



Reducing Greenhouse Gases in Portland Metro through Integrated Transportation & Land Use

Asilomar – Session IV - **Smart Growth and VMT Reduction**

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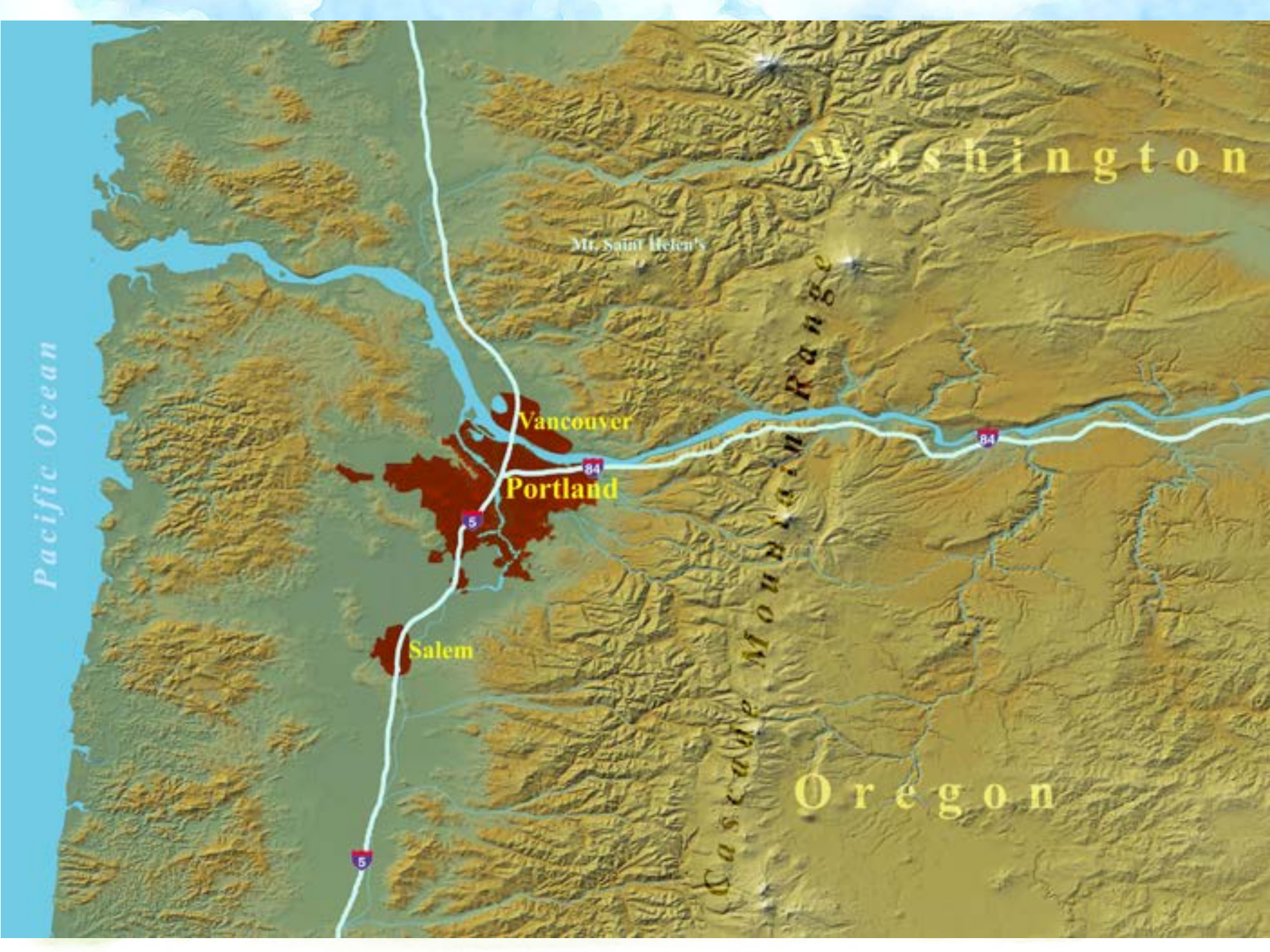
August 31, 2011

Presentation overview

- Portland Metro's Integrated Planning History
- State of Oregon GHG Requirements
- Metro's Scenario Planning Approach
 - Framing Choices
 - Analytical Requirements
 - Key Issues/Lessons
- Q&A/Discussion



■ Portland
■ Cedar Grove



Washington

Mt. Saint Helens

Cascade Mountain Range

Pacific Ocean

Vancouver

Portland

Salem

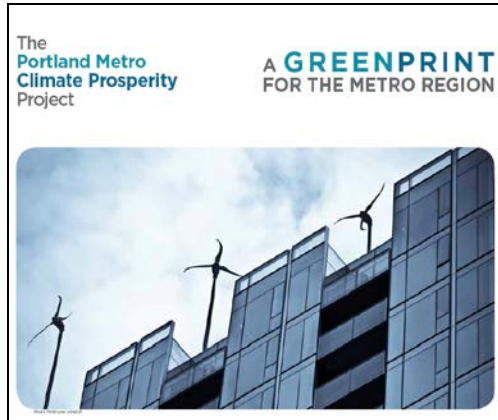
Oregon

Planning For A Sustainable Metropolitan Region

Metro's Role



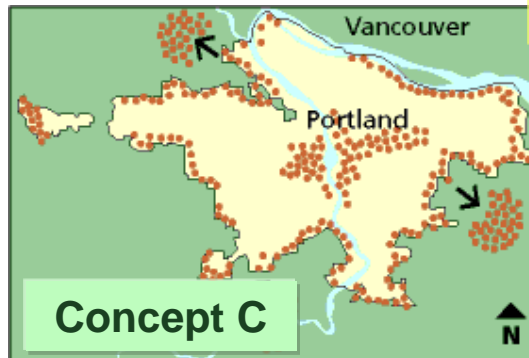
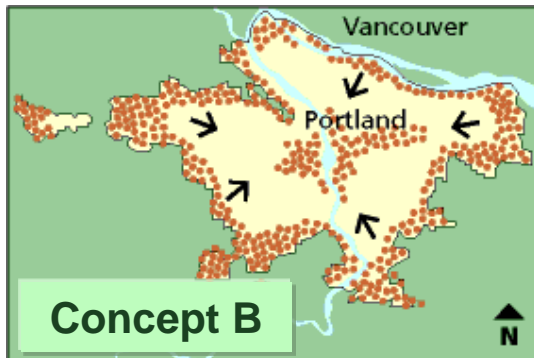
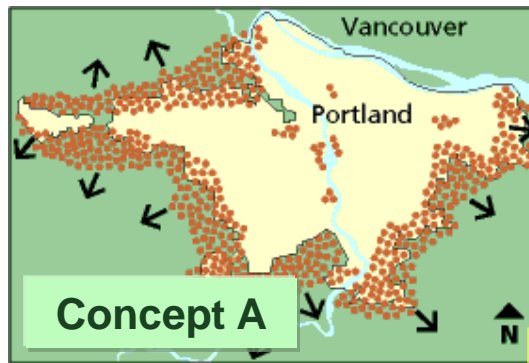
Building on past innovation and successes



- **1992 - 1995: Region 2040**
- **1996 - 2009: 2040 Implementation**
- **2010: Climate Smart Communities**
 - **GHG/Trans/LU Scenario Planning**
 - Climate Prosperity
 - Climate Preparedness
 - Analytical Tools & Methods
- **2011 & beyond: Implementation**



Concepts for growth 1992-1995



REGION 2040

Decisions for Tomorrow

2040 Growth Concept

The Region 2040 Growth Concept was adopted on December 14, 1999 in Ordinance No. 99-025-A and amended in the following:

Ordinance No.	Effective Date
Ordinance No. 99-025-E	March 9, 1997
Ordinance No. 97-050-A	July 10, 1997
Ordinance No. 97-758-B	October 2, 1997
Ordinance No. 97-758-B	July 23, 1998
Ordinance No. 99-778-D	December 17, 1999
Ordinance No. 99-852-C	December 17, 1999
Ordinance No. 99-852-C	December 17, 1999
Ordinance No. 99-789-C	December 17, 1999
Ordinance No. 99-249	June 4, 1999
Ordinance No. 99-813-A*	December 16, 1999
Ordinance No. 99-813-A*	December 16, 1999
Ordinance No. 02-843	March 2, 2002
Ordinance No. 02-824	September 14, 2002
Ordinance No. 01-882-A	April 12, 2001
Ordinance No. 02-883	November 14, 2002
Ordinance No. 02-898	November 14, 2002
Ordinance No. 02-898-B	December 9, 2002
Ordinance No. 02-898-B	December 9, 2002
Ordinance No. 02-898-A	December 9, 2002
Ordinance No. 02-898-A	December 12, 2002
Ordinance No. 02-898-A	December 12, 2002
Ordinance No. 02-898-A	December 12, 2002
Ordinance No. 02-898-A	December 12, 2002
Ordinance No. 02-898-A	December 12, 2002
Ordinance No. 04-107-B	June 24, 2004

*Areas brought into the Urban Growth Boundary under Ordinance Nos. 99-813-C and 99-813-A have been removed by Metro by the Land Use Board of Appeals and affirmed by the Court of Appeals. These areas have been removed from the map.

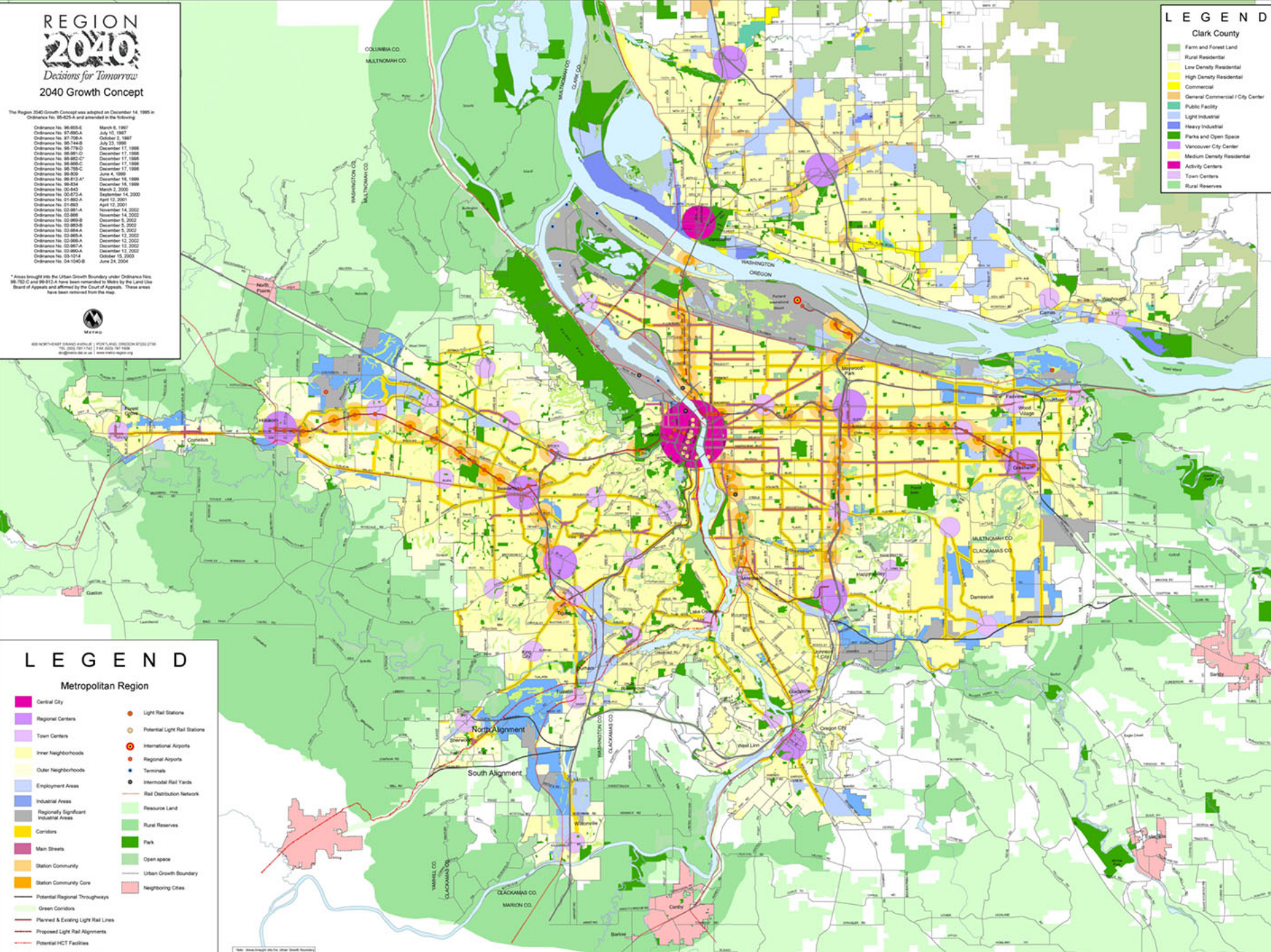


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LEGEND

Clark County

- Farm and Forest Land
- Rural Residential
- Low Density Residential
- High Density Residential
- Commercial
- General Commercial / City Center
- Public Facility
- Light Industrial
- Heavy Industrial
- Parks and Open Space
- Vancouver City Center
- Medium Density Residential
- Activity Centers
- Town Centers
- Rural Reserves



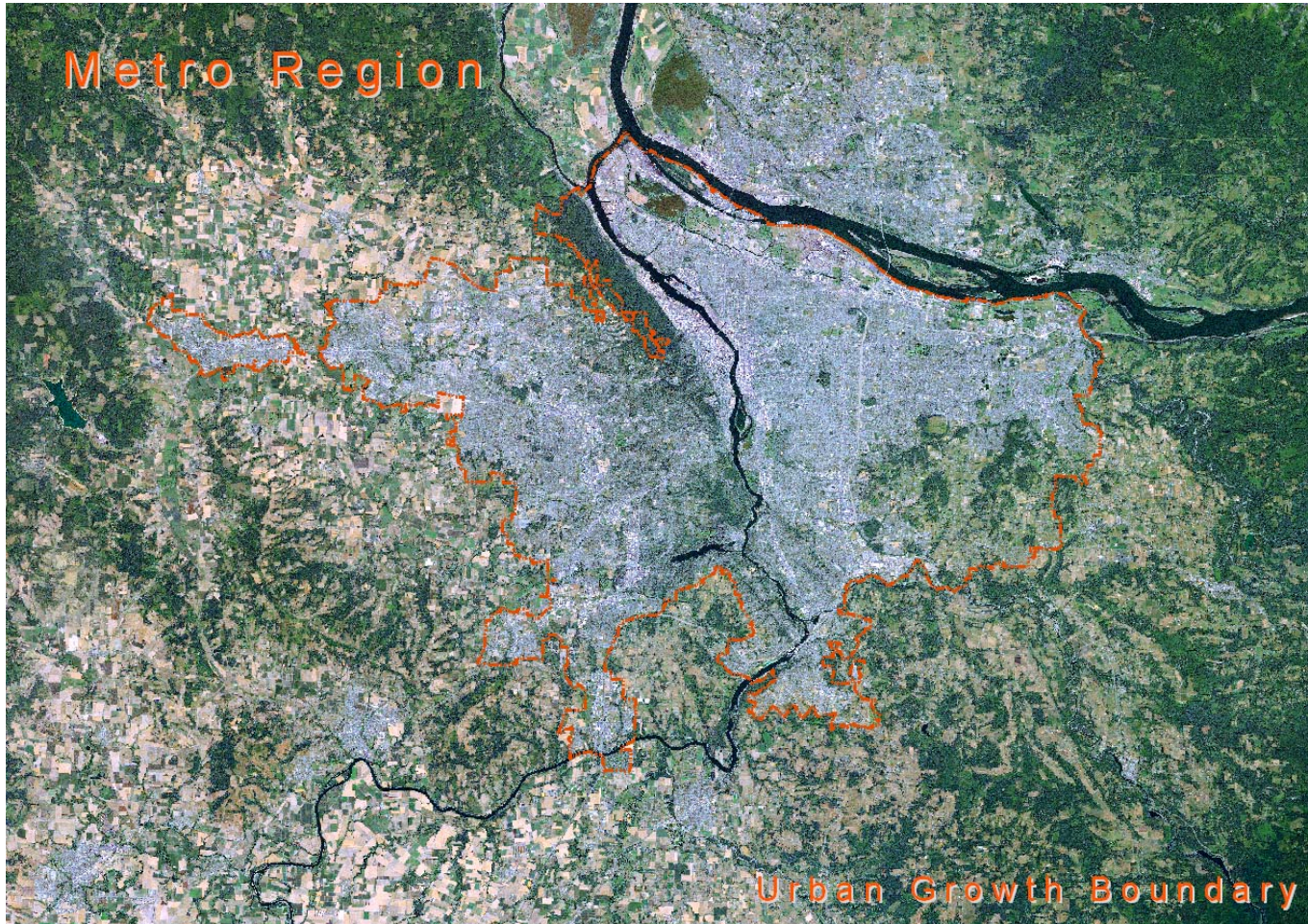
LEGEND

Metropolitan Region

- Central City
- Regional Centers
- Town Centers
- Inner Neighborhoods
- Outer Neighborhoods
- Employment Areas
- Industrial Areas
- Regionally Significant Industrial Areas
- Corridors
- Main Streets
- Station Community
- Station Community Core
- Potential Regional Throughways
- Green Corridors
- Planned & Existing Light Rail Lines
- Proposed Light Rail Alignments
- Potential HCT Facilities
- Light Rail Stations
- Potential Light Rail Stations
- International Airports
- Regional Airports
- Terminals
- Intermodal Rail Yards
- Rail Distribution Network
- Resource Land
- Rural Reserves
- Park
- Open space
- Urban Growth Boundary
- Neighboring Cities

Map prepared by the Urban Growth Boundary Commission on 10/12/04. All other data from various sources. Metro is not responsible for errors or for any consequences arising from the use of the information contained on this map.

2040: Maintaining a tight UGB



2040: Local plan implementation

“A level playing field”

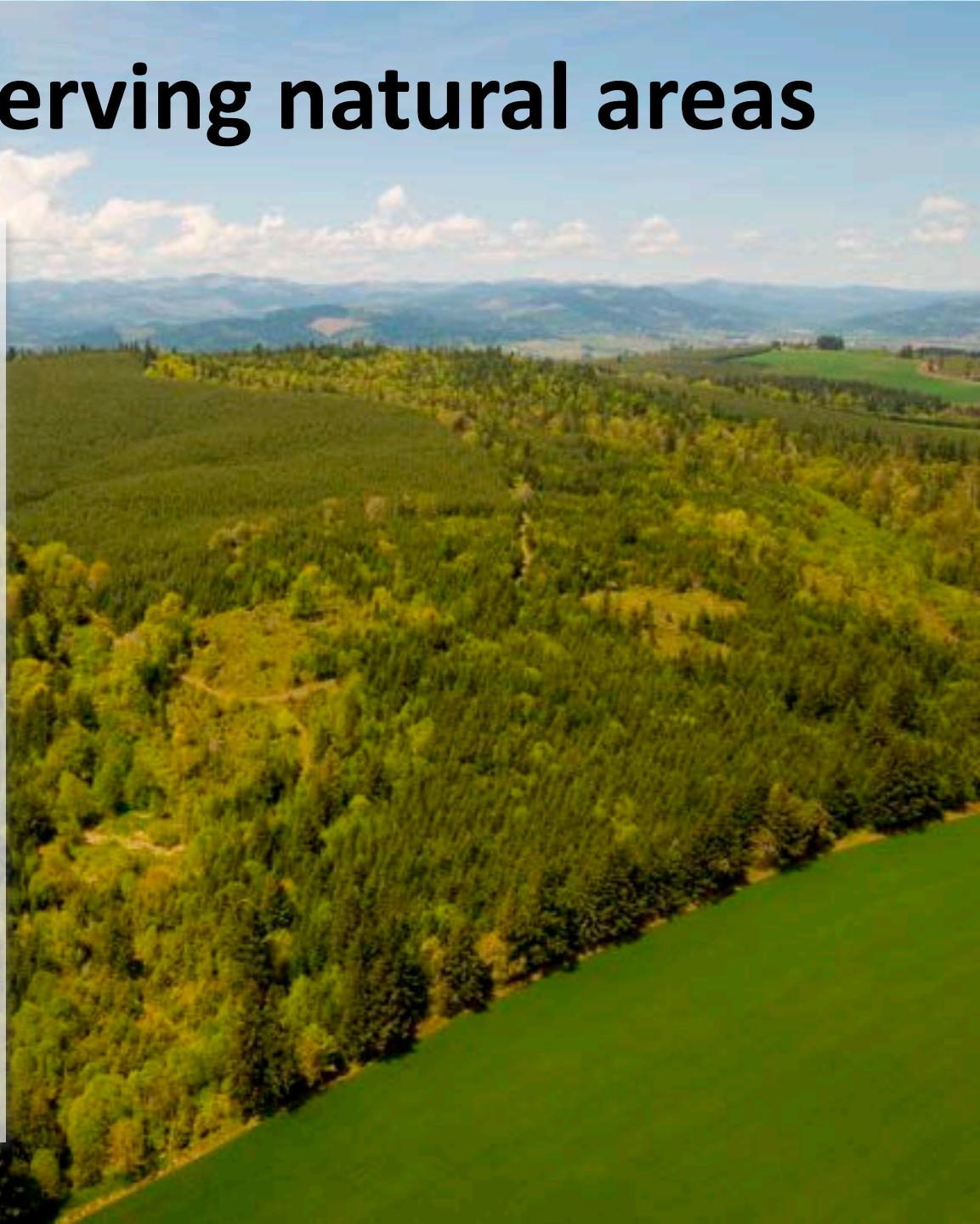


- Housing and jobs targets
- Stream protection
- Regional parking management
- Street design standards (boulevards)
- Street connectivity
- Multi-modal mobility corridors
- Model development codes

2040: Preserving natural areas

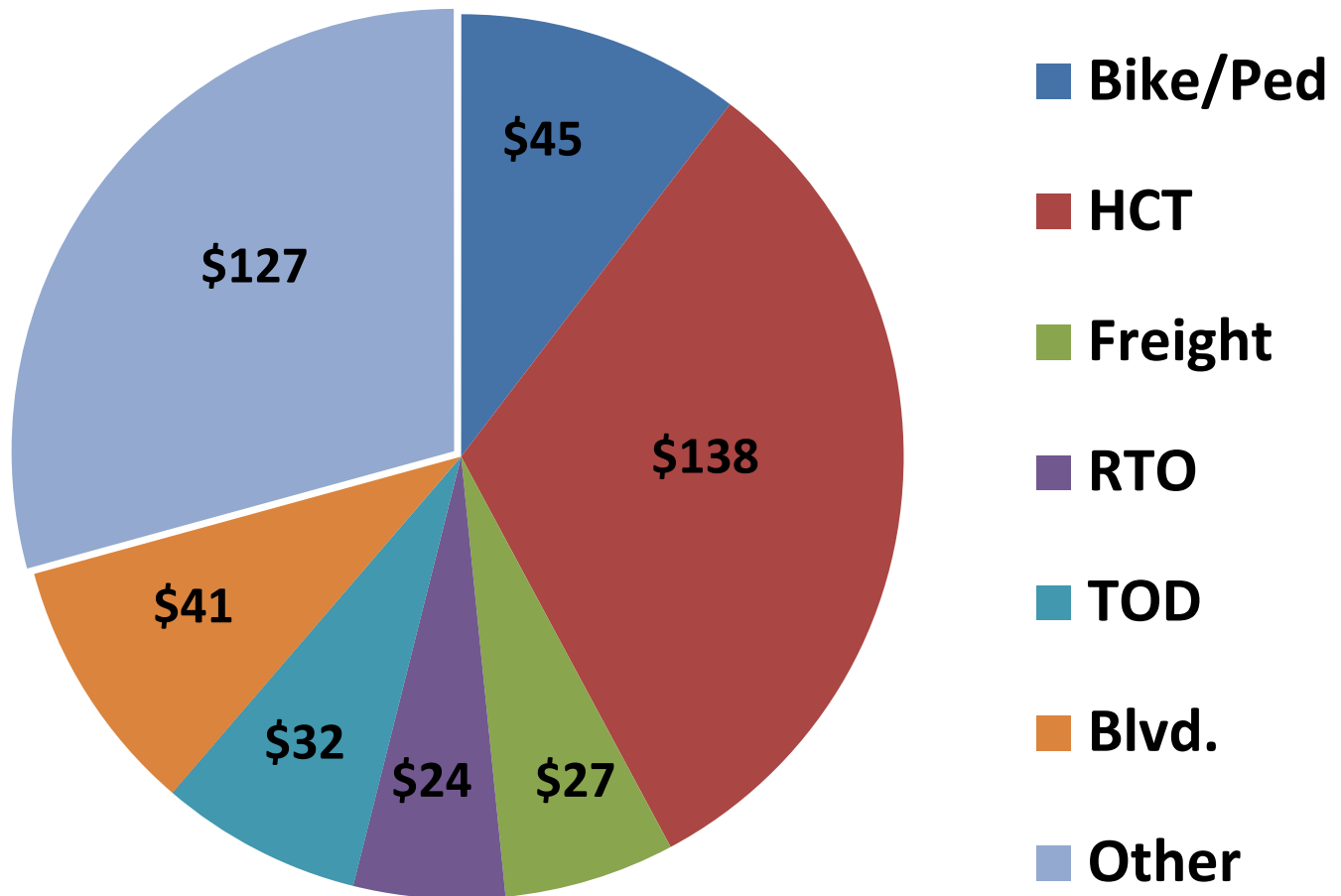
To date:

- **11,200 acres purchased & preserved**
- **more than 90 miles of rivers and streams protected**
- **more than one million trees planted**

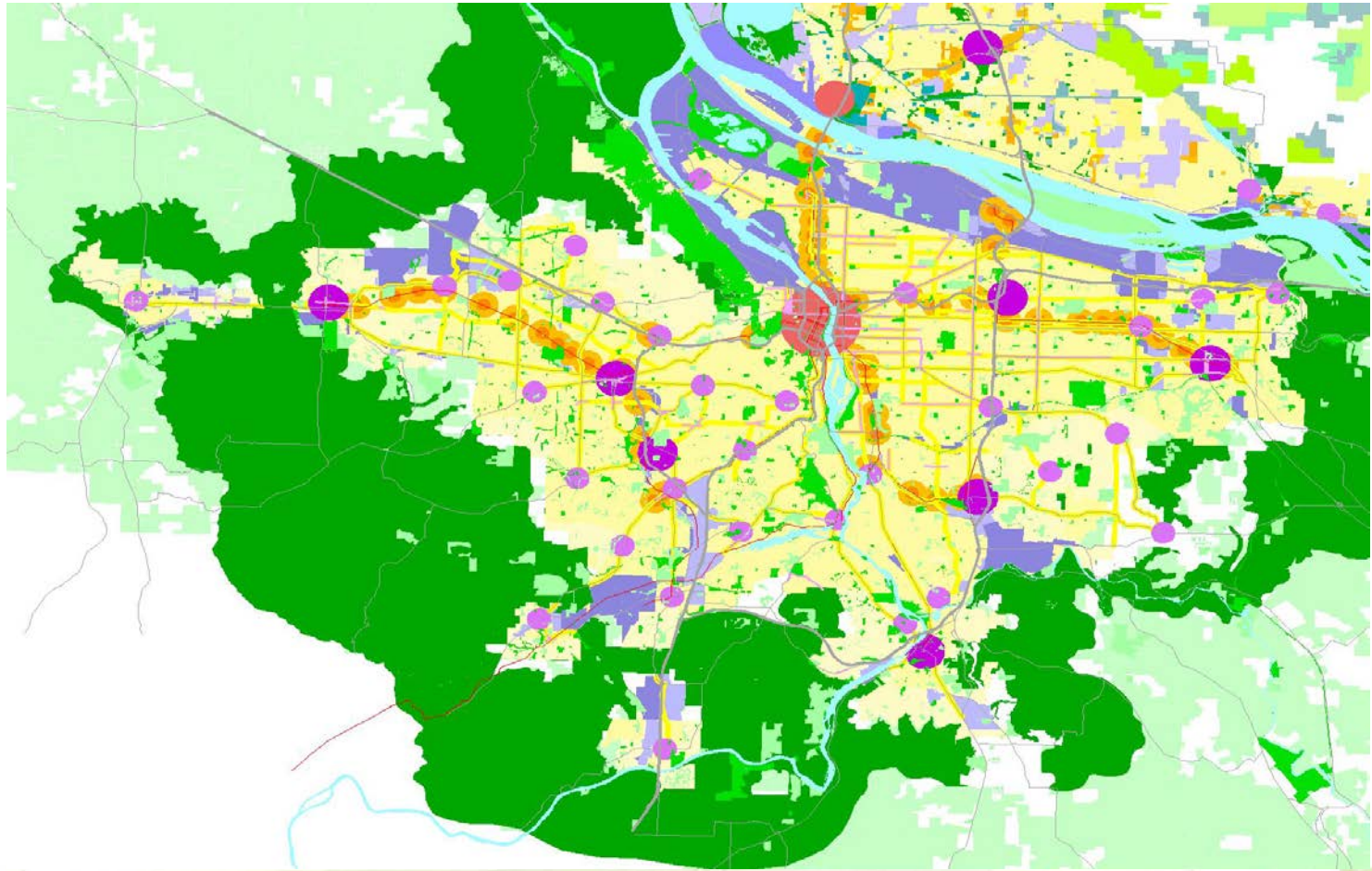


2040: Investing in communities 1995-2010 (millions)

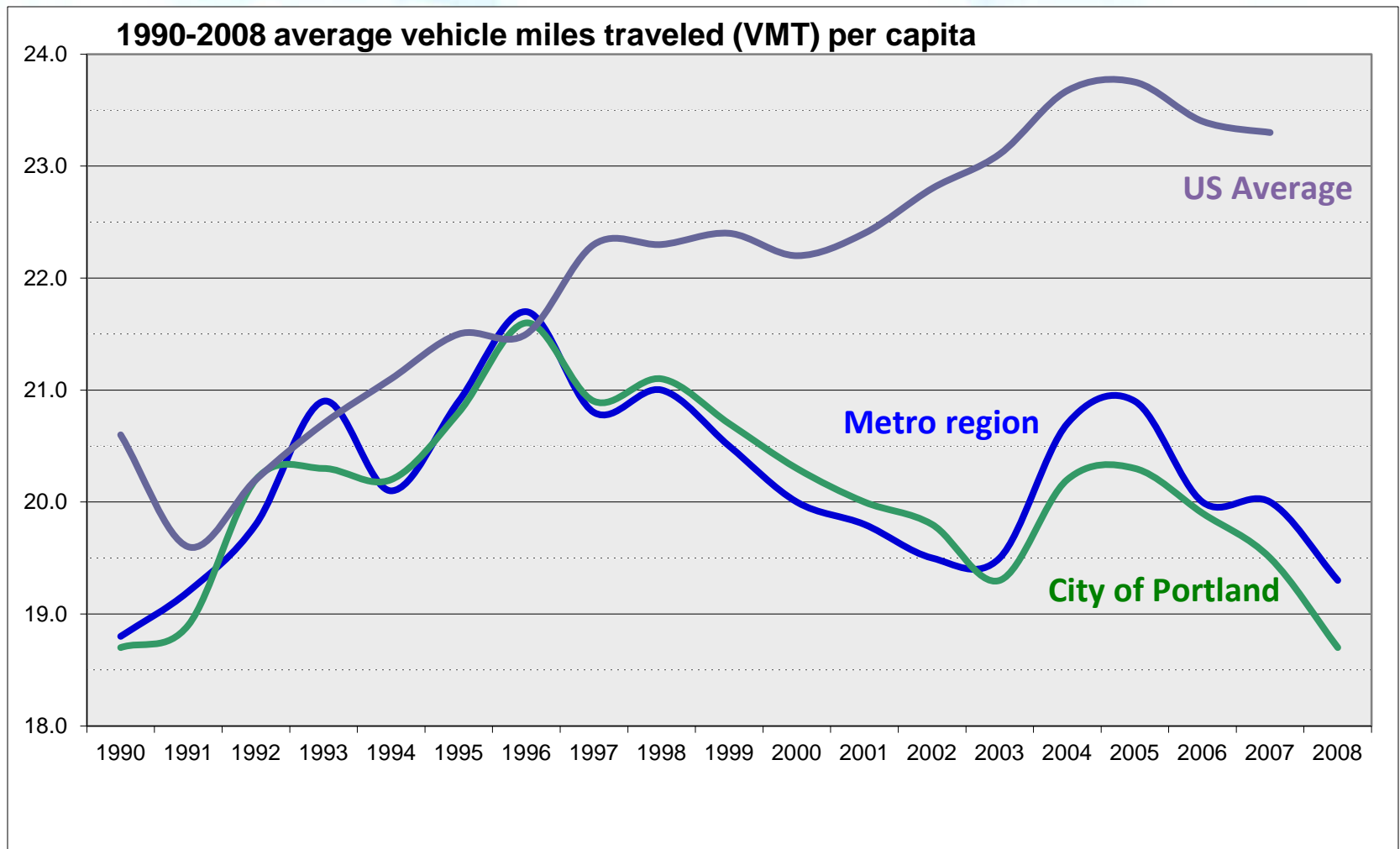
71 percent
(\$309 M) of
regional flex
funds spent on
2040
implementation
projects



The region's growth strategy is working

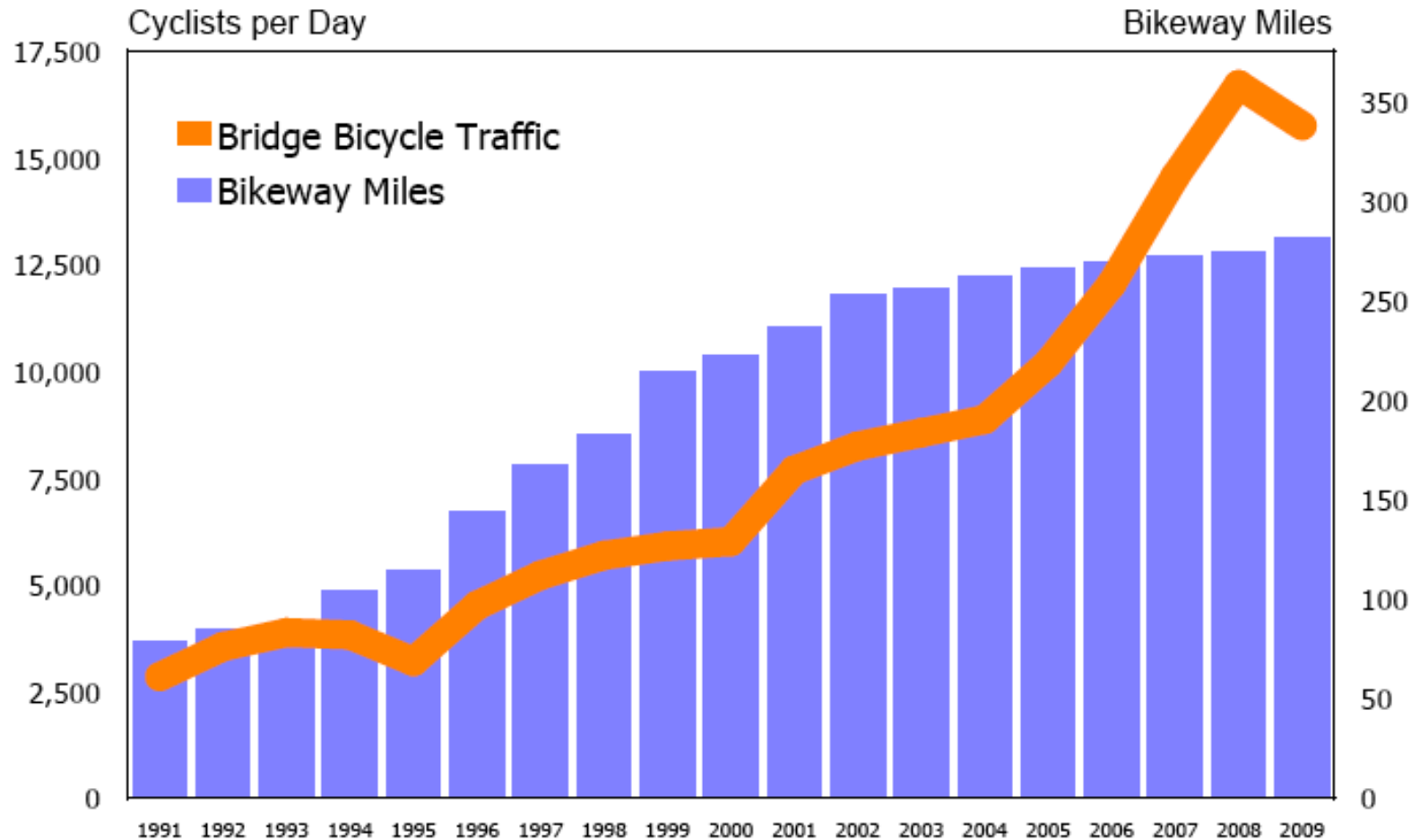


Portland area residents drive less...



Source: U.S. Federal Highway Administration, Highway Statistics, 1990-2008

...bike more...



Source: Portland Bureau of Transportation, 2010.

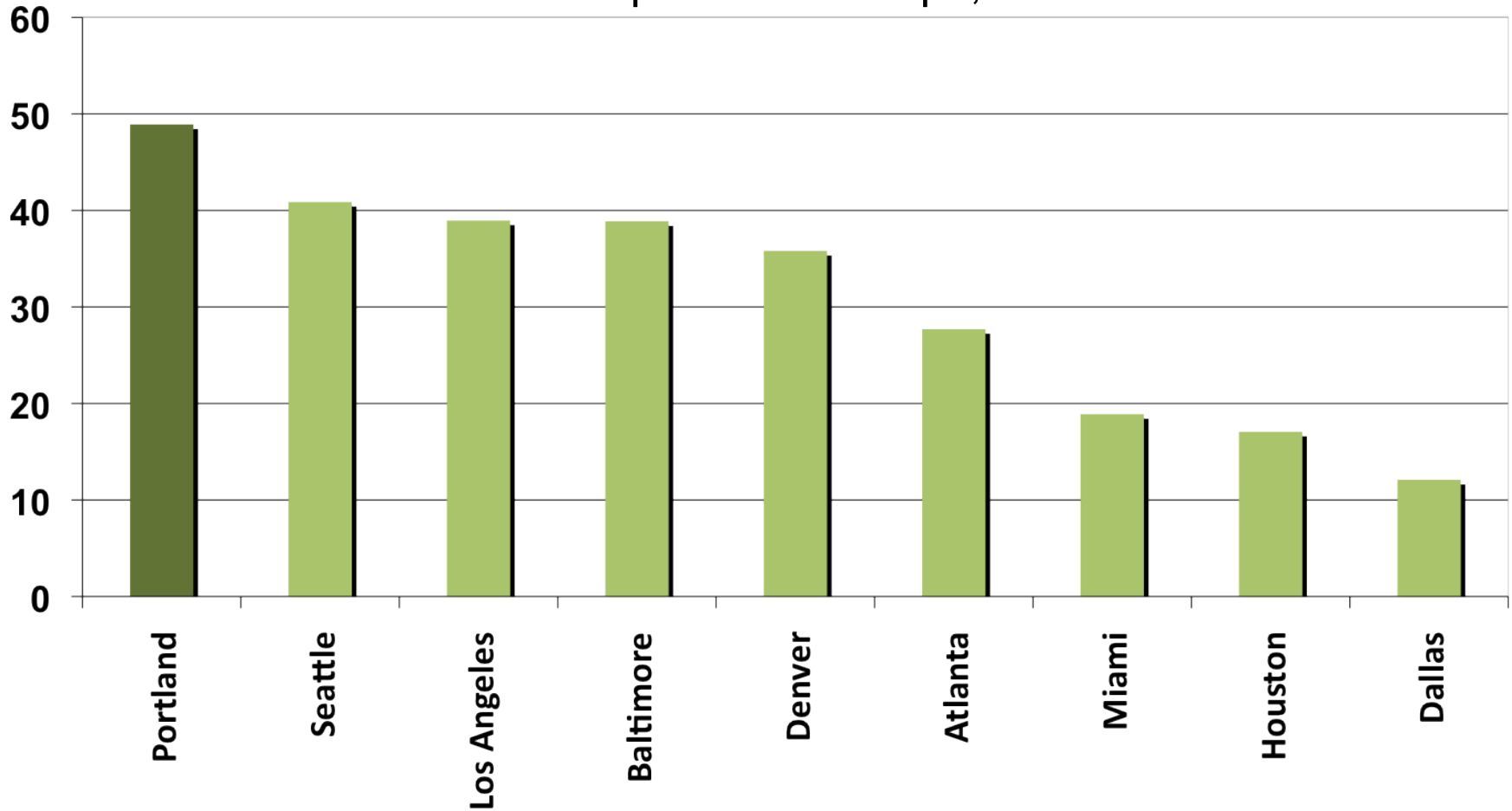
World's top eleven bicycle cities

1. Amsterdam, Netherlands
2. Portland, Oregon, USA
3. Copenhagen, Denmark
4. Boulder, Colorado, USA
5. Davis, California, USA
6. Sandnes, Norway
7. Trondheim, Norway
8. San Francisco, California, USA
9. Berlin, Germany
10. Barcelona, Spain
11. Basel, Switzerland

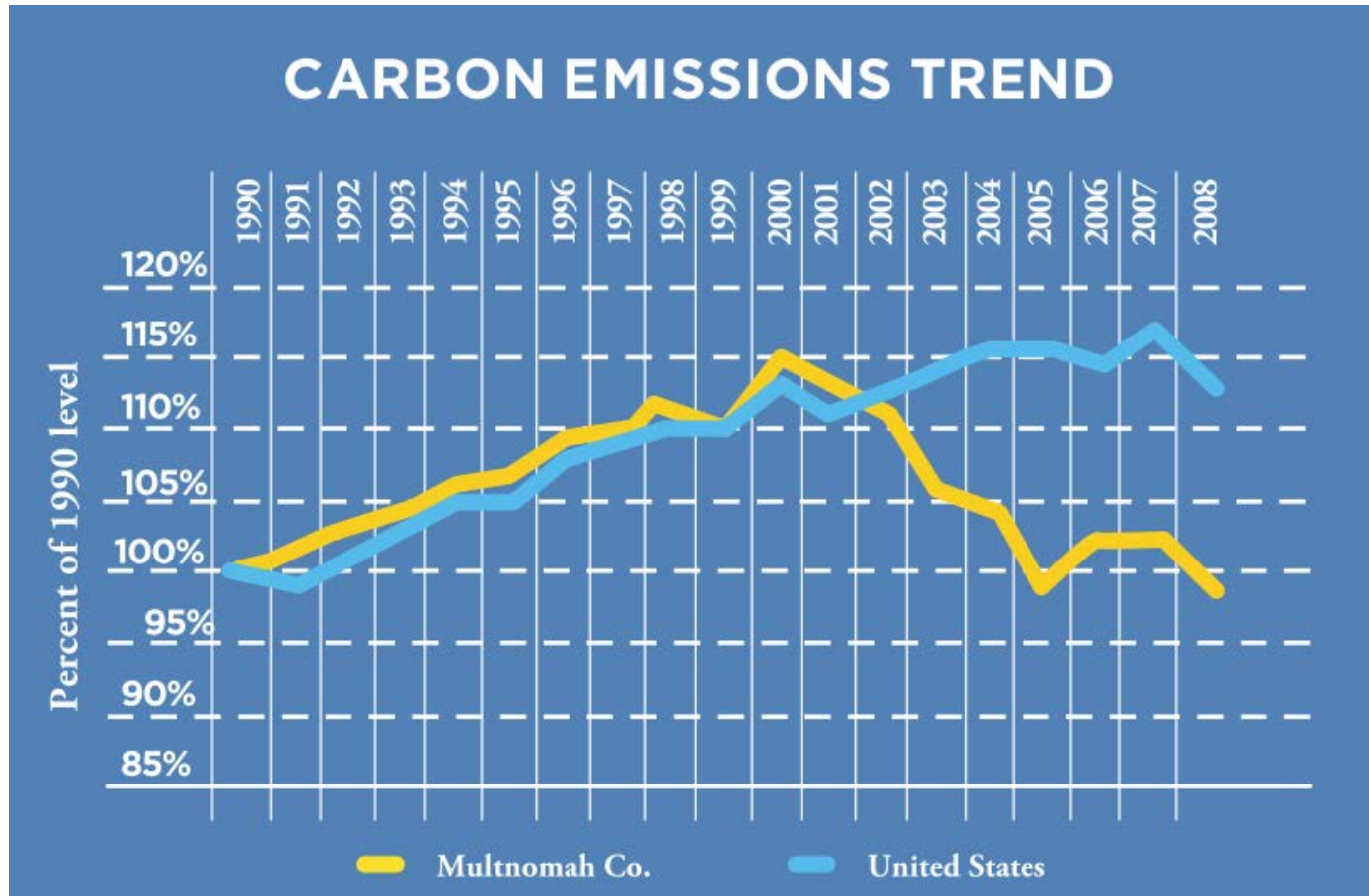


...take transit more...

Per Capita Transit Trips, 2005



...and, emit fewer greenhouse gases.



Source: City of Portland and Multnomah County, 2009.

**What have we done
lately?**



Oregon Greenhouse Gas Goals

Stop emissions increases
by 2010

10% reduction below
1990 levels by 2020

75% reduction below
1990 levels by 2050

*Adopted by the 2007 Legislature, the
goals are for all greenhouse gas
emissions sources.*



Metro Council climate direction



Resolution No. 08-3931 approved sustainability definition and development of climate action plan

Resolution No. 08-3971 launched Climate Smart Communities Initiative

Mandated state climate work

HB 2001/SB 1059



- Set statewide transportation strategy
- Set MPO GHG targets for light duty vehicles (<10,000 lbs.)
- Develop scenario guidelines & toolkit
- Estimate future vehicle and fuel technology
- Public outreach campaign
- Portland Metro scenario planning
- Report to 2011 and 2012 Legislatures

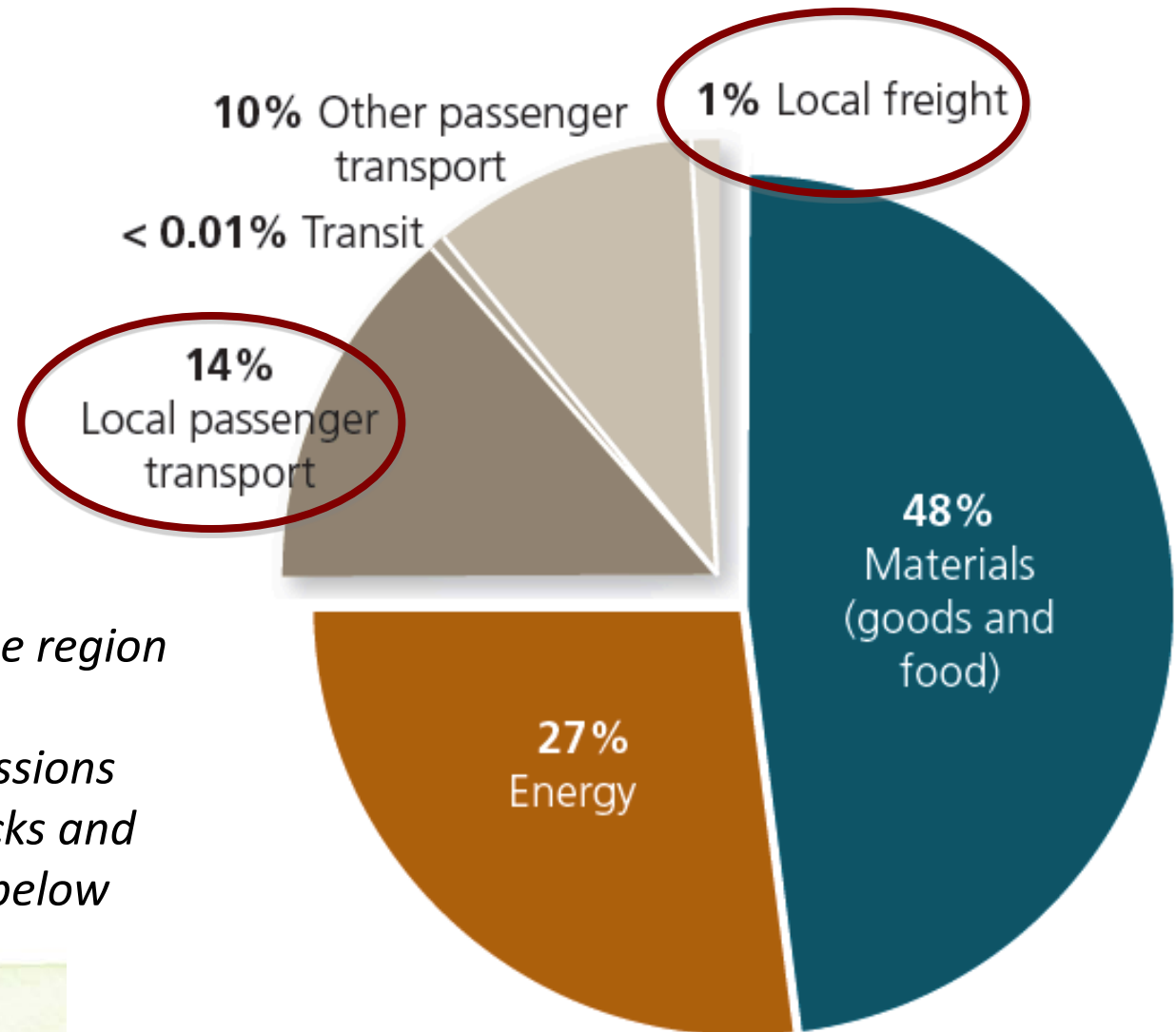
More information: <http://www.oregon.gov/ODOT/TD/OSTI/>



Climate Smart Communities

Portland Metro scenario planning

Light vehicles: **region's mandated focus**



The State calls for the region to reduce per capita greenhouse gas emissions from cars, small trucks and SUVs by 20 percent below 2005 levels.

Oregon MPO 2035 GHG Targets

(reduce per capita light vehicle GHG emissions below 2005 levels)

Metropolitan Area	Adopted Target
Portland Metro	20%
Eugene-Springfield	20%
Salem-Keizer	17%
Rogue Valley	19%
Bend	18%
Corvallis	21%

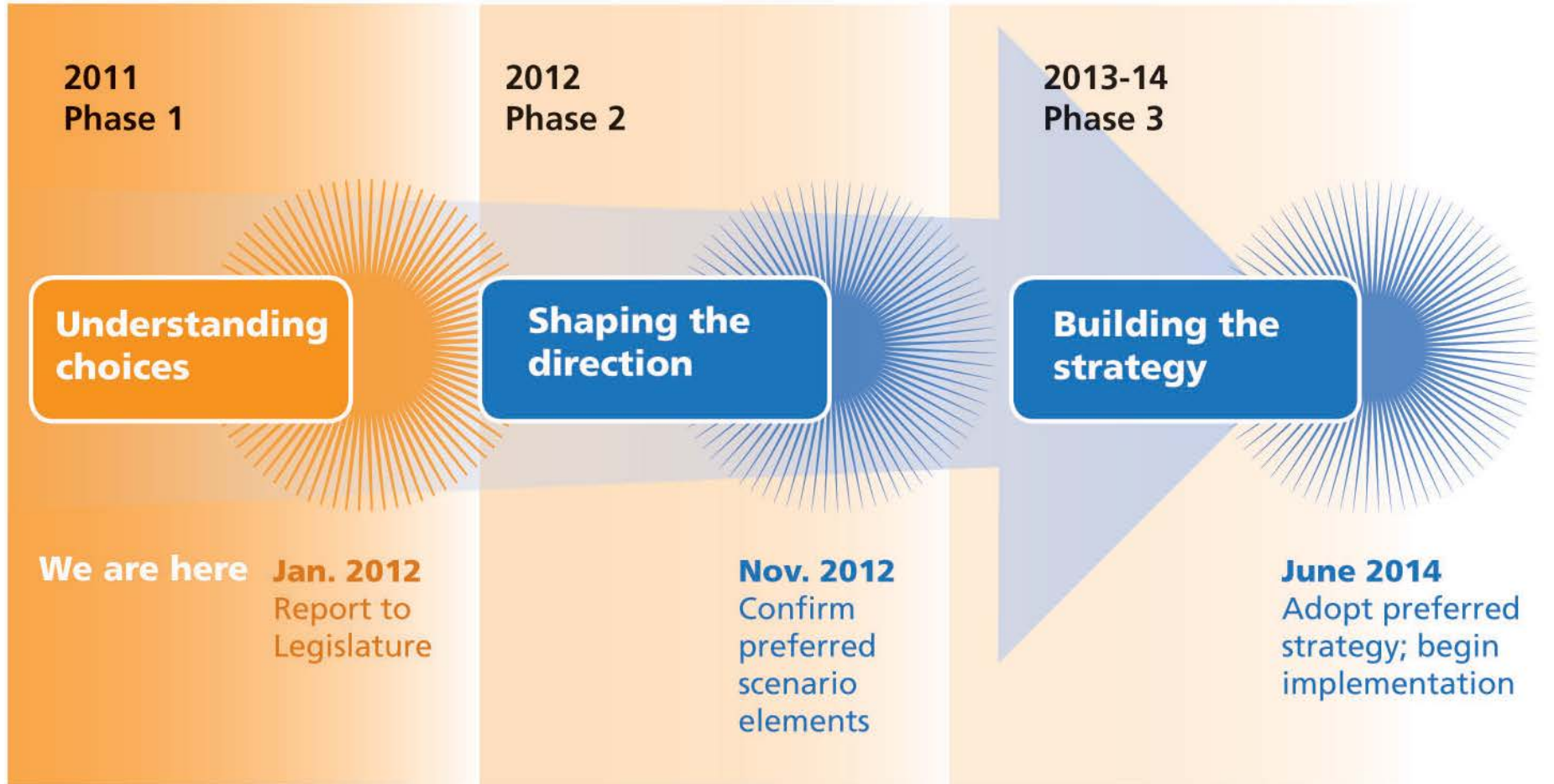
Project tracks

	Understand choices Phase 1	Shape Direction Phase 2	Select Strategy Phase 3
Technical & policy analysis	<ul style="list-style-type: none"> • Evaluation framework • Strategy toolbox research • Tool development and integration 	<ul style="list-style-type: none"> • Evaluation Framework • Alternative scenarios • Tool integration & sensitivity testing 	<ul style="list-style-type: none"> • Preferred scenario • Update regional plans and policies
Communications & engagement	<ul style="list-style-type: none"> • Opinion research • Stakeholder interviews • Regional summit • Best practices 	<ul style="list-style-type: none"> • Design workshops 	<ul style="list-style-type: none"> • Public comment period • Regional summit
Tools	<ul style="list-style-type: none"> • Metropolitan GreenSTEP • Literature Review 	<ul style="list-style-type: none"> • Metropolitan GreenSTEP • Envision Tomorrow 	<ul style="list-style-type: none"> • GreenSTEP • Regional travel model • MetroScope • MOVES

We Are Here



Scenarios timeline



We are here.

Local implementation



Comprehensive plans and zoning



Transportation system plans

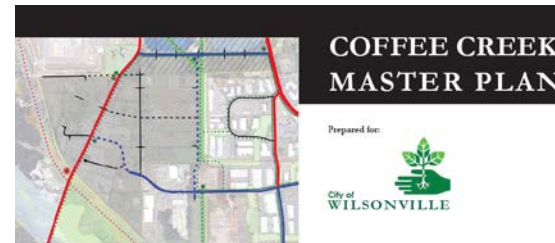


Development codes



Community investments

2040: Local aspirations and actions



Packages of policies and actions

Testing bundles of “plausible” strategies

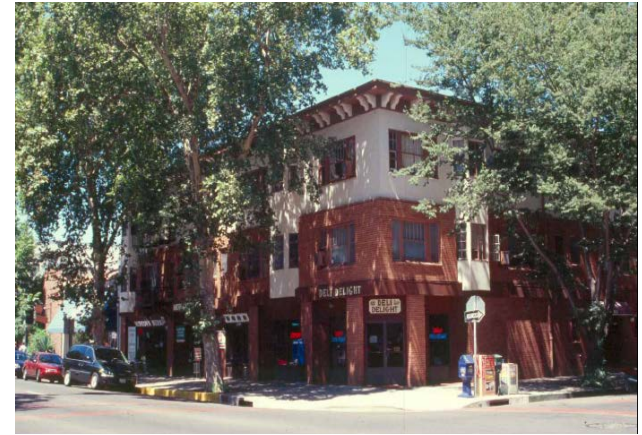


Note: The state will provide assumptions

Land use strategies

Emphasize low carbon development patterns

- More infill and redevelopment in centers and corridors
- More mixed use and transit oriented development
- Higher densities for new development
- Tight urban growth boundary



Transportation strategies

Expand low carbon travel options

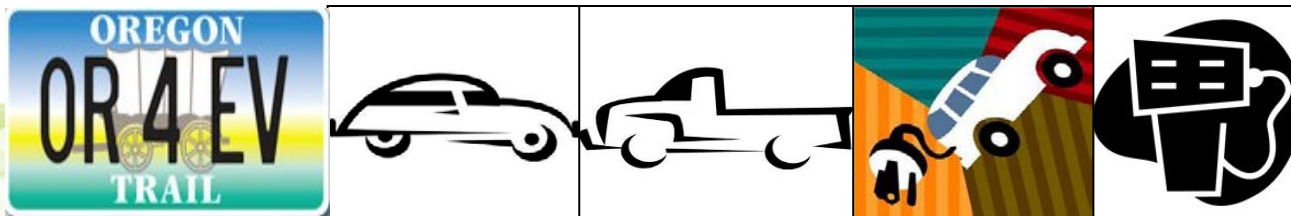
- Incentives for walking, biking, transit and low carbon vehicles
- Complete pedestrian and bike networks
- Transit service
- Parking management
- System management/pricing



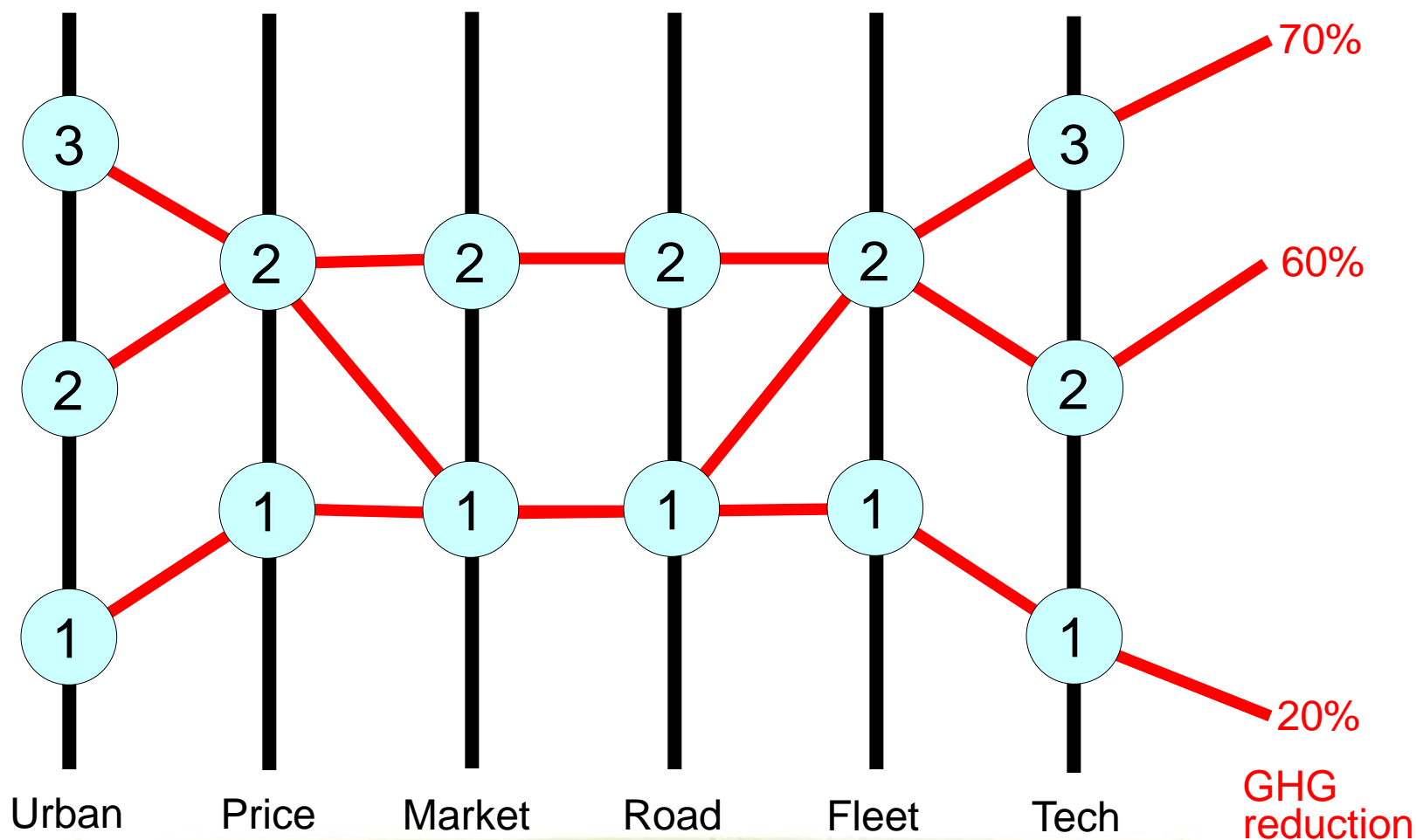
Technology & fleet estimates for the Portland region

	Fuel Economy mpg cars & trucks	Fleet Mix percentage cars & trucks	Hybrids percentage cars & trucks	Fuel Carbon Content percentage improvement
2005	29 & 21	57 & 43	0	0
	↓	↓	↓	↓
2035	68 & 48	71 & 29	8 & 2	20

Source: State Agency Technical Report (March 1, 2011) and assumed in the Metropolitan GHG Reduction Targets Rule



Scenarios show a range of potential reductions (2035/2050)



Most effective strategies

- Technology and fuels
- Built environment and community design
 - Infill, mixed-use, transit supportive development in centers
 - Expanded transit and active transportation networks
 - More jobs and services near where people live
- Pricing
 - Parking management
 - Fees that increase the cost to drive
- Marketing and other trip reduction programs

Assessing the benefits and impacts



- Greenhouse gas emissions
- Travel behavior
 - Walking, biking and transit
 - Vehicle miles traveled
 - Freight reliability
- Jobs and households
- Economy
- Public health and equity
- Household cost and affordability

Climate Smart Communities

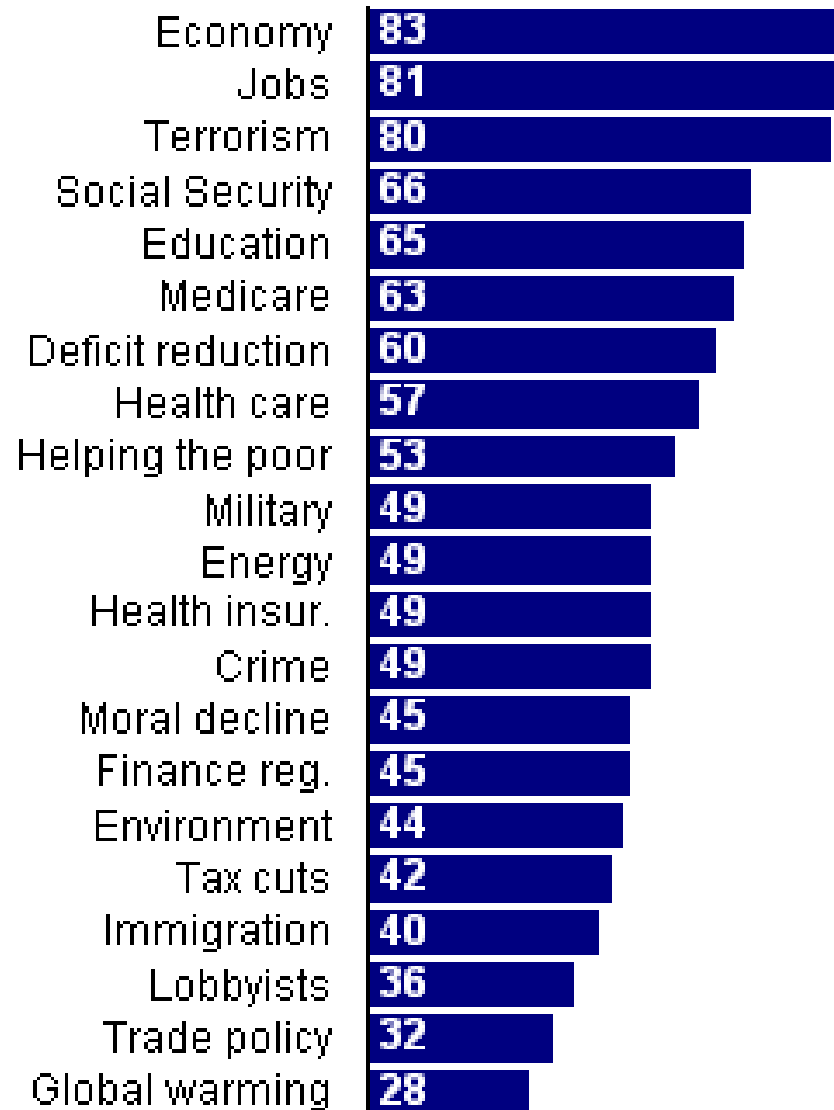
Communications



CLIMATEGATE'S "DEEP THROAT"

Top Priorities for 2010

% rating each a "top priority"



Q30a-w.

**Let's not talk about climate
change... let's do talk about
outcomes...**

Metro Council's *Desired Outcomes*



**Vibrant
communities**



Equity



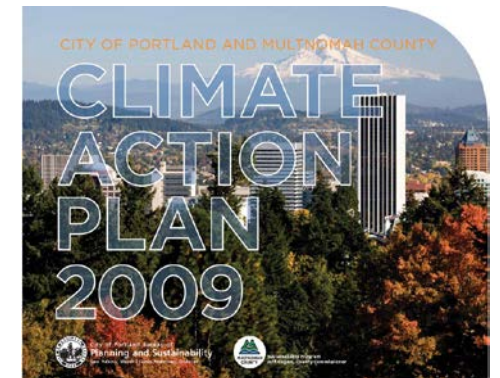
**Economic
prosperity**



**Transportation
choices**



Clean air & water



**Climate
leadership**

Data Gaps

- More research into health & equity benefits/impacts
- How does Climate Smart development grow businesses and create jobs?
- From Green Dividend to “Neighborhood Dividend”
- Mitigation vs. Adaptation (costs)
- Future housing preferences

Discussion



For more information, contact:
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