement of freight and goods. Moreover, RTO investments help to utilize the existing transportation system, instead of investing money into new and costly infrastructure improvements. Cost-effective travel options such as biking and walking put money back in people's pockets, which can then be spent in the local economy rather than exported to international oil companies. This green dividend has been attributed to saving Metro area residents as much as $2.6 billion per year.[2]
- **Environment:** Biking, walking, taking transit, ridesharing, and telecommuting help to reduce the number of single occupancy vehicles on the road. As such, the RTO program reduces greenhouse gas emissions, reduces water pollution from auto travel, and improves air quality.
- **Equity & Health:** The RTO program works to provide affordable transportation options for all residents. Households in the Metro region generally spend between 15% and 28% of their household income on transportation costs.[3] Non-SOV modes can provide more affordable transportation choices. Moreover, these transportation options improve community health (improved air quality, active transportation options, etc.).

---

[1] These figures reflect a conservative estimate based on reported figures and include a 40 – 60 percent discount from actual numbers reported from the various sources. Because ECO data includes employers' VMR over multiple years between their baseline and follow up surveys, these figures also reflect so-called maintenance VMR, or VMR reduced as part of prior investments.

[2] Cortright, J. (2007, June 28). Portland's Green Dividend. Chicago, Illinois: CEOs for Cities.

[3] Center for Neighborhood Technology. (2011). "Housing + Transportation Affordability Index" Portland-Vancouver WA. Web. Assessed 15 November 2011.

# GUIDING PRINCIPLES

The purpose of this strategic plan is to define a mission, a set of goals and objectives, and a 5-year plan to support a regional travel options program. The strategic plan development process was guided by the following principles:

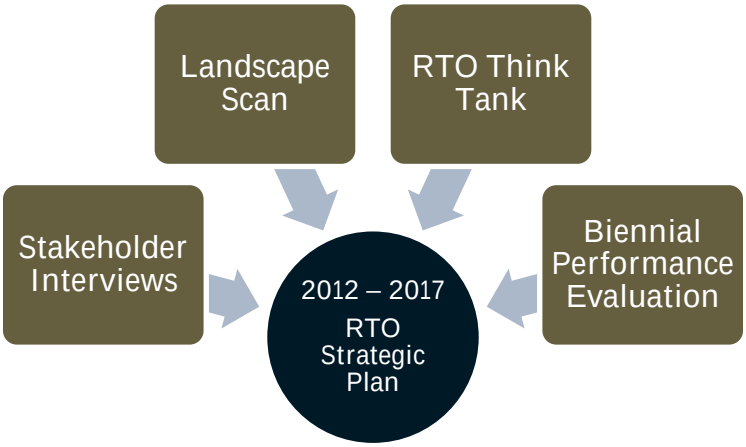
- Link to other Metro programs to proactively integrate transportation demand management into regional planning and growth management processes
- Enable local partners to reach out to employers and residents to help make non-SOV travel choices
- Provide regional policy support and program development that supports efficient use of the existing transportation system
- Establish a sustainable and diverse funding stream by linking the RTO program to other Metro transportation investments
- Streamline Metro RTO services to limit duplication of roles and foster collaboration and the sharing of best practices among regional partners
- Position the Metro RTO program to leverage community partners – such as health care providers, local jurisdictions, non-profit organizations and others – to proactively build a regional travel options program that serves the diverse needs of the region
- Develop a streamlined evaluation process that links to Metro's overarching economic, environmental, and community building goals and reduces the administrative burden on Metro RTO staff and its grantees

# METHODOLOGY

The 2012-2017 Metro RTO strategic plan is supported by the following four efforts (also represented in Figure 1, below):

- **Stakeholder Interviews:** Seventeen interviews with over 50 participants were conducted to understand the strengths, weaknesses and opportunities of the Metro RTO program. Participants included local city and county representatives, Metro staff, businesses, non-profit organizations, transit agencies, state representatives, universities, and current and past RTO grant recipients. Appendix A provides a summary of the stakeholder interviews.
- **Landscape Scan:** A landscape scan was conducted to understand the impact of expected external changes on the Metro RTO program in the next five years, such as increasing energy prices, emerging social media and traveler information technologies, and an increased emphasis on the connection between transportation and health. Appendix B provides a complete summary of the landscape scan.
- **RTO Think Tank:** On October 6, 2011, regional policy makers and leaders in the community gathered to discuss key issues facing the RTO program to help guide the direction of the program in the next five years. Participants included city and county policy makers, health care representatives, Metro Councilors, and non-profit representatives. Appendix C provides a summary of meeting notes from the Think Tank event.
- **Biennial Performance Evaluation:** A biennial performance evaluation was conducted to assess the performance of Metro RTO-funded programs. Appendix D provides the complete biennial evaluation.

**Figure 1 Metro RTO Strategic Plan Process**




# ORGANIZATION

This strategic plan is organized into four components. **Chapter 1, Existing Program Structure**, provides an overview of the existing RTO program. A succinct and in-depth understanding of the existing program enables the reviewers to evaluate the program and identify issues and opportunities to be addressed in the strategic plan. The findings of the assessment – which are sourced from a wide range of inputs including stakeholder interviews, the biennial assessment, the project think-tank, a landscape scan, and others – are compiled in **Chapter 2, Issues and Opportunities**. **Chapter 3, Recommendations** provides strategic responses to the issues and opportunities by setting forth a series of recommendations to be considered by stakeholders, members of the RTO subcommittee, RTO staff, and ultimately TPAC, JPACT and Metro Council. For readers interested in more detail, the four major inputs to the strategic plan are contained in the **Appendix**. These include a summary of stakeholder interviews, a landscape scan, a summary of the think-tank meeting, and the biennial evaluation results for the 2009 – 2011 RTO investment period.

# SUMMARY OF KEY ISSUES, OPPORTUNITIES & RECOMMENDATIONS

Figure 2 below summarizes the key issues and opportunities and correlates them with the recommendations. The majority of the recommendations are encapsulated in the recommended funding model, which includes the following elements:

1. Clarification and reassignment of roles for Metro, TriMet, and the RTO Subcommittee
2. Formalization of formula funding for TriMet's employer outreach program
3. Consolidation of TMA, small grant, and individualized marketing grants under a single competitive grant process
4. Reallocation of funds to reflect changes in roles and an increase in the proportion of funds directed toward grants
5. Updates to Metro's Public Private Partnership policy
6. Recommendations for integrating the existing RTO evaluation framework into these other recommendations

**Figure 2 Summary of Key Questions, Issues and Opportunities, and Recommendations**

| | Key Questions | Issues & Opportunities | Recommendations |
|---|---|---|---|
| **Mission, Goals & Objectives** | ▪ What outcomes should the RTO program strive to achieve?<br>▪ How can the RTO program be more closely aligned with other Metro investments? | **Issues**<br>▪ The RTO program helps make the Portland-Metro region a great place through contributions to quality of life, economic development, health, and social and regional equity. However, these contributions are not well articulated in the regional transportation policy and planning discourse.<br>▪ The singular Vehicle Miles Reduced (VMR) performance target results in missed opportunities for the RTO program to demonstrate its contributions to other important outcomes.<br><br>**Opportunities**<br>▪ Link RTO program to other Metro programs by articulating goals that reflect and build on goals defined in the RTP.<br>▪ RTO Program evaluation framework is well advanced and can help RTO play a leadership role in performance-based planning. | ▪ Adopt a new mission statement that reflects RTO's contribution to making the region a great place.<br>▪ Adopt new performance targets aligned with a triple-bottom-line approach to performance evaluation.<br>▪ Integrate triple-bottom-line performance measures into the existing evaluation methodology developed by Portland State University. |
| **Evaluation** | ▪ What performance measures should be used to track performance relative to new goals?<br>▪ How should the evaluation framework be modified to respond to the changing landscape and emerging opportunities? | **Issues**<br>▪ Stakeholders expressed a concern that evaluation requirements are overly burdensome, consume a disproportionate share of project resources, and could be streamlined without sacrificing the objectives of the evaluation process.<br>▪ Singular VMR target and return on investment methodology skews performance measurement.<br><br>**Opportunities**<br>▪ Good to Great: While some RTO-funded programs face specific challenges, many RTO investments have become national models for implementing innovative travel demand management practices. There is an opportunity to continue developing the evaluation process so that a good program becomes great.<br>▪ Become a leader at Metro by defining RTO's contribution to the regional goals and through adaptation of the existing evaluation framework to support a triple-bottom-line evaluation framework. | ▪ Align level of evaluation and reporting effort with funding level and program type.<br>▪ Express RTO goals through evaluation criteria, RTO recipients' work plans, invoice and reporting requirements, and two-year evaluations. |
| **Roles & Actors** | ▪ What roles and functions should Metro and its partners play in delivering regional RTO programs?<br>▪ What functional changes are needed to respond to the changing landscape and new opportunities? | **Issues**<br>▪ Overlapping roles dilute the effectiveness of individual actors. This is especially true for TMAs, who compete with TriMet and others to deliver employer-focused programming.<br>▪ Stakeholders – including funded partners and private sector representatives – feel that employer outreach should be done by Metro's partners. Metro should play a wholesale role in support of retail level delivery at the local level.<br>▪ The effectiveness of the RTO Subcommittee is reduced because of its conflicting roles as both a funding decision-making entity and a collaborative forum.<br>▪ Regional collaboration is important in the delivery of services.<br><br>**Opportunities**<br>▪ More clearly defined roles can improve the efficiency of the RTO program by reducing redundancy.<br>▪ Separating the RTO subcommittee into distinct parts has the potential to improve both the decision-making and collaborative processes. | ▪ Focus Metro staff resources to: (1) support local jurisdictions, TMAs, and other organizations that promote travel options; (2) serve as a regional liaison to share best practices and develop regional policy that supports travel options; and (3) provide technical services to support local partners (mapping, website, surveys, etc.).<br>▪ Support TMAs, local jurisdictions, and TriMet in leading direct outreach at the local level<br>▪ Divide RTO subcommittee roles; funding decisions should be separated from RTO collaborative functions. |
| **Prioritization of Funding** | ▪ Given the issues and opportunities on the horizon, how should funding be prioritized during the next 5-year planning period?<br>▪ What organizational, policy, and institutional framework is needed to deliver the desired outcomes?<br>▪ What specific changes need to be made to the existing policy for public private partnerships (TMAs)? | **Issues**<br>▪ Reduced availability of funding brought on by on-going economic recession.<br>▪ The RTO program – like many other regional programs – faces the conflicting objective of providing for regional equity while also demonstrating performance.<br>▪ Not all TMAs have achieved private sector support as originally envisioned when the Public Private Partnership policy was enacted.<br>▪ TMA booster funding is serving more of a formula funding function than the intended performance-based function.<br><br>**Opportunities**<br>▪ Provide a streamlined funding structure to ensure limited funding is dedicated to effective investments while building local capacity.<br>▪ Increase the proportion of funding available for grants by clarifying roles, reducing redundancy and improving effectiveness. | ▪ Combine TMA, individualized marketing, and RTO Grants Program funding; emphasize the need for local support, a problem statement, and a proven business model or complementary funding streams.<br>▪ Establish formula funding for employer outreach with specific performance requirements.<br>▪ Reduce Metro's total administrative budget for RTO and direct proportionally more funding toward grants.<br>▪ Eliminate TMA-specific funding and shift TMA program administration funding to support RTO grant recipients with technical services. |

# 3 RECOMMENDED STRATEGIC PLAN

This chapter outlines components of a recommended five-year strategic plan for the RTO program. It consists of two main components: The first section contains a revised mission statement and new performance measures, and updated goals and objectives. This is followed by a second section outlining a recommended funding framework through which the new strategic plan should be implemented.

## MISSION, PERFORMANCE MEASURES, GOALS, AND OBJECTIVES

The 2012-2017 RTO Strategic Plan is guided by a revised mission statement that emphasizes the economic, social, and environmental benefits of the RTO program. The emphasis on these strengths of the RTO program will enable it to tie in more effectively to other Metro programs, such as the TOD, TSMO, RTP, Active Transportation and Climate Smart Communities programs.

### Recommended Mission Statement and Performance Measures

The following mission statement addresses the need to tie RTO efforts more closely with other Metro programs by directly linking the mission statement to Metro's overall mission of making a great place.

> *Make the Portland Metro Region a great place by working with local and regional partners to promote travel options that support economically vibrant communities, increase active transportation, and are environmentally sustainable.*

Performance measures are a key component of any strategic plan to track progress towards shared goals, identify opportunities for improvement, and streamline performance evaluation across all programs.

Building on Metro's new triple-bottom-line framework for evaluating performance as part of the RTP, it is recommended that the RTO program articulate its performance in terms of economic benefits, social benefits, and environmental benefits. The above mission statement sets the stage for a triple-bottom-line framework within the RTO program. This framework can be carried though the entire program using a new performance measurement framework.

It is recommended that non-SOV mode-shift be used as the principle performance measure of the RTO program. This measure is recommended over VMR because progress toward all three elements of the triple-bottom-line framework can be derived from it. Furthermore, it is recommended that this performance measure be framed with a direct linkage to the RTP, and include a targeted contribution specifically for the RTO program. This recommendation is illustrated in Figure 4. Figure 5 provides examples for converting non-SOV mode split into meaningful metrics for communicating benefits in terms of the triple-bottom-line framework.

**Figure 3 Recommended Performance Measure with Regional and RTO-specific Targets**

| Performance Measure | Region-wide Target | RTO-Specific Target |
|---|---|---|
| Non-SOV Mode Split | 50 percent by 2035 | Achieve at least an average 0.1 percent increase per year attributable to the RTO program during the five-year strategic planning period. |

**Figure 4 Example methods for converting Non-SOV trips into triple-bottom-line measures**

| | Conversion for reporting on Triple-Bottom-Line performance |
|---|---|
| Economic Benefits | ▪ Convert non-SOV trips into household cost savings and dollars returned to local economy.<br>▪ Convert non-SOV trips into number of parking spaces reduced and multiply by the average cost of parking to demonstrate direct economic savings. |
| Social Benefits | ▪ Use Active Transportation proportion of Non-SOV trips to measure improvements in health.<br>▪ Convert non-SOV trips into household transportation cost savings; in cases where the cost savings benefits are localized and housing costs are known, household cost savings could be converted into combined cost of housing and transportation. |
| Environmental Benefits | ▪ Convert non-SOV trips into VMR and multiply by standard emission rates per VMR to calculate emission savings for specific pollutants. |

# Recommended Goals & Objectives

The following goals and objectives are recommended to establish a policy framework for RTO program over the next five-year planning period. These goals and objectives were developed in response to the issues and opportunities identified in Chapter 2.

**The goals and objectives were edited and recommended by the RTO Subcommittee February 8, 2012 as follows:**

**Goal 1: Align the RTO program with regional economic development, growth management and livability objectives**

- Objective 1.1 – Link RTO efforts to goals outlined in the Metro Regional Transportation System Plan (RTP).
- Objective 1.2 – Support projects that provide information and services to geographically and socio-economically diverse populations.
- Objective 1.3 – Work with other Metro programs and regional partners to make travel options an integral element of every transportation project.
- Objective 1.4 – Measure and evaluate the RTO program to report progress aid policy decision-making, and to maintain or improve performance.
- Objective 1.5 – Address transportation needs in areas underserved by transit, bicycle or pedestrian investments.

**Goal 2: Be a leader in developing local, regional, state and national policies that promote walking, biking, transit and high-occupancy vehicle travel**

- Objective 2.1 – Support local jurisdictions in developing and implementing policies that support the RTO mission.
- Objective 2.2 – Support multi-modal programs that meet the business and residential needs in urban centers, corridors and suburban areas.
- Objective 2.3 – Work with local jurisdictions, businesses and partners to build local political and staff support for transportation demand management.

**Goal 3: Support local partners to engage with employers and commuters to increase the use of travel options for commute trips**

- Objective 3.1 – Support local partners to market and provide multi-modal travel options services to employers and commuters.
- Objective 3.2 – Provide information and technical services to local and regional partners to make the business case for employers to support travel options.
- Objective 3.3 – Support partners who have established working relationships with employers in promoting economic development with travel options tools and programs.

**Goal 4: Develop tools to support the use of travel options to reduce drive-alone trips**

- Objective 4.1 – Continue a regional collaborative marketing campaign to increase awareness of travel options and assure meaningful integration with local marketing outreach campaigns and efforts.
- Objective 4.2 – Develop and deliver enhanced and accessible traveler information tools.
- Objective 4.3 – Provide technical services to local partners to help implement and support the RTO mission.

Materials following this page were distributed at the meeting.













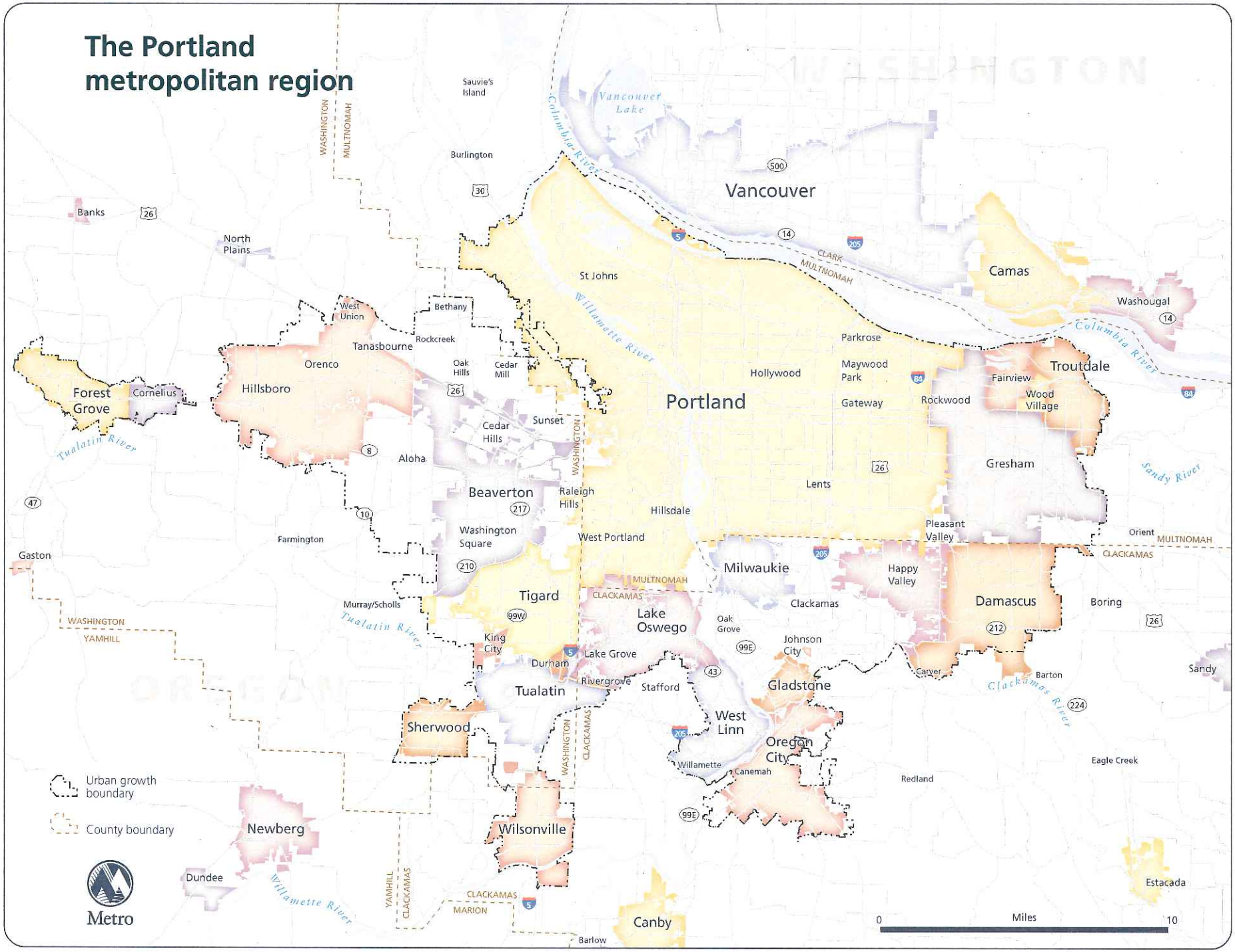
## Climate Smart Communities Scenarios Project

# Understanding Our Land Use and Transportation Choices

PHASE 1 FINDINGS | JANUARY 12, 2012

Metro | *Making a great place*

# The Portland metropolitan region



## Acknowledgements

### Technical Work Group

Tom Armstrong, City of Portland
Kenny Asher, City of Milwaukie
Andy Back, Washington County
Chuck Beasley, Multnomah County
Karen Buehrig, Clackamas County
Lynda David, Regional Transportation Council
Jennifer Donnelly, Department of Land Conservation and Development
Denny Egner, City of Lake Oswego
Jessica Engelmann, TriMet
Brian Gregor, Oregon Department of Transportation
Mara Gross, TPAC citizen member
Jonathan Harker, City of Gresham
Eric Hesse, TriMet
Jon Holan, City of Forest Grove
Katherine Kelly, City of Gresham
Nancy Kraushaar, City of Oregon City
Alan Lehto, TriMet
Mary Kyle McCurdy, 1000 Friends of Oregon
Mike McKillip, City of Tualatin
Margaret Middleton, City of Beaverton
Dan Rutzick, City of Hillsboro
Tyler Ryerson, City of Beaverton
Lainie Smith, Oregon Department of Transportation

### Metro Staff

Janna Allgood, Communications
Kim Ellis, Planning and Development
Mike Hoglund, Research Center
Nuin-Tara Key, Research Center
Tom Kloster, Planning and Development
Janice Larson, Communications
John Mermin, Planning and Development
Josh Naramore, Planning and Development
Dylan Rivera, Communications
Patty Unfred, Communications
Ray Valone, Planning and Development
Dennis Yee, Research Center

### Design Support

Jeanne Galick, Graphic Designer


# Table of contents



For more information, visit **www.oregonmetro.gov/climatescenarios**

The following pages summarize the purpose, scope and key findings from Phase 1 of the Climate Smart Communities Scenarios Project. The region's decision-makers will use this information to direct development of alternative scenarios in Phase 2.

This information is for research purposes only and does not necessarily reflect current or future policy decisions of the Metro Council, MPAC or JPACT.

# Executive summary


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

Over the years, the diverse communities of the Portland metropolitan region have taken a collaborative approach to planning and investment that has helped make our region one of the most livable in the country. We have set the region on a wise course – but times are challenging. A faltering economy, troubling jobless rates, rising energy, housing and transportation costs, climate change and other challenges demand continued leadership, innovation and collaboration to ensure this region remains a great place to live, work and play.

Joining other states around the country, Oregon has been a leader in addressing climate change with ambitious goals to reduce greenhouse gas (GHG) emissions from all sources to 75 percent below 1990 levels by the year 2050. The Oregon Legislature, in 2009, passed the Jobs and Transportation Act (House Bill 2001). Section 37 of the Act requires Metro, the regional government of the Portland metropolitan area, to develop two or more alternative land use and transportation scenarios designed to accommodate planned population and job growth and reduce GHG emissions from light vehicles. Section 37 also requires Metro to adopt a preferred scenario after public review and consultation with local governments, and calls for local governments in the Portland metropolitan region to implement the adopted scenario. Adoption is anticipated in 2014, but Section 37 does not define a specific deadline.

To guide Metro's scenario planning work, the Land Conservation and Development Commission (LCDC) adopted, in May 2011, the Metropolitan Greenhouse Gas Reduction Targets Rule, OAR 660-044, also required by section 37. The rule identifies GHG emissions reduction targets for each of Oregon's six metropolitan areas. The targets identify the percentage reduction in per capita GHG emissions from light vehicle travel that is needed to help Oregon meet its GHG emissions reduction goals. In 2005, the region's roadway GHG emissions were 4.05 MT $CO_2e$ per capita. The adopted target for the region is the equivalent of 1.2 MT $CO_2e$ per capita by 2035. LCDC will review the state targets in 2015 and may identify adjustments in light of new information available at that time.

The Portland metropolitan region is undertaking scenario planning in three phases as part of the Climate Smart Communities Scenarios Project to demonstrate climate change leadership and respond to the Jobs and Transportation Act. The Scenarios Project is building on the land use and transportation strategies contained in the 2040 Growth Concept, the long-range vision adopted by the region in 1995. Since its adoption, Metro and its partners have collaborated to help communities realize their local aspirations while moving the region toward its goals for making a great place: vibrant communities, economic prosperity, transportation choices, equity, clean air and water, and regional climate change leadership. Local and regional efforts to implement the 2040 Growth Concept provide a good basis for the GHG scenario planning work required of the region.

The region has completed the first of three phases of the Scenarios Project – Understanding Choices. Phase 1 focused on understanding the region's land use and transportation choices by conducting a review of published research and testing 144 regional scenarios. The analysis demonstrated the GHG emissions reduction potential of current plans and policies, as well as which combinations of more ambitious land use and transportation strategies are needed to meet the state target.

## Phase 1 Scenarios Project Findings

The work completed to date yielded the following findings:

**Finding 1:** Current local and regional plans and policies are ambitious and provide a strong foundation for meeting the region's GHG reduction target.

**1.2 MT $CO_2e$**

The region's per capita roadway GHG emissions target for 2035

**Finding 2:** The reduction target is achievable but will take additional effort and new strategic actions.

**Finding 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.

**Finding 4:** A range of policy choices exists to reduce GHG emissions; the best approach is a mix of strategies.

**Finding 5:** Community design and pricing play a key role in how much and how far people drive each day and provide significant GHG emissions reductions.

**Finding 6:** Fleet, technology and pricing strategies provide similar significant GHG emissions reductions, but no single strategy is enough to meet the region's target.

**Finding 7:** Road management and marketing strategies improve system and vehicle efficiency and reduce vehicle travel to provide similar, but modest, GHG emissions reductions.

The assumptions used in Phase 1 are ambitious and were based on the need to create a starting point to test scenarios. The region's decision-makers will use the Phase 1 research and subsequent stakeholder engagement to direct development and evaluation of additional scenarios in Phases 2 and 3.

The Scenarios Project will continue to build on the region's long tradition of innovation, excellence in urban planning and conservation and stewardship of our natural environment. People are already making personal choices that will help reduce the region's GHG emissions – they carpool or take transit to work and walk to the store when possible. They support investments that are needed to create climate smart communities – thriving downtowns and main streets supported by transit, neighborhoods with safe and convenient sidewalks and bicycle connections and proximity to jobs, parks and services, and more fuel-efficient vehicles. Future project phases will likely identify additional policies and strategies needed to achieve the needed GHG emissions reductions while meeting other economic, social and environmental goals and supporting the individual needs and aspirations of communities throughout the region.

All those involved in the Scenarios Project recognize that there are many unknowns. The region will need to be innovative and flexible as the work moves forward to respond to and take advantage of what is learned in each project phase. This can be achieved but will require strong partnerships and close collaboration with local, regional, and state partners as well as engaging a diversity of individual, community and business perspectives to help shape the region's preferred strategy.

This report was prepared by Metro staff in consultation with a technical work group, the Transportation Policy Alternatives Committee (TPAC), the Metro Technical Advisory Committee (MTAC), the Joint Policy Advisory Committee (JPACT), the Metro Policy Advisory Committee (MPAC) and the Metro Council.

# Introduction

## Making a Great Place

Over the years, the diverse communities of the Portland metropolitan region have taken a collaborative approach to planning and investment that has helped make our region one of the most livable in the country. We have set the region on a wise course – but times are challenging. A faltering economy, troubling jobless rates, rising energy, housing and transportation costs, climate change and other challenges demand continued leadership, innovation and collaboration to ensure this region remains a great place to live, work and play.

### Purpose and scope

In 2009, the Oregon Legislature passed House Bill 2001, the Jobs and Transportation Act.[1] Section 37 of the JTA directs Metro to "develop two or more alternative land use and transportation scenarios" by January 2012 that are designed to reduce greenhouse gas (GHG) emissions from light-duty vehicles.

The Climate Smart Communities Scenarios Project, and this report, respond to HB 2001 and subsequent GHG emissions reduction targets adopted by the Land Conservation and Development Commission in May 2011. During Phase 1, more than 140 regional scenarios were tested to learn the GHG emissions reduction potential of current plans and policies, as well as which combinations of more ambitious land use and transportation strategies are needed to meet the state GHG targets. A review of published research complemented the scenarios analysis.


Policy areas tested in Phase 1

This report summarizes key findings from Phase 1 and implications for future project phases. Metro staff conducted the research with the assistance of a technical work group of members from the Transportation Policy Alternatives Committee (TPAC) and the Metro Technical Advisory Committee (MTAC), consistent with policy direction from the Joint Policy Advisory Committee (JPACT) and the Metro Policy Advisory Committee (MPAC).

[1]http://www.leg.state.or.us/09reg/measpdf/hb2000.dir/hb2001.en.pdf

# Why this work matters

## Responding to climate change by making a great place

More than a decade ago, the region set a course for growth with the adoption of the 2040 Growth Concept. Over the years, Metro and its partners have collaborated to help communities realize their unique aspirations while moving the region toward its goals to make the Portland metropolitan area a great place to live, work and play.

Responding to climate change is one of the most pressing issues of our time. Mounting scientific evidence shows Oregon's climate is changing. Oregon has been a national leader in addressing climate change with ambitious goals to reduce GHG emissions. Now it's time for regional and local leaders to focus and act on the investments and actions needed to collaboratively realize local aspirations and shared regional goals, as well as address state climate goals. The Scenarios Project is intended to do just that.

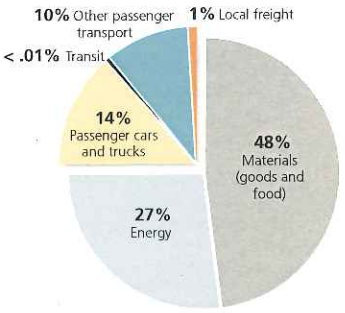
Reducing greenhouse gas emissions is important to the health of the region and the planet. The Scenarios Project will demonstrate that the region can progress toward the GHG reduction goals set by the state within the context of achieving outcomes of equal importance to residents: a healthy economy; clean air and water; and access to good jobs, affordable housing, transportation options, nature, trails and recreational opportunities.

The Scenarios Project is not only addressing climate change for the sake of state mandates. Through this effort, the region will build on a long tradition of innovation, excellence in urban planning, and conservation and stewardship of our natural environment. The bold decisions made decades ago mean we drive much less than other regions our size – giving Portland metropolitan area a head start over other cities and regions across the country. In this context, the Scenarios Project will consider policies, investments and actions needed by 2035 to tackle the climate challenge. The Project will show that solutions are at hand that will turn the challenge of climate change into opportunities to enhance the region's resilience, prosperity and quality of life, now and for generations to come.

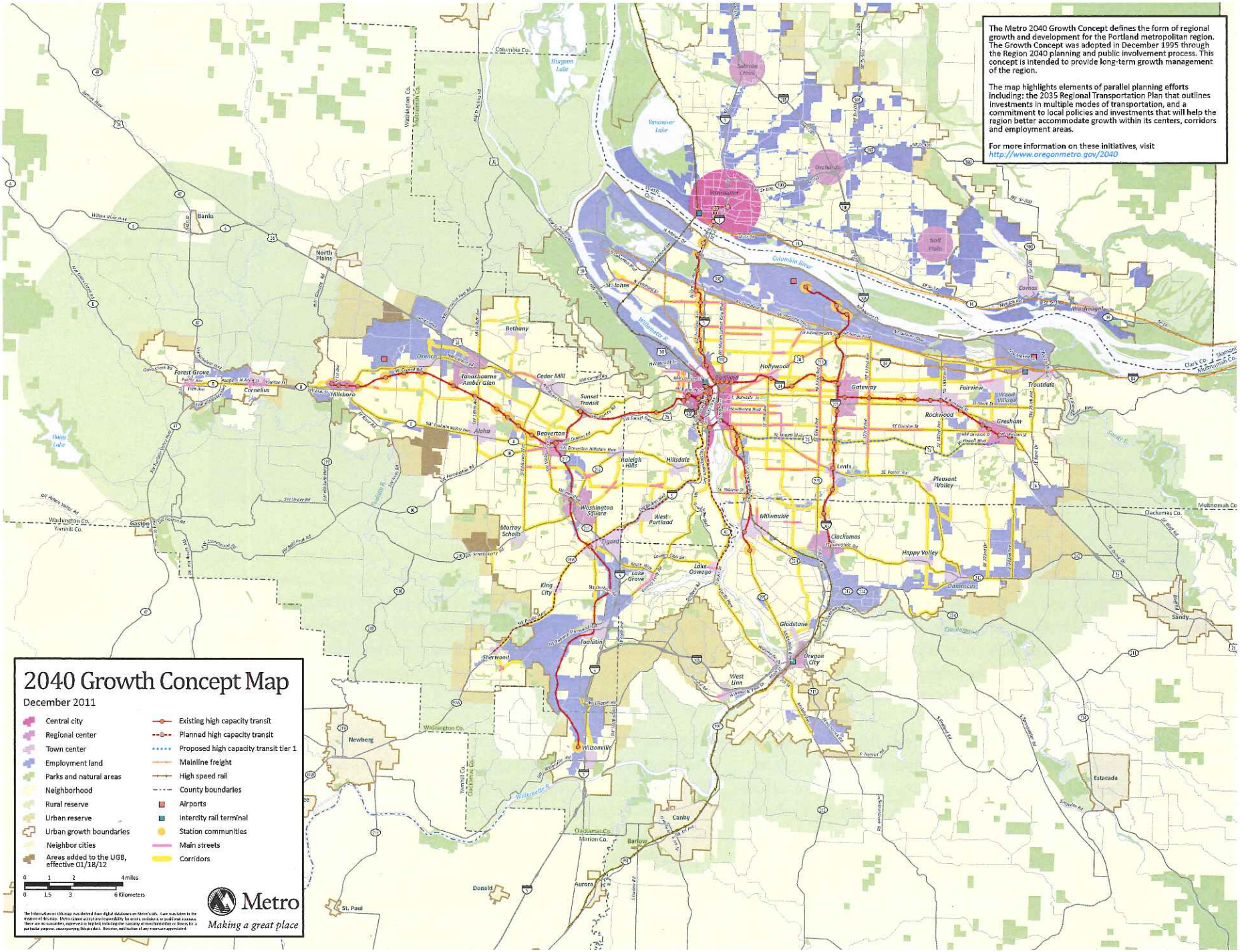
For now, the Scenarios Project will focus on developing a regional strategy for reducing GHG emissions from cars, small trucks and sport utility vehicles (SUVs) – as required by the Jobs and Transportation Act. Preparation for and adaptation to a changing climate will be addressed in future phases and through other efforts already underway in the region and state.

Climate smart strategies can bring many benefits to the region – including significant savings in fuel costs, less time spent in traffic as well as other benefits to the environment, public health and the economy.

**Regionalgreenhouse gas emissions sources (2006)**




Source: Metro


The Metro 2040 Growth Concept defines the form of regional growth and development for the Portland metropolitan region. The Growth Concept was adopted in December 1995 through the Region 2040 planning and public involvement process. This concept is intended to provide long-term growth management of the region.
The map highlights elements of parallel planning efforts including: the 2035 Regional Transportation Plan that outlines investments in multiple modes of transportation, and a commitment to local policies and investments that will help the region better accommodate growth within its centers, corridors and employment areas.
For more information on these initiatives, visit http://www.oregonmetro.gov/2040
2040 Growth Concept Map
December 2011
Central city
Regional center
Town center
Employment land
Parks and natural areas
Neighborhood
Rural reserve
Urban reserve
Urban growth boundaries
Neighbor cities
Areas added to the UGB, effective 01/18/12
Existing high capacity transit
Planned high capacity transit
Proposed high capacity transit tier 1
Mainline freight
High speed rail
County boundaries
Airports
Intercity rail terminal
Station communities
Main streets
Corridors
0 1 2 4 miles
0 1.5 3 6 Kilometers
Metro
Making a great place

# A collaborative approach

**Building on community aspirations and the 2040 Growth Concept to achieve state climate goals**

Adopted in 1995, the 2040 Growth Concept is the region's blueprint for the future, guiding growth and development based on a shared vision to create livable, prosperous and equitable communities. The growth concept encourages development in centers, corridors and employment areas to support environmental, social and economic objectives.

**How we get there**

The Scenarios Project is a multi-year collaborative effort designed to help communities realize their aspirations for growth and development and maximize achievement of the region's six desired outcomes and state climate goals.

**Phase 1 (January to December 2011)**
**Understanding choices by testing policy options**

In 2011, the region used scenario planning and other research to understand the choices for meeting the state GHG emissions reduction target. The analysis included development of a Strategy Toolbox report synthesizing published research on different strategies in terms of their GHG reduction potential, benefits to communities, synergies, and implementation opportunities and challenges to be addressed in Phase 2.

In addition, Metro in collaboration with state and local partners, developed and analyzed 144 alternative scenarios. The scenarios will be used to identify potential policy options for policymakers to discuss during 2012. The regional policy discussion will shape potential strategies recommended for further evaluation in Phase 2.

**Phase 2 (January to December 2012)**
**Shaping the direction by turning policy options into a draft regional strategy**

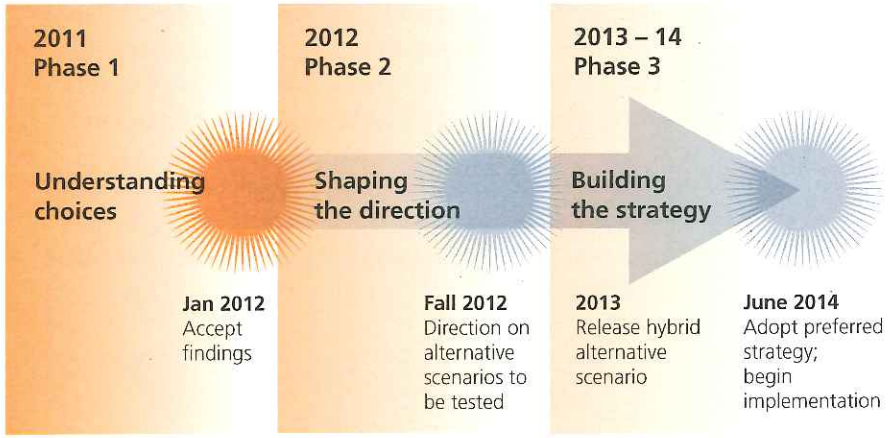
In 2012, the region will design and evaluate more customized alternative scenarios, applying the findings from Phase 1 and incorporating strategies identified in local and regional planning efforts that are underway. This phase will also evaluate the benefits, impacts, costs and savings associated with different strategies across environmental, economic and equity goals. Case studies will be developed to illustrate potential community effects. This phase will result in development of alternative scenarios that will be subject to further analysis and review in Phase 3.

For more information, visit the project website at **www.oregonmetro.gov/climatescenarios**

**Phase 3 (January 2013 to June 2014)**
**Building the strategy and implementation**

In 2013 and 2014, the region will collaboratively build and select a preferred scenario after public review and consultation with local governments. This phase will define policies, investments and actions needed to implement the preferred scenario. This work will also include development of a finance strategy. Effective implementation of the preferred strategy will likely require the participation and cooperation of government agencies, the private sector and community organizations.

## Climate smart communities scenarios project timeline



# Oregon joins other states, regions and communities to lead the way

**States with adopted climate action plans**


Source: Center for Climate & Energy Solutions

**States with adopted GHG emissions reduction targets**

Source: Center for Climate & Energy Solutions

For years, states and metropolitan regions have been taking action to address climate change in the absence of federal legislation. A wide range of policies have been adopted at the state and regional levels to reduce greenhouse gas emissions, develop clean energy resources and promote more energy-efficient vehicles, buildings and appliances. More information on these efforts can be found at www.c2es.org.

Although climate change will ultimately require national and international responses, the actions taken by states and regions will continue to play an important role by developing and testing innovative solutions, demonstrating successful programs, and laying the groundwork for broader action.

Many states have completed or are in the process of revising or developing comprehensive Climate Action Plans. They view policies that address climate change as an economic opportunity, not as a burden on commerce. These states are trying to position themselves as leaders in new markets related to climate action: producing and selling alternative fuels, ramping up renewable energy exports and attracting high-tech business.

Economic issues are just one motivator for state policies that address climate change. Policies to improve air quality, reduce traffic congestion, and develop domestic, clean energy supplies can all have climate benefits. Thus states are discovering that climate policies often bring about benefits in these other areas as well.

Like many other states, Washington, Oregon and California have significant state laws on climate change, with specific and varied provisions focusing on reducing transportation-related GHG emissions.

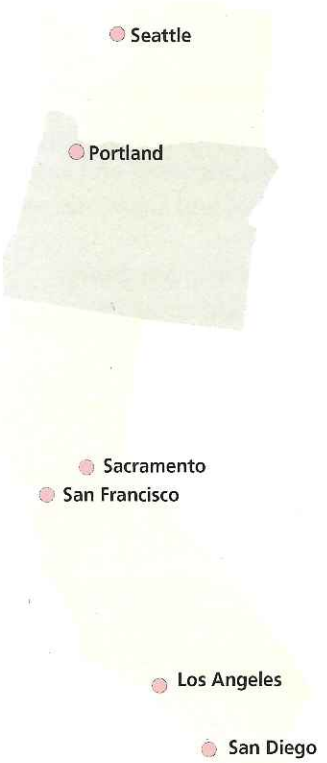
### 2007

Similar to many other states, the Oregon Legislature established statewide GHG emissions reduction goals in 2007. The goals apply to all emission sectors – energy production, buildings, solid waste and transportation – and direct Oregon to:

- stop increases in GHG emissions by 2010
- reduce GHG emissions to 10 percent below 1990 levels by 2020
- reduce GHG emissions to at least 75 percent below 1990 levels by 2050.

The 2007 Oregon Legislature also established the Oregon Global Warming Commission (OGWC) – a 25-member commission charged with helping coordinate statewide efforts to reduce greenhouse gas emissions and guide the state toward its climate goals. The commission was charged with helping the state, local governments, businesses and residents prepare for the effects of climate change. More information about the OGWC can be found at www.keeporegoncool.org/

**West Coast MPOs**




The largest West Coast metropolitan planning organizations have been engaged in scenario planning and climate action planning to meet state GHG emissions reduction targets.

### 2009

The Oregon Legislature passed House Bill 2001, directing Metro to "develop two or more alternative land use and transportation scenarios" by January 2012 that are designed to reduce GHG emissions from light-duty vehicles. The legislation also mandates:

1) adoption of a preferred scenario after public review and consultation with local government
2) local government implementation through comprehensive plans and land use regulations that are consistent with the adopted regional scenario.

### 2010

In 2010, the OGWC developed an Interim Roadmap to 2020 that includes recommendations in all sectors of the state's economy – energy, transportation and land use, materials management, forestry, agriculture, and industrial use – to meet state climate goals.

The first Oregon-specific assessment of climate change impacts was released by the Oregon Climate Change Research Institute (OCCRI) in December 2010. The OCCRI Oregon Climate Assessment Report is the work of over 100 researchers across the Oregon University System with input from the OGWC. The report documents likely impacts to Oregon's weather patterns, water supplies, agricultural production, forest health, fish and wildlife species and ecosystems, public health, transportation infrastructure and coastal communities.

In addition, state agencies collaborated with the OGWC, the OCCRI and each other to produce the first comprehensive Oregon policy framework for climate change adaptation planning in December 2010. The Oregon Climate Change Adaptation Framework identifies near term, low cost and high benefit actions Oregon can take. These actions will help Oregonians minimize the impacts of climate change to their communities and livelihoods, and to the environmental values we hold dear in this state.

### 2011

The Oregon Department of Transportation (ODOT) and the Department of Land Conservation and Development (DLCD) are leading the state response relative to the transportation sector through the Oregon Sustainable Transportation Initiative (OSTI). As part of this effort, the Land Conservation and Development Commission (LCDC) adopted per capita roadway GHG emissions reduction targets for light-duty vehicles for all six metropolitan areas within Oregon on May 19, 2011.[1]

While there is no legislative direction to reduce GHG emissions beyond the transportation sector, the Interim Roadmap to 2020 and other state efforts provide a comprehensive framework and starting point for considering how best to address climate change in Oregon.


**2035 GHG targets for Oregon metropolitan areas**

per capita light vehicle GHG emissions reduction

| Metropolitan area | Adopted target[1] |
|---|---|
| Portland Metro[2] | 20% |
| Salem-Keizer | 17% |
| Corvallis | 21% |
| Eugene-Springfield[3] | 20% |
| Bend | 18% |
| Rogue Valley | 19% |

[1] Adopted by the Land Conservation and Development Commission in May 2011
[2] Required scenario planning and adoption
[3] Required scenario planning

[1] http://www.oregon.gov/LCD/docs/rulemaking/trac/660_044.pdf

# The challenge for our region

**1.2**
**MT $CO_2e$**

The region's per capita roadway GHG emissions target for 2035

**MT $CO_2e$** stands for metric ton of carbon dioxide equivalent.

Measured and stored at standard atmospheric pressures, one metric ton of $CO_2$ occupies a cube approximately the size of a 3-story building (27 x 27 x 27 feet). It is equivalent to 112 gallons of gasoline.

While the overall state GHG emissions reduction goals call for reductions from 1990 emissions levels by 2050, state agencies were tasked with estimating a 2005 baseline and an intermediate GHG emissions reduction goal for the year 2035 to inform the Scenarios Project.

LCDC adopted the Metropolitan Greenhouse Gas Reduction Targets Rule (OAR 660-044) in May 2011.[1] The rule identifies GHG emissions reduction targets for Oregon's six metropolitan areas. The targets identify the percentage reduction in GHG emissions from light vehicle travel that is needed to help Oregon meet its long-term goal of reducing GHG emissions to 75 percent below 1990 levels by the year 2050.

The LCDC target-setting process assumed changes to the vehicle fleet mix, improved fuel economy, and the use of improved vehicle technologies and fuels that would reduce 2005 emissions levels from 4.05 to 1.51 MT $CO_2e$ per capita by the year 2035.[2]

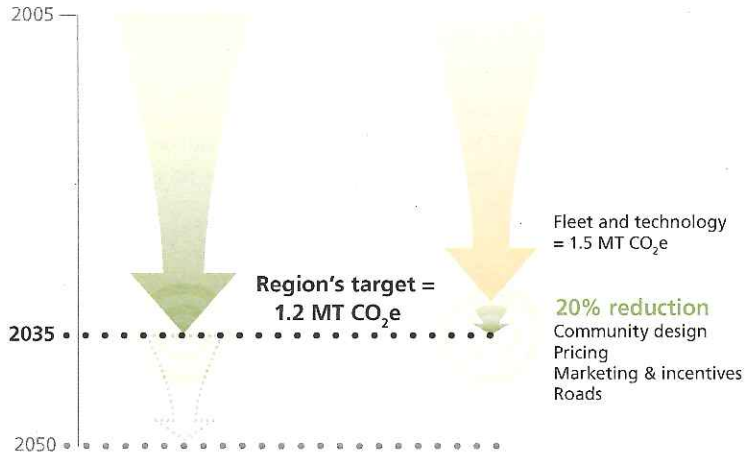
The adopted target for the Portland metropolitan area calls for a 20 percent per capita reduction in GHG emissions from light vehicle travel by the year 2035. This target reduction is in addition to the reduction expected from changes to the fleet and technology sectors as identified in the Agencies' Technical Report. Therefore, to meet the target, per capita roadway GHG emissions must be reduced by an additional 20 percent below the 1.51 MT $CO_2e$ per capita by the year 2035 – to 1.2 MT $CO_2e$ per capita.

[1] http://www.oregon.gov/LCD/docs/rulemaking/trac/660_044.pdf

[2] See Agencies' Technical Report at http://www.oregon.gov/ODOT/TD/TP/docs/OSTI/TechRpt.pdf.

The region's 20 percent per capita reduction is anticipated to come from a combination of community design, pricing, marketing/incentives and road policies. If the fleet and technology improvements assumed in OAR 660-044 are not achieved, then greater reductions may be needed through these other policies. LCDC will review the state targets in 2015 and may identify adjustments at that time in light of new information available at that time.

**Region's 2035 GHG emissions reduction target in per capita terms**




The adopted target for the region is the equivalent of 1.2 MT $CO_2e$ per capita. While the target is based on 2005 emissions values, it has been calibrated to 1990 emissions levels, and if achieved by the year 2035 ensures the region is on track to meet the overall state 2050 GHG emissions reduction goal.

# Principles to guide our approach

Regional and local leaders agree that the Portland region must provide leadership in addressing climate change. The Scenarios Project supports this goal by supplementing state actions with a collaborative regional effort that will also advance local aspirations and the implementation of the 2040 Growth Concept. In this spirit, the Metro Council and the region's transportation and land use policy committees agreed upon six principles to guide this scenario planning effort.

Phase 1 of the Scenarios Project focused on understanding the region's choices for reducing light vehicle GHG emissions. Testing broad-level, regional scenarios revealed the potential of current plans and policies as well as what combinations of land use and transportation strategies (grouped under six policy areas) are needed to meet the state GHG targets.

Successful centers like downtown Hillsboro are dynamic, walkable places that have a concentration of businesses, shops and entertainment, and strong transit service. They combine offices, retail and housing with quality streetscapes, parks and plazas, fountains or other urban amenities.

## Climate Smart Communities Scenarios Project guiding principles

**1. Focus on outcomes and benefits**
The strategies that are needed to reduce GHG emissions can help save individuals, local governments and the private sector money, grow local businesses, create jobs and build healthy, livable communities. These multiple benefits should be emphasized and central to the evaluation and communication of the results.


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

**2. Build on existing efforts and aspirations**
Start with existing local and regional plans that include strategies to achieve the six desired outcomes for a successful region, illustrated at right.

**3. Show cause and effect**
Provide sufficient clarity to discern cause and effect relationships between strategies tested.

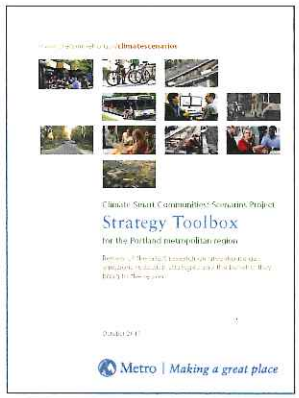
**4. Be bold, yet plausible and well-grounded**
Explore a range of futures that may be difficult to achieve but are possible in terms of market feasibility, public acceptance and consistency with local aspirations.

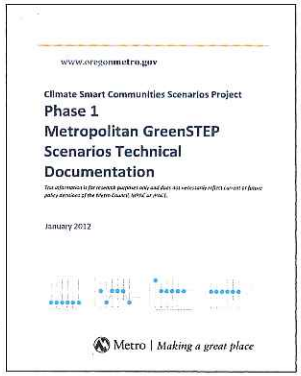
**5. Be fact-based and make information relevant, understandable and tangible**
Develop and organize information so decision-makers and stakeholders can understand the choices, consequences (intended and unintended) and tradeoffs. Use case studies, visualization and illustration tools to communicate results and make the choices real.

**6. Meet state climate goals**
Demonstrate what is required to meet the state GHG emissions reduction target for cars, small trucks and SUVs, recognizing reductions from other emissions sources must also be addressed in a comprehensive manner.

*The Metro Policy Advisory Committee (MPAC) and the Joint Policy Advisory Committee on Transportation (JPACT) endorsed the six principles on June 8 and June 9, 2011 respectively, to guide all Scenarios Project phases.*

# Phase 1: methods and tools




In May 2011, a work group of members from TPAC and MTAC was charged with helping Metro staff develop the Phase 1 scenarios assumptions, consistent with the guiding principles and evaluation framework endorsed by the Metro Council, JPACT and MPAC in June 2011.

The technical work group defined the scenario assumptions to be tested while Metro and ODOT staff developed tools to support the analysis in summer 2011. The model development work concluded in September 2011, and the initial model runs were completed in October.

Metro staff used a regionally tailored version of ODOT's Greenhouse Gas State Transportation Emissions Planning (GreenSTEP) model to conduct the analysis. Using GreenSTEP – the same model used to set the region's GHG emissions reduction target – ensures compatibility with state's planning efforts and provides a common GHG emissions reporting tool across the state.

The U.S. Department of Transportation has made GreenSTEP available to other states and regions as part of the Energy and Emissions Reduction Policy Analysis Tool (EERPAT). EERPAT was developed to assist with analyzing greenhouse gas reduction scenarios and alternatives for use in the transportation planning process, scenario planning efforts and to measure the reduction potential of various transportation strategies to meet state greenhouse gas reduction goals and targets. The Tool uses GreenSTEP, developed by the Oregon State DOT, as its foundation, and is expected to have regular enhancements.[1]

The foundation of this work is the development of a Base Case – the existing conditions for 2010 – and a Reference Case – a forecast of how the region will perform in 2035 based on projected population and demographic trends.

[1] http://www.planning.dot.gov/FHWA_tool

The Reference Case assumes the realization of existing plans and policies, and represents the Level 1 assumptions for each policy area. The remaining 143 scenarios test plausible combinations of land use and transportation strategies that could affect GHG emissions from light-duty vehicles.

Strategies were organized into six policy areas:

- Community design
- Pricing
- Marketing and incentives
- Roads
- Fleet
- Technology

Each of these policy areas include individual strategies that have been shown to affect GHG emissions (see page 15). While some strategies are new, many of the strategies tested are already being implemented to varying degrees to realize the 2040 Growth Concept and the aspirations of communities across the region. A summary of the strategies tested is provided on pages 22 to 35.

Including the Reference Case, a total of 144 scenarios have been analyzed at a preliminary level for their GHG emissions reduction potential. In addition to the scenarios analysis, staff completed the Strategy Toolbox report. The Strategy Toolbox report summarizes published local, national and international research on strategies that can help reduce transportation-related GHG emissions and meet other policy objectives. The report documents benefits of different strategies to a community, synergies between strategies, and implementation opportunities and challenges to be addressed in Phase 2.

Key findings from Phase 1 will be used to refine scenario inputs to develop customized alternative scenarios for further analyses in Phase 2 and Phase 3.

# Phase 1: building blocks for regional scenarios

Testing combinations of plausible strategies


## Strategies tested

- **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

### Putting stakes in the ground to create a starting point

The assumptions used Phase 1 are ambitious and were based on the need to create a starting point to test scenarios. Each level of effort tests different implementation levels for each of the policy areas.

In Phase 2, the level of implementation of these strategies as well as their timing and sequencing will be explored and further refined to develop alternative scenarios that will be subject to analysis and further review in Phase 3.

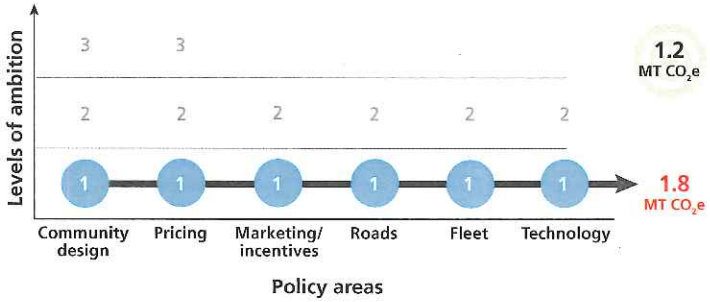
# Phase 1: findings

**1.2**
**MT $CO_2e$**

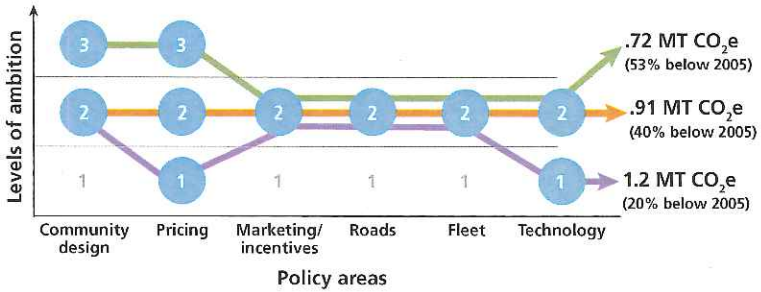
The region's per capita roadway GHG emissions target for 2035

Phase 1 of the Scenarios Project has focused on understanding the region's choices by conducting a review of published research and testing 144 regional scenarios. Phase 1 was designed to accomplish two things: 1) to understand the GHG emissions reduction potential of current plans and policies and 2) to understand the combinations of plausible land use and transportation strategies that reduce GHG emissions from light duty vehicles to 1.2 MT $CO_2e$ per capita by 2035. The region's decision-makers will use this information to direct development of alternative scenarios in Phase 2.

**Current plans and policies provide a strong foundation but do not meet target**




**Targets are achievable but will take additional effort and new strategic actions**




## What we learned from the Phase 1 Scenarios

The work completed to date yielded the following findings:

### Overall findings

**Finding 1: Current local and regional plans and policies are ambitious and provide a strong foundation for meeting the region's GHG target.** If realized, they will result in substantial per capita GHG emissions reductions from 2005 levels. However, a continued shift in consumer preferences and significant investment, commitment and leadership are needed to realize these aspirations.

**Finding 2: The reduction target is achievable but will take additional effort and new strategic actions.** Ninety-three of 144 scenarios tested meet the 20 percent per capita GHG emissions reduction target. Various combinations of policies achieved GHG emissions reductions ranging from 20 percent to 53 percent below 2005 levels.

**Finding 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.** Driving less conserves energy, reduces fuel consumption and keeps money in the region that consumers and businesses can spend on other things to help stimulate the region's economy. Supporting investments such as bike lanes, sidewalks, new transit service, and electric vehicle charging stations will help expand travel options for everyone.

**Finding 4: A range of policy choices exists to reduce GHG emissions; the best approach is a mix of strategies.** Light-duty vehicle emissions are a function of vehicle efficiency, technology, fuel content and vehicle travel. While improving vehicle and fuel efficiency achieves significant reductions in GHG emissions, per capita vehicle travel must be reduced to meet the target.

## Comparison of Phase 1 policy areas

Estimated reductions in roadway GHG emissions from current plans and policies

| Policy area | Level | Estimated percent reduction from 1.8 $MTCO_2e$* |
|---|---|---|
| Community design | 2 | 18% |
| Community design | 3 | 36% |
| Pricing | 2 | 13% |
| Pricing | 3 | 14% |
| Marketing and incentives | 2 | 4% |
| Roads | 2 | 2% |
| Fleet | 2 | 11% |
| Technology | 2 | 14% |

*MT $CO_2e$ percent change from 2035 Reference Case (current plans and policies)

The analysis used the Metropolitan GreenStep model to test six different policy areas and their ability to reduce light vehicle GHG emissions. The table above demonstrates the effect of applying each policy area at each level of implementation beyond the Reference Case (Level 1). The estimated percent reduction represents the average reduction in roadway GHG emissions for each policy area, while considering all possible combinations of policy areas.

It should be noted that these reduction estimates do NOT assess the relative effect of changes to individual strategies, but rather the reductions attributable to each policy area. In addition, the reduction estimates are NOT additive.

## Policy area findings

**Finding 5: Community design and pricing play a key role in how much and how far people drive each day and provide significant GHG emissions reductions.** The analysis revealed that community design or pricing strategies must be more ambitious than current policies to meet the target. However, pricing and community design together yield the largest GHG emissions reduction per capita.

**Finding 6: Fleet, technology and pricing strategies provide similar significant GHG emissions reductions but no single strategy is enough to meet the region's target.** Pricing, when combined with the most ambitious fleet and technology strategies, meets the target.

**Finding 7: Road management and marketing strategies improve system and vehicle efficiency and reduce vehicle travel to provide similar, but modest GHG emissions reductions.** Combining these strategies with community design provides additional emissions reduction that can help meet the region's GHG target.

# Bringing it all together: implications for Phase 2


**The results reflect the underlying model assumptions used in Phase 1 Scenarios analysis, and provide a starting point for Phase 2.** The assumptions used in Phase 1 are ambitious and were based on the need to create a starting point to test scenarios. The assumptions and scenarios tested do not represent specific policy decisions of the Metro Council, MPAC or JPACT. The Phase 1 Scenarios were intended to show whether it is possible for the region to reduce GHG emissions enough to meet the region's target. *During Phase 2, the level of implementation of these strategies as well as their timing and sequencing will be explored and further refined to develop alternative scenarios that will be subject to further analysis and review in Phase 3.*

**Each strategy presents its own opportunities and challenges.** The cost, level of effort and type of actions needed will vary by policy and strategy. The process of defining a preferred approach must be inclusive and engage stakeholders from diverse backgrounds to allow for a variety of perspectives to be shared and considered. *Effects on the economy, equity, the environment, costs, savings, public acceptance, and actions needed to implement a particular strategy must be considered.*

**Existing governance structures require that scenario planning be a collaborative effort between the state, Metro, cities and counties.** While Metro is responsible for coordinating regional land use and transportation planning and implementation, scenario planning involves evaluation of policies and strategies that are the responsibility of all levels of government. *A collaborative planning and decision-making model allows agreement to be reached at each level.*

**Metro, cities, counties and the state will need to be flexible and innovative to be successful.** Existing staff are fully subscribed with current planning responsibilities. Additional financial and technical support will be needed. *It will also be important for Metro and local governments to integrate GHG scenario planning with existing Metro, county and city planning processes.*

**Leadership, partnerships and coordination are keys to success.** Strategies under consideration have a mix of "sponsors" and funding sources. *Metro and local governments cannot achieve the targets alone; it will take leadership, collaboration and coordinated action at the local, regional, state and federal levels.* New governance structures and funding mechanisms may be needed to implement the strategies.

**Selecting strategies will involve policy decisions that could have political, economic, environmental, equity, community and lifestyle implications.** By framing the policy choices that decision-makers will consider throughout the process, *Phase 1 research serves as a basis for continuing a regional dialogue on how best to reach our GHG reduction target while advancing local and regional efforts to build livable, prosperous and equitable communities.* The region's approach must also advance realization of the region's six desired outcomes, and support the individual needs and aspirations of each community in the region.

# Where we are headed in Phase 2

The primary objective of the Phase 1 analysis is to estimate the GHG emissions reduction potential of current policies and that of alternative combinations of strategies. Phase 2 (January to December 2012) will build on this work and consider:

**Cost effectiveness:** Cost-effectiveness will be important in the selection and implementation of GHG emissions reduction strategies. Further research is needed to estimate cost-effectiveness, including accounting for the benefits and cost impacts of different strategies. The evaluation will consider the costs and benefits across environmental, economic and equity goals from multiple perspectives – business, individual, household, community and region. The evaluation will illustrate the political, community, social equity and economic implications of different strategies, as well as public and private costs and savings and the potential costs of inaction.

**Fiscal considerations:** The evaluation will assess how revenues generated from parking management and other strategies could be funding sources for community investments, such as expanded transit service, implementing system and demand management programs, building sidewalks, fixing bottlenecks and providing electric vehicle infrastructure.

**Economic considerations:** The feasibility of implementing different strategies, potential financing strategies and the timeframe required will be assessed to inform next steps and recommendations. Recommended solutions should not put the state, region or local governments at an economic disadvantage, but rather boost economic competitiveness and provide greater economic opportunity for everyone.

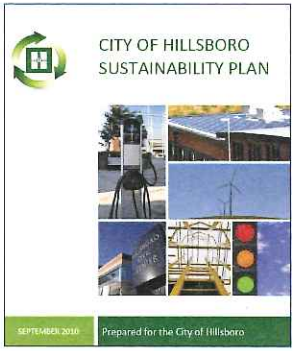
**Equity considerations:** The evaluation will meaningfully consider equity. This should include assessing the impacts to communities without well-connected street systems, transit, sidewalks, and bicycle facilities, or households of modest means that may lack access to lower carbon vehicle options or affordable housing options.

## Moving forward: policy questions to be addressed

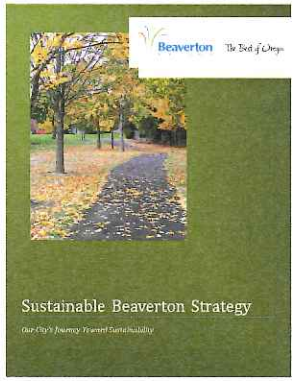
Together, we must answer pivotal policy questions to identify the right mix of land use and transportation investments and strategies:

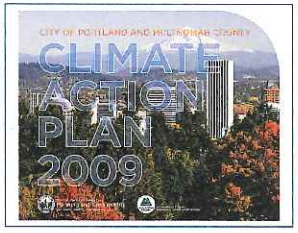
- Which actions are local and regional leaders currently taking and which of the possible new actions are most consistent with existing efforts?
- Which strategies are most cost-effective and efficient? Which strategies are easiest to implement, both technically and politically? How do we overcome obstacles to the most effective actions that are difficult or expensive to implement?
- What are the benefits and impacts of these strategies to individuals, businesses, the region's economy and other desired outcomes communities and the region are trying to achieve?
- How do we ensure the region's strategy is inclusive and equitable, reflects the diversity of needs and interests in the region and does not perpetuate disparities or leave any community behind, especially households of modest means and people of color?
- How do we ensure the region's strategy creates good jobs, provides greater economic opportunity for everyone and boosts economic development and competitiveness?

# Other local and regional climate initiatives








## Local climate initiatives

Communities around the Portland metropolitan region are already taking steps to address climate change.

- In 2006, the **City of West Linn** developed a strategic plan that recommends specific actions to achieve sustainability, including reducing GHG emissions.
- The cities of **Beaverton, Forest Grove, Gladstone, Gresham, Hillsboro, Lake Oswego, Milwaukie, Oregon City,** and **Portland,** which together currently represent 66 percent of the region's population, committed to reducing greenhouse gas emissions as a signatory to the 2007 U.S. Conference of Mayors Climate Protection Agreement.
- In 2008, the **Clackamas County** developed an action plan that calls for reductions in GHG emissions and specific actions to support meeting the plan's reduction goals.
- In 2008, **Washington County** completed an inventory of GHG emissions from agency operations.
- In 2009, the **City of Portland and Multnomah County** adopted a Climate Action Plan to guide policies and programs to achieve reductions in GHG emissions. The plan builds on previous plans adopted in 1993 and 2001.
- In 2010, the **City of Hillsboro** completed an inventory of GHG emissions from local government operations. The inventory provides a baseline for tracking reductions in GHG emissions called for in the city's 2010 Sustainability Plan.
- In 2011, the **City of Gresham** prepared a sustainability plan for the city's operations and facilities that includes specific goals for reducing GHG emissions.
- The **City of Lake Oswego** is developing a community-based GHG inventory. The inventory will provide a baseline for tracking reductions in GHG emissions from all sources and is a component of the city's comprehensive plan update.
- The **City of Beaverton** has conducted GHG inventories for its operations and the community. Beaverton is now finalizing its Sustainability Strategy with goals that support the regional and state objectives.

## Regional climate activities

The Scenarios Project is one element of a larger set of climate-related initiatives at Metro collectively known as Climate Smart Communities:

**Regional Greenhouse Gas Emissions Inventory:** In 2010, Metro completed a regional GHG emissions inventory for the year 2006. The inventory establishes a snapshot of the region's carbon footprint to focus planning and monitoring efforts to achieve long-term GHG reductions.

**Greenhouse Gas Emissions Assessment Toolkit:** Metro developed a regional GHG Emissions Assessment Toolkit that establishes a framework for regional climate impact assessments and provides consistent guidance on analysis methods, reporting, and evaluation of Metro projects, programs and policies.

**Climate Leadership Initiative:** Metro participated in the Climate Leadership Initiative, completed in January 2010, which engaged local experts and stakeholders on how to prepare the lower Willamette Valley River Basin for climate change impacts.

**Climate Prosperity Strategy:** Metro worked with local governments, businesses, educational institutions, and the Portland Oregon Sustainability Institute to develop the 2011 Portland Metro Climate Prosperity Strategy – a "greenprint" for integrating climate change policy and economic development into a single strategy.













Climate Smart Communities Scenarios Project

# Phase 1: Supplemental Information

# Phase 1: 2010 base year and alternative scenario inputs

The input assumptions are for research purposes only and do not necessarily reflect current or future policy decisions of the Metro Council, MPAC or JPACT.

This table summarizes the inputs for the 2010 Base Year and 144 alternative scenarios that reflect different levels of implementation for each category of policies. The inputs were developed by Metro staff in consultation with a technical work group of MTAC and TPAC members. Documentation of the inputs and rationale behind each input can be found in the Phase 1 Metropolitan GreenSTEP Scenarios Technical Documentation report (January 2012). This information is for research purposes only and does not necessarily reflect current or future policy decisions of the Metro Council, MPAC or JPACT.

| | | | Reference case | | |
|---|---|---|---|---|---|
| | | 2010 | 2035 | | |
| | **Strategy** | **Base Year**<br>Reflects existing conditions | **Level 1**<br>Reflects current plans and policies | **Level 2**<br>Reflects more ambitious policy changes | **Level 3**<br>Reflects even more ambitious policy changes |
| Community design | Households living in mixed-use areas and complete neighborhoods (percent) | GreenSTEP calculates | | | |
| | Urban growth boundary expansion (acres) | 2010 UGB | 7,680 acres | 7,680 acres | No expansion |
| | Bicycle mode share[1] (percent) | 2% | 2% | 12.5% | 30% |
| | Transit service level | 2010 service level | 2035 RTP service level | 2.5 times RTP service level | 4 times RTP service level |
| | Workers/non-work trips paying for parking (percent) | 13% / 8% | 13% / 8% | 30% / 30% | 30% / 30% |
| | Average daily parking fee ($2005) | $5.00 | $5.00 | $5.00 | $7.25 |
| Pricing | Pay-as-you-drive insurance (percent of households participating and cost) | 0% | 0% | 100% at $0.06/mile | No change from Level 2 |
| | Gas tax (cost per gallon $2005) | $0.42 | $0.48 | $0.18 | |
| | Road use fee (cost per mile $2005) | $0 | $0 | $0.03 | |
| | Carbon emissions fee (cost per ton) | $0 | $0 | $0 | $50 |

[1] Percent of all tours less than 6 miles roundtrip.

| Strategy | | Reference case | | | |
|---|---|---|---|---|---|
| | | 2010 | 2035 | | |
| | | **Base Year** Reflects existing conditions | **Level 1** Reflects current plans and policies | **Level 2** Reflects more ambitious policy changes | **Level 3** Reflects even more ambitious policy changes |
| Marketing and incentives | Households participating in eco-driving | 0% | 0% | 40% | No Level 3 |
| | Households participating in individualized marketing programs (percent) | 9% | 9% | 65% | |
| | Workers participating in employer-based commuter programs (percent) | 20% | 20% | 40% | |
| | Car-sharing in high density areas (target participation rate) | Participation rate of 1 member/100 people | Participation rate of 1 member/100 people | Double participation to 2 members/100 people | |
| | Car-sharing in medium density areas (target participation rate) | Participation rate of 1 member/200 people | Participation rate of 1 member/200 people | Double participation to 2 members/200 people | |
| Roads | Freeway and arterial expansion | 2010 system | 2035 financially constrained system | No expansion | |
| | Delay reduced by traffic management strategies (percent) | 10% | 10% | 35% | |
| Fleet | Fleet mix (proportion of autos to light trucks and SUVs) | auto: 57%<br>light truck/SUV: 43% | auto: 56%<br>light truck/SUV: 44% | auto: 71%<br>light truck/SUV: 29% | |
| | Fleet turnover rate (age) | 10 years | 10 years | 8 years | |
| Technology | Fuel economy (miles per gallon) | auto: 29.2 mpg<br>light truck/SUV: 20.9 mpg | auto: 59.7 mpg<br>light truck/SUV: 41 mpg | auto: 68.5 mpg<br>light truck/SUV: 47.7 mpg | |
| | Carbon intensity of fuels | 90 g $CO_2$e/megajoule | 81 g $CO_2$e/megajoule | 72 g $CO_2$e/megajoule | |
| | Light-duty vehicles that are electric or plug-in electric vehicles (percent) | auto: 0%<br>light truck/SUV: 0% | auto: 4%<br>light truck/SUV: 1% | auto: 8%<br>light truck/SUV: 2% | |

# Our starting point is the Reference Case – current plans and policies


### Key population and household assumptions

- Between the years 2010 and 2035, the population within the Metro urban growth boundary is forecast to increase by more than 625,000 residents. This assumption is based on Metro's draft Beta forecast and represents the lower end of the middle-third of the population growth forecast range. This range value is consistent with Metro Council's recent adoption of an ordinance (in October 2011), which focused its growth management decision on the lower end of the middle-third of the population growth forecast range.
- Metropolitan GreenSTEP travel behavior estimates are made irrespective of housing choice or supply. Therefore, there is no assumption about the type of housing assumed to be built in the future.
- The following housing supply growth characteristics are presented for context purposes only. Recently, approximately 40 percent of new housing units constructed in the region are multi-family (MF), and 60 percent is single-family (SF). The draft Beta forecast reflected a marginal growth split of 78 percent MF and 22 percent SF by 2035, which would result in a total housing stock split of 34 percent MF and 66 percent SF by 2035. However, Metro in coordination with regional partners, have refined these assumptions resulting in a draft Gamma forecast. The Gamma forecast demonstrates that over the next 25 years approximately 59 percent of new housing units in the region will be MF, and 41 percent will be SF. This growth split results in a total housing stock split of 35 percent MF and 65 percent SF.

### Key pricing assumptions

- The federal gas tax is 18 cents per gallon – the same as today.
- State gas tax is 30 cents per gallon – the same as today.
- The average daily cost of parking is $5 per day – the same as in 2005.
- Locations with paid parking are limited to downtown Portland, the Oregon Health Science University campus and the Lloyd District, representing approximately 13 percent of the region's workers and 8 percent of other trips made each day – the same as in 2005.
- Zero households participate in pay-as-your-drive insurance.

### Key marketing and incentives assumptions

- 9 percent of households participate in individualized marketing – the same as today.
- 20 percent of workforce participates in employer-based commute programs – the same as today.
- Participation in carsharing programs remains the same as today: one member for every 100 people in higher-density areas like the Pearl District in Portland and one member for every 200 people in medium-density areas like inner eastside Portland neighborhoods.

### Key fleet and technology assumptions

- The region's fleet mix stays nearly the same as today – 56 percent of the fleet is passenger cars and the remaining 44 percent is small trucks and sport utility vehicles.
- The Low Carbon Fuel Standard (as proposed by the Oregon Department of Environmental Quality) is adopted; carbon intensity of fuels will decline by 10 percent below today's average.
- Federal Corporate Average Fuel Economy (CAFÉ) standards calling for a fleet average of 50 miles per gallon for model years 2017-2025 are achieved. This fleet average represents a fuel economy of 59.7 mpg for passenger cars and 41 mpg for light-trucks.
- Electric vehicles and plug-in hybrid electric vehicles represent 4 percent of the total passenger vehicle fleet and 1 percent of the light-truck fleet.

### Key transportation system assumptions

- The 2035 Financially-Constrained Regional Transportation Plan includes $13.6 billion of investments, reflecting the amount of revenue reasonably expected to be available in the Metro region from 2007 to 2035.
- The 2035 RTP financial strategy assumes existing federal, state and local funding plus new revenues that are not part of the Phase 1 modeled pricing assumptions. Significant increases in transportation revenue are likely to be needed if anticipated improvements in vehicle fuel economy are realized.

### Key road assumptions

- The 2035 Regional Transportation Plan financially constrained system of highway and investments is implemented.
- Future delay on the highway and arterial network is reduced by 10 percent through traffic management, such as clearing crashes and breakdowns more quickly, traffic signal timing and other strategies.

### Targeted highway investments

- I-5 / Columbia River Crossing (CRC) Project is completed.
- Interchanges in the OR 217, US 26, I-205 corridors and at the junction of I-5/I-84 are improved.
- The Sunrise Project connection from I-205 to 172nd Avenue is built.
- US 26 West is widened to six through lanes to Cornelius Pass Road.

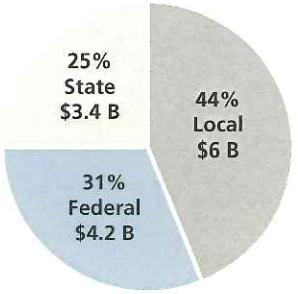
### Regional transit investments

- Milwaukie light rail and Columbia River Crossing light rail are constructed.
- Lake Oswego streetcar, Portland streetcar loop, and Burnside/Couch streetcar to Hollywood Transit Center are constructed.
- Frequent bus service is expanded in key transit corridors.

### Other multi-modal investments

- On-street bicycle and pedestrian projects, such as bicycle lanes, cycle tracks, bicycle boulevards, sidewalks and crossing improvements are constructed.
- Off-street regional trail projects are constructed, such as the Lake Oswego to Portland trail, Fanno Creek (Red Electric) trail, Beaverton Creek Trail, Westside trail, Tonquin trail, Columbia Slough trail, Scouter's Mountain trail, E. Buttes Loop trail, and the Gresham-Fairview trail.
- New street connections that build out the regional street grid are constructed.
- Freight rail and street extensions and expansions focused on serving industrial areas are constructed.
- Major streets are widened or retrofitted with sidewalks, bicycle facilities and other multi-modal designs.

**2035 RTP Funding Sources**




Source: 2035 Regional Transportation Plan (approved June 10, 2010)

## 2035 RTP by investment type and share of total cost

| Investment type | Cost | Percent of total RTP cost |
|---|---|---|
| Sidewalks, bike facilities and trails | $948 M | 7% |
| Freight rail and road access to industrial areas | $623 M | 5% |
| Traffic management, signal timing and other ITS projects | $ 19 M | <1% |
| Regional programs<br>• Regional Travel Options<br>• Regional Transportation System Management and Operations<br>• Regional Transit-Oriented Development | $196 M | 1% |
| Multi-modal roads and bridges | $4.3 B | 32% |
| Highway widening and fixing bottlenecks | $4.0 B | 29% |
| Public transit | $3.5 B | 25% |
| **Total (costs have been rounded)** | **$13.6 B** | **100%** |

Source: 2035 Regional Transportation Plan (approved June 10, 2010)

# Community design – what we tested


**Households living in mixed-use areas:** GreenSTEP estimates the probability that a household lives in a mixed-use area or complete neighborhood based on Census tract population density. In Phase 1, GreenSTEP internally calculated the following values:
2010 Base year: 24%
2035 Level 1: 33%
2035 Level 2: 33%
2035 Level 3: 34%
In future project phases these values can be adjusted to reflect land use policies aimed at changing the amount and type of mixed-use development.

**Urban growth boundary:** Input tests the effect of urban growth boundary expansion.
2010 Base Year captures the existing land area with the UGB.
2035 Level 1 assumes one-quarter of the adopted urban reserves areas come into the UGB by 2035.
2035 Level 2 assumes the same level of expansion as Level 1.
2035 Level 3 tests the effect of a no-expansion policy.

**Bicycle mode share:** Input reflects the share of all trips less than 6 miles round trip in length are made by bicycle.
2010 Base Year reflects the estimated regional bike mode share, as reflected in the 2035 RTP.
2035 Level 1 assumes no change from 2010 in the share of regional bike travel, an estimate consistent with the 2035 RTP.
2035 Level 2 assumes the same share of bicycle travel as Level 3 of the first round of Statewide Transportation Strategy scenarios.
2035 Level 3 assumes regional bike mode share grows to 30 percent.

**Transit service level:** Input reflects per capita transit service growth.
2010 Base Year reflects current TriMet service levels for light-rail, streetcar and bus service growth. This ratio represents the equivalent of 29 revenue miles per capita.
2035 Level 1 assumes the per capita service rate in the 2035 RTP.
2035 Level 2 assumes transit service levels grow significantly – the equivalent of 69 revenue miles per capita, roughly comparable to the service levels of Chicago and Washington D.C., or 2.5 times the 2035 RTP service level.
2035 Level 3 assumes even more substantial growth, the equivalent of 115 revenue miles per capita, roughly comparable to New York City service levels, or 4 times the 2035 RTP service level.

**Workers/non-work trips paying for parking:** GreenSTEP considers parking pricing as a trip-based cost. There are two types of parking costs addressed in GreenSTEP: (1) parking costs at places of employment and (2) non-work parking costs.
2010 Base Year reflects the current estimate of areas with work and non-work parking fees – this includes downtown Portland, OHSU and the Lloyd District.
2035 Level 1 assumes no change from 2010 parking areas.
2035 Level 2 assumes new areas charge parking fees, based on the 2035 RTP. This is the only community design input where Level 2 reflects adopted policy, not Level 1.
2035 Level 3 assumes no change from Level 2.

**Average daily parking fee:** Input provides the opportunity to evaluate the effects of adjusting work and non-work parking fee amounts (2005 $): 2010 Base Year: $5.00
2035 Level 1: $5.00
2035 Level 2: $5.00
2035 Level 3: $7.25

| Strategy | | 2010 | 2035 | | |
|---|---|---|---|---|---|
| | | **Base Year** Reflects existing conditions | **Level 1 Reference case** Reflects current plans and policies | **Level 2** Reflects more ambitious policy changes | **Level 3** Reflects even more ambitious policy changes |
| Community design | Households living in mixed-use areas and complete neighborhoods (percent) | GreenSTEP calculates | | | |
| | Urban growth boundary expansion (acres) | 2010 UGB | 7,680 acres | 7,680 acres | No expansion |
| | Bicycle mode share[1] (percent) | 2% | 2% | 12.5% | 30% |
| | Transit service level | 2010 service level | 2035 RTP service level | 2.5 times RTP service level | 4 times RTP service level |
| | Workers/non-work trips paying for parking (percent) | 13% / 8% | 13% / 8% | 30% / 30% | 30% / 30% |
| | Average daily parking fee ($2005) | $5.00 | $5.00 | $5.00 | $7.25 |

[1] Percent of all tours less than 6 miles roundtrip.

# Community design – considerations moving forward

| Community design | Strategy lead | | | |
|---|---|---|---|---|
| | Federal | State | Regional | Local |
| Complete neighborhoods and mixed-use areas | | | ● | ● |
| Urban growth boundary | | | ● | |
| Transit service | | | ● | |
| Bicycle travel | | | | ● |
| Parking | | | | ● |

Most of the community design strategies are focused on changes to the built environment. With modest UGB expansion from today, a greater number of residents live in mixed-use areas and "complete neighborhoods," thereby making walking, biking, personal electric vehicles, and transit more feasible and likely. Expanding transit service and managing the supply and cost of parking in targeted mixed-use areas provide additional GHG reduction benefits.

While these strategies combined provide significant GHG emissions, there are a number of implications that have not yet been assessed. The following are some of the implications to be accounted for and further analyzed during Phases 2 and 3:

**Housing supply, capacity and affordability:** Metropolitan GreenSTEP does not consider any housing supply assumptions and travel behavior estimates are made irrespective of housing choice. The model only considers the demand forecast components – household size, income and age – and does not relate any changes in travel behavior to housing preference or existing housing supply. Therefore, there is no Phase 1 assumption about the type of housing to be built in the future.

For Phase 2 of the Scenarios Project, Metro staff is developing a model – compatible with Metropolitan GreenSTEP – that will incorporate housing preference, supply and capacity considerations. The result of this work is an innovative model that introduces explicit modeling of household size, age, and income to distinguish housing type choice (e.g., single-family or multi-family) and willingness to pay in a sketch-planning tool. This Project will provide new tools needed to evaluate changes in housing assumptions and implications on housing affordability as part of the process.

**Market feasibility, consumer preferences and infrastructure needs:** Research reviewed in the Strategy Toolbox Report showed growing consumer demand for walkable neighborhoods and mixed-use development served by transit. The research also showed that while compact, mixed-use development can reduce public costs and provide benefits, it can be more complicated and have significantly higher upfront costs than traditional single-use development. Today, individual communities have varying capacity and desire to support redevelopment of existing areas or new mixed-use development. Investment in transit, street connectivity, sidewalks, bicycle facilities, urban parks and other assets is needed to support mixed-use development to result in shorter trips, and more walking, bicycling and use of transit in a community.

In Phase 2, the Scenarios Project will need to further evaluate the effectiveness of mixed-use development, parking management and transit service. Phase 2 will consider the market feasibility, investment needs and implications on affordability throughout the region. In addition, more research is needed on changing consumer preferences in the region to better understand how changes in demographics and housing demand may affect housing need, supply and costs. All of these considerations influence the timing and sequencing of implementing community design strategies. Thus, the full GHG emissions reduction potential of this policy area is constrained to some degree by local market conditions, consumer preferences, public incentives, financial feasibility, and public acceptance.

### Other potential benefits from the Strategy Toolbox

**Community benefits**
Increased physical activity

Enhanced public safety; reduced risk of traffic injuries and fatalities

Improved air quality and fewer air toxics emissions

**Environmental benefits**
Less pollution

Less energy use

Natural areas, farm and forest protection

**Economic benefits**
Job opportunities

Improved access to jobs, goods and services

Consumer and municipal savings

Leverage private investment, increased local tax revenues

Increased property values

Reduced fuel consumption

# Pricing – what we tested


### Pay-as-you-drive-insurance

2010 Base Year reflects current program options with no pay-as-you-drive insurance options available to consumers.
2035 Level 1 assumes no change in program options from 2010.
2035 Level 2 reflects a 100 percent transition to pay-as-you-drive insurance. This assumption reflects the State's most ambitious assumption for the first round of STS scenarios.
2035 Level 3 assumes no change from Level 2.

### Gas tax

2010 Base Year reflects the 2010 state and federal gas tax levels.
2035 Level 1 reflects the state gas tax increase resulting from HB 2001.
2035 Level 2 assumes no change in the federal gas tax and reflects a shift of the state gas tax to an equivalent road use fee (see road use fee Level 2).
2035 Level 3 assumes no change from Level 2.

### Road use fee

2010 Base Year reflects the current policy status of no light-duty vehicle mileage-based road use fee.
2035 Level 1 assumes no change from 2010 (no implementation of a light-duty vehicle road use fee).
2035 Level 2 assumes a transition of the 2011 State gas tax (HB 2001 increased the state gas tax to 30 cents per gallon) to an equivalent cost per mile road use fee. The total road use fee also includes the equivalent of an annual increase of $.01 per year state gas tax increase. The state gas tax increase was assumed in the 2035 RTP strategy to address maintenance and operation of the transportation system.
2035 Level 3 assumes no change from Level 2.

| Pricing | Strategy lead: Federal | State | Regional | Local |
|---|---|---|---|---|
| Pay-as-you-drive insurance | ● | ● | | |
| Gas tax | ● | ● | | ● |
| Road use fee | ● | ● | ● | |
| Carbon fee | ● | ● | | |

### Carbon emissions fee

2010 Base Year reflects the current policy status of no carbon emissions fees in place.
2035 Level 1 assumes no change from 2010 (no implementation of a carbon emissions fee).
2035 Level 2 assumes no change from Level 1.
2035 Level 3 assumes implementation of a carbon emissions fee that represents an estimated value of the external cost of transportation GHG emissions.

| Strategy | | 2010 Base Year<br>Reflects existing conditions | 2035 Level 1 Reference case<br>Reflects current plans and policies | 2035 Level 2<br>Reflects more ambitious policy changes | 2035 Level 3<br>Reflects even more ambitious policy changes |
|---|---|---|---|---|---|
| Pricing | Pay-as-you-drive insurance (percent of households participating and cost) | 0% | 0% | 100% at $0.06/mile | No change from Level 2 |
| | Gas tax (cost per gallon $2005) | $0.42 | $0.48 | $0.18 | |
| | Road use fee (cost per mile $2005) | $0 | $0 | $0.03 | |
| | Carbon emissions fee (cost per ton) | $0 | $0 | $0 | $50 |

# Pricing – considerations moving forward

Pricing strategies charge users directly for using transportation facilities, affecting mode choice, timing and distance of travel. Pricing can result in more efficient use of the transportation system by shifting demand to make the most of past and future investments and limited sources of revenue. The scenarios analysis shows these strategies offer potentially significant GHG emissions reductions. Other potential benefits identified in the Strategy Toolbox include the potential to be a significant source of revenue for community investments, congestion relief and inducing improvements in fuel economy and the purchase of fuel-efficient vehicles. In order to avoid pricing becoming a punitive strategy, it should be implemented in combination with expanding travel choices, and marketing and incentives programs.

While the pricing strategies tested in Phase 1 of the Scenarios Project provided significant GHG emissions reductions. The Scenarios Project needs to be realistic about pricing as a strategy given the lack of public acceptance and current economic climate.

Public acceptance, communications, evaluation of benefits, costs, equity, and use of revenues generated pose specific issues and challenges that have not yet been assessed. The following are some of the implications to be accounted for and further analyzed during Phases 2 and 3:

**Equity considerations:** The fairness of a given type of pricing mechanism depends on how it is structured, what transportation choices are provided to users and which aspects of equity are most relevant and important to consider. It will be important to more fully understand the potential issues, impacts and tradeoffs between benefits and costs of different pricing strategies. As pricing strategies are considered, it is important to evaluate their effect on other parts of the region's transportation system and equity to ensure any unintended consequences are identified and addressed.

**Stable and sustainable funding considerations:** Federal and state funding for infrastructure investments are not keeping pace with needs, particularly for operations, maintenance and preservation of existing public assets but also needed expansion of the system. Local revenue sources are being used to fund the majority of RTP investments. State and local government purchasing power has steadily declined. Operating funds for the regional transit system are also declining, making it difficult to maintain existing service levels and replace older bus fleets. Financing mechanisms to support land development and other community infrastructure needs are also limited.

Current transportation pricing strategies reflect declining revenues sources as improvements in fuel efficiency and inflation reduce the purchasing power of existing gas tax revenues. For example, the 2035 Regional Transportation Plan finance strategy assumes an increase in the state gas tax by $.01 per year, a price increase that the state is not currently implementing. In addition, there is no indication that current federal and state gas tax levels will be adjusted to account for inflation or improvements in fuel efficiency. Without addressing these issues (either through new or existing pricing mechanisms) the region will not have the revenues needed to implement existing plans and investment priorities, let alone consider more ambitious strategies such as doubling transit service levels or accommodating more growth in downtowns and other designated centers and employment areas.

While there is concern that increases in household and business transportation costs may negatively affect the economic health of the region, there may be opportunities to transition existing pricing mechanisms to more stable revenue sources without drastically increasing the cost to drive. For example, the Phase 1 findings demonstrate that applying a carbon tax of $50 per ton had little impact on household travel behavior.[1] However, transitioning the existing state gas tax, which is negatively impacted by both fuel efficiency and inflation, to a road use fee or carbon tax could provide a more stable funding mechanism. It should be noted that a carbon fee is also affected by changes in fuel efficiency, which needs to be further explored.

**Other potential benefits from the Strategy Toolbox**

**Community benefits**
Reduced number of uninsured motorists

Improved air quality and fewer air toxics emissions

**Environmental benefits**
Less pollution

**Economic benefits**
New and more stable revenue sources

Consumer savings

Reduced fuel consumption

[1] The per capita costs of applying a carbon tax of $50 per ton to a scenario that exactly meets the region's GHG emissions reduction target (per capita roadway emissions of 1.2MT CO2e per year), is $120 per year. The Phase 1 scenario results indicate that this cost increase by 2035 did not significantly affect travel behavior.

# Marketing and incentives – what we tested


### Households participating in eco-driving

Eco-driving involves educating motorists on how to drive in order to reduce fuel consumption and cut emissions. Examples of eco-driving practices include avoiding rapid starts and stops, matching driving speeds to synchronized traffic signals, and avoiding idling.

2010 Base Year reflects the current status of no existing eco-driving marketing programs. There is also no supporting data to indicate the proportion of households that follow eco-driving practices.

2035 Level 1 assumes no change from 2010 (no eco-driving marketing programs).

2035 Level 2 reflects an adoption of and participation in eco-driving marketing programs. The participation rate for this marketing program reflects the state's Level 2 input assumption for the first round of STS scenarios.

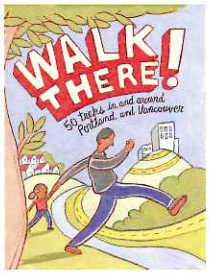
### Household participating in individualized marketing programs

Individualized marketing (IM) programs are travel demand management programs focused on individual households.

2010 Base Year is an estimate of current participation rates.

2035 Level 1 assumes no change from 2010 (continuation of existing participation levels).

2035 Level 2 assumes a significant increase in participation rates, which reflects the percent of households with proximity to high capacity transit and frequent bus service, as reflected in the 2035 RTP.




### Workers participating in employer-based commuter programs

Employee commute options (ECO) programs are work-based travel demand management programs, which can include, employer-subsidized transit passes, bicycle parking, education and promotion, carpool and vanpool programs, etc.

2010 Base Year is an estimate of current participation rates.

2035 Level 1 assumes no change from 2010 (continuation of existing participation levels).

2035 Level 2 assumes a doubling of participation rates, which could reasonably be accomplished with increased programmatic resources/funding and would not require a legislative change to the State ECO Rule.

### Car-sharing in high density areas

Because car-sharing is a relatively new phenomenon, GreenSTEP models the approximate effects of car-sharing on vehicle travel and vehicle ownership.

2010 Base Year is an estimate of current participation rates.

2035 Level 1 assumes no change from 2010 (continuation of existing participation rates).

2035 Level 2 assumes a doubling of participation rates.

### Car-sharing in medium density areas

Because car-sharing is a relatively new phenomenon, GreenSTEP models the approximate effects of car-sharing on vehicle travel and vehicle ownership.

2010 Base Year is an estimate of current participation rates.

2035 Level 1 assumes no change from 2010 (continuation of existing participation rates).

2035 Level 2 assumes a doubling of participation rates.

| Strategy | | 2010 | 2035 | | |
|---|---|---|---|---|---|
| | | **Base Year** Reflects existing conditions | **Level 1 Reference case** Reflects current plans and policies | **Level 2** Reflects more ambitious policy changes | **Level 3** Reflects even more ambitious policy changes |
| Marketing and incentives | Households participating in eco-driving | 0% | 0% | 40% | No Level 3 |
| | Households participating in individualized marketing programs (percent) | 9% | 9% | 65% | |
| | Workers participating in employer-based commuter programs (percent) | 20% | 20% | 40% | |
| | Car-sharing in high density areas (target participation rate) | Participation rate of 1 member/100 people | Participation rate of 1 member/100 people | Double participation to 2 members/100 people | |
| | Car-sharing in medium density areas | Participation rate of 1 member/200 people | Participation rate of 1 member/200 people | Double participation to 2 members/200 people | |

# Marketing and incentives – considerations moving forward

| | Strategy lead | | | |
|---|---|---|---|---|
| **Marketing and incentives** | **Federal** | **State** | **Regional** | **Local** |
| Eco-driving | ● | ● | ● | |
| Individualized marketing | | | ● | ● |
| Employer commute programs | | | | ● |
| Car-sharing | | | | ● |

Public education, marketing and incentives programs include teaching motorists to drive and maintain vehicles to operate more efficiently and building awareness of travel choices for personal and commute travel. Public education and marketing are often less costly than building new infrastructure and are supported by the public. These strategies can be tailored to a diversity of perspectives and needs and provide the necessary platform from which to encourage eco-driving among the general public and employees. In addition to encouraging eco-driving, public education and marketing can raise public awareness about the benefits of driving less and riding transit, carpooling, ridesharing, telecommuting, biking, and walking – a focus of the region's Drive Less Save More campaign.

The Phase 1 scenarios analysis shows these strategies provide moderate GHG emissions reductions. However, combining marketing and incentives with other strategies, especially community design, provides additional emissions reductions that can help meet the region's target. Other potential benefits identified in the Strategy Toolbox report include increased physical activity from walking and biking, leading to additional positive health outcomes; improved air quality; increased access to jobs, goods and services; and consumer savings.

The implications outlined below will be further explored during Phases 2 and 3 of the project:

**Application and timing:** These strategies are relatively easy and inexpensive to implement, likely making them ideal near-term options for GHG emissions reduction. Marketing and incentive programs are often successful when targeting neighborhoods with good access to transportation options or planned transportation investments, such as the opening of new high capacity transit or frequent bus service. Because individualized marketing and employee commute option programs provide information and incentives for a variety of travel options, it is critical that these programs be linked to transit investments and other community design strategies to realize their full potential. Not only are these programs more successful at reducing the amount people drive and, therefore, GHG emissions, they can also increase the effectiveness of transit investments through improved ridership. Individualized marketing programs are also effective when implemented with new transportation projects.

**Employer-based commute programs:** The Employee Commute Options (ECO) Rule directs employers in the Portland metropolitan region with more than 100 employees at a given worksite to show a good faith effort towards reducing drive-alone commute trips by 10 percent from an established baseline.[1] Businesses affected by the ECO rule must survey their employees every two years to measure progress towards the goal, and create a plan that identifies the steps they will take in pursuit of the 10 percent reduction. The most recent estimates for the region assume a roughly 20 percent participation rate for ECO programs. However, Level 2 demonstrates a doubling of this participation rate, which could reasonably be accomplished with increased programmatic resources and funding and would not require a legislative change to the state ECO rule. It is possible that any further participation rate increases beyond Level 2 could require changes to the state ECO rule.


**Other potential benefits from the Strategy Toolbox**

**Community benefits**
Increased physical activity

Enhanced public safety; reduced risk of traffic injuries and fatalities

Improved air quality and fewer air toxics emissions

**Environmental benefits**
Less pollution

Less energy use

**Economic benefits**
Job opportunities

Improved access to jobs, goods and services

Consumer savings

Reduced fuel consumption

Increased cost effectiveness of transit investments through improved ridership

[1] The Employee Commute Options Program (Oregon Administrative Rule 340-242) is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200.

# Roads – what we tested


### Freeway and arterial expansion

The road capacity input in GreenSTEP only models the affect of roadway expansion relative to population growth and does not distinguish between the impact of new connections and projects that widen existing roads.

2010 Base Year reflects current freeway and arterial system.

2035 Level 1 assumes implementation of the 2035 financially constrained RTP road system.

2035 Level 2 assumes no roadway expansion beyond the 2010 base year, and relies only on system management.

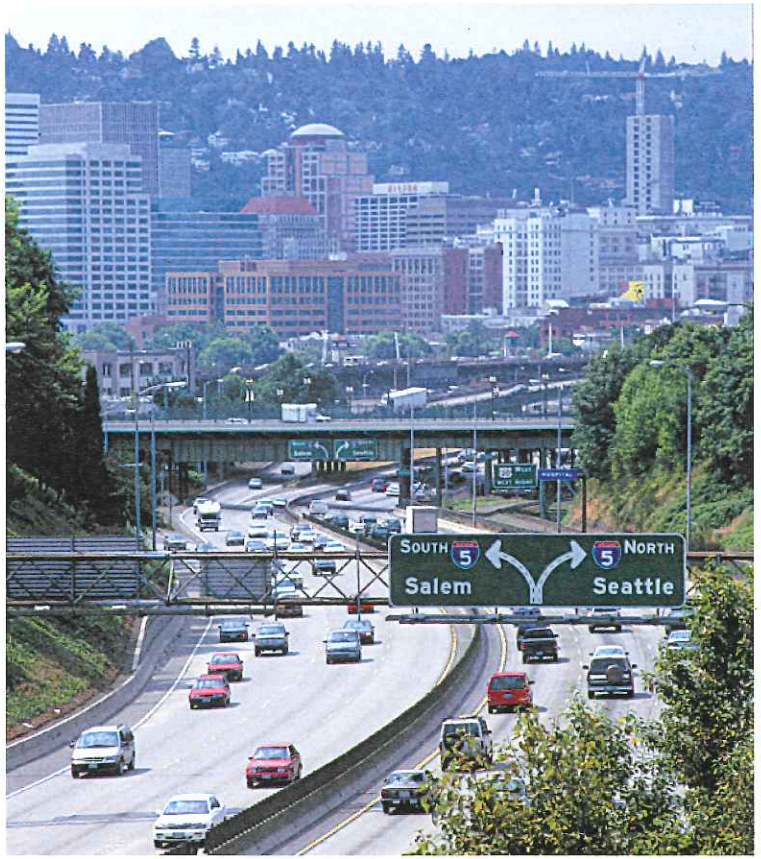
### Delay reduced by traffic management

GreenSTEP provides a mechanism to evaluate the effects of system management programs on GHG emissions. System management includes clearing vehicle breakdowns and crashes more quickly, traffic signal timing and other Intelligent Transportation System strategies that improve traffic flow and reduce delay.

2010 Base Year assumes delay reduction as assumed in the state's first round of STS Scenarios.

2035 Level 1 assumes no change from 2010 (no change in delay reduction).

2035 Level 2 assumes a tripling of delay reduction as assumed in the state's first round of STS Scenarios.




Freeways allow people and goods to connect to major destinations across the region, accommodating longer-distance regional and state-wide travel and providing important access to the region's major activity centers, such as downtown Portland, and freight access to industrial areas and freight intermodal facilities.

| Strategy | | 2010 | 2035 | | |
|---|---|---|---|---|---|
| | | **Base Year** Reflects existing conditions | **Level 1** **Reference case** Reflects current plans and policies | **Level 2** Reflects more ambitious policy changes | **Level 3** Reflects even more ambitious policy changes |
| Roads | Freeway and arterial expansion | 2010 system | 2035 financially constrained system | No expansion | No Level 3 |
| | Delay reduced by traffic management strategies (percent) | 10% | 10% | 35% | |

# Roads – considerations moving forward

| | Strategy lead | | | |
|---|---|---|---|---|
| **Roads** | **Federal** | **State** | **Regional** | **Local** |
| Freeway and arterial capacity | | ● | | ● |
| Traffic management | | ● | ● | ● |

Though our region has changed dramatically over the past century, the shape of the major street network serving the region has changed little. Most of the region's arterial streets were once farm-to-market roads, many established along Donation Land Claim boundaries at half-mile or one-mile spacing. The region's highway system evolved from the mid-1930s, when the first highway was built from Portland to Milwaukie, to the completion of I-205 in the early 1980s. Most of the highway system was built along the same donation land claim grid that shapes the major street system, with most throughways following older farm-to-market routes or replacing arterial streets.

The roads policy area focused on managing existing road capacity to improve traffic operations through a variety of strategies and expanding the existing road system as planned for in the 2035 Regional Transportation Plan to support all modes of travel. When compared to traditional capital investments such as new transit service, roads or additional lanes, traffic management solutions offer a number of benefits for a comparatively low cost, and can delay or remove the need for additional capital-intensive infrastructure. In addition to replacing some expensive capital projects, management solutions can also complement new capital projects as well as education and marketing strategies.

The scenarios analysis shows this policy area provided more modest GHG emissions reductions compared to the other policy areas. The following implications will be accounted for and further analyzed during Phases 2 and 3 of the Scenarios Project:

**Declining transportation revenues:** As described in the pricing strategies section, the purchasing power of transportation revenues is in decline and infrastructure investments are not keeping pace with needs. This decline is anticipated to worsen as the vehicle fleet shifts to alternative fuels and light vehicle fuel economy continues to improve. The 2035 RTP finance strategy assumes existing federal, state and local funding for the region's road system, plus other new revenues that were not part of the Phase 1 pricing assumptions, including increases in vehicle registration fees and tolling of the Columbia River Crossing bridge to fund planned improvements in that corridor. Changes to existing funding mechanisms are needed to implement existing plans and investment priorities.

**Improving safety and system reliability for commuters and freight:** Traffic management and other targeted capacity and arterial connectivity investments that improve safety and access to jobs and provide freight access to industrial areas are critical investments to support the outcomes the region is trying to achieve – particularly when combined with other strategies that serve to expand transportation choices. Together these coordinated efforts provide for mobility and accessibility in a way that supports all modes of travel and the region's role as an international gateway and domestic freight hub. This in turn helps businesses and industry remain competitive.

**Other potential benefits from the Strategy Toolbox**

**Community benefits**
Increased physical activity

Enhanced public safety; reduced risk of traffic injuries and fatalities

Improved air quality and fewer air toxics emissions

**Environmental benefits**
Less pollution

Less energy use

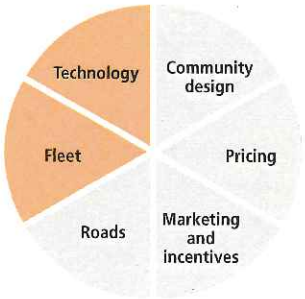
**Economic benefits**
Job opportunities

Improved access to jobs, goods and services

Consumer and business savings

Reduced fuel consumption

# Fleet and technology – what we tested




## Fleet mix

The vehicle type model in GreenSTEP calculates the likelihood that a vehicle is a light truck, which in western states tend to be higher than the national average.
2010 Base Year is an estimate of existing conditions.
2035 Level 1 assumes a relatively constant ratio between light trucks and autos compared to the 2010 base year.
2035 Level 2 assumes a significant shift in fleet mix with a growth in auto ownership relative to light truck ownership.

## Fleet turnover rate

Fleet turnover reflects the rate at which new vehicles will replace existing vehicles. Since newer vehicles are typically more fuel efficient than older vehicles, newer fleets will yield greater GHG reductions.
2010 Base Year is an estimate of existing conditions.
2035 Level 1 maintains the current fleet turnover rate of 10 years.
2035 Level 2 increases the rate vehicle replacement to 8 years.

## Fuel economy

The fuel economy values reflect anticipated improvements in light vehicle fuel efficiency for 2035 model year vehicles.
2010 Base Year is an estimate of existing conditions.
2035 Level 1 assumes a significant increase in fuel efficiency; on average it reflects a doubling of fuel efficiency by model year 2035.
2035 Level 2 assumes a slight increase from the Level 1 assumptions.

## Carbon intensity of fuels

2010 Base Year is an estimate of existing conditions (see page 18 for a detailed description).
2035 Level 1 assumes that the carbon intensity of vehicle fuels will be 10 percent below the current average by 2035, consistent with the adopted low carbon fuel standard.
2035 Level 2 assumes that vehicle fuel carbon intensity will be 20 percent below the current average by 2035, which reflects a doubling of the proposed low carbon fuel standard.

## Plug-in hybrid and electric vehicles

2010 Base Year is an estimate of existing conditions (see page 24 for a detailed description).
2035 Level 1 assumes the the mid-point between the Base Year and Level 2 and is the only technology input that varies from the assumptions in the state Agencies' Technical Report (http://www.oregon.gov/ODOT/TD/TP/docs/OSTI/TechRpt.pdf).
2035 Level 2 is a general estimate of percent of light-duty vehicles that are plug-in hybrids or electric vehicles, as reflected in the state Agencies Technical Report.

| Strategy | | 2010 Base Year<br>Reflects existing conditions | 2035 Level 1 Reference case<br>Reflects current plans and policies | 2035 Level 2<br>Reflects more ambitious policy changes | 2035 Level 3<br>Reflects even more ambitious policy changes |
|---|---|---|---|---|---|
| Fleet | Fleet mix (proportion of autos to light trucks and SUVs) | auto: 57%<br>light truck/SUV: 43% | auto: 56%<br>light truck/SUV: 44% | auto: 71%<br>light truck/SUV: 29% | |
| Fleet | Fleet turnover rate (age) | 10 years | 10 years | 8 years | |
| Technology | Fuel economy (miles per gallon) | auto: 29.2 mpg<br>light truck/SUV: 20.9 mpg | auto: 59.7 mpg<br>light truck/SUV: 41 mpg | auto: 68.5 mpg<br>light truck/SUV: 47.7 mpg | No Level 3 |
| Technology | Carbon intensity of fuels | 90 g $CO_2$e/megajoule | 81 g $CO_2$e/megajoule | 72 g $CO_2$e/megajoule | |
| Technology | Light-duty vehicles that are electric or plug-in hybrid electric | auto: 0%<br>light truck/SUV: 0% | auto: 4%<br>light truck/SUV: 1% | auto: 8%<br>light truck/SUV: 2% | |

All fleet and technology assumptions reflect the values defined in the State Agencies' Technical report (3/1/11). Level 2 relects the assumptions recommended in the Metropolitan GHG Reduction Target Rule adopted by LCDC in May 2011 (http://www.oregon.gov/ LCD/docs/rulemaking/trac/ 660_044.pdf).

# Fleet and technology – considerations moving forward

| | Strategy lead | | | |
|---|---|---|---|---|
| **Fleet and technology** | **Federal** | **State** | **Regional** | **Local** |
| Fleet mix | | ● | ● | ● |
| Fleet turnover | | ● | | |
| Fuel economy | ● | ● | | |
| Carbon intensity of fuel | ● | ● | | |
| Electric and plug-in hybrid market share | ● | ● | ● | ● |

The proportion of vehicles on the road with improved fuel technology is a major determinant of GHG emissions per mile of travel. Other potential benefits of fleet and technology improvements, identified in the Strategy Toolbox, include improved air quality; consumer and business savings; and reduced fuel consumption. The Phase 1 scenarios analysis demonstrates these strategies provide significant GHG emissions reduction potential. Much work is being done at the state and federal levels to expand the number of vehicles with higher fuel efficiency and lower emissions, and to reduce the carbon content of fuels. However, there is uncertainty about whether or not the technology and fleet assumptions recommended through the LCDC Target Rulemaking process will be achieved by 2035. This uncertainty, and the implications outlined below, will be further explored during Phases 2 and 3 of the project.

**The role of Level 1 fleet and technology:** While the region's Reference Case is consistent with the state's scenario work, it should be noted that some of the technology assumptions reflect considerable efficiency improvements, the certainty of which are unknown. Specifically, the carbon intensity and fuel economy improvements in the Reference Case reflect considerable advancements that more closely reflect Level 2 levels than current conditions.

**Uncertainty around fleet and technology assumptions:** The region's target represents an additional reduction after accounting for anticipated fleet and technology improvements. After estimating the reduction potential of these fleet and technology improvements, the region's 20 percent per capita reduction is anticipated to come from a combination of community design, pricing, marketing incentives and road policies. However, if the fleet and technology improvements assumed in OAR 660-044 are not achieved, then greater reductions may be needed through these other policies. LCDC will review the state targets in 2015 and may identify adjustments at that time in light of new information.

**To meet technology and fleet assumptions, actions are needed across multiple sectors and all levels of government:** Both Levels 1 and 2 of the fleet and technology policy areas will take considerable effort to implement. For example, the Phase 1 Reference Case assumes a doubling in fuel efficiency for model year 2035 vehicles from 2010. This technology improvement will require significant financial investments and policy actions across multiple sectors and scales, including funding for research and partnerships with businesses and educational institutions. In addition, state and local policy changes can be made to encourage acceptance of low-carbon fuels and electric vehicle and plug-in hybrid technology. For example, the carbon intensity of fuels for the Reference Case (Level 1) is anticipated to decrease 10 percent from 2010 levels by 2035, reflecting implementation of the Low Carbon Fuel Standards (LCFS) – a standard that has not yet been implemented and without legislative action will sunset in 2015.[1,2] The existence of a LCFS program would likely increase the incentive to expand the EV market share. A sunset of the LCFS in 2015 could undermine existing efforts to improve fuel efficiency.

**Other potential benefits from the Strategy Toolbox**

**Community benefits**
Improved air quality and fewer air toxics emissions

**Environmental benefits**
Less pollution

Less energy use

**Economic benefits**
Job opportunities

Consumer and business savings

Municipal savings

Leverage private investment

Reduced fuel consumption

[1] Pursuant to HB 2186, the authority to implement a Low Carbon Fuel Standard in Oregon will sunset on December 31, 2015 unless that sunset is lifted by the Oregon Legislature.

[2] Oregon Department of Environmental Quality, Oregon Low Carbon Fuel Standards Advisory Committee Process and Program Design, January 25, 2011.

# Phase 1 at a glance: results from selected scenarios

## How far do current policies get us?

**Findings:** Current plans and policies are on the right track and provide substantial per capita GHG emissions reductions but do not meet the target.

Community design or pricing must be more ambitious than current policies to meet the target.

**LEGEND**

**Region's per capita target =** **1.2 MT $CO_2e$**

**Policy areas:**

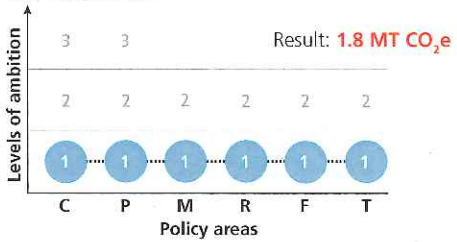
- **C** Community design
- **P** Pricing
- **M** Marketing and incentives
- **R** Roads
- **F** Fleet
- **T** Technology

**Results:**

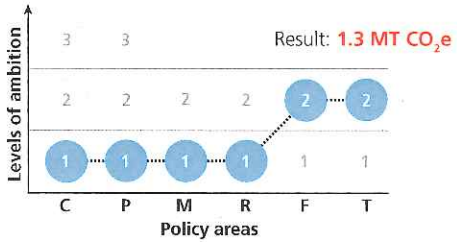
- **1.8** MT $CO_2e$ does not meet target
- **1.2** MT $CO_2e$ meets target
- **%** Percent reduction in GHG emissions from 2005

The scenarios tested are for research purposes only and do not necessarily reflect current or future policy decisions of the Metro Council, MPAC or JPACT.

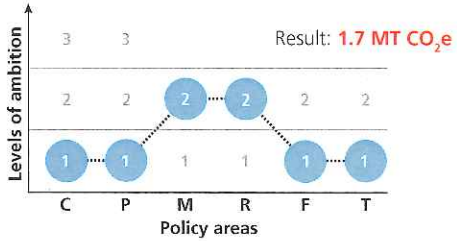
Scenario 1 – **2035 Reference Case**
**Current policies**



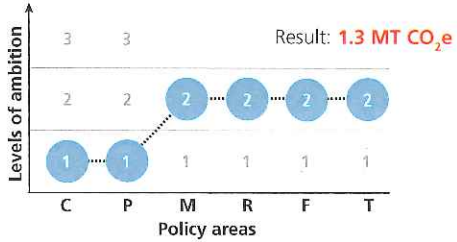

Scenario 2
**Boost fleet and technology**




Scenario 3
**Boost system efficiency**




Scenario 4
**Boost fleet, technology and system efficiency**

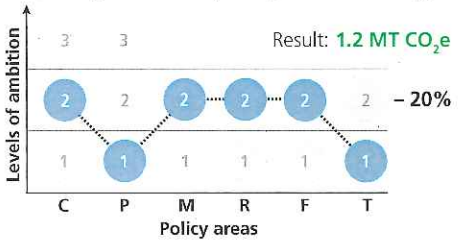



## What is the range of possible reductions?

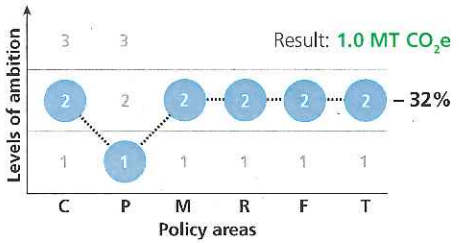
**Findings:** Ninety-three out of 144 scenarios meet or exceed the target.

The reductions ranged from 20 to 53 percent below 2005 levels on a per capita basis.

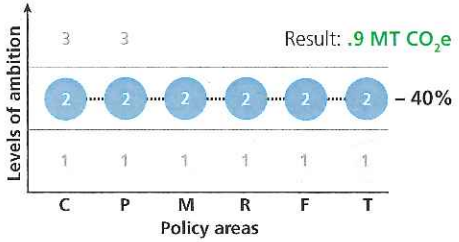
Scenario 5
**Boost all policies but pricing and technology**



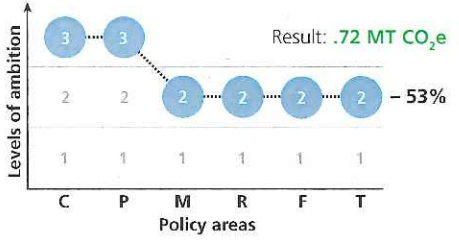

Scenario 6
**Boost all policies but pricing**




Scenario 7
**Boost all policies to level 2**




Scenario 8
**Boost all policies to their most ambitious level**

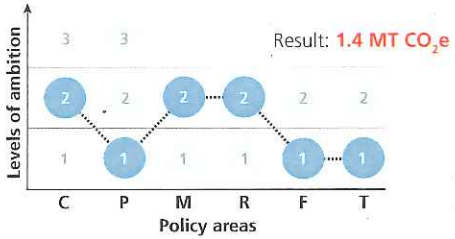


## What is the effect of the built environment?

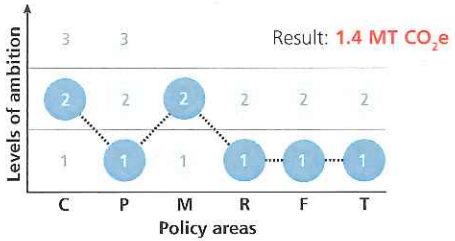
**Findings:** Similar reductions are possible through the most ambitious community design and fleet/technology scenarios.

Combining more ambitious community design with the most ambitious system efficiency policies is not enough to meet target.

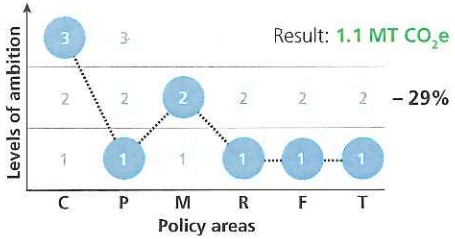
Scenario 9
**Boost community design and system efficiency**



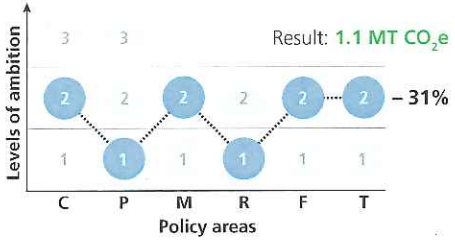

Scenario 10
**Boost community design and marketing**




Scenario 11
**Boost community design even more**



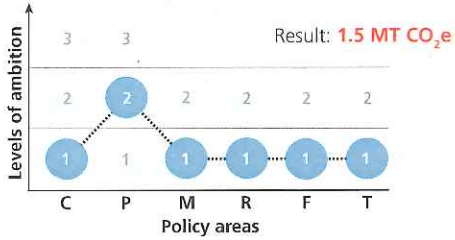

Scenario 12
**Boost fleet and technology**



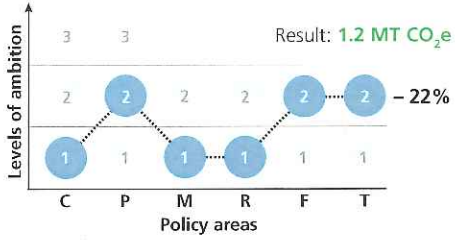

## What is the effect of pricing?

**Findings:** Pricing when combined with the most ambitious fleet and technology strategies meets the target.

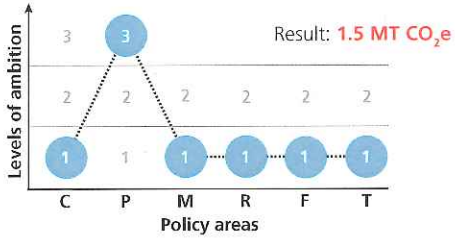
Scenario 13
**Boost pricing alone**



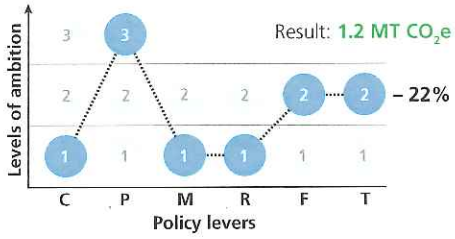

Scenario 14
**Boost pricing, fleet and technology**




Scenario 15
**Boost most ambitious pricing alone**




Scenario 16
**Most ambitious pricing, fleet and technology**



# Glossary

**Car-sharing:** A model similar to a car rental where a member user rents cars for short periods of time, often by the hour. Such programs are attractive to customers who make only occasional use of a vehicle, as well as others who would like occasional access to a vehicle of a different type than they use day-to-day. The organization renting the cars may be a commercial business or the users may be organized as a company, public agency, cooperative, or peer-to-peer. The Portland region has Zipcar – http://www.zipcar.com/

**Eco-driving:** A combination of public education and driving practices that result in more efficient vehicle operation and reduced fuel consumption and emissions. Examples of eco-driving practices include avoiding rapid starts and stops, matching driving speeds to synchronized traffic signals, and avoiding idling.

**Employer-based commute programs:** Work-based travel demand management programs that can include transportation coordinators, employer-subsidized transit pass programs, ride-matching, carpool and vanpool programs, telecommuting, compressed or flexible work weeks and bicycle parking and showers for bicycle commuters.

**Fleet mix:** The percentage of vehicles classified as automobiles compared to the percentage classified as light trucks (weighing less than 10,000 lbs.); light trucks make up 43 percent of the light-duty fleet today.

**Fleet turnover:** The rate of vehicle replacement or the turnover of older vehicles to newer vehicles; the current turnover rate in Oregon is 10 years.

**Greenhouse gas emissions:** According to the Environmental Protection Agency, gases that trap heat in the atmosphere are called greenhouse gases emissions. Greenhouse gases that are created and emitted through human activities include carbon dioxide (emitted through the burning of fossil fuels), methane, nitrous oxide and fluorinated gases. For more information see www.epa.gov/climatechange/emissions/index.html.

**GreenSTEP:** GreenSTEP is a new model developed to estimate GHG emissions at the individual household level. It estimates greenhouse gas emissions associated with vehicle ownership, vehicle travel, and fuel consumption, and is designed to operate in a way that allows it to show the potential effects of different policies and other factors on vehicle travel and emissions.

Metropolitan GreenSTEP travel behavior estimates are made irrespective of housing choice or supply; the model only considers the demand forecast components – household size, income and age – and the policy areas considered in this analysis. Therefore, there is no Phase 1 assumption about the type of housing assumed to be built in the future. For Phase 2 of the Scenarios Project, Metro staff are developing a model – compatible with Metropolitan GreenSTEP – that will incorporate housing preference, supply and capacity considerations. This will provide the tools needed to evaluate changes in housing assumptions as part of the decision-making process.

**House Bill 2001 (Oregon Jobs and Transportation Act):** Passed by the Legislature in 2009, this legislation provided specific directions to the Portland metropolitan area to undertake scenario planning and develop two or more land use and transportation scenarios by 2012 that accommodate planned population and employment growth while achieving the GHG emissions reduction targets approved by LCDC in May 2011. Then Metro, after public review and consultation with local governments, is to select a preferred scenario. Following selection of a preferred scenario, the local governments within the Metro jurisdiction are to amend their comprehensive plans and land use regulations to be consistent with the preferred scenario. For more information go to: http://www.leg.state.or.us/09reg/measpdf/hb2000.dir/hb2001.en.pdf.

**Individualized marketing:** Travel demand management programs focused on individual households. IM programs involve individualized outreach to households that identify household travel needs and ways to meet those needs with less vehicle travel.

**Light vehicles:** Vehicles weighing 10,000 pounds or less, and include cars, light trucks, sport utility vehicles, motorcycles and small delivery trucks.

**Low Carbon Fuel Standard:** In 2009, the Oregon legislature authorized the Environmental Quality Commission to develop low carbon fuel standards (LCFS) for Oregon. Each type of transportation fuel (gasoline, diesel, natural gas, etc.) contains carbon in various amounts. When the fuel is burned, that carbon turns into carbon dioxide ($CO_2$), which is a greenhouse gases. The goal is to reduce the average carbon intensity of Oregon's transportation fuels by

10 percent below 2010 levels by 2022 and applies to the entire mix of fuel available in Oregon. Carbon intensity refers to the emissions per unit of fuel; it is not a cap on total emissions or a limit on the amount of fuel that can be burned. The lower the carbon content of a fuel, the fewer greenhouse gas emissions it produces.

**Pay-as-you-drive insurance (PAYD):** This pricing strategy converts a portion of liability and collision insurance from dollars-per-year to cents-per-mile to charge insurance premiums based on the total amount of miles driven per vehicle on an annual basis and other important rating factors, such as the driver's safety record. If a vehicle is driven more, the crash risk consequently increases. PAYD insurance charges policyholders according to their crash risk.

**Oregon Sustainable Transportation Initiative (OSTI):** An integrated statewide effort to reduce GHG emissions from the transportation sector by integrating land use and transportation. Guided by stakeholder input, the initiative has built collaborative partnerships among local governments and the state's six Metropolitan Planning Organizations to help meet Oregon's goals to reduce GHG emissions. The effort includes five main areas: Statewide Transportation Strategy development, GHG emission reduction targets for metropolitan areas, land use and transportation scenario planning guidelines, tools that support MPOs and local governments and public outreach. For more information, go to www.oregon.gov/odot/td/osti

**Policy areas:** Categories of land use and transportation strategies used in GreenSTEP to show how the application of different policies may impact GHG emissions. A policy area can be adjusted at different levels of implementation in the model, for example, changes in fuel economy standards.

**Scenario:** A term that is used to describe a possible future, representing a hypothetical set of strategies or sequence of events.

**Scenario planning:** A process that tests different actions and policies to see their affect on GHG emissions reduction and other quality of life indicators.

**Statewide Transportation Strategy:** The strategy, as part of OSTI, will define a vision for Oregon to reduce its GHG emissions from transportation systems, vehicle and fuel technologies and urban form by 2050. Upon completion, the strategy will be adopted by the Oregon Transportation Commission. For more information go to: http://www.oregon.gov/ODOT/TD/OSTI/STS.shtml.

**System efficiency:** Strategies that optimize the use of the existing transportation system, including traffic management, employer-based commute programs, individualized marketing and car-sharing.

**Traffic incident management:** A coordinated process to detect, respond to, and remove traffic incidents from the roadway as safely and quickly as possible, reducing non-recurring roadway congestion.

**Traffic management:** Strategies that improve transportation system operations and efficiency, including ramp metering, active traffic management, traffic signal coordination and real-time traveler information regarding traffic conditions, incidents, delays, travel times, alternate routes, weather conditions, construction, or special events.

This report contains information that is intended for research purposes only and does not necessarily reflect current or future policy decisions of the Metro Council, MPAC or JPACT.

The preparation of this report was financed in part by the Oregon Department of Transportation, U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration. The opinions, findings and conclusions expressed in this report are not necessarily those of the Oregon Department of Transportation, U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration.

For more information, visit **www.oregonmetro.gov/climatescenarios**



## 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.

**www.oregonmetro.gov**



Metro | *Making a great place*

PRINTED USING 100% WIND ENERGY

RECYCLED
Paper made from recycled material
FSC® C022393

12147jg



February 2012

www.oregonmetro.gov/climatescenarios

**Climate Smart Communities**
**SCENARIOS PROJECT**
Phase 1 Summary

# Understanding Our Land Use and Transportation Choices

## Making a great place

**It is as much about jobs, livable neighborhoods and public health as it is about clean air.**

Residents of the Portland metropolitan region value choice – where to live, how to get around, what kind of job to have. And we don't want to have to choose between things that are important to our way of life – things like clean air, good jobs, safe neighborhoods, vibrant downtowns, access to nature and cultural activities.

We are faced with many of the problems that others face around the nation and the world – an economic crisis, rising housing and transportation costs, lack of money for public structures, increasing congestion and air pollution. What sets us apart in this region is that we have followed a collective vision since 1995 – the 2040 Growth Concept – that has helped us to build communities with unique identities, save farms and forestland, develop public transit and biking and walking facilities, and work together to make the most of limited public and private dollars.

So when the state directed the region to come up with a plan and actions to reduce greenhouse gas emissions to ensure clean air, we had a good start. It's not just about reducing carbon in the environment, but making sure that we all have choices of great communities in which to live, work and raise a family.

**The Climate Smart Communities Scenarios Project** is a collaborative effort between Metro and its city, county and state partners to create the kind of communities that residents want. It is as much about jobs, livable neighborhoods and public health as it is about clean air. The goal is to select a combination of land use and transportation strategies and investments that will keep our communities vibrant and prosperous, while also helping our region meet state targets to reduce greenhouse gas emissions from cars and small trucks.

## Working together

The scenarios project is characterized first and foremost by collaboration and implementation of local community visions. Policymakers who serve on the region's Joint Policy Advisory Committee on Transportation (JPACT), the Metro Policy Advisory Committee (MPAC), and the Metro Council approved principles to guide the project. A technical work group composed of planning staff from cities, counties and other agencies worked closely with Metro staff throughout the research, modeling, and analytical stages of Phase 1.

### What sets us apart

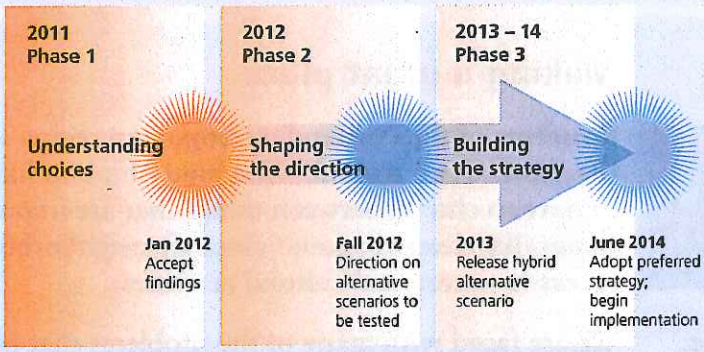
Residents in this region travel 20 percent fewer miles by car every day compared to other U.S. urban areas, annually saving:

**2.9 million** miles of driving

**$1.1 billion** in transportation costs

**100 million** travel hours

*Portland's Green Dividend, 2007*




**The scenarios project is organized into three phases.**

**Phase 1** research concluded with an understanding of the region's land use and transportation options for reducing carbon emissions while advancing community goals.

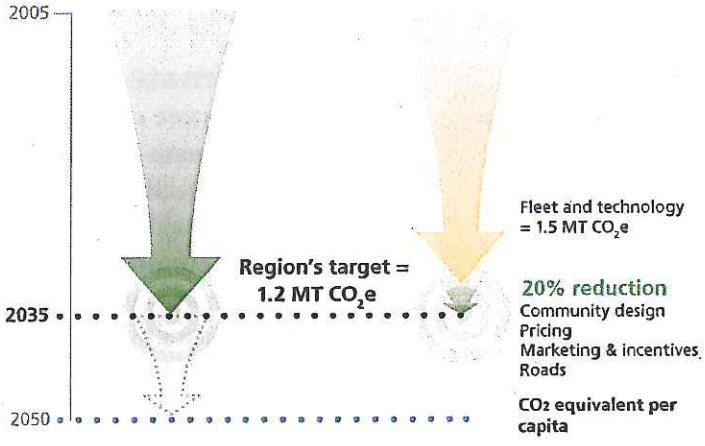
**Phase 2** will engage local government, community and business leaders in identifying community visions and shaping scenarios to consider.

**Phase 3** includes evaluation of three scenarios and public engagement. Implementation begins once the region adopts a preferred scenario.

### Region's 2035 emissions reduction target

To assist the scenarios project, the Land Conservation and Development Commission established a 2005 baseline for the Portland metropolitan region: 4.05 metric tons annual, per capita roadway greenhouse gas emissions. (One metric ton $CO_2$ equals 112 gallons of gasoline.)

The 2035 target calls for no more than 1.2 metric tons annual per capita roadway emissions. State-provided assumptions on two policy areas, fleet (the type of cars in the region and their age) and technology (hybrid, electric and other carbon-reducing technologies), reduce the region's annual roadway greenhouse gas emissions to 1.5 metric tons per capita. Additional policy actions will be needed to reach the 2035 target.



## Phase 1 snapshot

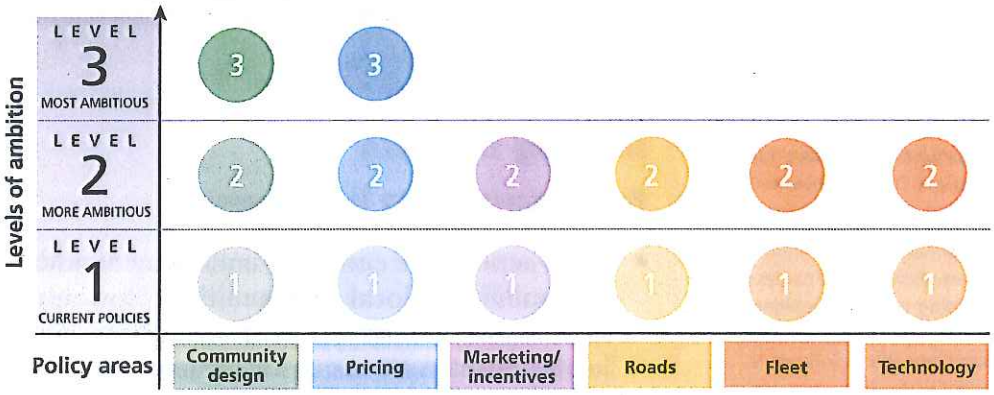
During Phase 1, Metro staff researched land use and transportation strategies that have been implemented in similar communities across the nation and around the world. This work resulted in a toolbox describing major strategy areas and potential results. The toolbox not only identifies successful strategies for providing practical choices to help people drive less, but also describes other community benefits as well.

Increased walking has a beneficial effect on public health and obesity rates. Properly designed shopping areas in combination with transportation choices can increase dollars spent at home while also taking cars off the road. Bike lane construction provides much needed jobs and an option for short outings, which are the majority of trips taken in the region.

Project staff also worked with ODOT and the technical work group to study six different policy areas: community design, pricing, marketing and incentives, roads, fleet, and technology. Each policy area included at least two levels of ambition, and in some cases three, resulting in 144 scenarios tested.

## Phase 1: building blocks for regional scenarios

Testing combinations of plausible strategies




### Family finance

One of the biggest household expenses for most families is transportation – second only to housing costs. According to AAA, if the average family drove even four fewer miles each day, they would save $854 a year.

### Summary of Phase 1 results

1. Current local and regional plans and policies are ambitious and provide a strong foundation for meeting the region's greenhouse gas emissions reduction target.
2. The 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 options can 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 GHG 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.

Complete results from Phase 1 are compiled in the findings report, available at **www.oregonmetro.gov/climatescenarios**. JPACT, MPAC and the Metro Council accepted the Phase 1 Findings Report before it was submitted to the Oregon Legislature in January 2012.

## 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



**Let Metro know what's important to you. Join the new online opinion panel today.**

optin ONLINE PANEL

**www.oregonmetro.gov/connect**

Metro

Printed on recycled-content paper 12160


# Moving forward

## Policy questions to be addressed

- What actions are currently underway to address the livability of local communities? How are those actions consistent with the actions identified by the climate scenarios project? What kinds of investment or support do communities need to fully realize their vision for the future?
- How do we ensure the region's approach is inclusive and equitable, reflecting the diverse needs and interests of all communities, particularly among households of modest income or people of color?

Phase 1 was about understanding choice at the regional level. Phase 2 shifts to understanding local community plans and exploring how and where different strategies could be applied to provide local and individual choice as the region meets carbon reduction targets.

- How do we ensure the regional strategy provides greater economic opportunity for everyone, creating jobs and boosting economic development and competitiveness?
- Which strategies are most cost effective and efficient? Which strategies are easiest to implement both technically and politically? How do we overcome obstacles to the most effective actions that are difficult or expensive to implement?
- What are the benefits and impacts to the region's goals?

**Learn more** Visit www.oregonmetro.gov/climatescenarios.

**Stay connected** Sign up to receive periodic updates about the scenarios project at www.oregonmetro.gov/connect.

**Communicate** 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.

February 2012

TRIMET

# Challenges & Choices

## Initial Budget Proposal · *Fares & Service*

I want to thank everyone who provided feedback in our Budget Challenges & Choices survey in December and January. Thousands of people weighed in on the cost-cutting and revenue-generating ideas we proposed to address the agency's expected budget shortfall. Many of you told us you could live with a fare increase if it prevented more service cuts. We also heard a strong preference for keeping bus lines running—even those with low ridership. Your feedback, along with recommendations from our Board of Directors and our Budget Task Force, helped us narrow down our initial ideas into a draft proposal, which is outlined inside. You'll notice we are preparing for a $17 million shortfall (the high end of our initial estimate), due to the ongoing delays related to our labor contract. I invite you to review the proposed changes, then share your thoughts with us. Your comments will help inform our refined proposal, which we expect to release in early March.

Neil McFarlane
*TriMet General Manager*

| Options and ideas | Initial proposal | Refined proposal | Recommended plan | Approved changes take effect |
|---|---|---|---|---|
| *October 26, 2011 – January 18, 2012* | *February 8 – March 2, 2012* | *March 2 – April 20, 2012* | *April 20 – May 23, 2012* | *September 1 & 2, 2012* |

INSIDE:

# WHY IS THERE A BUDGET SHORTFALL?

TriMet is facing a shortfall of up to $17 million in the next budget year because of lower-than-expected revenue from payroll taxes, anticipated cuts in federal funding, and unsustainable health care costs for union employees. This funding instability comes at a time when there is increasing demand for transit service.

## 1 Projected revenue from payroll taxes is lower than expected.

IMPACT: $3 MILLION

About half of our funding for operating buses and trains comes from a payroll tax paid by area businesses. During extended periods of high unemployment, there are fewer workers, leaner payrolls and, as a result, less money for transit. As we slowly emerge from the deepest recession since 1929, employment is at 1999 levels in the Portland area and job growth is unusually slow. We were expecting to see tax receipts grow 5% next year, but the lagging economic recovery has forced us to reduce our projected revenue by $3 million.

## 2 Funding from the federal government is likely to be cut.

IMPACT: $4 MILLION

There is a great deal of uncertainty over the federal grant program that distributes money ("formula funds") to state, regional and local governments. These funds provide us with approximately $40 million in revenue each year.

We are projecting a $4 million reduction in federal formula funding in Fiscal Year 2013.

## 3 We cannot afford the rising cost of health care benefits for employees.

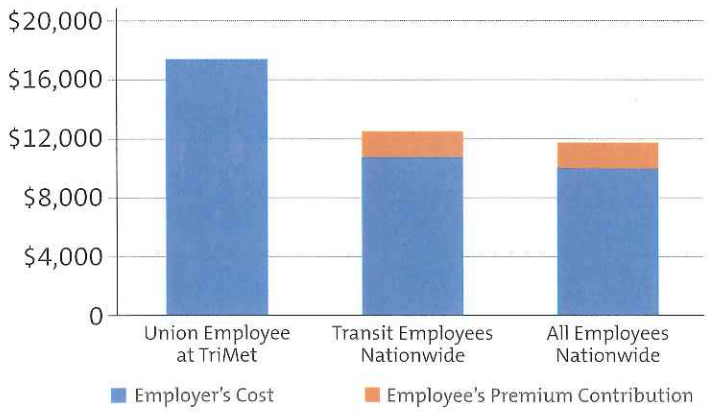
IMPACT: $5–10 MILLION

The current trend in the cost of benefits for union employees is unsustainable, and we are at an impasse in negotiations with Amalgamated Transit Union Local 757. A recent Employment Relations Board decision removed certain cost-saving proposals from our final offer, so some measures we were hoping to implement—such as bringing wage and health care costs under control—likely will have to wait for a future negotiation (after interest arbitration, which is now delayed).

Because of a 2007 change in the law, we cannot unilaterally implement our final offer to the union. Instead, we must engage in all-or-nothing interest arbitration, a forum in which it is extremely difficult to make significant changes no matter how out-of-line union wages and benefits are.

### Cost of Health Care Benefits

Average Annual Cost per Employee, 2011




TriMet's Fiscal Year 2013 begins July 1, 2012.

# WHAT ARE THE OPTIONS?

We are looking in three areas to help close our budget gap: internal efficiencies, fares and service. Over the last three years, we have already made a number of administrative cuts, eliminated staff positions, and cut bus service by 13% and MAX service by 10%. As we refine our proposal, we will strive to maintain a rider experience that is safe, dependable, responsive, inviting and easy.

## Internal Efficiencies

To balance our budget during the recession, we have cut costs, cut administrative staff, delayed investments, used stimulus money and depleted our reserves. We made cuts to non-union employee and retiree benefits, eliminated 200 positions, and implemented executive furloughs and a non-union salary freeze (now in its fourth year). We have delayed replacing older buses, reduced the growth in LIFT paratransit service costs, improved the fuel efficiency of our bus fleet, and reduced employee overtime costs. We continue looking for ways to do more with less, including additional cuts to programs and staff.

## Fares

In 2008, we raised fares by 20 cents to cover increasing diesel prices, in addition to the regular 5-cent annual increase for inflation. In 2010, TriMet's fare-free zone was limited to MAX Light Rail and Portland Streetcar. And we recently added more fare enforcement staff to help reduce fare evasion. A fare increase would generate revenue and thereby help avoid more service cuts. But it would also create a hardship for many people—especially lower-income riders.

## Service

In 2009 and 2010, we reduced bus and rail service to help address budget shortfalls caused by the ongoing recession. Planned service on MAX Green Line, which opened in 2009, was cut by 33%. These cuts affected nearly every part of the system, with reductions totalling 13% of bus service and 10% of MAX service. Service is our core business, and it's the last place we look to cut. Any additional cuts would focus on our lower-ridership lines and the potential to reduce frequency and hours of operation. We are also considering eliminating parts of certain bus routes that overlap with other routes.

# WHAT ARE OTHER TRANSIT AGENCIES DOING?

Like TriMet, transit providers around the country are facing similar budget challenges, and are taking action to preserve as much service as possible for riders. In the past year, many saw decreases in state and local funding and were forced to cut service, raise fares, lay off employees and implement hiring freezes.

**U.S. Transit Agencies**

According to a recent American Public Transportation Association survey

**71%** saw flat or decreased local funding

**83%** saw flat or decreased state funding

**80%** were forced to cut service and/or increase fares

# OUR INITIAL PROPOSAL

We designed this proposal to minimize cuts to service and the overall impact on riders. Still, some of these changes are significant and we want to know how you would be affected. You can provide your feedback using the form on the back.

## Revenue-Generating Measures

| | | |
|---|---|---|
| A | Increase fares and eliminate zones | $6.0 million/yr |
| B | Make single-ride tickets *one-way*, create new *round-trip* day pass | $3.0 million/yr |
| C | Eliminate the Free Rail Zone | $2.7 million/yr |
| D | Sell ads on TriMet websites and TransitTracker by Phone | $0.3 million/yr |

**Total: $12 million**

## Cost-Saving Measures

| | | |
|---|---|---|
| E | Reconfigure bus routes and cut segments with overlapping service; cut low-ridership bus trips | $2.0 million/yr |
| F | Reduce MAX frequency (except rush hours) | $1.5 million/yr |
| G | Run MAX Red Line between Airport and SW 11th Ave only (except rush hours) | $0.9 million/yr |
| H | Cut programs and staff as part of ongoing internal efficiencies | $0.5 million/yr |
| I | Adjust LIFT paratransit service boundary to match regular bus/MAX service | $0.4 million/yr |
| J | Reduce annual contribution to Portland Streetcar | $0.4 million/yr |

**Total: $5.7 million**

Total of proposed revenue-generating and cost-saving measures:

$17.7 million

***Why does this add up to more than $17 million?*** *We expect to make changes to this proposal in the months ahead as we receive more feedback from riders and the community, and this gives us some flexibility to do so.*

## A Increase fares and eliminate zones

**$6.0 million/yr**

### WHY WE ARE PROPOSING THIS:

Many riders told us they would prefer a fare increase if it meant fewer cuts to service. In addition, many said they want a simpler system without zones. We are proposing a fare increase, but implemented as part of a shift to a simpler "flat fare" system, where all rides cost the same no matter where you are traveling. Many transit agencies have adopted a flat fare because it is easier to use and more consistent for riders and operators, and because it reflects how riders use the system. Changing to a flat fare would also help prepare us for electronic fare collection in the future.

### WHAT THIS MEANS FOR RIDERS:

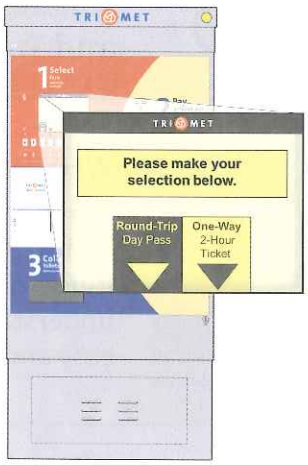
Fares would increase for most riders (except Honored Citizens) and you would pay the same fare regardless of your destination. There would no longer be fare zones, so the system would be much simpler and easier to use. In this proposal, an Adult single fare costs $2.50, Youth $1.65 and Honored Citizen $1. In each case, a round-trip day pass would cost twice the single fare amount. (See proposal "B" and the fare chart below for details.) *These changes would take effect September 1, 2012.*

## B Make single tickets *one-way* (good for two hours) and create a new *round-trip* day pass (good for unlimited rides all day long)

**$3.0 million/yr**

### WHY WE ARE PROPOSING THIS:

A number of transit agencies have already made the switch to one-way tickets and round-trip day passes. This change would provide the convenience of an all-day pass for riders who currently buy single fares, and it would make the system simpler to understand and easier to use for everyone.




### WHAT THIS MEANS FOR RIDERS:

All fares would increase in September 2012, except for Honored Citizen fares. Instead of purchasing two separate tickets to get to your destination and back, you would buy just one round-trip day pass (at twice the cost of a one-way ticket), good for unlimited rides all day long. With a one-way ticket, you would be able to transfer between buses and trains for up to two hours, but making a return trip is not allowed (you would need to buy a round-trip day pass). Most riders make return trips, so the round-trip day pass would provide the convenience and value of unlimited trips all day long, at no additional cost. These changes would also reduce the uncertainty around making your connection or completing your trip on a single fare. *These changes would take effect September 1, 2012.*

| | **One-Way*** 2-Hour Ticket | **Round-Trip** Day Pass | **1-Month Pass** |
|---|---|---|---|
| Adult | $2.50 | $5 | $100 |
| Youth | $1.65 | $3.30 | $30 |
| Honored Citizen | $1 | $2 | $26 |

* Transfers would be valid for two hours in one direction (no round trips).

This table shows how the new one-way/round-trip fares would be priced, under the proposed fare increase and a "flat fare" system. Note that the price of an Adult all-day pass would not change. The price of an Honored Citizen ticket would not change, and the price of Honored Citizen and Youth all-day passes would actually decrease.

## C Eliminate the Free Rail Zone

$2.7 million/yr

### WHY WE ARE PROPOSING THIS:

Our region has changed dramatically since "Fareless Square" (free service on buses) was first introduced in Downtown Portland back in 1975. We no longer have the air quality issues that prompted the creation of the free-fare zone, and our transit system has expanded significantly. Service has improved in the suburbs, where communities of color and low-income populations have become more concentrated. While free transit has become a hallmark of Portland's tourist-friendly city center, TriMet aims to provide equitable service throughout the region and the Free Rail Zone is a benefit exclusive to Downtown Portland and the Lloyd District.

### WHAT THIS MEANS FOR RIDERS:

You would have to pay your regular fare to ride MAX Light Rail in Downtown Portland, the Rose Quarter and the Lloyd District. *This change would take effect September 1, 2012.*

## D Sell ads on TriMet websites and TransitTracker by Phone

$0.3 million/yr

### WHY WE ARE PROPOSING THIS:

There is potential to generate revenue by placing advertising messages on certain high-traffic *trimet.org* and *m.trimet.org* pages, such as schedules, Trip Planner itineraries and TransitTracker arrival results pages, and on 503-238-RIDE. We understand there is a delicate balance between making the online experience easy and inviting for riders, and using it as an effective advertising platform.

### WHAT THIS MEANS FOR RIDERS:

In addition to seeing ads on TriMet websites, riders would hear brief advertising messages prior to arrival times on TransitTracker by Phone at 503-238-RIDE. *These changes would begin in fall 2012.*

## E Reconfigure bus routes and cut segments with overlapping service; cut low-ridership bus trips and some weekend service

$2.0 million/yr

### WHY WE ARE PROPOSING THIS:

We can save money by reconfiguring certain bus routes to eliminate overlapping service, and by cutting some low-ridership bus trips. The route changes would occur in areas where routes run relatively close together, such as Northwest Portland, North/Northeast Portland and Beaverton. We would reconfigure the routes so that they do not compete with each other for the same riders, and so that spacing between routes (and thus the maximum walking distance) is more consistent. The other cuts would involve running buses less often (eliminating low-ridership trips) on certain lines.

Service is our core business, and, of course, it's the last place we look to cut. With a goal of minimizing the impact on riders, this proposal takes into account ridership, the availability of alternative service, the use of service for work and school trips, and the operating efficiency of the proposed changes. We also look at transit equity issues to make sure that the changes would not disproportionately affect low-income populations and communities of color.

### WHAT THIS MEANS FOR RIDERS:

We are proposing changing the routes on 17 bus lines and eliminating low-ridership trips on 26 bus lines. While reconfiguring routes would save TriMet money and simplify the system somewhat, these are still in fact cuts that affect some riders. Cutting trips would result in reduced hours of operation and service frequency, and some riders may need to make additional transfers. On three lines, Saturday and/or Sunday service would be eliminated. For details, see the enclosed "Bus Service Reductions" brochure or visit *trimet.org/busreductions,* or call 503-238-RIDE (7433). *These changes would take effect September 2, 2012.*

## F Reduce MAX frequency (except during rush hours)

$1.5 million/yr

### WHY WE ARE PROPOSING THIS:

We can save money by reducing MAX frequency at times of the day when ridership is lower.

### WHAT THIS MEANS FOR RIDERS:

MAX Blue, Green, Red and Yellow lines would run every 20 minutes in the middle of the day, in the evening and on weekends. Frequency during weekday morning and afternoon rush hours would not change. *This change would take effect September 2, 2012.*

## G Run MAX Red Line between Airport and SW 11th Ave only (except during rush hours)

$0.9 million/yr

### WHY WE ARE PROPOSING THIS:

MAX Red Line currently provides direct service to Portland International Airport from anywhere between Beaverton Transit Center and PDX (no transfers are required). Although it is very convenient service, relatively few riders catch the Red Line to the airport between Beaverton and Downtown Portland. The Red Line serves this area mostly because rush-hour ridership is so high that extra trains are needed to avoid overcrowding. By trimming the Red Line back to SW 11th Avenue downtown outside of rush hours, trains are still there when needed for capacity, but not at times of the day when they often run with lower ridership.

### WHAT THIS MEANS FOR RIDERS:

You would not be able to catch a Red Line train in the area between Beaverton and Downtown Portland except during weekday morning and afternoon rush hours. Outside of rush hours, airport-bound riders coming from the west side would need to take a Blue Line train and transfer to the Red Line anywhere between Downtown and the Gateway Transit Center. With four fewer trains per hour, this change would also reduce east-west MAX frequency between Beaverton and Downtown outside of rush hours. *This change would take effect September 2, 2012.*

## H Cut programs and staff as part of ongoing internal efficiencies

$0.5 million/yr

In addition to reducing costs by $80 million between 2001 and 2011 through various internal efficiencies, we have cut 200 positions, used stimulus money, and delayed new bus purchases and other investments, in order to weather budget shortfalls caused by the last two recessions. Our non-union employees (which include management) are in their fourth year of a salary freeze and are now paying more out-of-pocket for health care. Non-union retirement benefits have also been trimmed. We propose that our management and employees identify greater savings through efficiencies in departments, programs and functions, while minimizing the direct impact on riders. This includes further reducing staff and program hours, reducing printing and material costs, and finding ways to maximize existing resources.

## I Adjust LIFT paratransit service boundary to match regular bus/MAX service

**$0.4 million/yr**

### WHY WE ARE PROPOSING THIS:

We can save money by reducing the LIFT paratransit service boundary, in accordance with Americans with Disabilities Act (ADA) regulations. This change would align LIFT hours of operation to complement nearby bus and MAX service. TriMet's current LIFT service exceeds ADA requirements.

### WHAT THIS MEANS FOR RIDERS:

There would be six LIFT paratransit service boundaries: weekdays, weekday evenings, Saturdays, Saturday evenings, Sundays, and Sunday evenings. As allowed under the ADA, LIFT trips would only be provided if there is complementary bus or rail service in operation during that time. *This change would take effect September 2, 2012.*

## J Reduce annual contribution to Portland Streetcar

**$0.4 million/yr**

We are proposing to reduce our annual financial contribution toward the operation of the Portland Streetcar by 10%.

# JOIN US AT AN OPEN HOUSE

Want to learn more and share your feedback in person? Join us at an open house in February.

**Saturday, February 11**

Beaverton Library
Conference Room

12375 SW 5th St.

1–3 p.m.

**Monday, February 13**

Multnomah County East
County Health Center,
Sharron Kelly A&B

600 NE 8th St., Gresham

4:30–6:30 p.m.

**Wednesday, February 15**

Portland Building
Room C

1120 SW 5th Ave.

4:30–6:30 p.m.

**Thursday, February 16**

Clackamas Town Center
Community Room
Lower Level

12000 SE 82nd Ave.

4:30–6:30 p.m.

# PUBLIC HEARINGS

In early March, we'll release a refined proposal based on the feedback we receive from riders and the community. Later that month, we will be taking official public comments at hearings around the metro area.

**Monday, March 19**

Clackamas Town Center
Community Room
Lower Level

12000 SE 82nd Ave.

4:30–6:30 p.m.

**Tuesday, March 20**

Beaverton Library
Conference Room

12375 SW 5th St.

1–3 p.m. & 4:30–6:30 p.m.

**Wednesday, March 21**

Portland Building
Auditorium

1120 SW 5th Ave.

4:30–6:30 p.m.

**Thursday, March 22**

Multnomah County East
County Health Center,
Sharron Kelly A&B

600 NE 8th St., Gresham

4:30–6:30 p.m.

**Tuesday, March 27**

Multnomah County Library
North Portland Branch
2nd Floor Meeting Room

512 N. Killingsworth St.

5:30–7:30 p.m.

## Get updates by email

**Sign up to receive updates about TriMet's Fiscal Year 2013 budget process**

*trimet.org/budgetupdates*

# SHARE YOUR FEEDBACK:

Do you have feedback about this proposal? We want to know how the proposed changes would affect you and people you know. **We will be accepting feedback through 5 p.m. on Friday, March 2, 2012.**

## Write in your comments below:

Mail this page to *Budget Feedback, TriMet MK2, 4012 SE 17th Ave., Portland, OR 97202*

OR

**Submit your feedback online:**

*trimet.org/choices*

**Contact us:**

| | |
|---|---|
| Email | *comments@trimet.org* |
| Phone | 503-238-RIDE (7433), option #5 |
| Fax | 503-962-6451 |
| TTY | 503-962-5811 |

Available in other formats.
503-238-7433 · trimet.org

TRIMET

120152 • 4M • 2/11

# Bus Service Reductions

## Proposed for September 2012

In our Budget Challenges & Choices survey, which ran in December and January, we put forth a number of ideas for addressing our expected budget shortfall, including cutting bus lines that have the lowest ridership. Many of you urged us to preserve these lines, so we are instead proposing to *reconfigure certain bus routes* and *cut some low-ridership bus trips*, among other cost-saving and revenue-generating measures. These changes would take effect September 2, 2012.

---

### Reconfiguring bus routes

One way we can cut costs without reducing overall mobility is to reconfigure certain bus routes that overlap with other routes. We are proposing changes to 14 routes that run relatively close together in Northwest Portland, North/Northeast Portland and Beaverton: lines 6, 8, 9, 12, 16, 17, 47, 48, 67, 70, 77, 82, 87 and 89. (See details inside.)

We have attemped to redesign these routes so that they do not compete with each other for the same riders, and so that the distance between routes (and thus the maximum walking distance) is more consistent. These changes would not only be cost-effective for us, they would result in a simpler system that is easier for riders to understand. Fixing these built-in inefficiencies will also better position us to restore bus service frequency as the economy improves. Still, the proposed route changes are in fact reductions in service, which means some riders will have to make an additional transfer or walk farther to catch a bus.

» See inside for details on the proposed route changes

### Other proposed route changes

We are proposing additional route changes on three lines: 43, 45 and 94.

» For details visit *trimet.org/busreductions* or call 503-238-RIDE (7433)

### Cutting low-ridership bus trips

We are proposing cutting low-ridership trips on 26 bus lines, and eliminating some weekend service on 3 lines. Cutting trips would result in reduced hours of operation and service frequency, and some riders may need to make additional transfers. The proposed changes would affect lines 15, 18, 19, 22, 23, 24, 25, 30, 34, 36, 37, 38, 39, 43, 45, 50, 51, 53, 55, 59, 73, 85, 89, 92, 96 and 155. On lines 22, 32 and 73, all Saturday and/or Sunday service would be eliminated.

» For details visit *trimet.org/busreductions* or call 503-238-RIDE (7433)

---

*trimet.org/choices*

February 2012

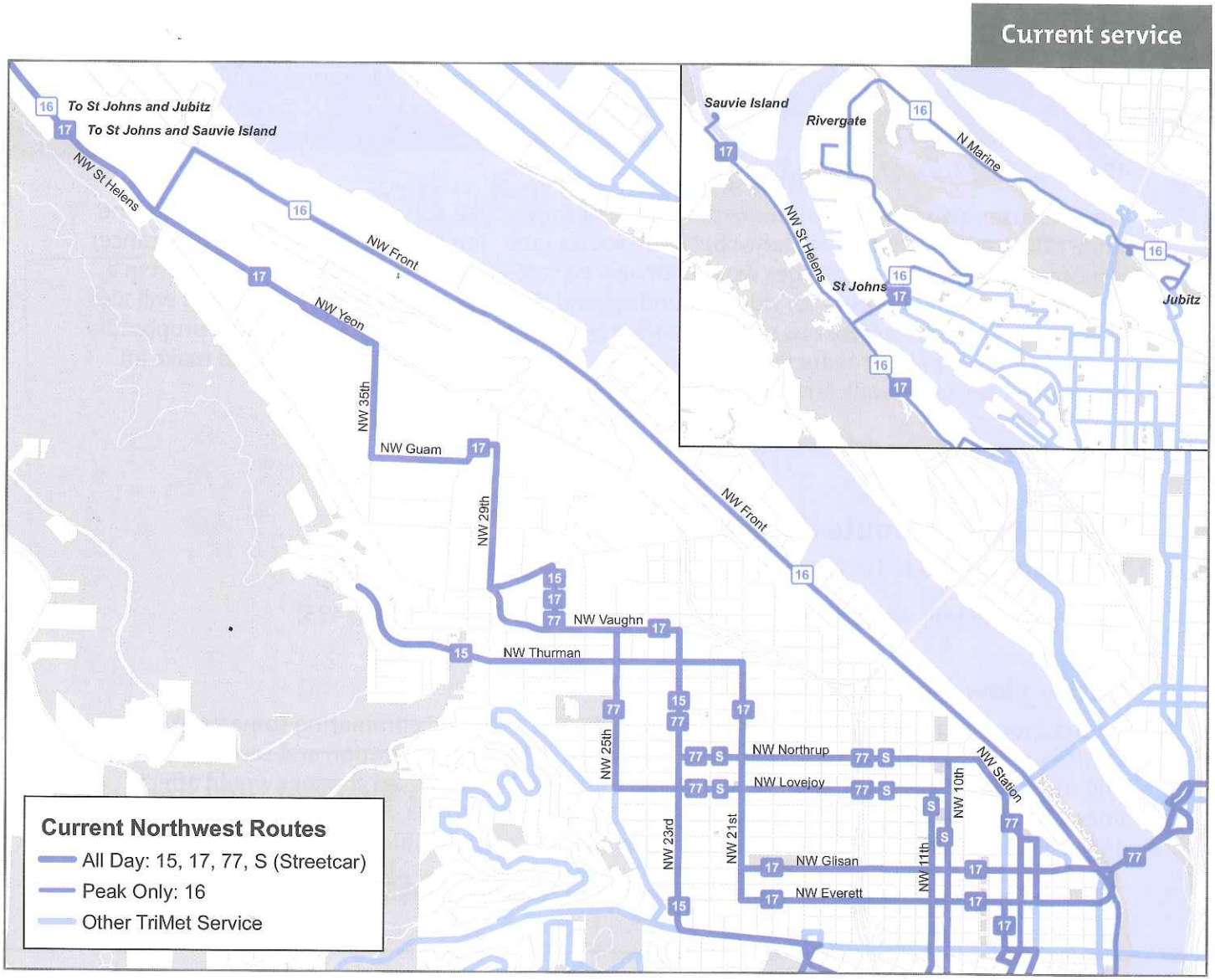
# Northwest Portland

## Lines 16-Front Ave/St Johns, 17-NW 21st Ave, 77-Broadway/Halsey

Portland Streetcar was added in 2001 without significant bus service changes. Bus ridership levels and patterns in Northwest have changed since then, due to both the addition of the Streetcar and land use/demographic changes.

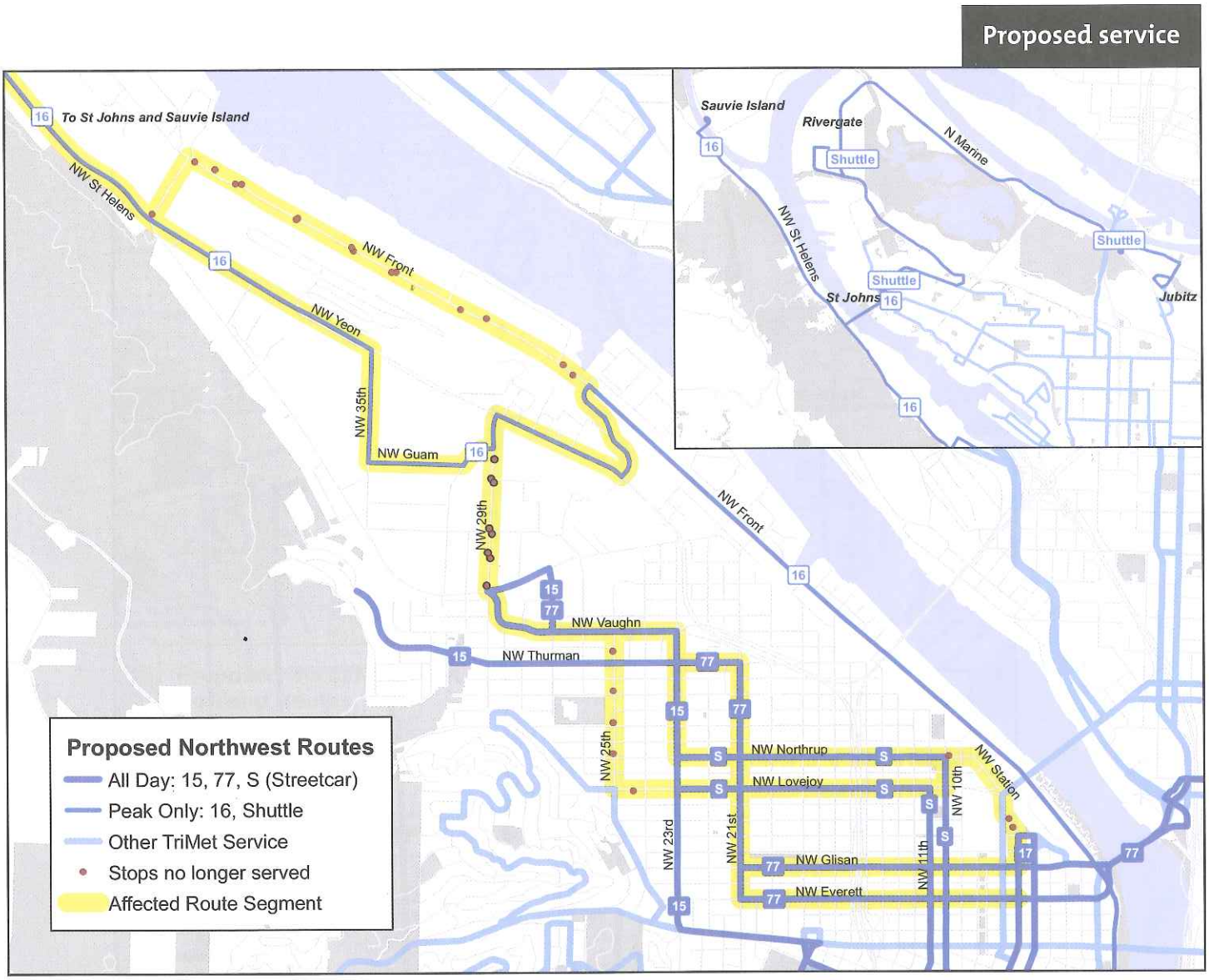
Line 17 would end at Union Station instead of Montgomery Park or Sauvie Island. Line 77 would serve the current Line 17 route on NW Glisan/Everett streets and NW 21st Avenue to Montgomery Park.

Line 77 would no longer run on NW Northrup/Lovejoy streets, but this stretch would still be served by Portland Streetcar. A few blocks along NW 25th Avenue between NW Lovejoy and Vaughn streets, along NW 29th Avenue between NW 31st Avenue and Nicolai Street, and along NW Station Way between Irving and Northrup streets would not have service.



Line 16 would serve Front Avenue, the current Line 17 route in portions of the NW industrial area, and along St. Helens Road to Sauvie Island via Linnton and St. Johns. Buses would only run during peak hours on weekdays instead of all day weekdays and Saturday. Line 16 would travel through the industrial area on NW Guam Street, 35th and Yeon avenues instead of NW Front Avenue between 26th and Kittridge Avenue. Additional hours of service could be added depending on passenger demand.

Line 16 Rivergate trips would be served by a shuttle bus from St. Johns. Buses would travel between St. Johns and Jubitz along Marine Drive during peak hours.



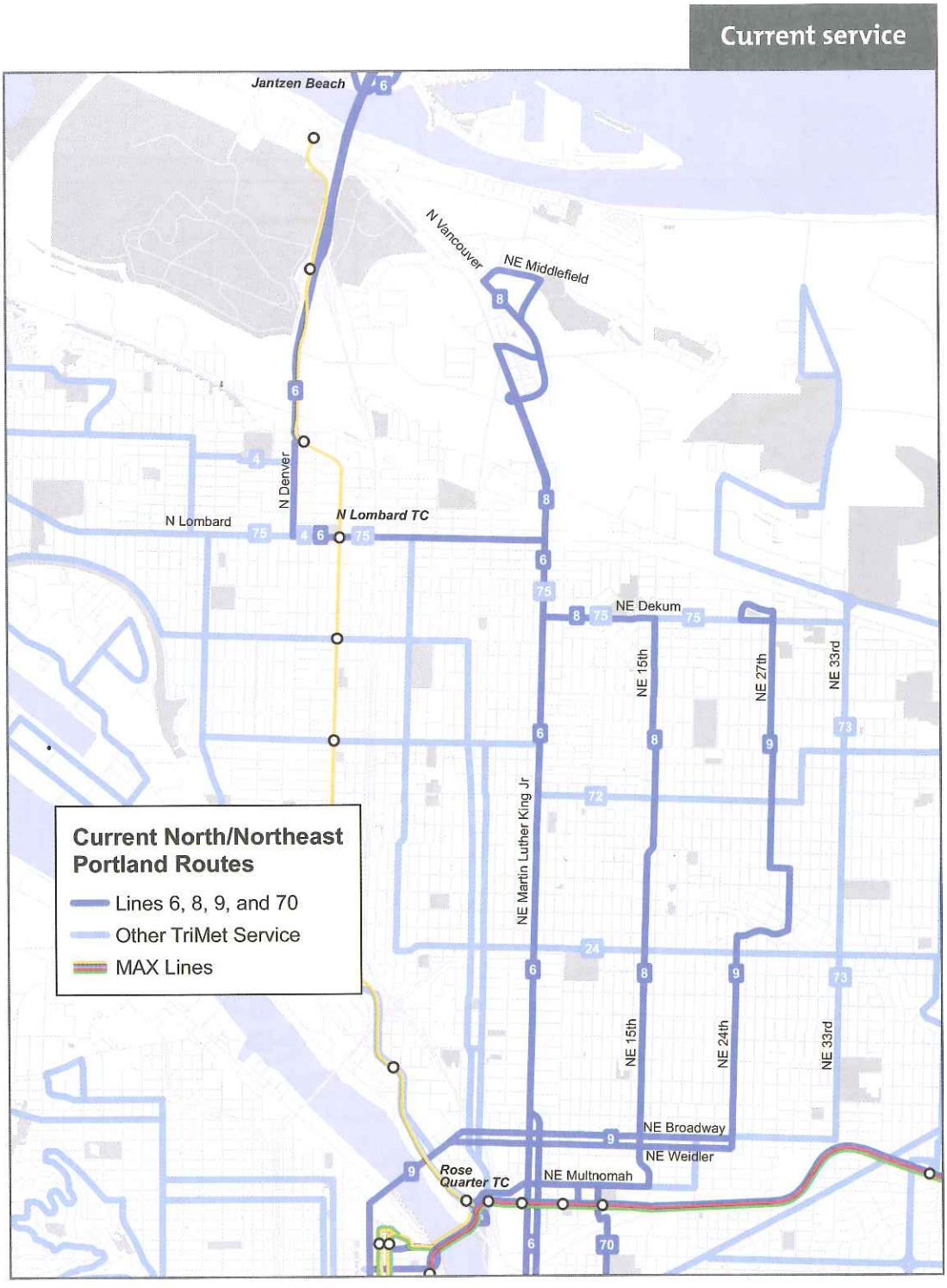
# North/Northeast Portland

## Lines 6-Martin Luther King Jr Blvd, 8-NE 15th Ave

In 2007 C-TRAN extended a frequent route to connect Jantzen Beach and Vancouver, Washington, with MAX Yellow Line. TriMet also connects MAX to Jantzen Beach with Line 6. This results in three relatively frequent bus lines along parts of N Lombard Street and Denver Avenue and two relatively frequent bus lines connecting MAX to Jantzen Beach.

Line 6 would run from North Portland to Jantzen Beach via Martin Luther King Jr Boulevard and Vancouver Drive instead of via N Lombard Street and Denver Avenue in Kenton, serving current Line 8 stops north of Dekum Street.

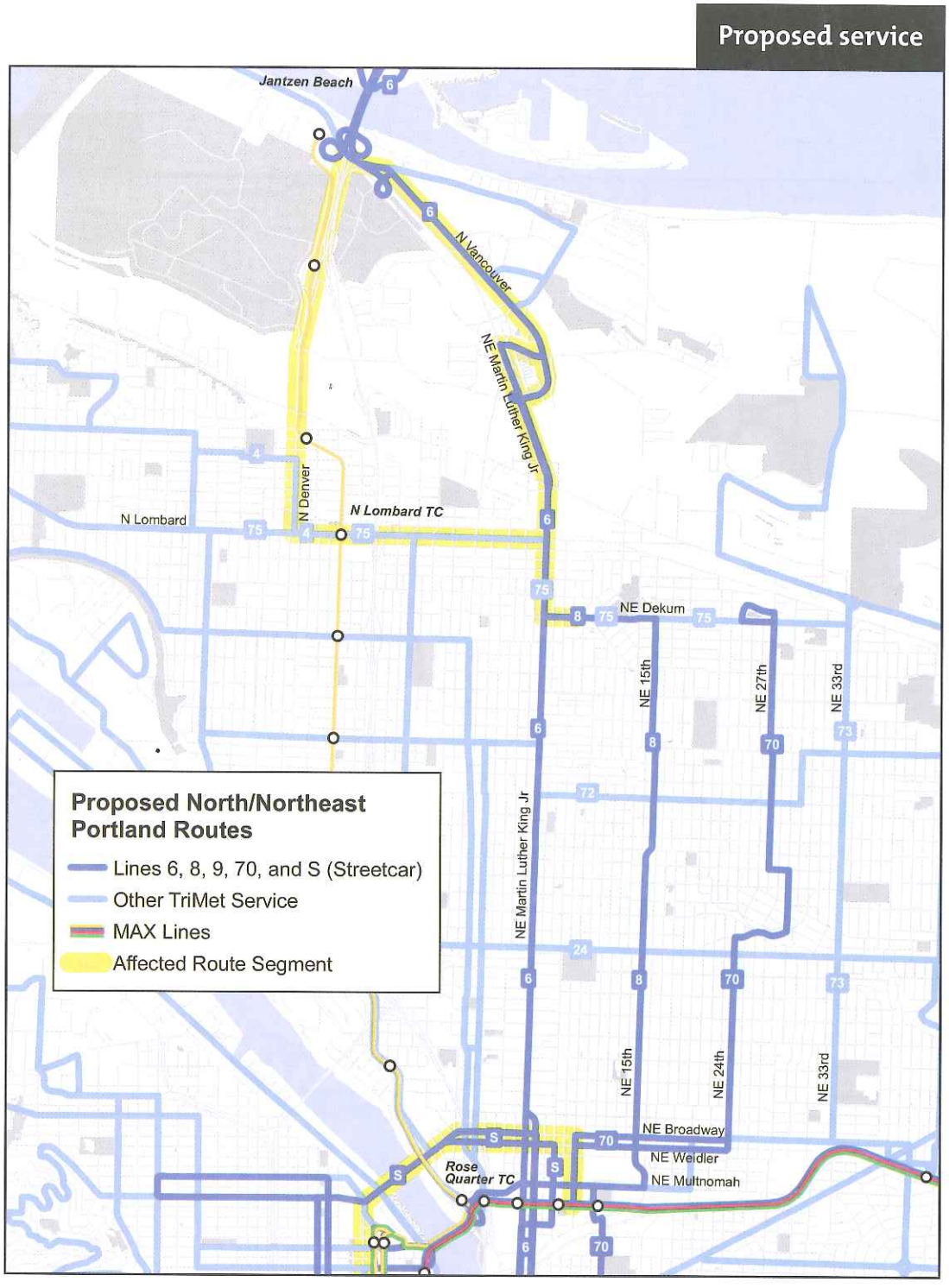
Line 8 would end around NE Dekum & 9th.



## Lines 9-Broadway, 70-12th Ave

Several TriMet lines run along parts of NE Broadway west of NE 24th Avenue. This provides an opportunity to make new eastside connections for both the NE portion of the Line 9 and Line 70 riders.

The portion of the Line 9 from Gresham TC into downtown Portland would not change. The NE end of the Line 9 and Line 70 would be combined at Lloyd Center. This combined line would stay on the Eastside instead of running downtown and would extend through Northeast Portland instead of ending at Rose Quarter. Buses would run along NE Broadway, 9th Avenue, Multnomah/Holladay streets and 12th Avenue. Alternative service for the Line 9 would be available on Line 8. If lines 9 and 70 do not have their routes combined, an alternative may be to combine the Line 73 with Line 70.

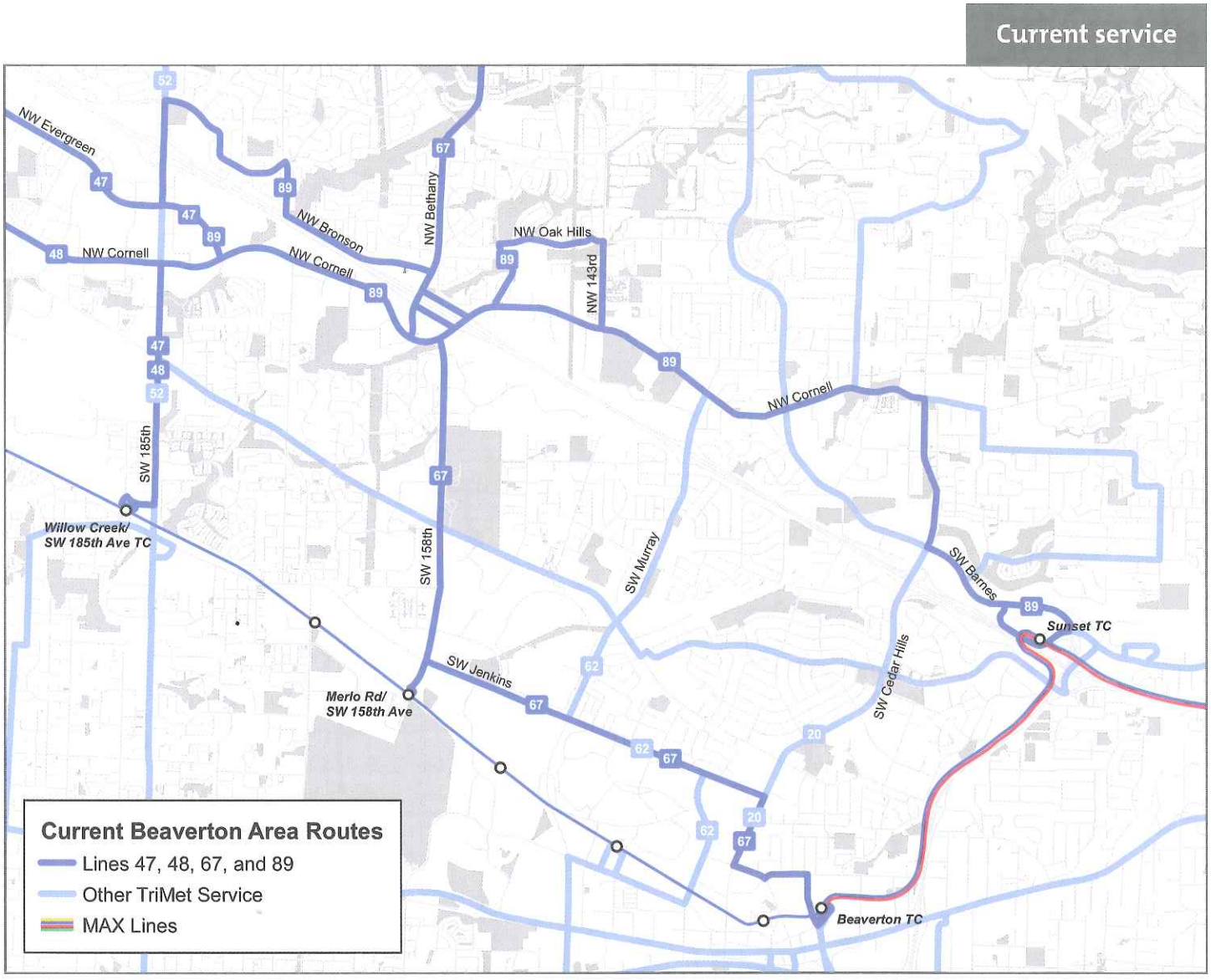


# Beaverton Area

## Lines 47-Baseline/Evergreen, 48-Cornell, 89-Tanasbourne

These lines would be combined to reduce overlap along NW 185th Avenue, which is served by relatively frequent service on Line 52-Farmington/185th. Lines 47 and 48 would no longer run to Willow Creek/SW 185th Avenue Transit Center. Buses would instead run from Hillsboro to Sunset Transit Center across SW 185th. A short stretch of NW Evergreen Parkway between NW 185th and Cornell would not have service. Line 47 would run for the same number of trips as it does currently. Line 48 would have Sunday service added.

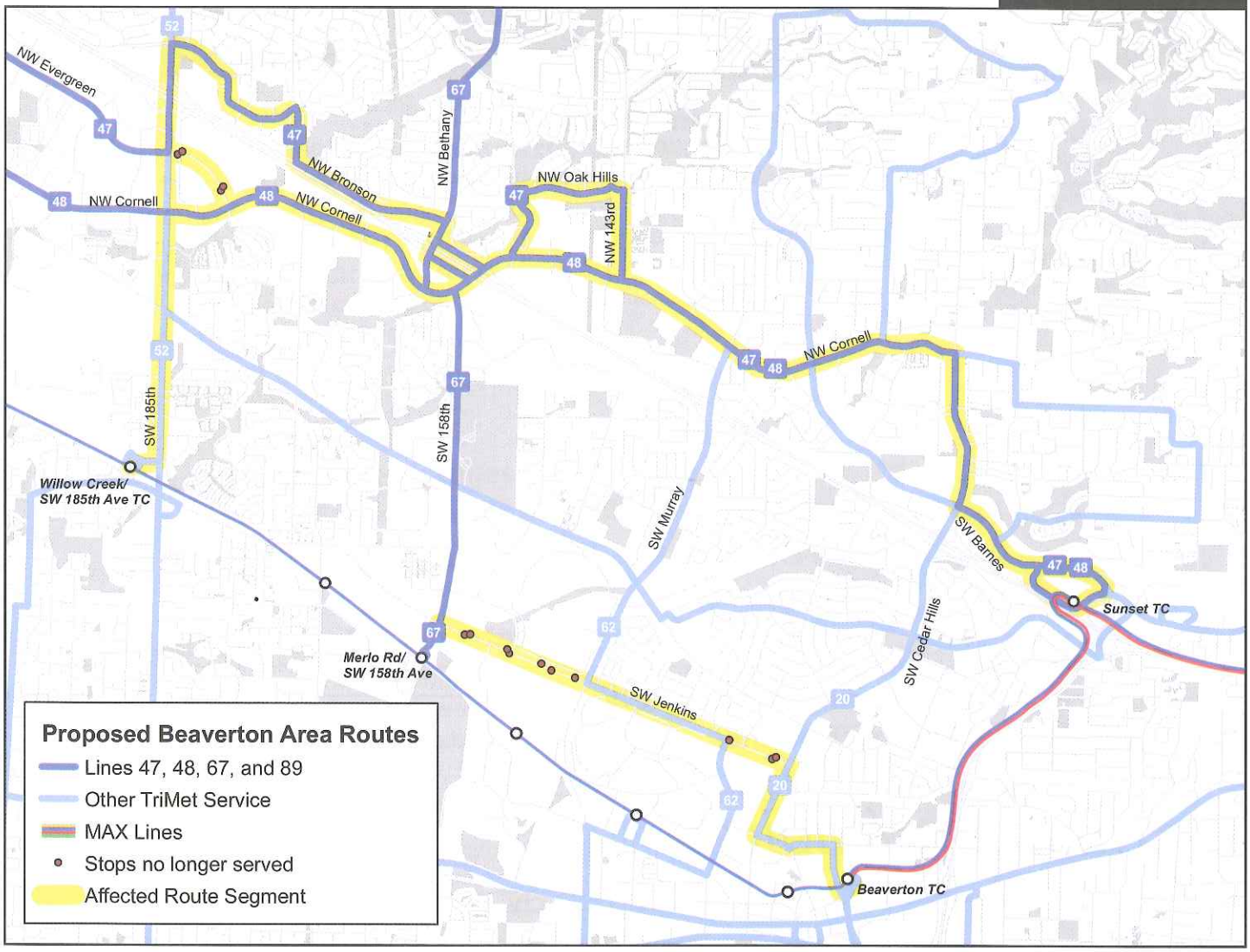
Line 89 would be replaced by lines 47 and 48, but the hours of service along the section that is now served by the line 89 would be shorter than current. Weekdays, the 9:09 p.m. and 10:03 p.m. trips to Sunset Transit Center and the 9:48 p.m. and 10:33 p.m. trips from Sunset Transit Center would be discontinued.



## Line 67-Jenkins/158th

Since other lines serve parts of the same streets as this line in central Beaverton, Line 67 would end at Merlo Road/SW 158th MAX Station instead of running to Beaverton Transit Center along SW Jenkins Road, Cedar Hills Boulevard and Center Street.

**Proposed service**



# Other Potential Changes

## Line 12-Barbur/Sandy Blvd

To help buses run closer to schedule and to improve efficiency, Line 12 is being considered for a change so that it would run between Tigard Transit Center and Parkrose/Sumner Transit Center. In Southwest, a new local line from Sherwood would connect at Tigard. In East Portland, a new local line from Gresham would connect at Parkrose.

## Lines 82-Eastman/182nd, 87-Airport Way/181st

In East Multnomah County, lines 82-Eastman/182nd and 87-Airport Way/181st are being considered for a change that would combine Line 82 with Line 87. Buses would run north-south along NE 181st Avenue instead of ending at Rockwood. Line 82 would run rush hours only and Line 87 would end at Gateway Transit Center instead of Parkrose/Sumner Transit Center.

Do you have feedback about this proposal? We want to know how the proposed changes would affect you and people you know. **We will be accepting feedback through 5 p.m. on Friday, March 2, 2012.**

### Write in your comments below:

Mail this page to *Budget Feedback, TriMet MK2, 4012 SE 17th Ave., Portland, OR 97202*

OR

**Submit your feedback online:**

*trimet.org/choices*

**Contact us:**

| | |
|---|---|
| Email | *comments@trimet.org* |
| Phone | 503-238-RIDE (7433), option #5 |
| Fax | 503-962-6451 |
| TTY | 503-962-5811 |

Available in other formats.
503-238-7433 · trimet.org

TRIMET

120152 • 6M • 2/11

BEFORE THE METRO COUNCIL

| | | |
|---|---|---|
| FOR THE PURPOSE OF APPROVING THE 2012-2015 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM FOR THE PORTLAND METROPOLITAN AREA | ) ) ) ) | RESOLUTION NO. 12-4332<br><br>Introduced by Councilor Carlotta Collette |

WHEREAS, the Portland metropolitan area Metropolitan Transportation Improvement Program (MTIP), which reports on the programming of all federal transportation funds to be spent in the region, must be updated every two years in compliance with federal regulations, and

WHEREAS, the Metro Council and Joint Policy Advisory Committee on Transportation (JPACT) have proposed programming of the regional flexible funds portion of the federal allocation of transportation funds to this region, and

WHEREAS, the Oregon Department of Transportation has proposed programming of federal transportation funds for projects in the Portland metropolitan area through the State Transportation Improvement Program (STIP), and

WHEREAS, the transit service providers TriMet and South Metropolitan Area Rapid Transit (SMART) have proposed programming of federal transit funds, and

WHEREAS, these proposed programming of funds must be found in compliance with all relevant federal law and administrative rules, including a demonstration of compliance with the Oregon State implementation plan for air quality, and

WHEREAS, the draft MTIP for the Portland, Oregon metropolitan area, attached as Exhibit A, demonstrates compliance with all relevant federal law and administrative rules, and

WHEREAS, 2010-13 projects were adopted by Resolution No. 10-4186 (For the Purpose of Approving the 2010-13 Metropolitan Transportation Improvement Program for the Portland Metropolitan Area), and

WHEREAS, the companion Metro Resolution No.12-4333, (For the Purpose of Approving the Air Quality Conformity Determination for the 2012-15 Metropolitan Transportation Improvement Program), demonstrates compliance with the federal Clean Air Act and the Oregon State implementation plan for air quality, and

WHEREAS, the proposed MTIP is consistent with the Regional Transportation Plan, adopted by Metro Ordinance No. 10-1241B.

WHEREAS, a public process has provided an opportunity for comments on the programming of federal funds to specific projects in specific fiscal years and whether that programming meets all relevant laws and regulations, in addition to extensive public processes used to select projects to receive these funds,

WHEREAS, on March 1, 2012 JPACT recommended approval of this resolution and the 2012-15 MTIP; now therefore

BE IT RESOLVED that the Metro Council adopt the Metropolitan Transportation Improvement Program for the Portland metropolitan areas as shown in Exhibit A; and

BE IT RESOLVED that projects in the existing 2010-13 MTIP that do not complete obligation of funding prior to September 30, 2012 will be programmed into the 2012-15 MTIP.

ADOPTED by the Metro Council this___day of March 2012.

Tom Hughes, Council President

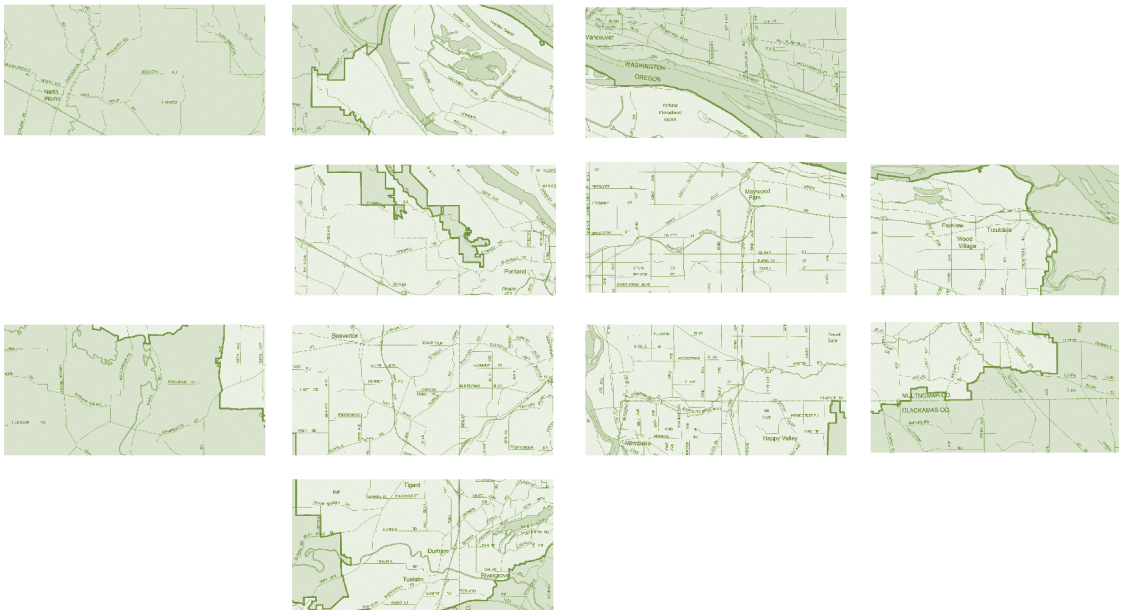
Approved as to Form:

Alison Kean Campbell, Metro Attorney

Exhibit A to Resolution No. 12-4332

Click here for full report.

www.oregon**metro.gov**



Metropolitan Transportation Improvement Program

# 2012-15

## Adoption draft

Portland metropolitan area

Federal fiscal years 2012 through 2015

**February 2012**

Metro | *Making a great place*

**STAFF REPORT**

IN CONSIDERATION OF RESOLUTION NO. 12-4332 FOR THE PURPOSE OF APPROVING THE 2012-2015 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM FOR THE PORTLAND METROPOLITAN AREA

---

Date: March 15, 2012 Prepared by: Ted Leybold, 503-797-1759

**BACKGROUND**

The 2012-15 Metropolitan Transportation Improvement Program (MTIP) is a report that summarizes all programming of federal transportation funding in the metropolitan region for the federal fiscal years 2012-2015 and demonstrates that the use of these funds will comply with all relevant federal laws and administrative rules. The MTIP and the State Transportation Improvement Program (STIP) are required to be coordinated and approved in the same time period every two years.

Acting on this resolution would:

- Approve the scheduling of previously allocated federal funding to projects by project phase and fiscal year,
- Define administrative authority to add or remove projects from the MTIP (defined in Section 1.7),
- Affirm the region meets federal planning and programming rules and submission of documentation to the Governor of Oregon, the Federal Highway Administration and the Federal Transit Administration.

Generally, there are three sources of proposed programming of federal transportation funds that are reflected in the MTIP:

- Regional flexible funds – projects in the regional flexible fund allocation (RFFA) process, selected by JPACT and the Metro Council,
- Projects and maintenance on the national highway system proposed by the Oregon Department of Transportation through the State Transportation Improvement Program (STIP) process,
- Transit projects proposed by the region's transit agencies.

Federal regulations designate JPACT and the Metro Council as the bodies responsible for approving the comprehensive package of federal highway and transit funds for the Portland metropolitan area.

The projects and programs selected by JPACT and Metro Council to receive regional flexible funds for the years 2014 and 2015 have been assigned to their respective years of allocation and fund type (Surface Transportation Program or Congestion Mitigation/Air Quality) in the MTIP. Previous programming of these funds for the years 2012 and 2013 has been updated to reflect changes in construction schedules and project costs.

The programming of state highway funds is proposed by the Oregon Department of Transportation and is summarized in Tables 3.1.4.

The programming of federal transit funds to the metropolitan region is summarized in Table 3.1.3 In addition to the regional flexible funds programmed to transit activities through the RFFA process, there

are several types of federal funds summarized, including rail new starts, a program for jobs access for low income citizens, allocations for bus purchases and allocations for maintenance of the bus and rail systems. The proposed programming of funds is consistent with the TriMet Transit Investment Plan, a 5-year rolling capital improvement program that guides the short term Implementation of the 20-year regional Transportation Plan.

Programming changes since publication of the draft 2012-15 State Transportation Improvement Program (STIP) will be tracked on Attachment 1. These changes will be effective immediately following federal approval of the STIP.

Adoption of this resolution would fulfill JPACT and Metro Council's role within federal law to program federal funds, consistent with federal regulations as documented in Exhibit A; the Metropolitan Transportation Improvement Program for the Portland metropolitan area, federal fiscal years 2012-2015.

## Public involvement for Draft MTIP

The Federal Highway Administration requires Metro and other regional agencies nationwide to make the schedule of MTIP projects available for public comment prior to final adoption. In addition, Metro's Public Involvement Policy for Transportation Planning requires a 30-day public comment period for a draft MTIP.

On Friday, Jan. 13, 2012, Metro opened a public comment period, closing the comment period 32 days later at noon on Monday, Feb. 13. The opportunity also described Metro's determination that the region will continue to meet federal and state clean air standards. It also provided an opportunity to comment on the capital program of City of Wilsonville's SMART (South Metro Area Regional Transit) transit agency.

The comment period was advertized with a legal notice in The Oregonian on Friday, Jan. 13, a newsfeed posted to Metro's News web site on Jan. 18 and an email notices to more than 500 addresses on the TPAC and JPACT members and interested parties lists. Both the advertisement and the newsfeed directed the public to a web page that provided copies of the Draft MTIP document, Draft Air Quality Conformity and proposed program for SMART. Because of the scope of the comment opportunity was limited to project schedules and recent JPACT approval of allocation of funds, staff determined that translation and specific environmental justice outreach were not required.

Two comments were received during the comment period. Marguerite Truttman, a Realtor from Gresham, said she was opposed to having a MAX line from Portland to Gresham via Powell Boulevard. John Charles, of the Cascade Policy Institute, said the calculation of Transportation Control Measures (TCM) was flawed because it didn't account for bus service cuts.

Staff proposes the following responses to the comments:

- On the potential for new high capacity transit in the Southeast Powell corridor, that project is not part of the 2012-15 MTIP. The work plan for a "next corridor" planning process will be reviewed as part of the next Unified Planning Work Program.
- On the TCM issue, the measurement of whether the control measure has been met is based on the amount of transit capacity the region provides, not on its ridership. Transit ridership, as with other transportation outputs such as vehicle trips, can vary based on the economy and other factors.

## ANALYSIS/INFORMATION

1. **Known Opposition** None known at this time.

2. **Legal Antecedents** This resolution programs transportation funds in accordance with the federal transportation authorizing legislation (currently known as SAFETEA-LU). The allocation process is intended to implement the Regional Flexible Fund Allocation (RFFA) process for years 2012 through 2015 as defined by Resolution Nos. 09-4017 and 11-4313. This MTIP must be consistent with the Regional Transportation Plan, adopted by Metro Ordinance No. 10-1241B. This MTIP must also be determined to be in conformance with the federal Clean Air Act, which was accomplished through action on Metro Resolution No. 12-4333.

3. **Anticipated Effects** Adoption of this resolution is a necessary step to make the transportation projects and programs defined in the MTIP, provided as Exhibit A, eligible to receive federal funds to reimburse project costs.

4. **Budget Impacts** Adoption of this resolution is a necessary step in making eligible federal surface program funds for planning activities performed at Metro. These impacts have been previously described as a part of the actions on Metro Resolution Nos. 09-4017 and 11-4313. This includes $5,873,176 of federal funds to be used for planning activities at Metro between 2012-15. Grant funds allocated to Metro planning require a match totaling 10.27% of project costs. This would include $672,211 through the course of the 2012-15 time period. An additional $9,946,000 of planning and programming activities scheduled and funded to take place in the 2012-15 MTIP. These funds are subject to being sub-allocated to Metro or other agencies. The total required match for funding of these activities is $1,138,364, although Metro would only be responsible for matching to the portion of funds sub-allocated to Metro. Under current sub-allocation patterns, staff estimates approximately $450,000 of the $1,138,364 match requirement could be required of Metro. Further action through the annual Unified Planning Work Program (UPWP) and individual Intergovernmental Agreements (IGA) will be needed to execute these planning activities.

## RECOMMENDED ACTION

Staff recommends approval of Resolution No. 12-4332.

**Attachment 1**

Programming Changes: 2012-15 MTIP Public Comment Draft to Final Adoption Draft

| ODOT Key # | Lead Agency | MTIP ID # | Project Name | Year | Amount | Fund Type | Action |
|---|---|---|---|---|---|---|---|
| 17305 | SMART | 70338 | SMART Preventive Maintenance FY12 | 2012 | $180,000 | STP | Delete programming. |
| 17306 | SMART | 70339 | SMART Preventive Maintenance FY13 | 2013 | $180,000 | STP | Delete programming. |
| 18052 | TriMet | 70518 | Bus & Rail Preventive Maintenance-2 (FY14) | 2014 | $1,500,000 | STP | Delete programming. |
| 18053 | TriMet | 70519 | Bus & Rail Preventive Maintenance-2 (FY15) | 2015 | $1,500,000 | STP | Delete programming. |
| 15553 | TriMet | 70011 | Rail Prev Maint (Bus Stop Dev/Streamline Prog)(FY13) | 2013 | $707,000 | STP | Add programming. |
| 18036 | TriMet | 70522 | TriMet RTO Program (FY14) | 2014 | $437,750 | CMAQ | Delete programming until RTO sub-allocation complete. |
| 18037 | TriMet | 70523 | TriMet RTO Program (FY15) | 2015 | $450,883 | CMAQ | Delete programming until RTO sub-allocation complete. |
| 18016 | Metro | 70495 | Corridor & Systems Planning 2014 | 2014 | $500,000 | STP | Advance program year to 2013. |
| 18023 | Portland | 70483 | Burgard/Lombard @ North Time Oil Road intersection | | | STP | Change project name to: Burgard @ N Time Oil Road intersection. |
| 18026 | Sherwood | 70480 | Cedar Creek/Tonquin Trail: Roy Rogers Rd - T-S Rd | | | | Change project name to: Cedar Creek/Tonquin Trail: Roy Rogers to Murdock. |
| 18025 | Portland | 70498 | Portland Bike Sharing Project | | | STP | Change project name to: Portland Bike Share Project. |

Note: total project cost will be added to the tables in Chapter 3 of the MTIP.

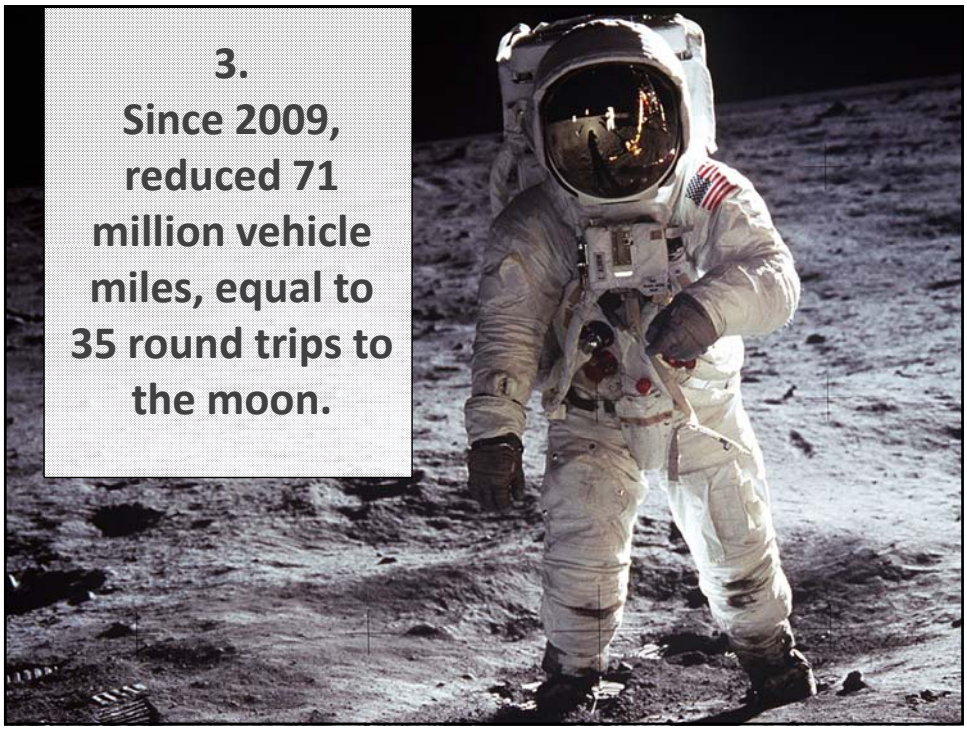

Regional Travel Options:
Creating healthy, vibrant neighborhoods.


Saves money.
Eases congestion.
Keeps air clean.
Reduces wear and tear.

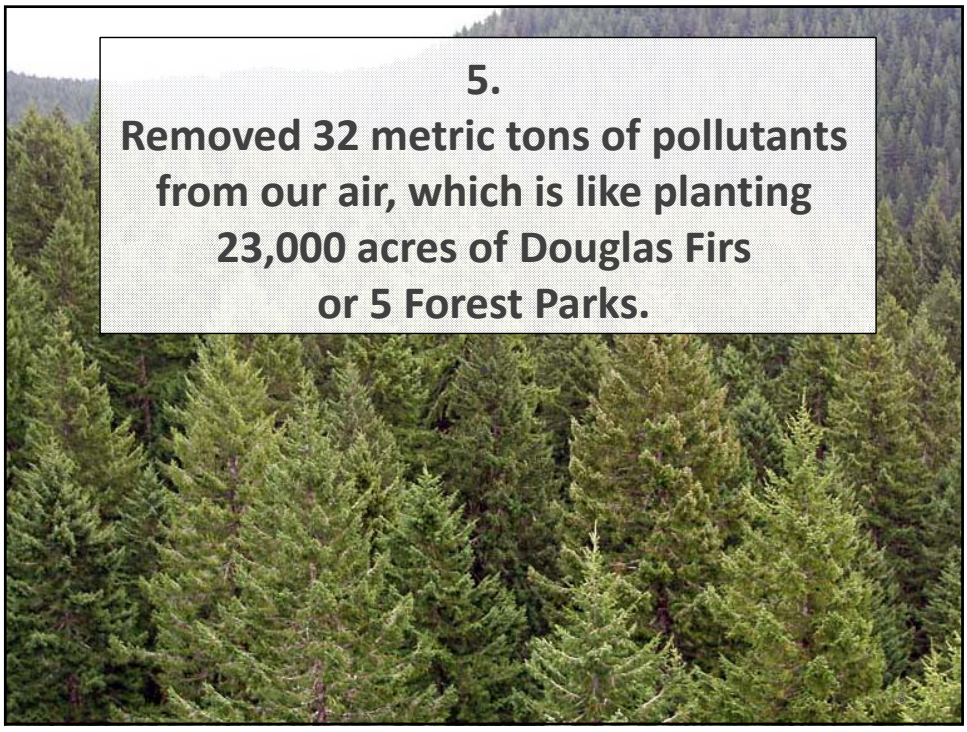

5 Fun Facts about RTO


1.
Saved 5 Olympic pools of gasoline, equal to $10 million.


2. Connected with more than 3,300 people through bilingual outreach.


3.
Since 2009, reduced 71 million vehicle miles, equal to 35 round trips to the moon.


4. Launched Drive Less Connect, providing an option to over 3,000 residents and employees.


5.
Removed 32 metric tons of pollutants from our air, which is like planting 23,000 acres of Douglas Firs or 5 Forest Parks.

DRAFT
March 1, 2012

Secretary Ray LaHood
US Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

Dear Secretary LaHood:

As the metropolitan planning organization (MPO) for the Portland, Oregon region, we are pleased to express our **support** for TIGER 4 funding for projects from this region. We understand the highly competitive nature of this program and have worked hard to limit the number of applications, to ensure that all applications meet the criteria established in the Notice of Funding Availability (NOFA) and to prioritize those projects that demonstrate the greatest merit. The TIGER application process is designed to consider a variety of types of projects and to ensure that very meritorious projects are ultimately awarded funding. In the Portland metropolitan area, these intentions have been accomplished; we are confident that we are endorsing very strong projects and providing you the opportunity to consider funding for projects that are quite different from one another.

All four of the projects submitted for consideration are reflected in the region's long-range transportation plan and are rated highly against the published criteria. However one of the projects is endorsed **as the region's top priority** because it is highly rated against multiple criteria published in the NOFA, as follows:

- **The Sunrise System:** This request for $18.5 million of TIGER 4 funding from Clackamas County and the Oregon Department of Transportation would complete the $168.5 million finance plan to improve auto, truck, bicycle and pedestrian access to the Clackamas Industrial District. The project would address safety concerns and support a vital industrial district including America's first streetcar manufacturer in more than a half century, United Streetcar. This project was selected as the region's top priority because it is ready to go and will stimulate immediate construction jobs, support growth of quality industrial jobs and address safety, environmental sustainability and livability.

    - The Sunrise System is a comprehensive transportation improvement for which there is a completed Draft and Final Environmental Impact Statement (EIS) and federal Record of Decision allowing the project to proceed quickly.
    - Following the principles of practical design, this first phase project ensures desperately needed improvement can happen rapidly and meet the needs for many years to come while setting the stage for implementation of future improvements documented in the Final EIS.
    - The finance plan builds upon a past SAFETEA-LU earmark and commitment of state and local funds, with the TIGER 4 funding request representing the last dollar needed to proceed to construction.
    - The Sunrise System provides relief to a highly congested and unsafe access to the Interstate system while providing direct freeway access to the industrial area.
    - The project provides safety, environmental and livability benefits through the construction of a substantial element of the bike/pedestrian system, grade-separation

of a pedestrian crossing of the mainline UP railroad between the bus route and the industrial jobs and improved stormwater management facilities.

- The project supports 5900 existing jobs, a number expected to double, including United Streetcar's efforts to develop a US-based streetcar manufacturing capability with an ever-growing use of American-made components.

In addition to this top priority project, the region is pleased to endorse three additional highly competitive projects that provide USDOT the opportunity to fund strong projects with different intended outcomes. We recommend that USDOT also consider TIGER 4 funding for the following:

- **I-84/Troutdale Reynolds Industrial Park Access:** As the region's second ranked project, this request for $12.14 million of TIGER 4 funding from the Port of Portland and the Oregon Department of Transportation would complete the $37.9 million finance plan to improve the I-84/Troutdale interchange and provide access to the Troutdale Reynolds Industrial Park for autos, trucks, bikes and pedestrians in Troutdale, Oregon.

    - The I-84/Troutdale Interchange and Troutdale Reynolds Industrial Park Access leverages interchange improvements under construction and expands upon industrial development anchored by a new FedEx Ground facility. That facility was developed through a significant brownfield reclamation that received the coveted EPA Phoenix Award.
    - The site is well-positioned to support the President's export initiative. It takes advantage of the Columbia Multi-modal Corridor, which is the focus of the region's export industry because it contains the region's marine terminals and international airport, two transcontinental railroads, two Interstate freeways and a large number of freight operations.
    - In addition to addressing State of Good Repair issues at the freeway interchange and within the industrial park, the project includes improvements for bikes and pedestrians and provides for environmental benefit through stormwater treatment, significant enhancement of the Columbia River and Sandy River riparian areas that support several threatened and endangered species, and elimination of out-of-direction truck and commuter access.
    - In addition to providing access to jobs in a part of the region with a job deficit, it provides easy access to these jobs for a growing nearby population of historically disadvantaged populations.
    - Project development has sufficiently progressed with already committed funds to expect the NEPA designation of Categorical Exclusion, allowing the project to proceed to implementation quickly and well within the timeframe called for in the TIGER 4 solicitation.

- **Close the Loop Streetcar:** As the region's third ranked project, this request for $15 million of TIGER 4 funding from the City of Portland and TriMet would complete the $21 million finance plan leveraging the significant local and federal investment in the Eastside Streetcar and the Portland to Milwaukie Light Rail project.

    - This project is the final element of the Central City vision established in 1984 to build the central area of the city on a system of light rail lines connecting the central city to the surrounding communities with a streetcar loop providing connections between these

corridors. Every public and private investment decision in the Central City is built upon a framework designed around this streetcar loop.

- With USDOT as a strong partner, this system is largely completed with the key Portland to Milwaukie corridor under construction and the Eastside Streetcar scheduled to begin service later this year. These last few hundred feet would allow to streetcar to take advantage of the new Willamette River bridge and provide streetcar service in both directions of the loop.
- The loop constitutes an essential element of the economic success of central Portland, providing direct access to downtown jobs, Central Eastside incubator space and the growing Innovation Quadrant in the South Waterfront area hosting the partnership of Oregon Health & Sciences University and Portland State University.
- The loop is also an essential element of the city's livability initiative providing the opportunity to live, work and play in the central area without the need for excessive driving and enabling "The Trip not Taken."
- The project has been fully covered by the NEPA documents and Record of Decision in place for both the Eastside Streetcar and the Portland to Milwaukie light rail project and contracting/bidding procedures already under way would allow the project to proceed to construction virtually immediately.

- **US 26/Brookwood-Helvetia Interchange Modernization Project:** As the region's fourth ranked project, this request for $15 million of TIGER 4 funding from the City of Hillsboro and the Oregon Department of Transportation would complete the $62.65 million finance plan improving access to the most significant manufacturing exporter in the state, Intel Corporation.

  - The North Hillsboro Industrial area has grown into a significant cluster of high-tech companies anchored by the largest presence of Intel anywhere in the world. Access improvements would ensure workers can get safely to and from work but also ensure these highly valued products can efficiently reach their shipping destinations for domestic and international export. This area is also well-positioned to support the President's export initiative as it is intended to approximately double in size and importance as land recently added to the urban growth boundary becomes shovel-ready for development.
  - This interchange access project is being developed in the context of a comprehensive strategy to support the industrial area with nearby housing for the labor force, including conveniently located transit-oriented development, as well as multi-modal access via light rail, bus service, bike and pedestrian systems.
  - Project development has sufficiently progressed with already committed funds to expect the NEPA designation of Categorical Exclusion, allowing the project to proceed to implementation quickly and well within the timeframe called for in the TIGER 4 solicitation.

All of the projects are consistent with the region's long-range transportation plan and transportation improvement program. As the MPO for the region, we are prepared to program the TIGER 4 funds in the transportation improvement program quickly upon award.

Thank you for your consideration.

Sincerely,

Tom Hughes, President
Metro Council

Carlotta Collette, Metro Councilor
Chair, Joint Policy Advisory Committee on Transportation

Cc: Senator Ron Wyden
Senator Jeff Merkley
Congressman Earl Blumenauer
Congressman Kurt Schrader
Metro Council
Joint Policy Advisory Committee on Transportation