

CITY OF PORTLAND AND MULTNOMAH COUNTY

CLIMATE ACTION PLAN 2009

YEAR TWO PROGRESS REPORT APRIL 2012



Bureau of Planning and Sustainability
Innovation. Collaboration. Practical Solutions.

City of Portland, Oregon
Sam Adams, Mayor • Susan Anderson, Director



Office of Sustainability
Jeff Cogen, County Chair; Kat West, Director

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OVERVIEW

Over the last 20 years, Portland has emerged as a vibrant, attractive, trend-setting city, pairing a thriving urban lifestyle with the return of nature to the city. The same sensibility that makes Portland livable—trees, greenways, walkable neighborhoods, streetcars, and solar—has helped reduce carbon emissions 26 percent per person since 1990. In 2010, total carbon emissions fell to six percent below 1990 levels, even with rapid population growth.

No single action, nor single entity—public, private, nonprofit or individual—is responsible for these accomplishments. Instead, they are the result of many people, businesses and organizations taking action every day—at home, at work, and at play.

Since 2009, when the City of Portland and Multnomah County adopted its most recent Climate Action Plan, more than 1,000 homes have been weatherized through Clean Energy Works Oregon and more than 1,400 homes and businesses have installed solar panels. Nearly 150,000 households can now compost food scraps at the curb, and the number of bicyclists has climbed by 14 percent. Oregon’s architecture, engineering and construction firms continue to design and build the world’s greenest buildings, with the new Port of Portland Headquarters and the Edith Green-Wendell Wyatt Federal Building as the most recent examples.

These efforts are having an impact: driving down carbon emissions while creating jobs, advancing social equity, keeping dollars in the local community and making our neighborhoods more vibrant and livable. Portland and Multnomah County have made real progress in carrying out the Climate Action Plan, and much work still lies ahead.

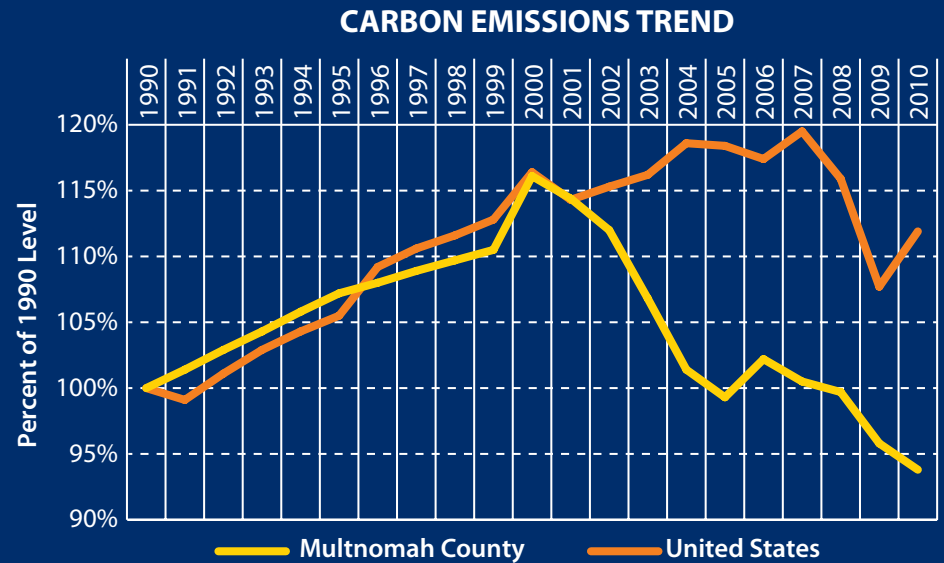
BACKGROUND

In 1993, Portland became the first local government in the U.S. to adopt a plan to address global warming. In 2001, Multnomah County joined the City of Portland

in adopting a revised plan, the Local Action Plan on Global Warming. In late 2009, the City and County adopted the third-generation local strategy on global warming, the Climate Action Plan.

This progress report contains updated local carbon emission numbers and provides a snapshot of the status of efforts made by the City and County in the second year of implementing the Climate Action Plan. The appendix includes a more detailed summary of the status of each of the actions in the Climate Action Plan.

FIGURE 1.



Bureau of Planning and Sustainability and U.S. Energy Information Administration

LOCAL CARBON EMISSIONS CONTINUE TO TREND DOWNWARD

Portland and Multnomah County have made substantial progress in carrying out the actions identified in the local climate plans. As a result, local emissions have dropped significantly since the peak in 2000, countering the national trend (see Figure 1).

Despite rapid population and economic growth, total local carbon emissions in 2010 were more than six percent below 1990 levels. Per person, emissions have fallen by almost 26 percent below 1990 levels, a very encouraging trend (see Table 1).

Of note, emissions associated with home energy use have declined seven percent below 1990 levels, a per person decrease of almost 26 percent. Emissions from energy use in the commercial, industrial and multifamily sectors combined have decreased by nine percent since 1990, while the total number of jobs has increased by 12 percent over the same period. Transportation emissions have begun to drop below 1990 levels (down by one percent). However, per person emissions from transportation have dropped by 22 percent since 1990 as a result of increasingly complete and connected neighborhoods, regional transportation investments, improved vehicle fuel efficiency and lower-carbon fuels.

Energy Intensity: For all sectors combined, energy used per person has declined by 17 percent compared to 1990. The decline in energy intensity reflects the

Table 1. Greenhouse Gas Emissions in Multnomah County by Sector, 1990 - 2010

Total emissions (metric tons CO ₂ -equivalent)							Percent Change by Sector from 1990
Year	1990	1995	2000	2005	2009	2010	
Residential	1,725,000	1,756,000	2,008,000	1,655,000	1,734,000	1,611,000	-7%
Commercial	1,857,000	2,041,000	2,392,000	1,997,000	1,994,000	1,912,000	3%
Industrial	1,507,000	1,738,000	1,944,000	1,288,000	1,139,000	1,163,000	-23%
Transportation	2,968,000	3,118,000	3,054,000	3,091,000	2,910,000	2,931,000	-1%
Waste disposal	113,000	108,000	90,000	78,000	49,000	48,000	-57%
Total	8,170,000	8,761,000	9,488,000	8,109,000	7,825,000	7,665,000	
Percent change from 1990	0%	7%	16%	-1%	-4%	-6%	
Percent change from 2000			0%	-15%	-18%	-19%	
Per capita emissions (metric tons CO ₂ -equivalent)							Percent Change by Sector from 1990
Year	1990	1995	2000	2005	2009	2010	
Residential	3.0	2.8	3.0	2.5	2.4	2.2	-26%
Commercial	3.2	3.3	3.6	3.0	2.7	2.6	-18%
Industrial	2.6	2.8	2.9	1.9	1.6	1.6	-39%
Transportation	5.1	5.0	4.6	4.6	4.0	4.0	-22%
Waste disposal	0.2	0.2	0.1	0.1	0.1	0.1	-66%
Total	14.0	14.0	14.4	12.1	10.8	10.4	
Percent change from 1990		0%	3%	-14%	-23%	-26%	
Percent change from 2000			0%	-16%	-25%	-27%	

Note: Figures have been revised from previous years to incorporate updated data from the U.S. Energy Information Administration and updated electricity emission coefficients.



consistent progress that has been made in improving energy efficiency in buildings and industrial processes in Portland and Multnomah County. Since 2000, these efforts have helped to decrease electricity use by 11 percent and natural gas use by eight percent, despite population growth. For the transportation sector, progress has been supported by improvements in federal fuel economy standards and increased investment in local transportation options like light rail, streetcar and bicycle infrastructure. In 2010, total gasoline sales in Multnomah County fell to just below 1990 levels, a notable fact given the 26 percent increase in population over the same period. As a result, per person gasoline sales have declined 21 percent over the last 20 years.

Carbon Intensity: Carbon emissions per unit of energy used, known as carbon intensity, have also declined substantially, and in 2010 were 11 percent lower than in 1990. This decline reflects the transition from fuel oil to natural gas and the continued growth of renewable energy resources like wind and solar in the Pacific Northwest. Local green power sales also continue to grow. The commitment of Portland residents and businesses to the voluntary purchase of green power from Portland General Electric and Pacific Power led to Portland's designation in November 2011 as the U.S. EPA's *Green Power Community of the Year*. Currently, Portland has the highest participation rate among Green Power Communities of its population size, with more than 15 percent of utility customers buying renewable energy. For the transportation sector, the

improvements in carbon intensity have largely been driven by the increased use of biofuels in Multnomah County, with biofuels now accounting for about 15 percent of total fuel use.

Progress from 2009 to 2010: Total local carbon emissions declined 2 percent from 2009 to 2010 (see Table 1). Per person energy use declined by three percent from 2009 to 2010. The population of Multnomah County grew one percent during the year, while residential energy use fell by nine percent per person. The total number of jobs remained essentially unchanged, while commercial and industrial energy use decreased by two percent per job.

Challenges Ahead: With total local carbon emissions down 6 percent below 1990 levels, Portland and Multnomah County continue to depart markedly from the trend for the U.S. as a whole, which has experienced a 12 percent increase over the same period. These local achievements, however, underscore the magnitude of the challenge ahead. Even in Portland and Multnomah County, where climate-friendly decisions, policies and programs have prevailed over the past 20 years, we have only just begun to make meaningful progress in reducing emissions below 1990 levels.

Recognizing this, the Climate Action Plan adopted in 2009 outlined a plan to put Portland and Multnomah County on a path to achieve a 40 percent reduction in carbon emissions by 2030, and an 80 percent reduction by 2050.

How to Read Figure 2

Figure 2 shows how different factors interact to produce the net changes in carbon emissions for each sector from 1990 to 2010.

In the residential sector, population increased 26 percent from 1990 to 2010. Energy use per person, however, declined by 10 percent, reflecting improvements in the energy efficiency of homes, heating systems and appliances, as well as changes in the number of people in each household and changes in the climate (2010 saw a warmer winter and hotter summer than 1990). The carbon intensity of the energy used in homes fell by 18 percent as a result of increased low-carbon electricity from sources such as wind, as well as homes switching from oil furnaces to natural gas.

Multiplying these factors together and weighting the results by the percentage the residential sector represents of overall emissions, shown by the pie chart in the top right corner, leads to the residential sector's one percent contribution to the overall six percent decrease in emissions.

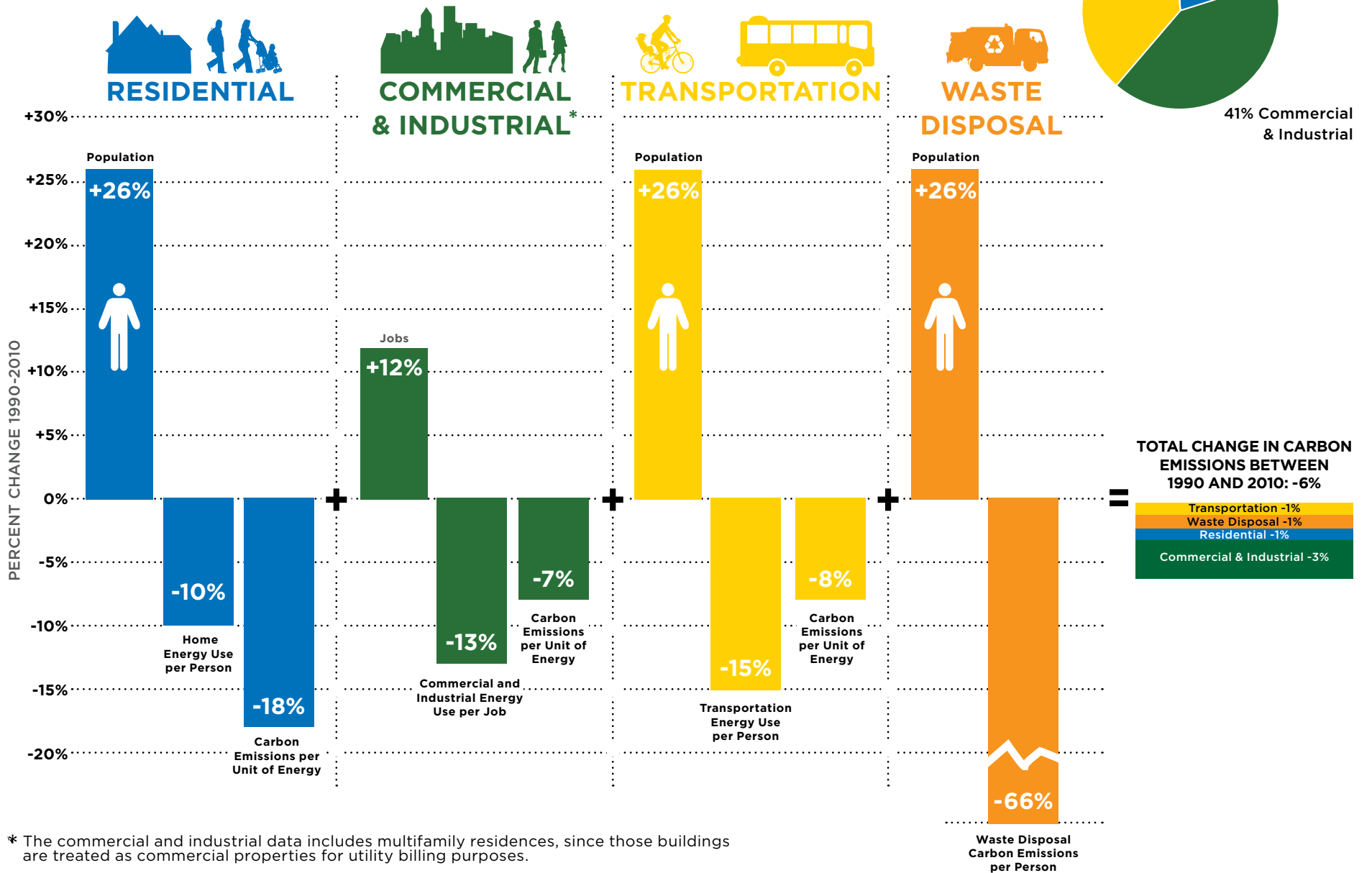
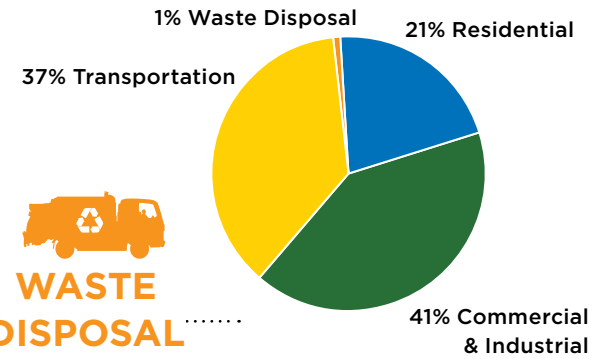
The commercial and industrial sector, which also includes multifamily residences, shows a similar pattern, using job growth as a key factor rather than population growth. While the number of jobs increased by 12 percent from 1990 to 2010, energy use per job decreased by 13 percent and the carbon intensity of the energy used fell by seven percent. When multiplied by the commercial and industrial sector's 41 percent share of overall emissions, the result is the sector's contribution of a three percent reduction in total emissions.

For transportation and waste disposal, population growth is used as a primary factor, as with the residential sector. The large percentage decrease in per person emissions from waste disposal reflects both the tripling of the recycling rate since 1990 and the capture of methane, a potent greenhouse gas, at landfills that receive waste from Multnomah County residents and businesses.

Figure 2.

COMPONENTS OF CARBON REDUCTION IN MULTNOMAH COUNTY 1990-2010

MULTNOMAH COUNTY CARBON EMISSIONS PERCENTAGE BY SECTOR



* The commercial and industrial data includes multifamily residences, since those buildings are treated as commercial properties for utility billing purposes.





Portland Streetcar

YEAR TWO PROGRESS

The Climate Action Plan establishes 18 measurable 2030 objectives across eight primary focus areas:

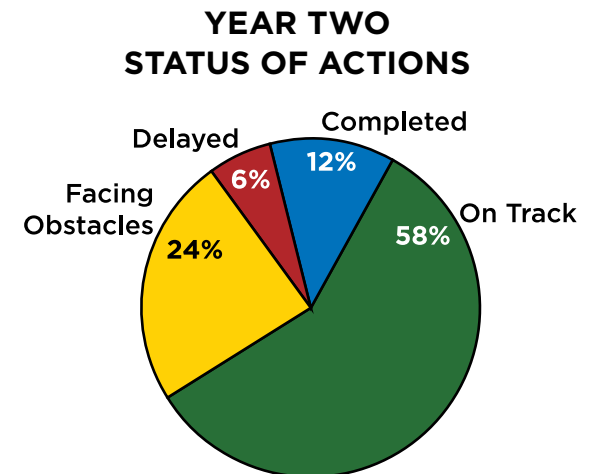
- **Buildings and Energy**
- **Urban Form and Mobility**
- **Consumption and Solid Waste**
- **Urban Forestry and Natural Systems**
- **Food and Agriculture**
- **Community Engagement**
- **Climate Change Preparation**
- **Local Government Operations**

Within those focus areas, the Climate Action Plan outlines nearly 100 specific actions to be initiated by 2012. Those actions are not intended to be an exhaustive list of every effort that Portland and Multnomah County will undertake to achieve our carbon emission reduction goals. Rather, the actions identified in the Climate Action Plan are the highest priority efforts to be pursued by the end of 2012.

In general, meaningful progress is evident on the majority of actions in the plan. Approximately 12 percent of the actions slated for the first three years

are complete; an additional 58 percent are on track for completion; 24 percent are underway but face obstacles or are behind schedule; and the remaining six percent have not yet been initiated or little work has been done.

The following sections of this report identify major accomplishments and remaining challenges in each of the Climate Action Plan's eight action areas based on progress made in the second year of implementation.





HIGHLIGHTS

BUILDINGS AND ENERGY

The Climate Action Plan identifies four 2030 objectives in the focus area of buildings and energy:

1. Reduce total energy use of all buildings;
2. Achieve zero net greenhouse gas emissions in all new buildings;
3. Produce some of our energy from on-site renewables and clean district energy systems; and
4. Ensure that our buildings can adapt to a changing climate.

Clean Energy Works Oregon: In June 2010, under Mayor Adams' leadership, the City financial utility partners established Clean Energy Works Oregon (CEWO) and charged the new nonprofit with the dual mission of reducing carbon emissions and creating family-supporting jobs. Since March 2011, CEWO has expanded its whole-home retrofit financing program beyond the City of Portland to include Multnomah, Clackamas, Washington, Jackson, Josephine, Klamath and Lake Counties.

Over 1,000 homes have received whole-home energy remodels since the beginning of the Clean Energy Works Portland pilot (see map on page 11). The pilot,

which ended in February 2011, created 45 full-time construction jobs and over 400 workers received a paycheck from the program. CEWO has assembled nearly \$25 million in capital and program funding. It has also worked with several Oregon lending institutions to leverage over \$20 million in private-sector capital.

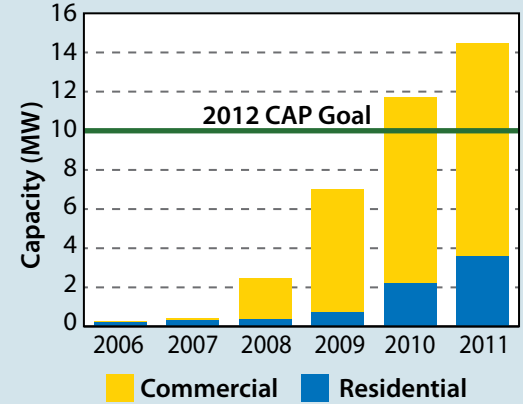
Over 30 Home Performance contractors are now participating in CEWO. These contractors have committed to uphold a set of *high-road standards*, including paying a family-supporting wage and hiring from a diverse pool of skilled workers. Workforce results so far indicate that CEWO contractors are achieving these high-road standards. One hundred percent of new hires have been local. Thirty-eight percent of job hours have been worked by minorities and 15 percent of job hours have been worked by women. Fifteen percent of contract dollars have gone to historically disadvantaged businesses.

By June 2013, CEWO intends to upgrade 6,000 single-family homes in Oregon, create or retain 1,300 quality jobs and deliver energy savings of 8,500,000 kilowatt-hours and 1,950,000 therms.

Solar: Installation of on-site renewable energy systems continued to grow in 2011. In just two years, the three-year Climate Action Plan goal of 10 megawatts of solar electric generation was exceeded. As of December 2011, there are 14.7 megawatts of total installed capacity (see Figure 3). Installations by government agencies, businesses and local residents all contributed towards achieving this goal. This

FIGURE 3.

Total Installed Solar PV Capacity in Multnomah County



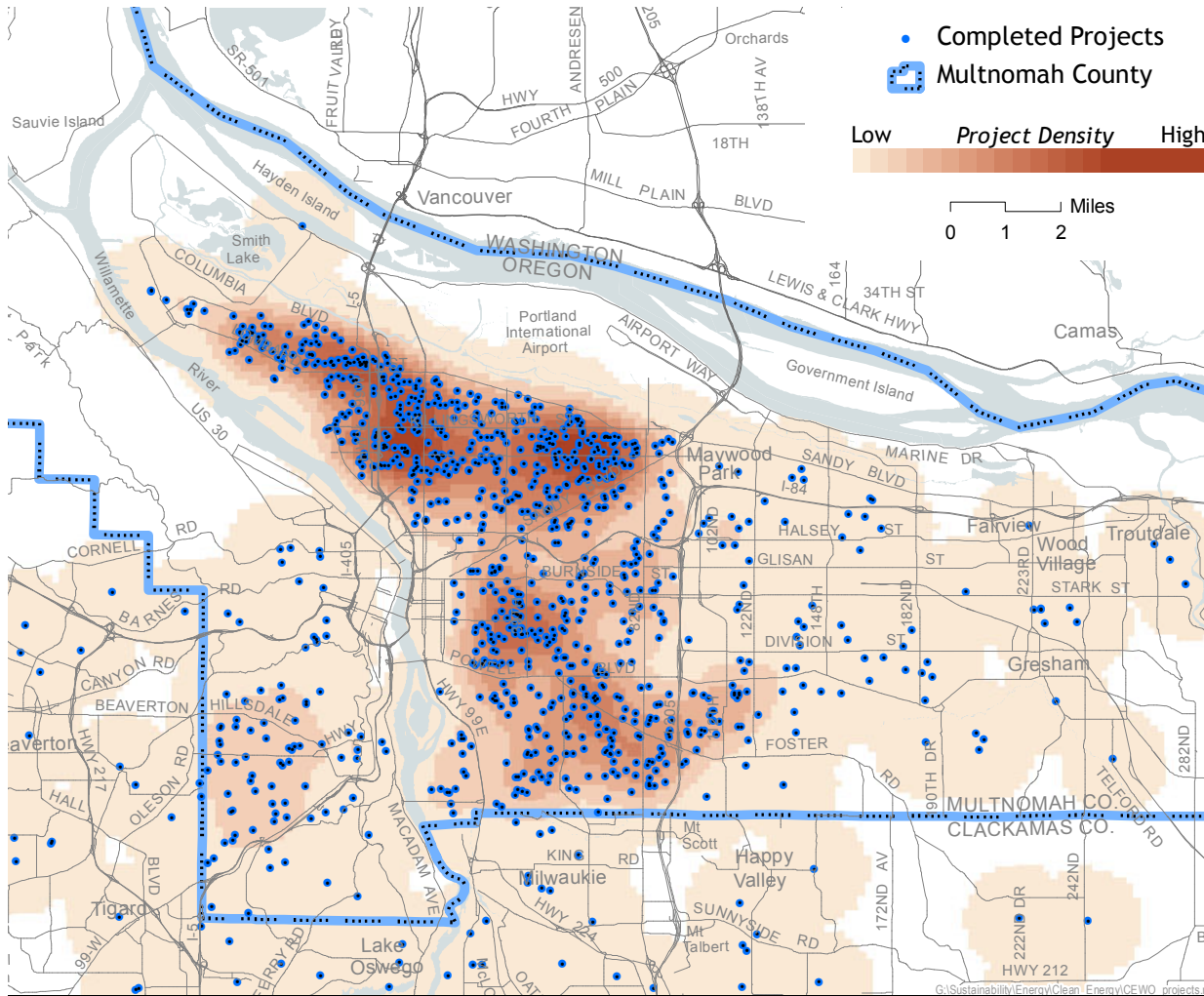


figure does not include additional solar installations resulting from Oregon's feed-in-tariff pilot, which launched in April 2010 and is now leading to new projects. The City supported two Solarize Portland campaigns in 2011, resulting in over 120 new solar system installations (2011), and over 570 installations since the program's inception in 2009.

Portland is beginning to focus on the development of community-scale, collectively-funded solar systems. Community solar provides an alternative for residents and businesses unable to install solar on their own rooftops.

District Energy and EcoDistricts: The City is working with multiple public and private partners to develop a shared thermal energy system in the Rose Quarter. Opportunities to expand the system into the surrounding district are also being explored. The City is also working closely with multiple partners and members of pilot ecodistricts to advance neighborhood scale sustainability efforts. After completing assessments, the pilot ecodistricts are identifying projects that include district-wide energy efficiency retrofits and food waste composting.

Challenges: The City and County continue to explore policy and financing options to improve energy performance in existing commercial buildings. The City is monitoring adopted policies in other cities and states to determine the best path forward for Portland.

Home Energy Upgrades Completed Through Clean Energy Works, December 2011



HIGHLIGHTS

URBAN FORM AND MOBILITY

The Climate Action Plan includes five 2030 objectives in the focus area of urban form and mobility:

1. *Create walkable and bikeable neighborhoods;*
2. *Reduce daily vehicle-miles traveled;*
3. *Improve the efficiency of freight movement;*
4. *Increase the average fuel efficiency of cars and the road system; and*
5. *Reduce the carbon intensity of our transportation fuels.*

Urban Growth Boundary: The Portland region's Urban Growth Boundary (UGB) continues to provide the critical foundation for the region's land use and transportation planning. In place since 1980, the UGB is an essential component of the region's ability to grow efficiently and to integrate housing and jobs with an affordable, low-carbon transportation system. The City and County have advocated for limiting growth of the UGB and in October 2011, the Metro Council adopted a conservative population forecast with a limited UGB expansion of 1,650 acres for residential land and 330 acres for industrial land.

Complete Neighborhoods: The concept of complete neighborhoods features prominently in the draft Portland Plan (released in October 2011 and available at www.pdxplan.com), particularly in the proposed Healthy Connected City strategy and the Economic Prosperity and Affordability strategy. Goals, guiding policies, actions and performance measures related to creating complete neighborhoods are found throughout the Portland Plan, and include such topics as neighborhood business vitality, access to housing (including aligning housing and transportation investments), promoting vibrant neighborhood hubs, developing neighborhood greenways, and coordinating planning and investments among public and private entities, among others. Developed by the City in partnership with twenty other partners, the draft Portland Plan includes 12 Citywide Measures of Success, one of which is complete neighborhoods.

Active Transportation: The County's Communities Putting Prevention to Work (CPPW) grant has provided significant support for active transportation strategies and projects across the region. The CPPW grant has supported the development of an equity framework in the Portland Plan that, once implemented, will help planners understand what policy changes and investments are needed to support the development of healthy, active communities in the region. The County is also working with Portland and Gresham to update Transportation System Plans for each city with a policy framework that will provide greater opportunities for active transportation,

as well as playing a role on Metro's Climate Smart Communities scenario planning to improve measuring how active transportation choices and investments impact the health of residents by incorporating an equity lens into this work.

Electric Vehicles: A partnership between Portland State University, Portland General Electric and the City resulted in the opening of Electric Avenue in August 2011—an urban showcase for electric vehicle (EV) charging technology. Both the City and the County are supporting the installation of electric vehicle charging stations across the region. For example, the County will install 12 EV charging stations at four County sites for use by the public and County personnel. County Chair Jeff Cogen has been appointed by two consecutive Governors to lead statewide working groups on increasing Oregon's adoption of electric vehicles and fostering local and statewide job growth through transportation electrification. As of September 2011, nearly 300 EV's are in use in Oregon.

Bridges, Bikes and Pedestrians: The final design of the Sellwood Bridge calls for 37 feet of bicycle and pedestrian space, with 24 feet of lanes for automobile travel, greatly improving bicycle and pedestrian safety and mobility across the structure. The project broke ground in December 2011.

The SW Moody project will accommodate light rail and streetcar, connecting both to the new light rail bridge currently under construction across the

Willamette River. Ultimately, the \$51.2 million project will provide transportation access for 18 acres of vacant central city land, spurring high-value brownfield redevelopment.

Climate Smart Communities: The City and County are active participants in Metro's Climate Smart Communities project, which is a regional study of policy options needed to meet the State carbon emission reduction goals and will result in changes to regional transportation and land use policy. Once developed, the City and County will support the use of these tools in planning scenarios and will advocate for approaches that demonstrate reduced carbon emissions.

Greenways: The City built nearly ten miles of Neighborhood Greenways in 2011, providing Portlanders with safe places to walk, bicycle and get out into their neighborhoods. At the same time, many Neighborhood Greenways also treat stormwater runoff and improve safety around schools. In NE Portland, the Cully Boulevard green street project rebuilt a crumbling street to add sidewalks and a new traffic signal, create a separated cycletrack and manage stormwater runoff with planters and bioswales.

Community Engagement: In 2011, Portland hosted five Sunday Parkways throughout the summer, and 107,300 Portlanders rode, walked, skated and rolled on streets closed to auto traffic for the day in five different parts of town. Participants explored their own neighborhoods, discovered new parts of town, and attended street fairs and other events hosted by

business district partners. To help residents navigate everyday use of the system, the Portland Bureau of Transportation printed and distributed Walk/Bike maps in five languages and served 18,000 residents and 600 Portland employers with SmartTrips, an individualized outreach program that offers information about how to use walking, bicycling and transit to meet daily needs.

Intermodal Freight Facilities: In 2011, the City evaluated options for 2014-15 Regional Flexible Funds projects (MTIP) and recommended Time Oil/Burgard intersection improvements (\$2.4 million) to enhance a bottleneck segment of a priority truck street and improve access to surrounding multimodal freight facilities. The Port of Portland is updating its Rail Master Plan in 2011-12 to identify priority rail improvements serving its Portland Harbor terminals.

Improved Freight Movement: The City completed lane and signal improvements to the NE 12th Street Overcrossing that will benefit freight movement and improve bike safety and access to Benson High School. Using federal stimulus funds, the City rebuilt the fire-damaged North Vancouver Bridge over the Columbia Slough, re-establishing an important freight connection and adding sidewalks to create a safer crossing for all users.

Challenges: Adequate and stable transportation funding remains the primary challenge. The City's Bureau of Transportation faces major cuts in the 2012-13 budget and continuing funding shortfalls into the future. The dominant source of funding for the transportation system remains the gas tax. With vehicle fuel efficiency standards becoming steadily more stringent, gas taxes simply cannot keep pace with the already mounting maintenance needs of the transportation system. This is not an issue the City and County can address in isolation, and both remain committed to developing more sustainable funding sources for transportation needs.

The County's Communities Putting Prevention to Work grant has played a significant role in helping to build awareness around the *co-benefits* of climate actions. This grant funding is coming to a close, impacting the Healthy Active Schools and Healthy Communities by Design programs that have significantly impacted active transportation planning and infrastructure development in especially vulnerable communities.



HIGHLIGHTS

CONSUMPTION AND SOLID WASTE

The Climate Action Plan includes three 2030 objectives in the focus area of consumption and solid waste:

1. Reduce solid waste generated;
2. Recover more of our waste; and
3. Reduce the greenhouse gas impacts of the waste collection system.

Residential Food Scrap Collection: In October 2011, the City launched a new citywide residential food scrap collection program (www.portlandcomposts.com). Portland residents in single-family houses and buildings with four or fewer units can set out food scraps in their green Portland Composts! roll carts for weekly pickup. By putting all food scraps, including meat, dairy, bones, grains, cooked foods and even pizza delivery boxes, in the green roll carts, Portlanders can divert thousands of pounds of food scraps from landfills each year. As part of the change, garbage service is now collected every other week. The blue Portland Recycles! roll cart and yellow glass recycling bin continue to be collected every week.

Sustainability at Work: The City launched a new program, Sustainability at Work, in August 2011 which integrates three business assistance programs:

Recycle at Work, BEST Business Center and Portland Composts. Sustainability at Work (www.sustainabilityatworkpdx.com) is a comprehensive, free resource that offers tools and expertise to help Portland organizations create more sustainable workplaces and includes a focus on waste prevention. Over the course of the last year, almost 1,800 businesses have been helped by the City's business outreach team.

Waste Prevention: The City's first integrated outreach campaign on thoughtful consumption, Be Resourceful, was launched in 2010. The campaign focuses on new ways to get what we need, including sharing and borrowing, fixing and maintaining, purchasing durable, sustainable, or reused products, or experiences instead of things.

As part of the campaign, program representatives offered presentations and staffed information booths at community events. These efforts resulted in over 5,000 conversations with residents. Over 300 community members shared their stories at these events so they could be posted online to encourage others to participate in similar activities.

Bring Your Bag!: Portland's Bring Your Bag campaign, launched in conjunction with the City's ban on single-use plastic bags, provides tips and information to help Portlanders reduce waste by using reusable bags while shopping.



Food Scrap Collection



INCLUDE THE FOOD!

Locally, food scraps account for almost 30,000 tons of unnecessary garbage every year. Food scraps can be put to better use as compost to improve the health of our soils and gardens.

Food scraps and yard debris are sent to local composting facilities with specialized processes that break everything down, even bones! The compost is then sold to landscapers and other agricultural users to fertilize soil, prevent erosion, block weeds, retain water and prevent plant disease.

www.portlandcomposts.com

New Partnerships: The City also began to build new alliances with community organizations to promote reuse and waste prevention. The City sponsored pages in a popular green coupon book called Chinook Book that maps locations where people can purchase reused goods. During the holiday season, the City sponsored a Green Gift Guide that promoted performance arts tickets as gifts. The City also sponsored a downtown storefront display by Junk to Funk that promoted creative reuse. Along with sponsorships, the City began to build new direct partnerships with organizations that offer resources to help residents practice thoughtful consumption activities. A coalition

of reuse organizations called ReUse PDX partnered with Be Resourceful at several major events to promote reuse. The largest of these events was the Better Living Show where they had over 1,000 conversations. The City also worked with the ReUse Alliance to secure Portland as the hosting city for ReuseConex 2012, a nation-wide reuse conference.

Challenges: Developing ways to measure the impact of preservation, reuse and thoughtful consumption on our waste stream remains a challenge. Moving product stewardship legislation forward also continues to be a challenge.



Chinook Book
Be Resourceful Map



HIGHLIGHTS

URBAN FORESTRY AND NATURAL SYSTEMS

The Climate Action Plan includes one 2030 objective in the focus area of urban forestry and natural systems:

1. *Expand the urban forest and increase watershed health.*

Enhancing and Harmonizing Tree Policies:

The Citywide Tree Policy Review and Regulatory Improvement Project—a multi-bureau effort to review the current system of regulations, address complexities, gaps and inconsistencies, and enhance the urban forest through a comprehensive restructuring and update of City codes addressing trees—was adopted by City Council in April 2011. The first phase of zoning code amendments went into effect in July 2011, with the bulk of the project proposals set to go into effect in February 2013.

Tree Stewardship: Over 7,000 trees were planted in Portland in 2011 through a variety of programs, including partnerships with Friends of Trees and the Youth Conservation Crew. The City's Neighborhood Tree Stewards Program (a volunteer training course) provided participants tools and knowledge to lead urban forestry projects.

Community Engagement: The City continued a variety of community outreach and education projects and programs. The Community Watershed Stewardship Program awarded \$83,200 in grants (matched by over \$258,000 of community funds) for raingarden construction, streamside clean-ups, native plant restoration, invasive species removal, stormwater swales and pavement removal. The 2011 Ecoroof Portland, a free public event and vendor fair, attracted over 450 attendees and 40 vendors. March 2011 was dubbed Ecoroof Month, and included four project tours (with 100 attendees), and a presentation series featuring 10 events.

The Portland Ecoroof Blog continues to build awareness and received over 120,000 hits in the last 12 months. The K-12 Clean Rivers education program reached over 17,000 students through classroom lessons, field trips and community events/festivals. The Tabor to the River program reached over 1,500 Portland residents in person, 14,000 via mailing and 25,000 monthly via media ads. Materials focused on watershed education, resources and actions residents can take to help the City install 500 green streets, 3,500 trees and over 100 private rain gardens in SE Portland.

Healthy Connected City: The City's draft Portland Plan (www.pdxplan.com) proposes the development of an interconnected network of city greenways that encourage walking and biking, and weave nature into neighborhoods. This proposed strategy includes policies and actions to reestablish functioning habitat

WHAT IS GREEN INFRASTRUCTURE?

Green infrastructure includes both built and natural systems that facilitate, mimic or preserve natural processes for groundwater, surface water and habitat. Green infrastructure includes sustainable stormwater facilities (green streets, swales, planters, etc.), ecoroofs, natural area parks and open space, streams and riparian areas and urban trees.

The City's Grey to Green initiative (www.portlandonline.com/bes/greytogreen) is a 5-year, \$55 million commitment that is accelerating many of Portland's green infrastructure efforts. Much of the impetus behind Grey to Green came from the demonstrated cost savings of green infrastructure in the Tabor to the River design, and the desire to avoid future costs of cleaning up rivers and restoring streams.



Lents Springwater Corridor
Restoration Project



Baltimore Woods
Natural Area Acquisition

corridors and align investments in green infrastructure (e.g. trees, natural areas, green streets, ecoroofs, etc.) to help improve resiliency to the impacts of climate change.

Invasive Species: The City's Protect the Best (PTB) program crews treated 550 acres and retreated 750 acres of open space for invasive species. PTB also initiated holly treatment efficacy monitoring and native vegetation regeneration monitoring, and has mapped all treated areas.

The No Ivy League continued its successful and highly popular efforts in controlling infestations of invasive species by removing ivy from over 400 trees and clearing over two acres of groundcover. The City's Early Detection and Rapid Response program treated 292 acres of garlic mustard, seven acres of knotweed, one acre of giant hogweed, two acres of spotted/diffuse knapweed, two acres of spurge laurel and 0.25 acres of false-brome.

Challenges: Evaluating green infrastructure (both built and natural systems) approaches for public infrastructure projects remains a challenge, as does making progress on recognizing trees, shrubs, vegetation and natural landscapes as assets of the City and County infrastructure.



HIGHLIGHTS

FOOD AND AGRICULTURE

The Climate Action Plan contains two 2030 objectives in the focus area of food and agriculture:

- 1. Reduce consumption of carbon-intensive foods; and
- 2. Significantly increase the consumption of local foods.

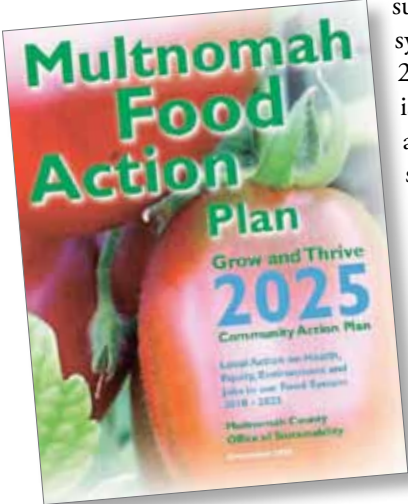
Removing Barriers to Urban Food Production:

Recognizing the connections between food and the community’s environmental, economic and physical health, the City is in the process of updating its zoning code to promote traditional and emerging ways of producing and distributing food (www.portlandonline.com/bps/foodcode). The project is addressing five topic areas related to urban food production and distribution: farmers markets; community gardens; urban food production; community food distribution points; and animals and bees.

In summer 2011 over 800 people responded to the ideas presented in the Urban Food Zoning Code Update Concept Report. Project staff have compiled these comments and produced a summary report. The City expects to propose recommended changes

to Portland’s zoning code to the Planning and Sustainability Commission in 2012.

Multnomah Food Action Plan: In 2011, Multnomah County convened over 500 community partners to sign a declaration of support for the Multnomah Food Action Plan (MFAP) (http://multfood.org/action_plan). In June 2011, the second annual Multnomah Food Summit was held, which brought together over 230 community partners to focus on implementing the community vision, 16 goals and 65 actions of the MFAP. Using the MFAP, Multnomah County established the Beginning Urban Farmer Apprenticeship program with OSU Extension; developed the Restitution Garden project; created the Multnomah County East community garden with Project Grow; identified measures of a



sustainable food system, including 28 indicators; and is working towards a regional food system economic development strategy with adjacent counties.

THE NEXT GENERATION OF FARMERS

In 2011 Multnomah County’s Office of Sustainability, in partnership with OSU Extension Services, launched the Beginning Urban Farmer Apprenticeship (BUFA) program to train the next generation of farmers.

In its first year, BUFA trained 11 individuals in small commercial farming techniques and business development using a combination of classroom learning and hands-on field work at the Multnomah County CROPS farm.

The County CROPS farm utilizes surplus County land to grow over \$30,000 (2011 season) of local, organic produce for the Oregon Food Bank, and serves as a learning lab for BUFA students and other volunteers.



Farmers Market
Retailer

Healthy and Sustainable Food Choices: The County's Health Department has formed a cross-agency work group to coordinate planning and implementation of healthy, sustainable food service and nutrition standards. This includes a Healthy Active Schools network, comprised of seven school districts, Ecotrust and community-based organizations, which is working to increase farm to school partnerships and implement promotional campaigns to feature local, healthy food. The Health Department also started the Multnomah County Healthy Retail Initiative that works with local grocery and convenience store owners to increase access to healthy food, especially in low-income neighborhoods. The Health Department convenes the North Portland HEAL, which is working with the Portsmouth Neighborhood Association and the City of Portland to develop a community garden at the former Clarendon Elementary School site. The Health Department is providing funding and technical assistance to Janus Youth to launch the Village Market in North Portland. Village Market is a community-driven corner grocery store that strives to offer healthy options to North Portland residents.

Community Gardens: The City continues to assist groups in setting up neighborhood gardens. Since the adoption of the Climate Action Plan, the City has built over 400 new community garden plots, 180 of which were created in existing gardens, and the rest are at new sites constructed since 2009. Other organizations and partners have built an additional 284 plots since 2009. City Commissioner Nick Fish's

Community Garden Initiative is actively working with partners and the community reach the goal of 1,000 new garden plots by the end of 2012 and track progress on his website (www.portlandonline.com/fish). Multnomah County is using surplus land at two sites to support local food production, reducing community hunger through donations to the Oregon Food Bank and offering additional self-directed community garden plots.

Focus on Food Choice: Over 500 people attended the City's Urban Growth Bounty classes on organic gardening, animal husbandry, cooking and food preservation in 2011. Information about sustainable and climate-friendly food choices continues to be an integral component of the City's outreach efforts, including:

- Be Resourceful: Get More of the Good Stuff campaign (www.portlandonline.com/bps/beresourceful);
- Portland Climate Action Now! campaign (www.portlandclimateaction.org); and
- Step Up to the Plate blog (www.portlandonline.com/bps/food).

Challenges: While the County and City have gathered and analyzed substantial data on the accessibility, affordability and type of food consumed locally and produced in Oregon, we continue to seek better data on food origin and the capacity to grow food locally.



HIGHLIGHTS

COMMUNITY ENGAGEMENT

The Climate Action Plan contains one 2030 objective in the focus area of community engagement:

1. Motivate residents and businesses to change their behavior in ways that reduce carbon emissions.

Climate Action Now! Campaign: The City continues to implement the public outreach campaign called Portland Climate Action Now! (www.portlandclimateaction.org) which focuses on four primary topic areas:



Healthy Home: home energy use, weatherization, renewables, water conservation and landscaping.



Getting Around: walking, biking, transit, carpooling, fuel efficiency, low-carbon fuels, vehicle maintenance and driving habits.



Your Stuff: waste reduction, recycling, composting and thoughtful consumption.



Food Choices: low-carbon food choices, gardening and eating local.

The primary outreach arm of the Portland Climate Action Now! campaign includes the website blog, which received over 42,000 visits in the past year. Climate change education and information continues to be included in the Master Recycler program curriculum and in the City's ReThink workshops. The City delivered 12 *Home Energy IQ* workshops focused on tracking and managing home energy use, including eight workshops in underserved areas.

Multnomah County Climate Short-Film Contest:

In 2011, Multnomah County held a Climate Short Film Contest as part of its quarterly Sustainability Film Series, which asked community members to tell their stories about local impacts of climate change through short, engaging videos. Winning films were featured at an event in July 2011 that spurred community and media interest in the film contest and issues surrounding climate change. The films can be viewed at web.multco.us/climatefilms.

Community Climate Workshops: In partnership with the Oregon Health Authority and Climate Leadership Initiative, the County co-hosted a regional workshop on the public health impacts of climate change. Staff from the City and County also led discussions at the 2011 Regional Livability Summit around the intersection of climate change and social equity.

Neighborhood Metrics: The proposed Portland Plan, released for public comment in October 2011 (www.pdxplan.com), includes metrics for walkability, active transportation (including walking, biking and transit)

and household energy use by neighborhood. The Portland Plan walkability and accessibility rating map is an example of the neighborhood walkability and accessibility rating analysis in the Portland Plan.

ReTHINK: Twice a year, the City invites diverse community organizations to apply to host the ReTHINK workshop series and then conduct a community action project. The first workshop builds a basic understanding of climate change. The second and third workshops map back to the four action areas of the Climate Action Now! campaign.

The City then grants the organization up to \$1,500 to conduct a community action project linked to at least one of the climate action areas. The most recent ReTHINK workshop series started in November 2011 and is being hosted by the June Key Delta Community Center.

Fit-It Fairs: The City held three Fix-It Fairs, attracting thousands of racially and socio-economically diverse participants. Over 60 City, County, State and community organizations provided expert information, hands-on demonstrations and over 30 *how-to* classes on various topics throughout the day. Specific carbon reduction related workshops included home weatherization, cutting energy bills, vegetable gardening, composting, tree care and all-season bicycling. The Fairs offered free giveaways such as high efficiency light bulbs and showerheads, as well as free bike repair and bike safety information for children and families.



Climate Action Now
Community Event

Challenges: Much work and research remains to be done to understand how to effectively discuss the issue of climate change with the public. The City and County continue to explore a variety of communication and engagement approaches to motivate a diverse range of residents and businesses to take actions that reduce carbon emissions and result in economic, environmental and public health co-benefits. Developing appropriate messages is especially important to engage diverse community members.



HIGHLIGHTS

CLIMATE CHANGE PREPARATION

The Climate Action Plan contains one 2030 objective in the focus area of climate change preparation:

1. Adapt successfully to a changing climate.

Preparation and Adaptation Planning: The City and County have jointly established three working groups comprised of multiple bureaus and departments to develop a Climate Adaptation Plan that addresses Infrastructure (water, sewer, roads and bridges, developed parks and stormwater), Natural Systems, Public Health and Human Services. The three efforts have assembled the local and regional science on climate impacts, and are evaluating the potential risks, assessing the vulnerability of City and County resources and identifying resiliency strategies that have multiple benefits across all three areas. The City and County will use the findings from the various vulnerability assessments to develop both near-term and long-term adaptation and preparation recommendations by the end of 2012.

Regional Collaboration: The City and County continue to engage in a related effort focused on climate resilience in the Willamette Valley that is being coordinated by The Resource Innovation Group's Climate Leadership Initiative. The City and

County are also working with Metro to coordinate climate change preparation assessment efforts where possible.

Protection and Restoration of Natural Areas: The City continues to acquire land to protect sensitive habitat and hydrologic function as well as buffer natural systems to increase their resilience to change. The City has also coordinated numerous stream restoration projects that incorporated floodplain reconnection and riparian plantings to respond more effectively to potential climatic events.

Water Consumption Research: The Portland Water Bureau is a partner with Portland State University working on a NOAA Sectoral Applications Research Program grant to evaluate the impacts of land use, cover and climate change on residential water consumption. The results of this grant are expected to be available in 2012 (<http://sites.google.com/site/portlandstatenoaasarp/>).

Challenges: Decision-making in the face of uncertainties in climate change projections, especially in regional downscaling of global climate change models, remains a challenge. Climate projections work well for some variables and poorly for others. For example, currently available model projections for the Pacific Northwest have a higher degree of certainty related to expected changes in precipitation patterns and temperature increases, but are inconclusive about what should be expected for total annual precipitation or extreme weather events.

EXPECTED CLIMATE IMPACTS IN THE PACIFIC NORTHWEST

Scientists have a good understanding of how climate change impacts will manifest on a global scale, but it is less clear what to expect on a smaller, regional scale. Oregon and Washington scientists and modelers are working hard to improve our understanding of climate projections at a regional and local scale. Based on currently available information and modeling results, we have a range of confidence in the climate projections for a variety of impacts.

We are fairly certain that the Portland region will experience:

- Increased temperatures overall, including average, maximum and minimum temperatures in the summer and the winter months.
- Changes in precipitation patterns, with more precipitation falling in mid-winter.

- More precipitation falling as rain rather than as snow in lower elevation watersheds.
- Weather patterns that are influenced by ocean conditions (e.g., La Nina/ El Nino and the Pacific Decadal Oscillation) and that continue to swing between hot/dry and cold/wet.

We are uncertain whether the Portland region will experience:

- Changes in total annual precipitation amounts (increases or decreases).
- A change in the frequency, magnitude or duration of extreme weather events (intense rainfall, wind storms, ice and snow).

The City and County continue to monitor the latest science and modeling efforts, and to advocate for improved climate monitoring, to help inform adaptation planning and resiliency efforts.



The Bull Run Watershed
Portland's Drinking Water at its Source



HIGHLIGHTS

LOCAL GOVERNMENT OPERATIONS

The Climate Action Plan contains one 2030 objective in the focus area of local government operations:

1. *Reduce carbon emissions from City and County operations.*

Energy Efficiency: The County is in the process of completing three significant energy projects funded through nearly \$1.5 million in federal stimulus grants: building automation controls and energy monitoring at the County's 42 most significant buildings; water and heat recovery system at the County's Inverness Jail; and lighting upgrades at County buildings. An energy services contract financing model is also under consideration to leverage outside funding for energy efficiency improvements.

The City continues to improve the energy efficiency of City buildings, street lights and water and wastewater systems. Recent examples include the South Auditorium street and parkway lighting replacement, where 400 LED street lights were installed, and lighting retrofits in community centers and parking garages.

Although most of the Portland's water supply system is gravity-fed, higher elevation locations rely on pumping. The City has been looking

closely at equipment and operation protocols at the pump stations using the most electricity. Recent improvements resulted in a 15 percent increase in pump station efficiency during 2010, measured as gallons pumped per kilowatt hour.

Similarly through participation in the Oregon Sustainable Energy Management Systems Training, the City increased energy efficiency at the Columbia Boulevard Wastewater Treatment Plant.

Through energy efficiency efforts, the City saves about \$5.5 million per year on energy bills, resulting in a cumulative total of \$42 million in savings since the City Energy Challenge program began 20 years ago (1991).

Electric Vehicles: The City has 11 and the County has four all-electric Nissan LEAF vehicles in their fleets. Both the City and County continually examine opportunities to green their fleets by looking for areas of compatibility for more all-electric, plug-in hybrid and hybrid vehicles.

Recycling and Waste Prevention: The City has developed a baseline recovery rate for City-owned and -operated facilities. Given the complexities of the City's operations, this recovery rate baseline is broken down into three separate categories:

- *Commercial Buildings:* For City-owned and -operated office buildings, laboratories, and fire and police stations, the baseline recovery rate equals 48 percent.

- *Public Places:* Park locations including community centers, play fields, golf courses and parks, the streetcar line and Union Station. Baseline recovery rate equals 30 percent.
- *Operations:* Citywide services and buildings, including parking structures, maintenance yards and annual leaf collection. Baseline recovery equals 74 percent.

Multnomah County continues to expand its recycling and waste prevention efforts throughout County buildings, including adding its eighth composting program. Each of the three County detention facilities have established composting programs, diverting approximately 20,000 pounds of compost from the waste stream each month. A Countywide team of Sustainability Liaisons has been established to continue to the County's progress towards meeting the 75 percent waste diversion goal in the Climate Action Plan. Multnomah County currently diverts 45 percent of its waste to recycling and composting.

Greener Fleets: The City requires 19 residential garbage and recycling haulers to use 20 percent biodiesel, often called B20, in their diesel collection trucks, resulting in over 400,000 gallons of biodiesel usage annually. The City and County continue to incorporate sustainability requirements and evaluation criteria such as diesel emission reduction, biodiesel and idle reduction into solicitation documents when feasible.

Renewable Energy: The City has continued to expand on-site renewable energy generation, which is currently at nine percent of the total electricity consumption for City operations. Most of this renewable energy comes from the 1.7 MW biogas generator at the Columbia Boulevard Wastewater Treatment Plant, as well as various solar facility installations including the Water Bureau's groundwater pump station and meter shop.

Challenges: Incorporating climate change considerations in purchasing practices remains a challenge. Standardized supply-chain emissions data considering carbon emissions from the production, transportation, use and disposal of goods, including food, is not currently available, making it difficult to include this as a criterion in City and County purchasing decisions.



All Electric, Nissan LEAF
Fleet Vehicle



NEXT STEPS

The City and County continue to make considerable progress in implementing the actions identified in the Climate Action Plan. Efforts to date have spanned across numerous bureaus and departments within the two agencies, as well as many community partners.

Nevertheless, a number of key actions require attention in the near term to stay on track to meeting our 2030 and 2050 carbon emission reduction goals. Major next steps include:

- Adopt the Portland Plan, and ensure the subsequent Comprehensive Plan update addresses climate change in a way that encourages low-carbon development with resilient natural and human systems and built infrastructure.
- Explore the implementation of energy performance benchmarking for new and existing residential and commercial buildings.
- Continue to work internally, and with Metro, to develop the tools needed to analyze and evaluate expected carbon emissions from urban form and mobility policy and investment decisions and scenarios.
- Establish a sustainable funding source adequate to maintain the existing transportation system, and invest in transportation capital projects and programs that reduce carbon emissions.
- Continue to develop climate action metrics by neighborhood, including measures such as household energy use, vehicles miles traveled, walkability and bicycle commute rates.
- Adopt a policy regulating waste and recycling service in unincorporated areas of Multnomah County.
- Continue significant community engagement around food system planning to increase urban food production and encourage climate-friendly food choices.
- Complete the assessment of climate-related vulnerabilities, strengths and resiliency of built infrastructure (water, sewer, roads and bridges, developed parks and stormwater), public health and human services and natural systems.
- Develop a climate change preparation plan that analyzes and prioritizes preparation actions to manage risks and increase overall flexibility and resiliency, ensuring that disproportionate impacts on vulnerable populations are addressed.
- Continue to develop an appropriate valuation of important ecosystem services such as carbon sequestration, flood control, heat island reduction, water and air purification, storm protection and health benefits provided by our green infrastructure systems.

Achieving a 40 percent reduction in carbon emissions by 2030, and 80 percent by 2050, remain ambitious goals, but with innovation, persistence and coordination, Portland, Multnomah County and our many partners can achieve our goals and inform action in other communities throughout the world.

STATUS LEGEND

-  **RED:** Action has not yet been initiated and/or little progress has been made
-  **YELLOW:** Action is underway, but may face obstacles
-  **GREEN:** Action is on track for completion by 2012
-  **BLUE:** Action is completed

This appendix details the progress made by the City and County in the second year of implementing the Climate Action Plan.

COORDINATING AGENCY ACRONYMS

The acronym for the coordinating agency is provided for the City and/or the County following each action in the tables that follow. These references indicate the City bureau(s) or County department(s) that serves as the primary coordinator or facilitator of implementing the given action. In many cases several other bureaus, departments and partners are also involved with the implementation of an action.

COORDINATING AGENCY

City of Portland Acronyms
 BES – Bureau of Environmental Services
 BPS – Bureau of Planning and Sustainability
 Mayor – Office of the Mayor
 OCT – Office for Community Technology
 OMF – Office of Management and Finance
 PBOT – Portland Bureau of Transportation
 PDC – Portland Development Commission
 PHB – Portland Housing Bureau
 PBEM – Portland Bureau of Emergency Mgmt.
 PP&R – Portland Parks and Recreation
 PWB – Portland Water Bureau
 RB – Revenue Bureau

COORDINATING AGENCY

Multnomah County Acronyms
 Chair – Office of County Chair
 OS – Office of Sustainability
 DCA – Department of County Assets
 DCHS – Department of County Human Services
 DCJ – Department of Community Justice
 DCM – Department of County Management
 DCS – Department of Community Services
 HD – Health Department
 OEM – Office of Emergency Management

BUILDINGS AND ENERGY

1. Reduce the total energy use of all buildings built before 2010 by 25 percent.

Action	Notes
<p>(i) Establish an investment fund of at least \$50 million in public and private capital to provide easy access to low-cost financing to residents and businesses for energy performance improvements. (City: BPS, Mayor) (County: OS)</p>	<p>In June 2010, the City established Clean Energy Works Oregon (CEWO) and charged the new non-profit with the dual mission of reducing carbon emissions and creating family-supporting jobs. Since March 2011, Clean Energy Works Oregon (CEWO) has expanded its whole-home retrofit financing program beyond the City of Portland to Multnomah, Clackamas, Washington, Jackson, Josephine, Klamath and Lake Counties.</p> <p>Over 1,000 homes have received whole-home energy remodels since the beginning of the Clean Energy Works Portland pilot. The pilot, which ended in February 2011, created 45 full-time construction jobs and over 400 workers received a paycheck from the program. CEWO has assembled nearly \$25 million in capital and program funding. It has also partnered with several Oregon lending institutions, representing over \$20 million in leverage from private-sector capital.</p> <p>Over 30 Home Performance contractors are now participating in CEWO. These contractors have committed to uphold a set of “high-road standards,” including paying a family-supporting wage and hiring from a diverse pool of skilled workers. Workforce results so far indicate that CEWO contractors are achieving these high-road standards. One hundred percent of new hires have been local. 38 percent of job hours have been worked by minorities and 15 percent of job hours have been worked by women. Fifteen percent of contract dollars have gone to historically disadvantaged businesses.</p> <p>By 2013, CEWO intends to upgrade 6,000 single-family homes in Oregon, create or retain 1,300 quality jobs and deliver energy savings of 8,500,000 kilowatt-hours and 1,950,000 therms.</p> <p>The County is exploring funding opportunities to support investments in commercial building energy efficiency and renewable energy.</p>
<p>(ii) Require energy performance ratings for all homes so that owners, tenants and prospective buyers can make informed decisions. (City: BPS) (County: OS)</p>	<p>BPS has developed a preliminary home energy performance policy proposal. The proposal is pending the finalization of the Energy Trust of Oregon’s energy performance score for existing homes, which is expected in 2012.</p> <p>The County and City supported legislation in the 2011 Oregon Legislature that would have established an energy performance score requirements in the state. The legislation was ultimately unsuccessful and the County and City continue to monitor national best practices in energy performance ratings in consideration of future action at the local level.</p>

●	(iii) Require energy performance benchmarking for all commercial and multi-family buildings. (City: BPS) (County: OS)	BPS has developed an energy performance benchmarking policy proposal. The proposal is currently under revision for commercial buildings. The County and City supported legislation in the 2011 Oregon Legislature that would have established an energy performance score requirements in the state. The legislation was ultimately unsuccessful and the City and County continue to monitor national best practices in energy performance ratings in consideration of future action at the local level.
●	(iv) Provide resources and incentives to residents and businesses on carbon-reduction actions in existing buildings, including energy efficiency, renewable energy, choice of materials and building re-use. (City: BPS)	BPS continues to provide training and free technical assistance via phone and email to businesses and residents in the region. Covered topics include energy efficiency, renewable energy, material selection and construction waste management. In FY 2010-11, the Green Building program responded to more than 620 technical inquiries and assisted 16 major projects. The BPS Green Building Program developed and delivered 12 workshops about tracking and managing home energy use, including eight workshops in traditionally underserved areas. The BPS Clean Energy Team supported two Solarize Portland campaigns in 2011, resulting in over 120 new PV systems installed, and over 570 installations since the program's inception in 2009. The Clean Energy Team also supplemented Clean Energy Works Oregon's marketing and outreach efforts, focusing specifically in the Lents and Interstate Corridor Urban Renewal Areas (URA). Over 140 URA residents have undertaken home energy remodels through CEWO.
●	(v) Work with partner organizations to promote improved operation and maintenance practices in all commercial buildings. (City: BPS)	Over the last two years, City Hall and the Portland Building have joined in the Office Energy Showdown and Carbon4Square Challenge hosted by the Building Owners and Managers Association (BOMA) and the Northwest Energy Efficiency Alliance (NEEA). In addition to working with OMF to improve the operation and maintenance of City-owned office buildings, BPS staff worked with BOMA, NEEA and PBOT to develop and launch the new Carbon4Square Challenge. In 2011, 48 office buildings covering over 10 million square feet participated in this challenge focusing on energy performance improvements.
●	(vi) Establish a City business tax credit for installing solar panels and ecoroofs together. (City: BES, RB, BPS)	A proposal for this City business license fee credit has been developed but needs to be weighed against other budget priorities.
2. Achieve zero net greenhouse gas emissions in all new buildings and homes.		
Action		Notes
●	(i) Participate actively in the process to revise the Oregon building code to codify the performance targets of Architecture 2030. (City: BPS)	BPS provided formal and informal comments on the development of the State's new Commercial and Residential Reach Code. The Reach Code provides optional construction standards for energy efficiency that exceed the requirements of the State's mandatory codes. In addition to improving building energy efficiency in alignment with Architecture 2030 targets, BPS submitted a voluntary Material Resource Conservation and Efficiency Appendix to reduce life-cycle greenhouse gas emissions resulting from new construction. This Appendix was approved and adopted into the new Reach Code rules.
●	(ii) Adopt incentives for high performance new construction projects that consider life-cycle carbon emissions impacts. (City: BPS)	BPS has developed a policy proposal to provide incentives for high performance new construction. This proposal is on hold due to changes in the state's energy code, economic conditions and incentive packages. The City will reconsider policy development as conditions change.
●	(iii) Accelerate existing efforts to provide green building design assistance, education and technical resources to residents, developers, designers and builders. (City: BPS)	BPS continues to provide training and free technical assistance via phone and email to businesses and residents in the region. Covered topics include energy efficiency, renewable energy, material selection and construction waste management. In FY 2010-11, the Green Building program responded to more than 620 technical inquiries and assisted 16 major projects.

3. Produce 10 percent of the total energy used within Multnomah County from on-site renewable sources and clean district energy systems.





Action	Notes
(i) Make the investment fund referenced in Objective 1 available to finance distributed generation and district energy systems. (City: BPS)	At this time, Clean Energy Works Oregon (CEWO) is focusing exclusively on single-family residential energy efficiency retrofits. The next sectors the program is likely to pursue are multifamily and small commercial energy efficiency retrofits. At this time it is unclear when and if the program will incorporate financing for solar energy systems and/or district energy. In the meantime, meaningful progress is being made to advance distributed generation and district energy systems absent the expansion of this financing mechanism (see related actions below).
(ii) Establish at least one district heating and cooling system. (City: BPS)	The Portland Development Commission partnered with BPS, Oregon Convention Center, Portland Arena Management and Portland Sustainability Institute to develop the Rose Quarter Shared Thermal Energy System Request for Qualifications. Corix Utilities was selected to present a Feasibility Study for a future district energy system that may serve the Veterans Memorial Coliseum, Rose Garden Arena, Oregon Convention Center and other surrounding buildings.
(iii) Facilitate the installation of at least ten megawatts of on-site renewable energy, such as solar energy. (City: BPS)	Installation of on-site renewable energy continued to grow in 2011. In just two years, the three-year Climate Action Plan goal of 10 megawatts of solar electric generation was exceeded. As of December 2011, there are 14.7 megawatts of total installed capacity. Installations by government agencies, businesses, and local residents all contributed towards achieving this goal. This figure does not include any solar installations resulting from Oregon's feed-in-tariff pilot, which launched in April 2010 and is now leading to new projects. Portland is beginning to focus on the development of community-scale, collectively-funded solar systems. Community solar provides an alternative for residents and businesses unable to install solar on their own rooftops.
(iv) Collaborate to reduce the role of carbon - including from coal and natural gas sources - in Portland's electricity mix. (City: BPS)	The City participated in the regulatory proceedings and public policy discussions that led to the agreement to close Portland General Electric's Boardman coal-fired power plant in 2020, decades earlier than previously anticipated. The early closure of Oregon's only coal-fired power plant is a major milestone regionally and nationally. The Oregon Department of Environmental Quality approved the closure plan in December 2010.

4. Ensure that new buildings and major remodels can adapt to the changing climate.

Action	Notes
(i) Participate actively in state of Oregon code-development processes to ensure that building codes support buildings that can adapt to higher temperatures, stronger storms, and other physical impacts of climate change. (City: BPS)	BPS advocated the adoption of the Reach Code, an optional set of statewide construction standards for energy efficiency that exceed the requirements of the state's mandatory codes. However, the State's building code-development processes are not specifically targeting building designs that are adaptive to climate change. Options for encouraging new buildings and major remodels to adapt to climate change will be addressed as part of the larger impacts and vulnerabilities assessment outlined in the Climate Change Preparation section of the Climate Action Plan.

URBAN FORM AND MOBILITY

5. Create vibrant neighborhoods where 90 percent of Portland residents and 80 percent of Multnomah County residents can easily walk or bicycle to meet all basic daily, non-work needs and have safe pedestrian or bicycle access to transit.

Action	Notes
(i) The City and County both recognize the critical role of the Urban Growth Boundary in guiding the region's growth while meeting economic, environmental and social needs.	
 <i>a. The City will advocate for accommodating all population and business growth within the existing UGB, with the possible exception of industrial needs. (City: BPS, Mayor)</i>	COMPLETED: The City was a vocal advocate for a tight urban growth boundary (UGB) in the deliberations at Metro regarding growth capacity and how to manage the UGB. In October 2011, the Metro Council adopted a conservative population forecast with a limited UGB expansion of 1,650 acres for residential land and 330 acres for industrial land.
 <i>b. The County will advocate for accommodating substantially all population and business growth within the existing UGB. (County: Chair)</i>	COMPLETED: Throughout the urban/rural reserves process, the County advocated for limiting additions to urban reserves. The County played a key facilitation role during the urban/reserves negotiations, ensuring balanced and rational decisions with a focus on limiting growth of the Urban Growth Boundary. The County also consistently advocates for smart regional growth strategies through its role on the Metropolitan Planning Advisory Committee (MPAC).
 (ii) In the Metro Urban/Rural Reserves program, the City will advocate for adopting the low end of Urban Reserve Designations to reflect the trends in demographics, climate change, energy supply and infrastructure costs. (City: BPS)	COMPLETED in 2010 (see Year One Progress Report for details)
 (iii) Make 20-minute complete neighborhoods a core component of the Portland Plan. (City: BPS) (County: HD)	<p>The concept of complete neighborhoods features prominently in the draft Portland Plan released in October 2011, particularly in the Healthy Connected City strategy and the Economic Prosperity and Affordability strategy. Goals, guiding policies, actions and performance measures related to creating complete neighborhoods are found throughout the Portland Plan, and include such topics as neighborhood business vitality, access to housing (including aligning housing and transportation investments), promoting vibrant neighborhood hubs, developing neighborhood greenways, and coordinating planning and investments among public and private entities, among others.</p> <p>In addition, BPS developed a 20-minute neighborhoods index to assess how much of the city has good access to services, such as transit parks and retail areas.</p> <p>The County Health Department worked with Oregon's Public Health Institute to incorporate health and health equity into the Portland Plan, including support for 20-minute complete communities.</p>

<p>(iv) For each type of urban neighborhood, identify the land use planning changes and infrastructure investments, including public-private partnerships, that are needed to achieve a highly walkable and bikeable neighborhood and develop an implementation action plan. (City: BPS) (County: HD)</p>	<p>Significant progress was made on this action and was included in the draft Portland Plan as a list of local actions for Portland’s five distinct areas: the Central City, Eastern, Western and Inner neighborhoods, and the industrial area. The actions will be refined through the Comprehensive Plan update. (see Appendix B of the Portland Plan for more details)</p> <p>The Health Department’s Communities Putting Prevention to Work (CPPW) grant has provided significant support for active transportation strategies and projects across the region. The CPPW grant supported the development of a health and equity tool for that will help planners understand what policies changes and investments are needed to support the development of healthy, active communities in the region. The Health Department is also working with the Portland Bureau of Transportation and Gresham’s Transportation Planning to update Transportation System Plans for each city with a policy framework that will provide greater opportunities for active transportation. The County is also playing a role on Metro’s Climate Smart Communities scenario planning to improve measuring how active transportation choices and investments impact the health of residents by incorporating an equity lens into this work.</p>
<p>(v) Require evaluations of major planning scenarios, Comprehensive Plan and Transportation System Plan decisions to include estimates of carbon emissions. Partner with Metro and regional jurisdictions to develop modeling tools for evaluating emissions impacts of land-use and transportation decisions and monitoring carbon emissions. (City: BPS) (County: DCS)</p>	<p>The City is working on a methodology to evaluate the relative carbon impacts of a range of growth scenarios to inform the Comprehensive Plan update. The City testified before Land Conservation and Development Commission in favor of more aggressive carbon emission targets for the transportation and land use sectors to compensate for overly optimistic fleet and technology assumptions.</p> <p>The City and County are active participants in Metro’s Climate Smart Communities project, which is a regional study of policy options needed to meet the State carbon emission reduction goals and will result in changes to regional transportation and land use policy. Once developed, the City and County will support the use of these tools in planning scenarios and will advocate for approaches that demonstrate reduced carbon emissions.</p>
<p>(vi) Develop a more balanced funding mechanism and adopt a schedule for public investments to make neighborhoods highly walkable and bikeable, including sidewalks and improved access to transit for reaching destinations beyond a reasonable walking or biking distance. (City: PBOT, BPS)</p>	<p>The draft Portland Plan proposes a variety of strategies to implement this action (as part of the broader set of strategies and actions identified in the Portland Plan). The implementation strategy presented in the Portland Plan draft includes collaborative partnerships between the City and more than 20 agency partners including Metro, TriMet, Multnomah County, the school districts, the Portland Development Commission and other that will continue to commit resources to help implement the plan over the next 25 years. The draft Portland Plan also proposes goal-based budgeting to prioritize actions that will help meet the Portland Plan goals and measures of success.</p>

●	(vii) Partner with federal agencies, including Housing and Urban Development, the Environmental Protection Agency, and the Department of Transportation, on efforts like the joint Interagency Partnership for Sustainable Communities to apply new federal priorities around sustainable development in Portland and Multnomah County. (City: PHB, BPS)	In October 2011, the City and County partnered with Metro and other regional jurisdictions and non-profits to submit a \$5 million application for a HUD Sustainable Communities Initiative grant to create a regional Housing Equity and Opportunity Strategy. Although ultimately unsuccessful, the proposal focused on strengthening the linkages between housing access and affordability and land use and transportation policy, jobs and job training, education, health and environmental impacts. Particular emphasis in the proposal was placed on the involvement of groups historically underrepresented in planning processes, especially communities of color and those living in poverty, and on development of tools that improve livability outcomes for these communities such as Opportunity Mapping and Equity Impact Analysis.
●	(viii) Seek funding to accelerate remediation of brownfields in the city and county to accommodate growth within the current Urban Growth Boundary. (City: PDC, BES)	In the 2011 State legislative session, the City advocated for the successful passage of HB3325 - brownfield prospective purchaser agreement liability reform legislation. The City also received grant funding from Metro to update the inventory of brownfield sites and identify the financial gaps to redevelopment that will lead to new policies and incentives to promote brownfield redevelopment. The City received EPA grants in 2011 to continue funding its brownfield assessment grant program and create a \$1 million revolving loan fund to assist brownfield cleanup projects.
●	(ix) Work with Metro and other local governments to make reducing carbon emissions and adapting to climate change impacts a funding criteria for the Metro Policy Advisory Committee and the Joint Policy Advisory Committee on Transportation. (City: BPS, PBOT) (County: DCS)	<p>The City and County are active participants in Metro's Climate Smart Communities project, which is a regional study of policy options need to meet the State of Oregon's GHG emission reduction goals and will result in changes to regional policy that will bring climate action a more prominent role in regional decision-making.</p> <p>The City and County continue to support investment strategies at MPAC and JPACT that demonstrate reduced carbon emissions and future climate resiliency. This includes prioritizing regional flexible funds for active transportation projects. For example, the City has recommended that over 70 percent of its regional flexible funds allocation for 2014/15 be designated for active transportation projects including East Portland Active Transportation to Transit, Portland Bike Share Project, and the SE Foster Safety Enhancement and Streetscape project.</p>
●	(x) Coordinate decisions about future Streetcar investments with Portland Plan land use decisions. (City: PBOT)	Work is currently underway on a major update to the City's Comprehensive Plan, a key implementation tool for the Portland Plan and the controlling policy for the City's land use decisions. PBOT and BPS are collaborating to ensure that the Comprehensive Plan fully integrates transportation investments.
●	(xi) Facilitate the aggregation of smaller land parcels which, when aggregated, provide opportunities for industrial development. (City: BPS)	Port of Portland, Metro, Portland Business Alliance, the City of Portland and Business Oregon are conducting a Regional Industrial Land Inventory and Site Readiness study in 2011, focused on 25+ acre industrial development sites, which includes evaluation of opportunities for site aggregation from smaller parcels. The City is also conducting a Harbor Lands Inventory study as part of West Hayden Island planning, which includes evaluation of potential site aggregation opportunities for a new marine terminal in existing harbor industrial districts.

6. Reduce per capita daily vehicle-miles traveled (VMT) by 30 percent from 2008 levels.	
Action	Notes
(i) Establish a sustainable funding source adequate to maintain the existing transportation system and to invest in transportation capital projects and programs that reduce carbon emissions. (City: PBOT) (County: DCS)	<p>Similar to last year, the passage of HB 2001 provided a boost of funding for transportation projects. The increase in the gas tax and vehicle registration fees provided funding for preservation and maintenance, as well as for programs and projects aimed at reducing vehicle miles traveled. However, the increase is not sufficient to cover the unmet maintenance needs of the City's transportation infrastructure.</p> <p>Of note is the creation of the "Affordable Transportation Fund" which provides \$1 million per year in fiscal year 2010-11 for innovative bicycle projects. HB 2001 provides funding for sidewalk infill projects, SmartTrips, Safe Routes to School, traffic safety projects and high crash corridor programming. HB 2001 also provides \$21 million/year in "Flexible Funds" for multi-modal projects coordinated through the State of Oregon. PBOT participated on the committee that helped set criteria for the funds and was successful in getting key measures such as greenhouse gas and vehicle miles traveled (VMT) reductions added as grant criteria. Ongoing funding for multi-modal projects is an issue however.</p>
(ii) Account for greenhouse gas emissions from investments in and the performance of the transportation system.	
<i>a. Establish a method for projecting the life cycle carbon footprint of transportation investments, including embodied energy, operations (VMT and flow) and maintenance. (City: PBOT)</i>	<p>PBOT completed initial work to assess carbon emissions related to PBOT (e.g., operations/building versus driving). Roughly 50 percent emissions occur on State facilities, highlighting the need for further partnerships with ODOT. PBOT also found from a cost efficiency perspective that focusing on reducing VMT is the best investment for reducing emissions (as compared to capital projects or operations). Through this work, PBOT has learned that the methodologies for doing this type of life-cycle assessment are currently inadequate and subject to substantial swings depending on data sources, which presents challenges for the successful completion of this action by the end of 2012.</p>
<i>b. Develop a reporting mechanism for tracking carbon emissions. The report will include key performance measures and will document progress toward emission reduction goals. Key measures include commute mode share, VMT by vehicle type, traffic flow on major arterials and highways, fuel efficiency of vehicles, and total carbon emissions from the transportation system. (City: PBOT) (County: DCS)</i>	<p>This tracking mechanism has not been fully developed or deployed.</p> <p>The City and County are engaged in Metro and the State of Oregon efforts to develop carbon emissions modeling tools for land use and transportation planning. This effort may help to inform the development of such a reporting and tracking tool in the future.</p>
(iii) Support investments to provide high-performance broadband connectivity to every business and residence to enable widespread e-commerce, telecommuting and improved emergency response. (City: OCT)	<p>Portland's Broadband Strategic Plan: Connecting to our Future (BSP) was adopted by Council in September 2011. Development of the associated work plan and budget in process. The draft Portland Plan also contains several actions related to expanding broadband access, service and equity.</p>

<p>(iv) Work with regional partners including the Oregon Department of Transportation, Metro, local cities and counties, and TriMet to reduce VMT through strategic investments and policies.</p>	
<p><i>a. Work with metro-area, state, regional, and federal agencies to develop a strategy for high-speed rail from Eugene to Vancouver, B.C. (City: PBOT)</i></p>	<p>PBOT, together with the Mayor's office and the Office of Government Relations, have been coordinating with partners including the City of Seattle, the City of Vancouver, B.C., the City of Eugene, ODOT, WSDOT and Metro. PBOT has led an inter-bureau committee that has reviewed ODOT and WSDOT high speed rail plans and suggested priority improvements on the high-speed rail infrastructure within the city.</p>
<p><i>b. Participate in developing least cost planning methodologies and to achieve mobility greenhouse gas emission reduction goals. (City: PBOT)</i></p>	<p>PBOT staff continue to follow the State's least cost planning work and have attended presentations at the Oregon Transportation Commission. While PBOT staff were involved in preliminary discussions, the City has not been actively involved since that time as there are multiple representatives from this region working on the project.</p>
<p><i>c. Work with Metro and the Oregon Department of Transportation to support investments and policies that help the region meet the carbon emission, VMT-reduction and mode-share goals. (City: PBOT) (County: DCS)</i></p>	<p>PBOT's work on the Flexible Funds rules committee is an example of the growing partnership with ODOT. The City, along with partners, was able to get the funding committee to prioritize bike, pedestrian, transit and transportation demand management (TDM) projects and to link them to carbon emission reductions. Examples include high value projects such as bike share, bicycle and pedestrian infrastructure in East Portland and improvements to Foster Road.</p> <p>The County is participating in technical advisory committees at Metro and the State of Oregon to support the development of carbon emissions modeling tools for land use and transportation planning. The County will support the use of these tools in planning scenarios and will advocate for approaches that demonstrate reduced carbon emissions.</p>
<p><i>d. Work with TriMet and Metro to revise the system service plan to reflect the mode-share goals of this plan and to develop an investment strategy that includes infrastructure to support connectivity and safe routes to transit. (City: BPS, PBOT) (County: DCS)</i></p>	<p>Work with TriMet and Metro to revise the system service plan has not yet been initiated.</p> <p>The County is supporting the East Metro Connections Plan, which will include modeling mode share outcomes of different planning scenarios. Throughout this process, the County will support strategies that reflect the mode share goals of the Climate Action Plan, including strong support for investing the majority of regional flexible funds into active transportation.</p>
<p><i>e. Partner with Metro to implement the Household Activity Survey in 2010 and beyond. (City: PBOT)</i></p>	<p>The survey was completed in summer 2011 and results are expected in 2012.</p>

<p>(v) Update the Transportation System Plan to incorporate mode-share goals that will result in a 40 percent reduction in transportation-related emissions by 2030. (City: PBOT) (County: HD)</p>	<p>PBOT is completing a technical update of the Transportation System Plan (TSP) to include some key projects and policy updates. Once the technical update is complete the Bureau will take on a more comprehensive update in conjunction with the City's Comprehensive Plan update.</p> <p>In addition, PBOT received a significant grant from the County (via the Centers for Disease Control and Prevention) to incorporate health equity in to the TSP; there is significant overlap between health-related priorities and climate change efforts. Specifically, the health equity community is focused on integrating equitable transportation policies that reduce vehicle miles travelled, increase active transportation rates, and improve air quality, among others, into the new TSP. These policies, while proposed for their community health benefits, are also key policies for meeting the city's climate change goals. Since March 2011, PBOT has facilitated a Health Equity Stakeholder Team that consists of government partners and local advocacy group representatives who work in the health equity field. Thus far, the team has produced a draft recommendations document, as well as a set of project selection and prioritization criteria. This document and the criteria will be finalized by the team in early 2012.</p>
<p>(vi) Prioritize funding for low-carbon transportation and access projects, policies and programs that will achieve emission reduction goals while also balancing safety, maintenance and freight movement. Efforts already underway include:</p>	
<p><i>a. Build the Eastside Streetcar (3.3 miles of track) and complete the analysis of the next streetcar corridor. (City: PBOT)</i></p>	<p>Construction of the Eastside Streetcar is nearly complete and is expected to open by September 2012. The City is participating in the Draft Environmental Impact Statement (DEIS) for the Lake Oswego to Portland Transit Project and continuing to look for other opportunities to expand the system. The most likely next project is "Close the Loop" connecting the eastside line to South Waterfront.</p>
<p><i>b. Implement SmartTrips Portland to 30,000 households each year. (City: PBOT) (County: DCS)</i></p>	<p>In 2011 SmartTrips Portland reached 47,000 households in North and Northeast Portland. Preliminary results show a shift away from drive alone trips on the order of 6 to 9 percent. The final report for SmartTrips 2011 was released in December 2011.</p> <p>The SmartTrips Business program also worked directly with over 400 businesses in 2011 providing valuable resources and assistance.</p>
<p><i>c. Expand Safe Routes to School to serve all schools in Portland. (City: PBOT) (County: DCS, HD)</i></p>	<p>All Portland elementary schools are receiving some level of Safe Routes to School programming: 40 schools are receiving the full "6 E" package (education, enforcement, engineering, encouragement, evaluation, and equity), and 31 are getting a reduced package. The City does not have Safe Routes to School programs for middle or high school students.</p> <p>The County's Department of Community Services is working with Troutdale and Sweetbriar Elementary schools to support use of alternative transit options for student travel. The County received a planning grant to support this work, including forming a walking school bus program.</p> <p>In addition, the Health Department is working with school districts to adopt policy language that supports safe walking and biking to school, including supporting the City of Gresham's effort to develop a comprehensive Safer Routes to School program.</p>
<p><i>d. Provide TriMet passes to all high-school students in Portland. (City: PBOT)</i></p>	<p>The City worked with TriMet and Portland Public Schools to provide TriMet passes to all high school students within the Portland Public School District, as well as several alternative schools. The program reaches over 11,000 high school-aged students each year.</p>

✓	<p>e. Build 15 miles of bicycle boulevards before 2010 and aggressively implement the City's Bicycle Master Plan. (City: PBOT) (County: DCS)</p>	<p>COMPLETED: Since the adoption of the Climate Action Plan, PBOT has completed 32 miles of Neighborhood Greenways including Going, Concord, Wabash, and Spokane, Holman, Central, Center, Bush, the 80s, Bryant, Mill, the 100s, and Westwood streets.</p> <p>The County continues to include bicycle facilities whenever possible in its road and bridge projects, which has resulted in the addition of several miles of new bike lanes in the past two years. This includes bicycle and pedestrian facilities on the Morrison Bridge, adding an additional connection across the Willamette River.</p>
●	<p>f. Complete the design of the Green Line to Milwaukee and participate in a regional lightrail system plan. (City: PBOT)</p>	<p>The Milwaukie light rail transit project is now under construction. The project is on schedule to open in 2015. In addition, the Southwest Corridor is examining the potential for light rail.</p>
✓	<p>g. Construct two miles of sidewalks on arterials (SE 122nd Avenue, NE/SE 82nd Avenue, and SW Barbur Boulevard). (City: PBOT)</p>	<p>COMPLETED in 2010 (see Year One Progress Report for details)</p> <p>In addition, the County completed a sidewalk project at N.E. Halsey Street & 205th Avenue that supports pedestrian access to Reynolds Middle School. The County is developing two road projects in East Multnomah County (NE Sandy Boulevard & 230th-236th; NE Arata Road & 223rd-238th) that will transform two lane roads with limited alternative transportation options into multi-modal active transportation corridors.</p>
✓	<p>h. Incorporate improved bicycle and pedestrian infrastructure in the redesign of the Sellwood Bridge. (City: PBOT) (County: DCS)</p>	<p>COMPLETED: The County's Sellwood Bridge is in final engineering phase, and the project broke ground in December 2011. The current design calls for 37 feet of bicycle and pedestrian space, with 24 feet of lanes devoted to automobiles, greatly improving bicycle and pedestrian safety and mobility across the structure.</p>
✓	<p>i. Require a minimum amount of long-term bicycle parking spaces for multi-dwelling development in areas other than the dwelling unit. (City: BPS)</p>	<p>COMPLETED in 2010 (see Year One Progress Report for details)</p>
●	<p>(vii) Help establish at least two new transportation management associations and two new parking management districts. (City: PBOT)</p>	<p>PBOT staff continue work on developing comprehensive parking management plans, including transportation management associations (TMAs), for Northwest and Central Eastside districts. The City led a multi-year effort that resulted in the launch of the South Waterfront Transportation Management Association (TMA) in July 2010.</p>
<p>7. Improve the efficiency of freight movement within and through the Portland metropolitan area.</p>		
<p>Action</p>		<p>Notes</p>
●	<p>(i) Protect existing intermodal freight facilities, and support centrally located and regionally significant industrial areas that may provide for future intermodal facilities and provide efficient local deliveries. (City: BPS)</p>	<p>The City is currently preparing a Concept Plan and background studies to evaluate potential annexation and zoning of West Hayden Island, including up to 300 acres of land for new marine terminal development to partially meet forecast marine cargo land needs.</p> <p>In 2011, the City evaluated options for 2014-15 Regional Flexible Funds projects (MTIP) and recommended Time Oil/Burgard intersection improvements (\$2.4 million) to enhance a bottleneck segment of a priority truck street and improve access to surrounding multimodal freight facilities. The Port of Portland is updating its Rail Master Plan in 2011/12 to identify priority rail improvements serving its Portland Harbor terminals.</p>
●	<p>(ii) Work with the Portland Freight Committee and other regional partners to develop a plan for reducing greenhouse gas emissions related to freight movement within and through the Portland region. (City: BDS)</p>	<p>PBOT has recently developed a draft Sustainable Freight Strategy report that will be reviewed by the project Working Group and the Portland Freight Committee. The final report is expected to be completed early in 2012.</p>

8. Increase the average fuel efficiency of passenger vehicles to 40 miles per gallon and improve performance of the road system.










Action	Notes
(i) Support progressive strengthening of federal fuel efficiency standards. (City: BPS)	The City continues to identify climate change as a key issue in its federal legislative agenda, including efforts explicitly directed at carbon as well as related initiatives to improve energy efficiency and renewable energy, such as improved fuel efficiency standards.
(ii) Work with ODOT to identify and fund the system and demand management projects that have the greatest potential to reduce emissions related to congestion, idling, and system performance. (City: PBOT)	In 2010 the City was awarded \$2.09 million dollars for the Going to the River project which linked Transportation Demand Management activities directly to a capital project. ODOT also funded the launch of a dynamic ride share database, www.DriveLessConnect.com . PBOT continues to serve on the Transport Committee which prioritizes and allocates funds across the region, including ODOT facilities, as well.
(iii) Work with ODOT and Metro to implement a congestion-pricing pilot program that prioritizes movement of freight and non-single-occupancy vehicles. (City: PBOT)	ODOT has been the lead on this project. Limited progress was made on this effort in the past year.

9. Reduce the lifecycle green-house gas emissions of transportation fuels by 20 percent.

Action	Notes
(i) Accelerate the transition to plug-in hybrids and electric vehicles by supporting the installation of a network of electric car charging stations. (City: PBOT) (County: Chair, DCA)	<p>The City continues to work on implementing the electric vehicle (EV), strategy (Electric Vehicles: The Portland Way). Major accomplishments include the launch of the City’s EV website (www.chargeportland.com), including an online permitting process.</p> <p>A partnership between Portland State University, Portland General Electric and the City resulted in the opening of Electric Avenue, an urban showcase for EV charging technology. The Avenue (on the corner of SW Montgomery and Broadway Ave. in Portland) features seven different charging stations provided by Eaton, Shorepower Technologies, OpConnect, SPX, ECOtality and General Electric.</p> <p>Both the City and the County are supporting the installation of EV charging stations across the region. For example, the County will install 12 EV charging stations at four County sites for use by the public and County personnel.</p> <p>County Chair Jeff Cogen has been appointed by two consecutive Governors to lead statewide working groups on increasing Oregon’s adoption of electric vehicles and fostering local and statewide job growth through transportation electrification.</p> <p>Recently the City and County helped the State of Oregon secure a \$500,000 electric vehicle community readiness planning grant from the US Department of Energy.</p>
(ii) Implement the second phase of the City’s renewable fuels standard to require that diesel fuel sold in Portland includes at least 10 percent biodiesel, half of which must be made from sources that can be produced in Oregon. (City: PWB)	In March of 2010, the Portland City Council voted to temporarily suspend the B10 minimum biodiesel content requirements of Portland City Code 16.60 due to economic and technical circumstances. The City continues to monitor the situation. The requirement for B5 content remains in place, however at this time, the suspension of the second phase of the local RFS will continue into the foreseeable future.

CONSUMPTION AND SOLID WASTE





10. Reduce total solid waste generated by 25 percent.	
Action	Notes
<p>(i) Work with partner organizations to encourage businesses and residents to purchase durable, repairable and reusable goods; to reduce the amount of materials that go to waste, including food; and to reduce consumption of carbon-intensive consumer goods and services. (City: BPS)</p>	<p>ReUse PDX is a coalition of Portland area non-profit organizations that promotes creative reuse. The City's Be Resourceful campaign partnered with ReUse PDX at the Better Living Show in March 2011 at the Expo Center. The County also partners with the Reuse PDX group, including Reuse Week each summer to raise awareness of community reuse organizations.</p> <p>BPS participated in related diverse community events, including partnering with Multnomah County's Aging and Disability Services to offer a series of presentations in low income community gatherings. These efforts resulted in conversations with more than 5,000 residents about fixing and maintaining, sharing, repairing and purchasing durables.</p> <p>Over 300 community members also shared their stories at these events so they could be shared online and encourage others to participate (www.portlandonline.com/bps/beresourceful).</p> <p>Portland's Bring Your Bag campaign, launched in conjunction with the City's ban on single use plastic bags, provides tips and information to help Portlanders reduce waste by using reusable bags at check out</p>
<p>(ii) Develop a measurement and evaluation mechanism to track waste prevented through preservation, re-use and thoughtful consumption. (City: BPS)</p>	<p>No progress has been made in developing a formal measurement and evaluation tool. However, BPS hired a contractor to assist in creating a tool that will help map the connection between conversations and outreach efforts, and resulting actions. Contract deliverables are expected in early 2012.</p> <p>The City has also been monitoring the work being done by the Environmental Protection Agency and the Oregon Department of Environmental Quality related to materials management, including the EPA's West Coast Climate and Materials Management Forum.</p>
11. Recover 90 percent of all waste generated.	
Action	Notes
<p>(i) Complete the implementation of mandatory commercial food waste collection in Portland and begin collection of residential food waste. (City: BPS)</p>	<p>Businesses that generate large quantities of food scraps will be notified in 2012 of the requirement to recover this material. The citywide curbside residential food scrap collection program was launched on October 31, 2011 (www.portlandcomposts.com).</p>
<p>(ii) Assist 1,000 businesses per year to improve compliance with Portland's requirement of paper, metal and glass recycling. (City: BPS)</p>	<p>The business outreach team launched a new program, Sustainability at Work, in August of 2011 which integrated three business assistance programs: Recycle at Work, BEST Business Center and Portland Composts. Over the course of the last year 1,794 businesses were helped by the business outreach team.</p>
<p>(iii) Together with Metro and DEQ, create and periodically update a regional waste management hierarchy that reflects energy and greenhouse gas emissions as key factors in prioritizing such technologies as commercial composting, digestors, plasmification and waste-to-energy systems. (City: BPS)</p>	<p>BPS is serving on the Oregon Department of Environmental Quality task force to develop a long-term Vision for Sustainable Materials Management in Oregon. This effort seeks to reduce environmental impacts by managing materials throughout their lifecycle, including extraction, production, use and end-of-life management.</p>
<p>(iv) Regulate solid waste collection for unincorporated Multnomah County. (County: OS)</p>	<p>The County continues to explore efficient, low-cost policy options that will establish for the first time regional service standards for waste and recycling collection in unincorporated areas of the County.</p>

	(v) Provide technical assistance to contractors and construction firms to meet Portland's new requirement to recycle 75 percent of construction and demolition debris, giving priority to salvage and reuse activities. (City: BPS)	BPS continues to expand and enhance its construction waste program. Outreach continues to contractors and construction firms through an improved website (www.recyclingnutsandbolts.com), a new resource guide promoting alternatives to demolition and the creation of a class about construction waste management for contractors.
	(vi) Institute post-collection sorting for municipal solid waste, particularly for waste coming from sectors like multifamily housing that are typically underperforming on recycling. (City: BPS)	BPS continues to work with haulers, property managers and tenants to increase recycling levels in multifamily dwellings. Post-collection sorting will be reviewed for feasibility if it is determined to be a viable option. The City is monitoring the situation.
	(vii) Participate actively in the process to develop state and federal product stewardship legislation. (City: BPS)	BPS actively participated in a DEQ stakeholder group that developed recommendations for product stewardship policies. Unfortunately, legislative proposals stalled in the 2011 session.
	(viii) Explore mandatory residential recycling. (City: BPS)	COMPLETED: The City has considered mandatory residential recycling and determined that implementing such a requirement is a low priority given the new program changes implemented in 2011 that initiated curbside food scrap collection and reduced garbage collection frequency. The City may revisit the value of mandatory residential recycling in future years after the efficacy of the new residential program is evaluated.
	(ix) Clearly label trash cans and other garbage receptacles as "landfill". (City: BPS)	Work to re-label garbage containers as "landfill" has not happened to date.
	(x) Establish public place recycling in Central Portland. (City: BPS)	COMPLETED: Approximately 160 public place recycling containers were installed on the 5th and 6th Ave Transit Mall coupled with existing garbage cans. Based on usage data currently being collected, the program may expand into additional parts of the downtown area. A waste audit in September 2011 showed that the recycling containers are collecting almost 1,000 pounds of recyclable material every week.
12. Reduce the greenhouse gas impacts of the waste collection system by 40 percent.		
	Action	Notes
	(i) Provide weekly curbside collection of food waste, other compostable materials and recycling. Shift standard residential garbage collection to every other week. (City: BPS)	COMPLETED: Based on the success of the pilot program, the citywide residential curbside food scrap collection program began October 31, 2011 (www.portlandcomposts.com). This program institutes a major shift in collection services with the expanded yard debris / food scraps cart moving to weekly service and garbage collection being switched to every other week.
	(ii) Complete the installation of particulate filters on pre-2007 waste collection vehicles to reduce particulate emissions. Older trucks that are not good candidates for retrofit should be phased out of operation. (City: BPS)	Metro secured funding to retrofit regional waste collection vehicles with particulate filters. BPS identified 273 Portland trucks for testing. The number of trucks ultimately retrofitted will depend on availability of funding and testing results. As of October 2011, 17 particulate filters had been installed on Portland trucks and another six are pending installation. Portland has a retirement program for older trucks in place and is currently monitoring franchisee compliance.
	(iii) Evaluate actions under the Portland Recycles! Plan and consider additional regulatory options to improve the efficiency of commercial collection service. (City: BPS)	BPS will evaluate other possible options for commercial collection after reviewing the performance of the commercial food scrap recovery program to be implemented in 2012.

URBAN FORESTRY AND NATURAL SYSTEMS



13. Enhance the urban forest canopy to cover one-third of Portland, and at least 50 percent of total stream and river length in the city meet urban water temperature goals as an indicator of watershed health.

Action	Notes
<p>(i) Expand public and private programs to encourage planting, preserving and maintaining trees and shrubs, controlling invasive species, and reducing and cooling impervious areas, including removing regulatory obstacles and exploring incentives. (City: BES, PP&R, BPS)</p>	<p>BES's Grey to Green Program planted 7,348 trees through a partnership with Friends of Trees, an on-call contract, and via Treebate, a residential yard tree planting incentive program. The Youth Conservation Crew (YCC) planted 377 trees at local schools and removed invasive plant species on 1.2 acres of City property. PP&R also continues to provide tree maintenance for Parks and some City-owned properties, including establishment care, pruning, canopy raising, removals, and hazard abatement.</p> <p>The City's Protect the Best (PTB) Program crews treated 550 acres and retreated 750 acres of open space. PTB has also initiated monitoring and mapping efforts. The No Ivy League has continued its successful efforts in controlling infestations of invasive species by removing ivy from over 400 trees and clearing over 2 acres of groundcover. BES's Early Detection and Rapid Response Program treated 292 acres of garlic mustard, 7 acres of knotweed, 1 acre of giant hogweed, 2 acres of spotted/diffuse knapweed, 2 acres of spurge laurel, and 0.25 acres of false-brome.</p> <p>To address regulatory obstacles, the City worked to revise the zoning code (Title 33) to clarify existing language to specifically forbid planting of invasive species and require native plantings in environmentally-sensitive areas; to ensure that invasive species are addressed in the Portland Plan; and to streamline the Portland Plant List update.</p>
<p>(ii) Acquire, restore and protect natural resources to promote functional watersheds and forest ecosystems, reduce the urban heat island effect, improve air and water quality, connect habitats, and contribute to regional health, biodiversity, and resiliency. (City: BES, PP&R)</p>	<p>The County's Stormwater Management Plan, which guides the design of roads and other physical systems on county roadways, emphasizes water quality preservation and the use of natural systems to reduce and filter stormwater runoff.</p> <p>The City (BES and PP&R) acquired over 230 acres of natural areas through a variety of City programs and partnerships. In the summer of 2011, BES began restoration on the historic floodplain of Johnson Creek through the East Lents Floodplain Restoration Project. BES began re-vegetating the project site in fall 2011 with 70,000 native trees and shrubs. Four rock weirs, two culverts, and one pedestrian bridge were removed from a tributary of Johnson Creek as part of the Veteran's Creek Restoration Project to restore the natural function of the stream. At a single Baltimore Woods restoration work day, 21 volunteer community members planted 400 native oak plants to enhance oak woodland habitat and natural stormwater management.</p> <p>A citywide natural resource inventory is set to be adopted by City Council in 2012. The inventory will provide updated information on the quality and quantity of natural resources remaining in Portland, and can be used for natural resource restoration and protection efforts citywide. In April, 2011, City Council adopted the Airport Futures plan that contained an updated natural resource inventory and updated environmental zoning protections for areas within the Columbia Slough watershed and near the Portland International Airport.</p>


	<p>(iii) Develop and implement an outreach campaign to provide educational resources to residents about the benefits of trees, watershed health, and green infrastructure. (City: BES, PP&R)</p>	<p>PP&R's Neighborhood Tree Stewards Program conducted monthly workshops on urban forestry topics as well as tree care provider certification workshops. PP&R continues to provide work days, workshops, school arboreta plantings, professional trainings for other city bureaus, and outreach events such as Arbor Week and Dig It!.</p> <p>The Community Watershed Stewardship Program awarded \$83,000 in stewardship grants (matched by over \$258,000 of community funds) for raingarden construction, streamside clean-ups, native plant restoration, invasive species removal, stormwater swales and pavement removal.</p> <p>The 2011 "Ecoroof Portland" (free public event and vendor fair) attracted over 450 attendees and 40 vendors. The entire month of March 2011 was dubbed Ecoroof Month, and included 4 project tours (with 100 attendees), and a presentation series featuring 10 events. The Portland Ecoroof Blog continues to build awareness and received over 120,000 hits in the last 12 months.</p> <p>The Sustainable Stormwater Management website received over 318,000 views, a 27% increase over the previous year. BES developed public outreach fact sheets and tools, including ecoroof incentive materials, updated stormwater tour materials, and annual stormwater monitoring report. BES also developed additional programmatic elements for the Green Street Steward volunteer maintenance program including online web resources and neighborhood outreach. BES' ongoing K-12 Clean Rivers education program reached over 17,000 students through classroom lessons, field trips, and community events/festivals.</p>
	<p>(iv) Recognize trees, shrubs, vegetation and natural landscapes as assets of the City and County infrastructure. Advocate for similar recognition by state and federal agencies. Explore the feasibility of managing street trees and other public trees as capital assets. (City: BES, PP&R, BPS)</p>	<p>Little formal progress has been made on this action. City asset reports have captured some asset value, condition and funding gap for green infrastructure owned by BES and PP&R. Little progress has been made in advocating for similar recognition by state and federal agencies or in exploring the feasibility of managing street trees and other public trees as capital assets, since the 2009 assessment from Davey Resource Group (on contract to BPS).</p> <p>BES staff testified to the State of Oregon in support of the Reach Code, which was adopted by the State of Oregon, Building Code Division. The Reach Code is a voluntary energy efficiency code for developers, contractors, and property owners who want to build beyond the current energy code. Trees and low growing vegetation are included in the commercial section of the code as an urban heat island mitigation measure, and ecoroofs are included as an energy conservation measure.</p>
	<p>(v) Clarify codes and policies to maximize the preservation of the largest, longest-living trees, and ensure expansion of the urban forest over time. Encourage tree species and age diversity and increase canopy in tree-deficient areas. (City: BES, PP&R, BPS)</p>	<p>COMPLETED: The Citywide Tree Policy Review and Regulatory Improvement Project was a multi-bureau effort to review the current system of regulations, address complexities, gaps and inconsistencies, and enhance the urban forest through a comprehensive restructuring and update of city codes addressing trees. The project was adopted by City Council on April 13, 2011. The first phase of zoning code amendments went into effect in July 2011, with the bulk of the project proposals set to go into effect in February 2013.</p>
	<p>(vi) Evaluate both green and traditional grey alternatives for public infrastructure projects. Develop final designs that support the restoration, enhancement, and protection of Portland's urban forest and watershed health. (City: BES, PWB, PBOT, PP&R) (County: DCS)</p>	<p>Several significant County road projects have been designed to detain and treat stormwater using rain gardens. Rockwood Library parking lot reconstruction used pervious pavers and bioswales to manage stormwater on site. A County "greenfrastucture" team has formed that will look at opportunities to strengthening investments in green alternatives for road and other physical infrastructure projects.</p> <p>In the past year 222 new green street facilities were completed. Between Oct 2010 and Oct 2011 2.3 acres of ecoroofs were constructed in Portland for a total of 7.3 acres (177 ecoroofs) since January 2009. Ecoroof test plots were constructed at the treatment plant to trial new lightweight, locally sourced soil systems. BES and PBOT continue to partner to include green street stormwater facilities as part of the Neighborhood Greenway projects.</p>

FOOD AND AGRICULTURE

14. Reduce consumption of carbon-intensive foods.

Action	Notes
 <p>(i) Include food choice as a component of the public engagement campaign (Objective 16) that inspires the community to live a climate-friendly lifestyle. (City: BPS) (County: OS, HD)</p>	<p>COMPLETED: Food choice is an integral component of the City’s Be Resourceful – Get More of the Good Stuff (www.portlandonline.com/bps/beresourceful) and Climate Action Now! (www.portlandclimateaction.org) campaigns and Step up to the Plate blog.</p> <p>The Climate Action Now! food brochure is distributed at events and public places such as the City Hall Garden. A presentation on food waste and climate was developed and is presented to Master Recyclers and other organizations.</p>
 <p>(ii) Create City and County partnerships with healthcare, schools and other organizations to promote healthy, low-carbon diets. (City: BPS) (County: HD)</p>	<p>In 2011, the County and over 200 community partners released the Multnomah Food Action Plan (MFAP), a 15 year plan to move the region towards a local, healthy, equitable, and prosperous food system. In June 2011, the second annual Multnomah Food Summit was held, which brought together over 230 community partners to focus on translating the vision and goals of the MFAP into action.</p> <p>The County Health Department has formed a cross-agency work group to coordinate planning and implementation of healthy, sustainable food service and nutrition standards. This includes Healthy Active Schools network, comprised of seven school districts, Ecotrust, and community-based organizations, which is working to increase farm to school partnerships and implement promotional campaigns to feature local, healthy food. As a part of this, Ecotrust is connecting school districts to local farmers through its Food Hub web-based resource tool. The Health Department is also funding and collaborating with Oregon Physicians for Social Responsibility to work with major hospital systems to expand opportunities for procurement of sustainably produced food.</p> <p>In partnership with the County Health Department, BPS is currently developing nutritional and sustainability standards for food purchased with public funds. Urban Growth Bounty classes that focused on meat-free diets were offered by the City and the City and County Health Department are participating in monthly discussions with social service providers and hospitals to encourage low-carbon diets.</p>

15. Significantly increase the consumption of local food.

Action	Notes
 <p>(i) Integrate sustainable food system issues, and where practical, quantitative goals and metrics, into planning processes, including the City’s Portland Plan and the Multnomah Food Initiative. (City: BPS) (County: OS, HD)</p>	<p>The City’s draft Portland Plan (www.pdxplan.com) focuses on healthy connected neighborhoods that support improved access to affordable healthy food, particularly in the Healthy Connected City and Economic Prosperity and Affordability strategies. Food and climate are also considered in ecodistrict planning currently underway.</p> <p>The Multnomah Food Action Plan, the resulting guiding document out of the Multnomah Food Initiative, includes actions throughout that address sustainable food system issues and includes a set of quantitative goals and metrics for measuring the region’s progress towards a healthy and sustainable food system.</p>

<p>(ii) Identify and implement City and County strategies to encourage local food production and distribution, including providing incentives and removing regulatory obstacles. (City: BPS) (County: OS, HD)</p>	<p>A BPS zoning code revision initiative is working with partners to identify food production and distribution barriers in the City’s code (www.portlandonline.com/bps/foodcode). The Health Department is funding Oregon’s Public Health Institute to work on this project, including efforts to support public meetings to gather community input. Changes to the code will be brought to the Planning and Sustainability Commission in early 2012.</p> <p>BPS is partnering with PDC on the Mayor’s grocery store initiative that seeks to bring affordable, healthful and local food to underserved areas through traditional and alternative strategies. The City also assists individuals and groups who seek to establish community and market gardens on City and private property.</p> <p>The City and County jointly convene the Portland/Multnomah Food Policy Council (FPC), which develops recommendations for policy changes that support a thriving local food system. In 2011, one of the key areas for FPC recommendations focuses on policy changes that reduce regulatory barriers to local food production and distribution.</p> <p>The County’s Office of Sustainability, in collaboration with regional partners, is developing a targeted economic development strategy around food clusters and is pursuing funding to support the growth of local food production and distribution.</p>
<p>(iii) Develop policy and provide programmatic resources to significantly increase the percentage of home-grown and locally sourced food, including the support of farmers markets and community supported agriculture; the use of public and private land and rooftops for growing food; promoting fruit and nut trees as options for the 33,000 yard trees to be planted as part of the Grey to Green initiative; and develop or facilitate, 1000 new community garden plots. (City: BPS, BES, PP&R) (County: OS, HD)</p>	<p>BPS continues to assist groups in setting up neighborhood gardens, revising the zoning code and offering Urban Growth Bounty classes to promote homegrown food. Since the adoption of the Climate Action Plan, PP&R has built 400 new community garden plots. 180 plots were created in existing gardens, and the rest are at new sites constructed since 2009. Other organizations and partners have built an additional 284 plots since 2009. Commissioner Fish is tracking this progress on his website. The sustainable food program in BPS offers marketing and technical support to area farmers markets and Community Supported Agriculture (CSAs) farms and web-based tools to promote direct-market producers.</p> <p>The County’s Office of Sustainability is working with regional partners to develop the Institutional Purchasing Alliance, which focuses on leveraging the purchasing power of large organizations to support local food production through strategic sourcing.</p> <p>The County is using surplus land at two sites to support local food production, reducing community hunger through donations to the Oregon Food Bank and offering additional self directed community garden plots.</p> <p>The Health Department started the Multnomah County Healthy Retail Initiative that works with local grocery and convenience store owners to increase access to healthy food, especially in low-income neighborhoods. The Health Department convenes the North Portland HEAL (Healthy Eating Active Living program), which is working with the Portsmouth Neighborhood Association and the City of Portland to develop a community garden at the former PPS Clarendon Elementary School site. The Health Department is providing funding and technical assistance to Janus Youth to launch the Village Market in North Portland. Village Market is a community-driven convenience store that will strive to offer healthy options to North Portland residents.</p> <p>The City’s Grey to Green program supports fruit tree planting for a portion of the yard tree goal. Fruit trees may be planted through the Treebate program and with partner Friends of Trees when the customer so chooses. Of the Treebate trees planted during the last year, 18% were fruit trees.</p>

<p>(iv) Provide educational opportunities for residents to gain skills in organic gardening, fruit production, animal husbandry, food preservation and cooking, and affordable, healthy eating. (City: BPS) (County: OS, HD, DCHS, DCJ)</p>	<p>In 2011 the County’s Office of Sustainability, in partnership with OSU Extension Services, launched the Beginning Urban Farmer Apprenticeship (BUFA) program to train the next generation of farmers. In its first year, BUFA trained 15 individuals in small commercial farming techniques and business development using a combination of classroom learning and hands on field work at the Multnomah County CROPS farm. The County CROPS farm utilizes surplus County land to grow over \$30,000 (2011 season) of local, organic produce for the Oregon Food Bank, and serves as a learning lab for BUFA students and other volunteers. The County OS, in partnership with the County DCJ, developed the Restitution Garden project. The project teaches juvenile offenders gardening skills by growing produce, and proceeds from the sale of the produce help pay restitution to the victims of crime.</p> <p>The Department of County Human Services has included nutrition guidelines in the county’s Request for Proposals for aging services, and is conducting cooking demos and trips to farmers’ markets to support local, healthy, affordable eating in its work with aging and senior center partners. DCHS has also worked with Loaves & Fishes to adopt a Fresh Produce Policy that calls for the replacement of pre-packaged produce with fresh, local produce starting April 2011. This policy change will impact 34 locations across three counties.</p> <p>The County Health Department is working with faith-based centers reaching 100,000 county residents to support consumption of local and healthy food. Three faith-houses passed nutrition policies, one removed a deep fryer and one added a raised bed garden in a former parking lot. A coalition of faith communities came together to start a buying club by pooling resources to get food directly from local farmers. The Health Department is also funding Highland Haven and EMO to implement food policies in additional faith-based settings.</p> <p>Over 500 people attended BPS’s Urban Growth Bounty classes on organic gardening, animal husbandry, cooking and food preservation in 2011. BPS’s sustainable food website offers class recommendations and information on sustainable food choices.</p>
<p>(v) Multnomah County to work to reestablish funding to the Oregon State University Extension Service. (County: Chair, OS)</p>	<p>The County is exploring strategies to reestablish funding for the OSU Extension Service.</p>
<p>(vi) Establish quantitative metrics for consumption of regionally sourced food. (City: BPS) (County: OS)</p>	<p>BPS received a Mayor’s Innovation Project grant to assess sustainable food metrics and the report of the findings will be completed in January 2012. Data from Portland farmers markets and CSAs are currently tracked by the City. Additional metrics are being researched to assist in determining the amount of regional food consumption.</p>

COMMUNITY ENGAGEMENT

16. Motivate all Multnomah County residents and businesses to change their behavior in ways that reduce carbon emissions.

Action	Notes
<p>(i) In partnership with businesses, universities, schools, non-profit organizations, community groups, public agencies, and existing efforts, develop a community-wide public engagement campaign to promote carbon emission reductions. (City: BPS)</p>	<p>The County held a Climate Short Film Contest in 2011, which asked community members to tell their stories about local impacts of climate change through short, engaging videos. Winning films were featured at an event in July 2011 that spurred community and media interest in the film contest and issues surrounding climate change. (See web.multco.us/climatefilms)</p> <p>In partnership with the Oregon Health Authority and Climate Leadership Initiative, the Health Department co-hosted a regional workshop on the public health impacts of climate change. Staff from the Health Department also led discussions at the 2011 Regional Livability Summit around the intersection of climate change and social equity.</p> <p>The Portland Climate Action Now! (CAN!) public outreach campaign continues and includes a website (www.portlandclimateaction.org), educational materials, a booth for event outreach, and class/workshop curriculum as part of the ReThink series and Master Recycler classes. The CAN! website received over 42,500 visits in the past year.</p> <p>The City's ReThink series (www.portlandonline.com/bps/rethink) is working directly with community organizations to increase climate literacy and take climate action at a very local level. The City also helped to sponsor the Northwest Earth Institute's EcoChallenge, which includes actions that reduce carbon emissions.</p> <p>The City held three Fix-It Fairs, attracting thousands of racially and socio-economically diverse participants. Over 60 City, County, State and community organizations provide expert information, hands-on demonstrations and more than thirty "How-To" classes on various topics throughout the day. Specific carbon reduction related workshops include home weatherization, cutting energy bills, vegetable gardening, composting, tree-care and all-season cycling. The Fairs offered free giveaways such as high efficiency light bulbs and showerheads, as well as free bike-repair and bike safety information for children and families.</p>
<p>(ii) Establish a business leadership council to catalyze the business community to create a prosperous low-carbon economy. (City: BPS) (County: Chair)</p>	<p>In 2010 the City joined Greenlight Greater Portland, Metro, the Portland Development Commission, Nike, the Portland Sustainability Institute, and a host of other public, non-profit, and private-sector organizations in issuing the Climate Prosperity "greenprint," a strategy document identifying opportunities to advance the Portland's region's economic development through incentives, programs, and policies that accelerate low-carbon development. A formal business leadership council has not been convened, however.</p>
<p>(iii) Establish and publicize climate action metrics by neighborhood, including measures such as household energy use, vehicles miles traveled, walkability and bicycle commute rates. (City: BPS)</p>	<p>The proposed Portland Plan (www.pdxplan.com), to be considered by City Council in early 2012, includes metrics for walkability and household energy use by neighborhood. The City separately publishes information on bicycle commute rate by census tract.</p>

<p>(iv) Partner with the Portland Sustainability Institute to bring together academia, businesses and government to foster policy development, best practices and collaboration to address climate change. (City: BPS)</p>	<p>The City and Portland Development Commission (PDC) have continued to work closely with the Portland Sustainability Institute (POSI) to build capacity and implement specific projects to reduce carbon emissions. Much of the work since 2009 has focused on ecodistricts, a place-based approach to engaging building owners, businesses, and residents in pursuing projects that deliver much better environmental performance while improving district livability. PDC has provided funding to POSI to support the development of five pilot ecodistricts in Portland: Foster Green, Gateway, Lloyd, South of Market, and South Waterfront.</p>
<p>(v) Expand opportunities for residents and business, especially in historically underserved areas, to learn how to track and manage energy use, improve efficiency and adapt to a changing climate. (City: BPS)</p>	<p>The BPS Green Building Program developed and delivered 12 workshops about tracking and managing home energy use, including eight workshops in underserved areas.</p> <p>The County's Health Department's Healthy Homes program targets distressed communities with resources to improve the air quality and other health-related attributes inside their homes. The program also targets the energy efficiency of these homes by connecting the community with energy efficiency initiatives like the Community Energy Project.</p> <p>County DCHS's Weatherization Assistance Program continues to provide resources for low income families to help install energy efficiency measures in their homes, reducing participant's energy costs and making their homes more comfortable.</p>

CLIMATE CHANGE PREPARATION

<p>(vi) Seek funding to support neighborhood and community groups in the implementation of carbon-reduction projects and programs. (City: BPS)</p>	<p>Beginning this fall, twice a year BPS will invite diverse community organizations to apply to host the ReTHINK workshop series and then conduct a community action project. One host organization is selected per application period. The host is responsible for outreach into the communities they serve and providing space for the workshops to take place. The first workshop provides climate literacy. The second and third workshops map back to the four action areas of the Climate Action Now campaign. BPS then grants the organization between \$1,000 and \$1,500 to conduct a community action project linked to at least one of the climate action areas. The first ReTHINK workshop series started in November 2011 and was hosted by June Key Delta Community Center.</p>
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17. Adapt successfully to a changing climate.

Action	Notes
<p>(i) Prepare an assessment of climate-related vulnerabilities, strengths and resiliency of local food, water and energy supplies, infrastructure, transportation and freight movement, floodplains, watershed health, public health, public safety, social services and emergency preparedness. (City: BPS, BES, PWB) (County: OS, HD, OEM)</p>	<p>The City and County have jointly established three working groups comprised of multiple bureaus and departments to develop a Climate Adaptation Plan that address Infrastructure (water, sewer, roads and bridges, development, parks and stormwater), Natural Systems, Public Health and Human Services. The three efforts have assembled the local and regional science on climate impacts, are evaluating the potential risks, assessing the vulnerability of City and County resources, and identifying resilient strategies that have multiple benefits across all three areas. The City and County will use the findings from the various vulnerability assessments to develop both near-term and long-term adaptation and preparation recommendations by the end of 2012.</p> <p>In addition, the City and County continue to engage in a related effort focused on climate resilience in the Willamette Valley. This regional effort is being coordinated by The Resource Innovation Group's Climate Leadership Initiative.</p>

<p>(ii) Develop a climate change preparation plan that analyzes and prioritizes preparation actions to manage risks and increase overall flexibility and resiliency, assigns responsibility to appropriate bureaus or departments and ensures that disproportionate impacts on vulnerable populations are addressed. (City: BPS, BES, PWB) (County: OS, HD, OEM)</p>	<p>The vulnerability assessment work outlined above will result in a preparation plan that identifies recommended adaptation measures to be implemented by City bureaus and County departments. This plan is expected to be completed by the end of 2012.</p>
<p>(iii) Monitor implementation of climate change preparation actions and emerging data on risks. If necessary, revise adaptation plans more frequently than the three-year revision cycle for the overall plan. (City: BPS, BES, PWB) (County: OS, HD, OEM)</p>	<p>The City and County continue to monitor emerging data on climate impacts and potential risks, and are incorporating that information into the vulnerabilities assessment described above. The resulting climate change adaptation plan will include a process to periodically update the recommended adaptation measures and monitor implementation of the plan.</p> <p>All of the City's infrastructure bureaus have asset management approaches which monitor the long term maintenance needs of the infrastructure and an extensive precipitation monitoring effort. BES has ongoing monitoring for the effectiveness of green infrastructure. In addition, the City overhauled its watershed monitoring program in 2010 and has instituted a less expensive but more extensive, consistent and robust monitoring of watershed health that includes hydrology, water quality, habitat, riparian corridors, salmon, bird and benthic measures. Taken together, these data will allow the City to track whether assumptions of climate change impacts are overestimating or underestimating the impacts and identify areas where resilient solutions may be working. A preliminary analysis of Johnson Creek demonstrated that river restoration will provide a significant buffering effect.</p>
<p>(iv) Protect and restore wetlands, floodplains, wildlife habitat and corridors to strengthen the capacity of natural systems to respond to more severe weather events, streamflow changes, and flooding. (City: BES, PP&R) (County: DCS)</p>	<p>As noted under Urban Forestry and Natural Systems, the City has acquired over 230 acres to protect sensitive habitat and hydrologic function as well as buffer natural systems to increase their resilience to change. BES has coordinated numerous stream restoration projects that incorporated floodplain reconnection and riparian plantings to respond more effectively to climactic events.</p> <p>PBEM has completed the Natural Hazard Mitigation Plan which outlines actions to mitigate the hazards of flood, landslides and impacts of severe weather events. PBEM also aids bureaus in accessing mitigation funding from FEMA.</p> <p>The County has integrated healthy streams guidance in its planning code, helping to protect priority stream and waterway buffers from development.</p>
<p>(v) Collaborate with Metro and state agencies to update and ensure continued accuracy of land hazard mapping and inventories, including landslide hazards, floodplains and areas subject to wildfire risk. (City: POEM) (County: OS, OEM, DCS)</p>	<p>Mapping of hazards in Portland has been completed through a Community Risk Reduction Strategy project. A mapping committee will be convened to review the maps which then need to be approved by the City Emergency Management Steering Committee. Flood Insurance Rate Maps have been updated and Portland's Community Rating System (for the National Flood Insurance Program) has been upgraded to a 5, one of the best ratings in the nation.</p> <p>Further analysis of all hazards needs to be developed through the use of the best technology available. Funding for Light Detection and Ranging landslide analysis is a nationwide competitive grant process which will be applied in 2012.</p> <p>The County completed its Community Wildfire Protection Plan enabling funding for wildfire projects in Portland. The County also began a regional collaborative process to revise its Natural Hazard Mitigation Plan in 2011.</p>

<p>(vi) Integrate climate adaptation and natural hazard mitigation strategies into major planning efforts and consider the potential for substantial numbers of "climate refugees" in contemplating future growth scenarios. (City: BPS) (County: OS, DCS)</p>	<p>The City and County will seek to incorporate the findings of the climate vulnerability assessment and adaptation plan (discussed above) into major planning efforts.</p> <p>Determining how to consider "climate refugees" in contemplating future growth scenarios remains a challenge. Metro's current population projections anticipate substantial regional population growth over the next 20 years. While this is not specifically attributed to people relocating because of climate change, the possibility that Portland and the Pacific Northwest will be relatively attractive compared to hotter and drier parts of the U.S. is consistent with the region's overall relative attractiveness in terms of quality of life.</p>
<p>(vii) When planning public infrastructure investments and service delivery strategies, consider the physical, social, environmental, economic, and regulatory impacts of mitigating and adapting to climate change. This may necessitate developing and using forecasts and models that account for potential climate changes and evaluating investment alternatives based on triple bottom line and climate change impacts over the lifespan of the infrastructure. (City: BES, PWB, PBOT, BPS) (County: OS, HD, DCS, OEM)</p>	<p>The City and County will use the findings of the climate vulnerability assessment and adaptation plan (discussed above) as a starting point for integrating climate vulnerabilities into various planning and investment efforts.</p>

LOCAL GOVERNMENT OPERATIONS

18. Reduce carbon emissions from City and County operations 50 percent from 1990 levels.	
Action	Notes
<p>(i) Identify funding sources to finance energy-efficiency upgrades in City and County facilities. (City: BPS) (County: OS, DCA)</p>	<p>The County is in the process of completing three significant energy projects funded through nearly \$1.5 million in federal stimulus grants: building automation controls and energy monitoring at the County's 42 most significant buildings; water and heat recovery system at the County's Inverness Jail; and lighting upgrades at County buildings. An Energy Savings Contract financing model is also under consideration to further leverage outside funding for energy efficiency improvements.</p> <p>Under Portland's City Energy Challenge, an internal program for energy efficiency and renewables, staff continue to promote high efficiency energy retrofits, design and equipment specifications. Funding to implement upgrades remains a challenge, but bureaus are supportive of finding ways to make projects happen. Recently, the City has had success by bundling energy improvements with other major capital projects and paying for standalone energy projects with American Recovery and Reinvestment Act (ARRA) grant funds.</p>

●	<p>(ii) Require that all new City and County buildings achieve Architecture 2030 performance targets. (City: BPS) (County: DCM) (County: OS, DCM)</p>	<p>The County's 2008 green building policy requires that all new County buildings achieve Architecture 2030 performance targets. The County's first new building since the adoption of the policy, the East County Courthouse (completion anticipated in 2012), was designed in pursuit of the Architecture 2030 goal.</p> <p>Although the City's Green Building Policy requires aggressive energy efficiency targets for new City buildings, this policy was adopted prior to the American Institute of Architects promotion of the Architecture 2030 Challenge. In 2012, BPS will evaluate whether the City's Green Building Policy aligns with Architecture 2030 goals for new construction and existing buildings.</p>
●	<p>(iii) Convert street lighting, water pumps, water treatment and other energy intensive operations to more efficient technologies. (City: PBOT, PWB, BES, BPS) (County: OS, DCM, DCS)</p>	<p>The County continues to work with cities in East County to investigate replacing street lighting with energy savings LED technology, with action anticipated in 2012. The County was able to eliminate 65 servers in 2011 through strategic consolidation, virtualization and upgrade of older hardware. This work was supported in part by the county-wide migration to Google Apps as the primary software package, which significantly reduced both licensing costs and county server requirements.</p> <p>Improving the energy efficiency of the City's buildings, street lights and water and waste water systems has been the City's policy and goal since 1990. Choosing efficient products and high performance designs is largely integrated into the way facility and construction project managers approach their work. Recent examples of energy projects include the South Auditorium street and parkway lighting replacement where 400 LED street lights were installed; lighting retrofits in community centers and parking garages, and direct digital controls in the Portland Building. Although most of the Portland's water supply system is gravity-fed, higher elevation locations rely on pumping. The Water Bureau's energy committee has been looking closely at equipment and operation protocols at the pump stations using the most electricity. Recent improvements resulted in a 15 percent increase in pump station efficiency during 2010, measured as gallons pumped per kilowatt hour.</p> <p>Through energy efficiency efforts, the City saves about \$5.5 million per year on energy bills, resulting in a cumulative total of \$42 million in savings since the City Energy Challenge program began 20 years ago (1991 – 2011).</p> <p>Through participation in the Oregon Sustainable Energy Management Systems Training, the BES Wastewater Group spent a year working to increase energy efficiency at the Columbia Boulevard Wastewater Treatment Plant. Highlights include improving cogeneration uptime, improving reliability of compressors supplying biogas to Malarkey Roofing, lighting retrofits, and identifying and repairing process air leaks. Beyond improvements made at CBWTP, the Wastewater Group can take the lessons learned through this process and apply them at the Tryon Creek Wastewater Treatment Plant and throughout the Collection System. Additionally, the Wastewater Group has been replacing motors that have reached the end of their useful life with high-efficiency motors, increasing the overall energy efficiency of the collection system.</p>
✓	<p>(iv) Adopt and implement green building policies that include third-party certification of energy, water and waste conservation strategies. (City: BPS) (County: OS, DCM)</p>	<p>COMPLETED in 2010 (see Year One Progress Report for details)</p>

<p>(v) Purchase or generate 100 percent of all electricity required for City operations from renewable sources, with at least 15 percent from on-site or district renewable energy sources such as solar and biogas. (City: BPS)</p>	<p>In 2010/11 the City's on-site renewable generation represented 9 percent of the total electricity consumption for the City's operations. Most came from a 1.7 MW biogas generator at Columbia Boulevard Wastewater Treatment. The PWB has installed solar facilities at the groundwater pump station and the meter shop (approximately 279 kW total capacity). The Bureau of Hydropower continues to generate an average of 80-90 million kWh per year through supply operations at the Bull Run dams, but this power is sold to Portland General Electric and is not included in the 9 percent figure above.</p> <p>Efforts to reach the 100% renewables goal for City operations continue. Significant progress came in October 2011 when OMF Facilities Services made a significant REC purchase to cover electricity consumption in the Portland Building at the 100% renewable level. This purchase boosted the City's total renewable count to 14 percent.</p> <p>Over the last year, the BES Wastewater Group has worked to increase the beneficial reuse of biogas produced at the Columbia Boulevard Wastewater Treatment Plant. They were able to increase the cogeneration up time by 8% by addressing some system deficiencies, and also increased the reliability of the compressor system supplying biogas to Malarkey Roofing, which is the second largest beneficial reuse of biogas at CBWTP. These two improvements, along with the current operation and maintenance of the system, resulted in a 1% increase in beneficial reuse of biogas which equates to over 25 million standard cubic feet of biogas.</p>
<p>(vi) Require that local government fleets, regulated fleets (e.g., taxis and waste/recycling haulers), and the fleets of local government contractors meet minimum fleet fuel efficiency standards and use low-carbon fuels. (City: BPS) (County: OS)</p>	<p>The City requires the 19 franchised residential garbage and recycling haulers to use 20 percent biodiesel (B20) in their diesel collection vehicles, which results in over 400, 000 gallons of biodiesel usage annually. Policy options for other fleets have not yet been developed.</p> <p>City infrastructure bureaus continue to incorporate sustainability requirements and evaluation criteria, such as diesel emission reduction, biodiesel and idle reduction, into solicitation documents when feasible.</p> <p>Fuel efficiency is a key consideration in the purchase of any fleet vehicles at the County. County contractors are prohibited from idling at County facilities and the use of biodiesel and other pollution control devices are given preference in County contracting.</p>
<p>(vii) Buy electric and plug-in hybrid vehicles for City and County fleets as they become commercially available. (City: OMF) (County: OS)</p>	<p>The City has received 11 all-electric Nissan Leaf vehicles. The City is presently working with Ecotality to have all of the charging stations installed so the vehicles can be put into service. The City is continually examining its Fleet to identify areas of compatibility for more all-electric, plug in hybrid and hybrid vehicles.</p> <p>The County is in the process of adding four Nissan Leaf electric vehicles to its fleet. This initial purchase will serve as a pilot for future EV purchases, and builds off of previous policy to purchase hybrids and other fuel efficient vehicles.</p>

<p>(viii) Stop the growth of waste generation and recover 75 percent of all waste generated in City and County operations. (City: BPS) (County: OS)</p>	<p>Each of the City’s six property managing bureaus has assigned a recycling coordinator to improve materials management performance and tracking. A FY 10-11 baseline recovery rate for City owned and operated facilities was created. The recovery rate combines the waste that is collected by the contracted garbage and recycling company and waste this is reported by bureau recycling coordinators who are tracking additional materials recovered outside of the City’s hauling contract.</p> <p>The recovery rates broken down into three categories:</p> <ul style="list-style-type: none"> • Commercial Building: includes the waste generated from the operations of all City-owned and operated office buildings, laboratories, and fire and police stations. FY 10-11 recovery rate = 48 percent. • Public Places: includes all parks locations (community centers, play fields, golf courses and parks), the Streetcar line and Union Station. The majority of waste from the locations included in the public place recovery rate is from the public. FY 10-11 recover rate = 30 percent. • Operations: all waste generated and/or managed through city-wide services including city-owned and operated commercial buildings, parking structures, maintenance yards, and the annual leaf collection. This rate also includes commercial buildings and public place as defined above. FY 10-11 recovery rate = 74 percent. <p>Multnomah County continues to expand its recycling and waste prevention efforts throughout county buildings. The County now composts at eight facilities. Each of the three county detention facilities have established composting programs, diverting approximately 20,000 pounds of compost from the waste stream each month. A countywide team of Sustainability Liaisons has been established to continue to the County’s progress towards meeting the 75 percent waste diversion goal in the Climate Action Plan. Multnomah County currently diverts 45 percent of its waste to recycling and composting.</p>
<p>(ix) As standardized carbon emissions data becomes publicly available, consider carbon emissions from the production, transportation, use and disposal of goods, including food, as a criterion in City and County purchasing decisions. Where practical, include the sustainable practices of prospective vendors, contractors and service providers as evaluation criteria. (City: OMF) (County: OS, DCM)</p>	<p>Carbon emissions are not routinely included in the City’s purchasing decisions at this time due to minimal availability of standardized carbon footprint data. The sustainable practices of prospective vendors are selectively included in Request for Proposal (RFP) solicitations. Prioritization of when to include sustainability practices in evaluation criteria is based on the scope of work and dollar amount of the solicitation.</p> <p>The County continues to monitor developments in carbon emission tracking and will integrate this as a procurement consideration as it becomes feasible. The County’s Sustainable Purchasing Policy requires the inclusion of sustainability practices of vendors to be considered in addition to other sustainability attributes of the goods or services provided.</p>
<p>(x) Establish video and/or web conferencing capability in all major City and County facilities. (City: OMF) (County: IT)</p>	<p>The County has completed the installation of video conferencing hardware at ten key County facilities. Training on the use of the equipment by staff is underway.</p> <p>The City has some video and/or web conferencing capabilities in place, but has not implemented this action consistently across the City.</p>
<p>(xi) Establish interbureau and interdepartmental teams to implement the Climate Action Plan and report on progress. (City: BPS) (County: OS)</p>	<p>The County has established an interdepartmental Climate Action Plan Implementation Team (CAP I-Team) to operationalize actions within the Climate Action Plan. The CAP I-Team has identified strategies and assigned responsibility for each of the County identified three-year actions. The County’s Advisory Committee on Sustainability and Innovation (ACSI) provides the County with expertise and recommendations from the community on the County’s implementation of Climate Action Plan actions.</p> <p>To date, the City has approached coordination on the implementation of the Climate Action Plan in a project/action-specific basis. At this time the City does not expect to establish a formal inter-bureau team, but is exploring ways to facilitate additional information exchange, potentially hosting an annual climate summit for City staff.</p>



CLIMATE ACTION PLAN 2009



CITY OF PORTLAND AND MULTNOMAH COUNTY

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03/27/12