JOINT ELECTED OFFICIALS AGENDA ITEM SUMMARY

Work Session: Joint Meeting with Eugene Water & Electric Board

Meeting Date: September 12, 2011 | Agenda Item Number: A
Department: City Manager's Office | Staff Contact: Brenda Wilson
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ISSUE STATEMENT
This is a joint meeting of the local elected officials of the City of Eugene and the Eugene Water & Electric Board (EWEB) to discuss inter-jurisdictional issues. The focus of this work session is to provide status reports and updates on some key projects of mutual interest.

Agenda topics include:

1. Smart Meter Demonstration Project (25 minutes)
- Presentation (Roger Gray and Lance Robertson)

EWEB is launching a pilot project this month to test "smart meter" technology. The information received from the volunteers who participate in the 12-month pilot will help EWEB better understand customer attitudes and preferences toward specific smart meter technology, assess how participants utilize the energy usage and billing information available via the new meters, and test various communication approaches to refine outreach plans. The experience of rolling out smart meters to households in the pilot project will also provide beneficial information to EWEB as it prepares for the installation of digital meters for all electric and water customers in 2013.

This project was selected as a joint work session item because it will affect all residents and businesses in Eugene, and is expected to be a high-interest project among many residents. EWEB also has studied and learned from the smart meter deployment experiences of other communities, where some residents have raised concerns about digital meters in the areas of health and safety, accuracy and privacy. EWEB's aim is to proactively engage and consult the community long in advance of deployment, and to provide accurate and credible information.

A short "smart meter 101" presentation is planned for the joint session, as well as an update on the pilot project and other communication efforts. Staff hopes this information will assist the City Council and EWEB Board in responding to questions or concerns from community members about the pilot project and why EWEB is preparing for future deployment of smart meter technology.

2. Climate Initiative Coordination (20 minutes)
- Status of key City and EWEB efforts (Matt McRae)
- Future opportunities (Felicity Fahy)

Sustainability and climate change are of significant concern to Eugene residents and major strategic issues for the City and EWEB. The joint meeting is an opportunity to share how staff at both agencies are working together on a number of fronts to address climate change and fossil fuel reductions and how these efforts align with state and regional priorities (see Attachment A for summary of the State Roadmap to 2020).

The Community Climate and Energy Action Plan (CEAP) and the 2011 Integrated Energy Resource Plan (IERP) are examples of two key efforts that will be discussed at the meeting. EWEB is one of several key community partners involved in implementing the CEAP. Action items involving EWEB fall primarily within the Building and Energy; Food and Agriculture and Urban Natural Resources topic areas. However, very few action items rely on a single entity for implementation; rather they benefit from the involvement of multiple agencies and collaborative efforts (see Attachment B for more information). Likewise, the City has staff representation on the community advisory panel working with EWEB on developing the IERP. The IERP is a 20-year plan for how EWEB will meet the community's energy needs. A draft plan will be available for review in November.

Staff from both agencies will highlight the partnerships underway to reduce fossil fuel consumption, protect natural resources, develop a more secure energy future, and promote social equity. In undertaking this work, staff is aware of both the challenges and opportunities that lie in effective collaboration and where appropriate and feasible, is aligning priorities and resources to help accomplish the goals and community aspirations of creating a more resilient community.

3. Additional Items of Interest and General Discussion (30 minutes)
In addition to the agenda topics, staff has prepared a background memo on several other issues of interest including: EWEB's Enhanced Utility Bill Assistance Program, Ward Redistricting, Electric Vehicle Project Update, the Carmen-Smith Relicensing Agreement, Veneta Pipeline Construction Update, and the EWEB Master Plan Update.

While the issues and projects described in the memo are not the focus of the two staff presentations planned for the joint work session, there will be an opportunity for open discussion towards the end of the meeting. Staff invites questions regarding these topics and other issues of interest at that time.

BACKGROUND
The Eugene City Council schedules occasional joint meetings with the EWEB Board to discuss issues and projects involving both bodies and to share information on items of mutual interest. The City Council and EWEB Board last met on June 28, 2010.

RELATED CITY POLICIES
There are no specific City policies to be considered by the City Council at this meeting; it is a status update on several topics.

COUNCIL OPTIONS
No formal action is requested at this meeting. This meeting is for discussion purposes only.

CITY MANAGER'S RECOMMENDATION

Not applicable.

SUGGESTED MOTION

No motion is required.

ATTACHMENTS

A. Summary of State Roadmap to 2020
B. Matrix
C. Community Climate and Energy Action Plan – Intro and Chapter 2: Buildings and Energy
D. Background Memorandum for General Discussion Items
E. Redistricting Map Data

FOR MORE INFORMATION

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Summary of State Roadmap 2020 GHG Reduction Goal Planning

The City of Eugene and EWEB have each committed to be leaders in greenhouse gas reduction and climate change adaptation strategies. However, local governments cannot on their own materially reduce greenhouse gas emissions without reciprocal initiatives by other local, regional and federal agencies. A regional approach that prioritizes strategies and coordinates efforts is needed to ensure that the investments made by local agencies have the greatest impact.

At the state level, the Oregon Global Warming Commission has adopted the "Roadmap to 2020" project which recommends actions across multiple sectors as to how Oregon can meet its 2020 GHG reduction goal (10% below 1990 levels) and chart a trajectory towards its 2050 goal (75% below 1990 levels).

The work of evaluating scenarios and developing recommendations was done by six technical committees drawn from business, academia, non-governmental organizations, and local government and state agency staff. Local representatives serving on the subject area committees included: Eugene City Councilor Alan Zelenka and LTD staffer Tom Schwetz (Transportation and Land Use); EWEB staff Dick Varner and Jason Heuser (Energy); and City Staff Babe O'Sullivan and Ethan Nelson (Materials Management).

Roadmap 2020 identifies 169 different GHG reduction measures and intersects with local climate change plans like those completed by Eugene, Portland, McMinnville, Corvallis, and Jackson & Josephine Counties. Generally, Roadmap 2020 is based on seven fundamental propositions: 1) Embed carbon in the planning process; 2) Leverage efficiency of cities; 3) Leverage efficiency of buildings; 4) Shift transportation fuels; 5) Ramp down coal emissions; 6) Capture carbon across the board; and 7) Embed carbon in energy prices.

It was determined that Oregon had met its first goal –to arrest state GHG emissions growth by 2010 and set the groundwork for reductions. The economic slowdown played a part in meeting this goal, but it wouldn't have been possible without recently enacted state initiatives. Roadmap 2020 will be counting on these measures to begin a modest but steady emissions reduction curve, including:

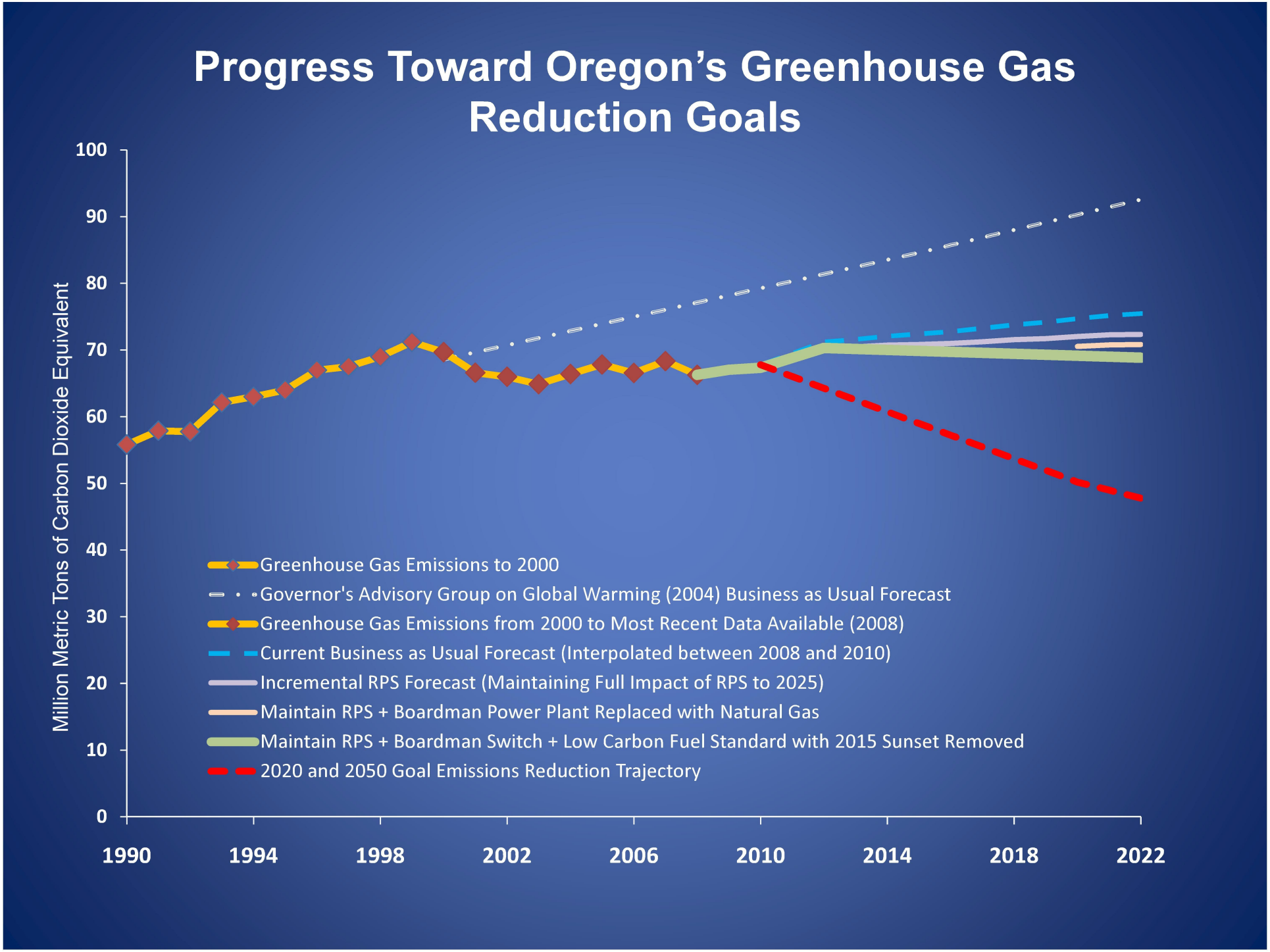
- Renewable Portfolio Standard's goal of 25% renewable energy by 2025;
- the decommissioning or conversion of the Boardman Coal Plant by 2020;
- the Emissions Performance Standard requiring any new baseload power resource or contract emit less than 1100lbs/megawatt hour;
- the Low Carbon Fuel Standard requiring that transportation fuels reduce their carbon intensity by 10%

City of Eugene and EWEB staff are not only collaborating to advance the implementation of local climate change plans, but are also working together to influence planning at the state level as well. Areas of future collaboration and joint advocacy at the state level may include: 1) implementation of "reach" building energy codes; 2) statewide deployment of energy performance scores for new construction; 3)

state energy tax credit program enhancements targeting multi-family rental energy efficiency projects; 4) requiring that commercial and/or rental properties are brought up to code at time of property transfer or new lease.

The full Roadmap to 2020 can be found at http://www.keeporegoncool.org/content/roadmap-2020.

Progress Toward Oregon's Greenhouse Gas Reduction Goals



City of Eugene and Eugene Water and Electric Board
Summary of actions in Buildings and Energy section of Eugene Community Climate and Energy Action Plan. September 2011.

Action	COE	EWEB	IERP	Notes
1.1. Identify the most cost-effective opportunities for increasing efficiency in existing buildings.		x	x	In July 2010, EWEB produced a Conservation Potential Assessment that outlines the energy conservation potential of Eugene's building stock. In 2011, the findings from EWEB's Conservation Potential Assessment and other analysis were used in the development of a new energy conservation goal in the Integrated Electricity Resource Plan: 2.65 aMW per year, up from 2.5 aMW per year
1.2. Expand assistance and incentive programs for building retrofits that increase energy efficiency and reduce the carbon footprint of existing buildings.	x	x	x	EWEB spends approximately $5.5-$6.0 million on energy efficiency retrofits annually. As a result of the new energy conservation goal more energy conservation will need to be acquired each year. Analysis is underway on how to do that most effectively – strategies could include targeted assistance and incentive programs.
1.2a) Work with Energy Trust of Oregon to focus on improving efficiency in buildings that are heated with natural gas.	x	x		In the last 12 months, a City of Eugene staff group began working internally to develop a strategy to address natural gas efficiency in buildings specifically.
1.2b) Target sectors with high-efficiency potential including rental buildings, multifamily housing, remodels, and commercial tenant infill.	x			The City of Eugene is targeting rental and multifamily housing, primarily through affordable housing projects.
1.3. Establish a project fund to complement existing loan and incentive programs by focusing on long-term, low-interest financing mechanisms for residential and commercial energy efficiency and/or renewable energy system installations.		x	x	EWEB loans $1 to $2 million dollars annually for this purpose. Acquiring all the new energy savings to meet the new conservation goal may involve EWEB looking at its current loan structure and amount.
1.4. Target occupant behavior in order to reduce energy use in all types of buildings.	x	x	x	EWEB is beginning a major project to roll out Advanced Metering Infrastructure, including smart meters. EWEB is currently researching equipment and preparing a smart meter pilot in Eugene. Large-scale Implementation is likely to begin in 2013. The new "smarter" system will help EWEB communicate better with customers and could be a tool in helping to achieve the new energy conservation goal and focus on demand response

"COE", "EWEB" and "IERP" columns indicate responsibility or relevance of each action to *City of Eugene*, *Eugene Water and Electric Board*, and EWEB's *Integrated Electricity Resource Plan*, respectively.

City of Eugene and Eugene Water and Electric Board
Summary of actions in Buildings and Energy section of Eugene Community Climate and Energy Action Plan. September 2011.

Action	COE	EWEB	IERP	Notes
				developed in the IERP process.
1.5. Adopt an energy performance score program or similar tool to disclose total energy use in existing and new buildings for use by builders, realtors, owners, and renters.	x	x		EWEB now offers an Energy Performance Score (EPS) for new construction. EWEB is working on piloting the Energy Trust of Oregon's model for existing buildings when it is available. The City of Eugene Waste Prevention and Green Building program is assessing the possibility of including an Energy Performance Score in its Green Building Incentive program.
2.1. Lobby for adoption and actively participate in development of building code amendments that meet the *Architecture 2030* standards for energy efficiency.	x	x		The City of Eugene and EWEB were both involved in the 2011 legislative session and provided input on improvements to the state building code and the newly adopted *Reach Code* for energy efficiency.
2.2. Increase incentives for highly energy-efficient new buildings aiming toward *zero net energy* and *carbon neutral* buildings.	x	x		In addition to State building code changes EWEB is increasing incentives for higher efficiency homes and is piloting passive house design in multi-family homes a first in US (see 4.1 below).
2.2a) Revise or expand incentives to encourage smaller homes that require less energy to operate and fewer building materials to construct.	x			The City of Eugene has incentives for smaller homes within its Green Building Incentive Program. Achieving this action would require expansion of existing incentives.
3.1. Increase the use of on-site renewable energy systems, such as solar hot water, *photovoltaic*, and ground-source heat pumps, by removing financial, infrastructural, regulatory, and perceptual *barriers*.	x	x		EWEB and the City of Eugene are partnering on a community survey that will gauge attitudes about solar, determine ratepayer willingness to support subsidies for solar electricity generation, and reveal barriers to adoption of solar technologies. EWEB is also soliciting business customers on the impact to them of the State BETC decrease.
3.1a) Invest in EWEB's downtown network to allow surplus energy from photovoltaics on downtown buildings to be integrated into the electricity grid.		x		EWEB is currently in the planning and design phase to upgrade the downtown network for this purpose. Infrastructure assessment is underway with major work starting in 2012 and completion planned for 2014 – 2015.

"COE", "EWEB" and "IERP" columns indicate responsibility or relevance of each action to *City of Eugene*, *Eugene Water and Electric Board*, and EWEB's *Integrated Electricity Resource Plan*, respectively.

City of Eugene and Eugene Water and Electric Board
Summary of actions in Buildings and Energy section of Eugene Community Climate and Energy Action Plan. September 2011.

Action	COE	EWEB	IERP	Notes
3.1b) Address the financial barriers to onsite renewable energy by expanding financing options like long-term loans and property-assessed clean energy bonds.		x	x	A few private solar firms including Solar City are offering lease options for photovoltaic panels in Eugene. Other financing options are available through local banks. Low electricity costs in EWEB service territory can reduce the financial motivation to install photovoltaic solar panels. EWEB is evaluating a number of financing options as part of its IERP process. EWEB Staff will formulate an approach to support onsite distributed generation and present to the EWEB Board later in 2011.
3.1c) Assess and reduce barriers to solar energy use and balance priorities for solar access.	x			There has been no specific action to address solar access priorities, however discussion about and resolution of key conflicts are a likely outcome of Envision Eugene.
3.3. Develop at least one *community scale renewable energy* pilot project by 2015.	x	x		Awaiting final report from ODOE grant funded investigation into community solar feasibility carried out by local sustainability consultants Good Company to assess agency role and potential next steps.
3.4. Develop *district energy* systems in Eugene. 3.4a) Remove legal, technical, policy, governance, and financial barriers to district energy systems.	x	x		The City of Eugene has conducted research to identify the legal, technical, and policy obstacles and uncover opportunities for establishing a district energy system in Eugene. Findings were reported to local agencies in August and a final report will be available this winter.
3.4b) Complete the viability study for a district energy system for the EWEB Riverfront Master Plan.		x		EWEB has completed a feasibility study for the development of a district energy system in conjunction with the sale and redevelopment of EWEB's downtown riverfront property.
3.4c) Develop at least one clean district energy, or shared energy, system pilot project by 2015 by working with property owners and local utilities.	x	x		Findings from research (above, 3.4a) will indicate the priorities for accomplishing this action.

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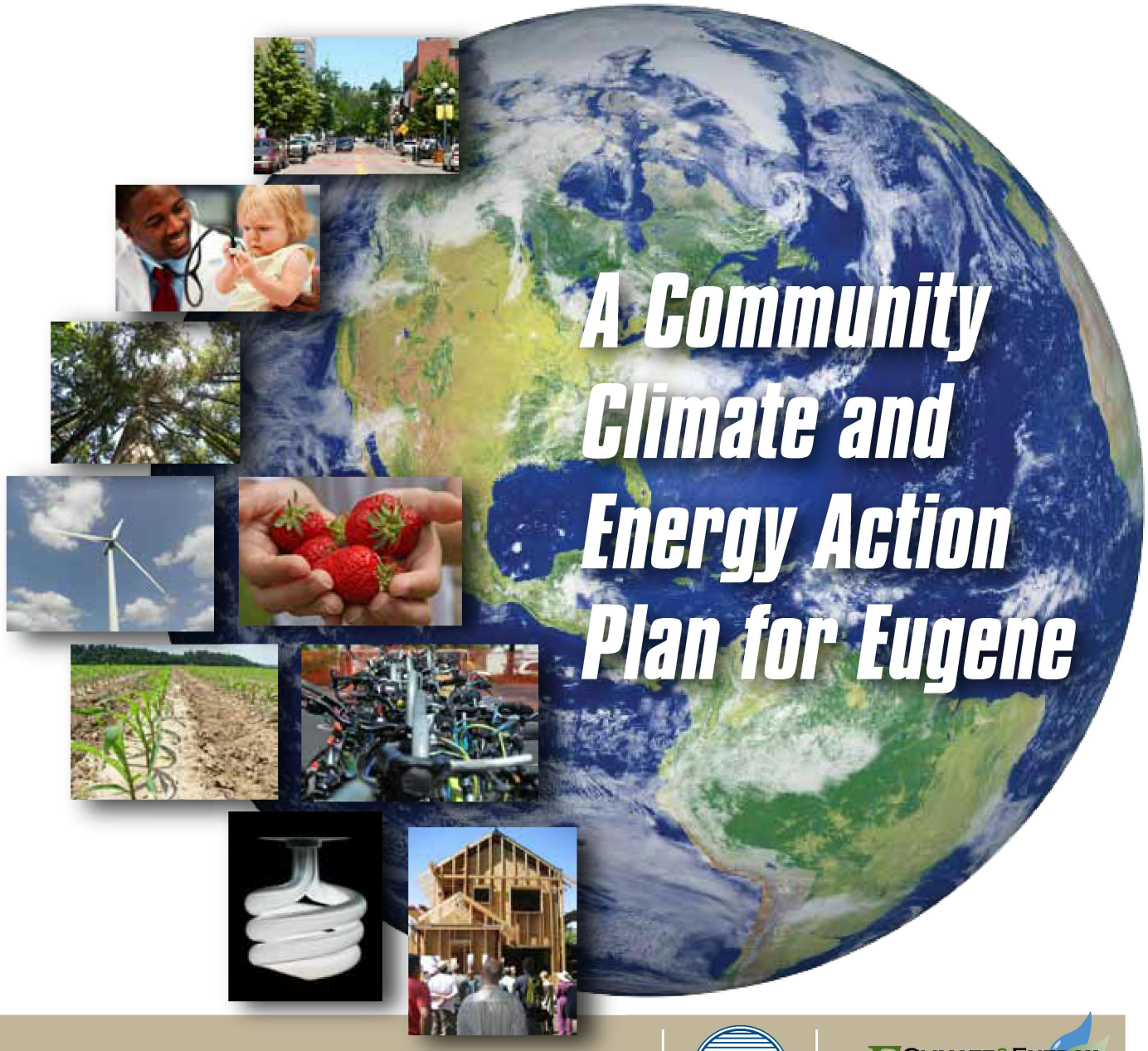
City of Eugene and Eugene Water and Electric Board
Summary of actions in Buildings and Energy section of Eugene Community Climate and Energy Action Plan. September 2011.

Action	COE	EWEB	IERP	Notes
4.1. Encourage the use of passive systems in buildings for heating, cooling, ventilation, water delivery, and incorporate climate change preparation strategies into building design and construction.	x	x		EWEB and The City of Eugene are supporting a project with St. Vincent DePaul to construct a multifamily housing complex that will test the benefits of Passivhaus design and certification compared to Earth Advantage design and certification.
4.1 (b) Develop incentives to encourage the use of passive heating and cooling systems and other strategies that reduce energy demand and better adapt buildings for a changing climate.	x	x		EWEB is developing a performance-based incentive structure that rewards builders for energy efficiency achieved through building design. Presently pre-set incentives for reaching certain standards, such as Energy Star are offered. Since a growing number of options are emerging and approaches such as Passive House are so far above many of the others, a performance based approach will serve to reward all levels of above-code building practices based on the savings achieved. This model is expected to include Passive House incentives.
4.2. Provide education, assistance and incentives to reduce potable water use in new and existing buildings and landscaping.	x	x		The City of Eugene, EWEB, and NearbyNature, in conjunction with a host of donors, constructed a Water Wise Demonstration Garden located in Alton Baker Park that includes a rainwater harvesting system, and a functioning rain garden. More information at: www.eweb.org/Public/insert.pdf
4.4a) Lobby to improve state building codes.	x	x		The City of Eugene and EWEB were both involved in the 2011 legislative session and provided input on improvements to the state building code and the newly adopted *Reach Code* for energy efficiency.
4.4b) Develop incentives to encourage the use of passive heating and cooling systems, lighting, ventilation, and other strategies that reduce energy demand and better adapt buildings for a changing climate.	x			The City of Eugene offers incentives for green building design, including passive systems, through its Green Building Incentive Program.

"COE", "EWEB" and "IERP" columns indicate responsibility or relevance of each action to *City of Eugene*, *Eugene Water and Electric Board*, and EWEB's *Integrated Electricity Resource Plan*, respectively.



A Community Climate and Energy Action Plan for Eugene

September 2010

EUGENE

CLIMATE&ENERGY Eugene action plan

Executive Summary

The decade from 2000 to 2009 was the warmest ever recorded.[1] Over the last three decades, each has been warmer than the one before and science is telling us that this trend will continue.[2] In addition, the inexpensive fossil fuels that our community and country depend on for transportation, food production, and industry are projected to become increasingly expensive.[3] Eugene is joining a growing list of cities around the world that are addressing these climate change and energy concerns with a plan to meet the challenges with vision and creativity. In developing this local plan, community leaders and citizens have clearly recognized the need to re-imagine how we live, eat, travel, and play. As we work to adapt to the uncertainties ahead, we can be sure that the boldness of our actions today will determine the quality of life in Eugene now and into the future.

Eugene's first Climate and Energy Action Plan:

In 2008, in response to increasing concern about global climate change and the potential for volatile and rising fuel prices, Eugene's City Council asked staff to develop Eugene's first Community Climate and Energy Action Plan.

The Community Climate and Energy Action Plan goals:

1. Reduce community-wide greenhouse gas emissions 10 percent below 1990 levels by 2020.
2. Reduce community-wide fossil fuel use 50 percent by 2030.
3. Identify strategies that will help the community adapt to a changing climate and increasing fossil fuel prices.

The Six Action Areas:

Buildings and Energy looks at energy used in residential, commercial, and industrial buildings in Eugene. This section includes recommendations to reduce energy use in existing buildings and new construction, expand use of renewable energy, and prepare buildings for climate change.

Food and Agriculture includes everything related to our food production, delivery, distribution, and waste disposal. This section includes recommendations to reduce consumption of meat and dairy foods, reduce greenhouse gas emissions associated with agriculture and food waste, protect regional farmland, increase home- and locally-grown foods, and prepare our food systems for an uncertain future.

[1] *"State of the Climate Global Analysis," National Oceanic and Atmospheric Administration, June 2010.*

[2] *"**IPCC** Fourth Assessment Report: Climate Change 2007," Intergovernmental Panel on Climate Change, 2007.*

[3] *"Peaking of World Oil Production: Recent Forecasts," US Department of Energy, 2007.*

Land Use and Transportation considers the use of land and the transportation of people and goods. This section includes recommendations to increase urban density and mixes of land use and a focus on improving systems for bike, pedestrian, transit, and electric vehicles.

Consumption and Waste looks at everything in the lifecycle of consumer goods from extraction of raw materials to manufacturing, packaging, distribution, product use and finally, disposal. This section includes recommendations to reduce greenhouse gas emissions associated with consumption of goods, improve recycling and composting, improve municipal purchasing practices, and adapt consumption strategies based on new findings.

Health and Social Services addresses mental and physical health care and assistance programs for disadvantaged populations. This section contains recommendations to prepare health and social systems for a different future and reduce the impacts of ***climate***-related disasters.

Urban Natural Resources considers the soil, air, water, plants, and animals of our city. This section contains recommendations to manage land, trees, and water for multiple benefits, update resource management plans, improve access to natural resource data, and expand drinking water and stormwater management programs.

From the Mayor

Mayor Kitty Piercy

The City of Eugene has a long history of environmental stewardship. It is a legacy to be proud of. Our planet faces both finite resources and ***climate change***, and the Eugene City Council has committed to an entire new level of local action.

The impacts of climate change and increased energy costs affect all of us, regardless of politics, background, or socioeconomic status. These are not simply environmental issues. They are health, economic, social equity and environmental issues.

We have learned that climate change is affected by carbon emissions, and that carbon footprints are linked to the food and goods we purchase. All of us need to rethink our consumption of goods, we consume too much and at an unsustainable rate.

Our city is part of a broader community, we are part of a world that requires each of us to make significant changes in our lives as governments, businesses, and social service agencies and as individuals - we must all work together more effectively to meet these challenges and to mitigate negative impacts.

"These are not simply environmental issues. They are health, economic, social equity and environmental issues."

Four years ago we began this journey with the Sustainable Business Initiative to foster our city's leadership in sustainable practices, the triple bottom line of environmental stewardship, economic success and social equity. The Sustainability Commission was formed. Innovative policies and practices moved forward throughout the city, but none more ambitious than the Climate and Energy Plan.

The steps outlined in this plan will not only help us reduce our contribution to climate change and improve community resilience, they will also save taxpayer dollars through improved energy efficiency and less expensive transportation options. They will help build the local economy, provide jobs, improve air quality and public health, and community livability.

This plan is a true collaborative endeavor and the result of many hours of hard work. I am very appreciative of the remarkable efforts of everyone involved in its creation. Thank you all for this investment in our community.

We join over 100 cities in developing emissions reduction targets and creating climate action plans. Together we are a powerful force. Each city, small and large must do its part. Eugene, though modest in size is large in its commitment to the future. We move forward with optimism and a commitment to do our part to ensure a quality future for our city, our country, and our planet.

Kitty Piercy

September 2010

Timeline and Goals

1989 Oregon legislature first establishes carbon-reduction goal

1992 Rio Earth Summit *(United Nations framework convention on climate change)*

1997 Kyoto protocol

2005
- Eugene Mayor signs the US conference of Mayors "US mayor's climate protection agreement", striving locally to meet or beat the Kyoto protocol targets
- City of Eugene creates a greenhouse gas inventory for internal municipal operations
- Oregon strategy for Greenhouse Gas Reductions completed

2006 Eugene Sustainable Business Initiative recommends creation of 1) sustainability commission and 2) metropolitan climate action plan

2007
- Eugene sustainability commission is established
- "City of Portland Descending the Oil Peak" report highlights challenges of fossil fuel depletion
- City of Eugene completes a community greenhouse gas inventory

2009
- Climate Leadership Initiative, et.al. creates report: "Preparing for Climate Change in the Upper Willamette Basin of Western Oregon" – highlighting impacts of climate change to Eugene and surrounding area
- Eugene City Council instructs staff to create a Community Climate and Energy Action Plan
- City of Eugene creates the first Internal (city operations) Climate Action Plan

2010 City of Eugene works with community partners to create Eugene's first Community Climate and Energy Action Plan

2020 State of Oregon Goal: Reduce greenhouse gas emissions 10% below 1990 levels

2030 City of Eugene Goal: Reduce overall community fossil fuel use 50% below 2005 levels

2050 State of Oregon Goal: Reduce greenhouse gas emissions 75% below 1990 levels

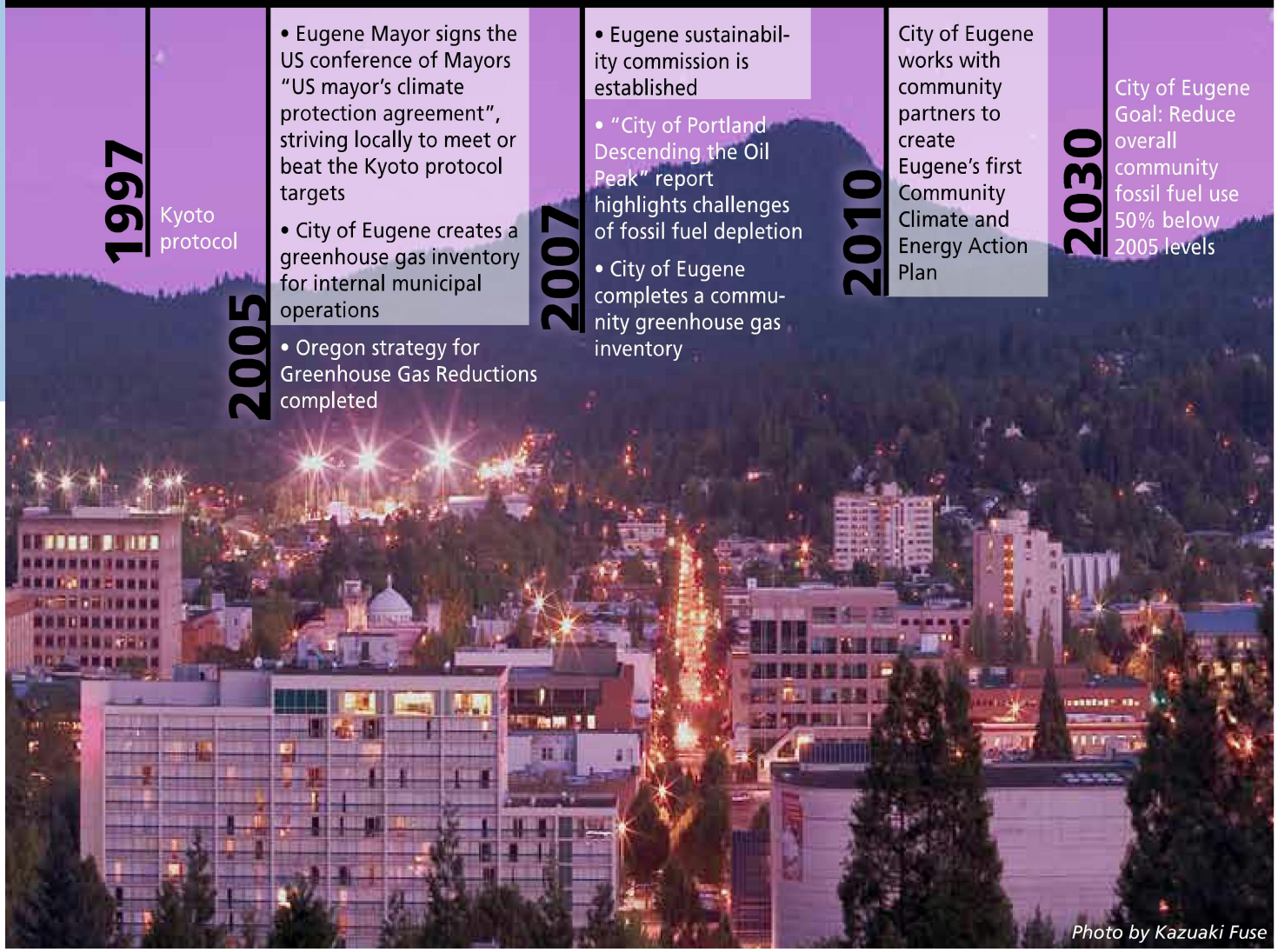


Photo by Kazuaki Fuse

Introduction

Preparing For Change

In the winter of 2008/2009, Eugene's City Council unanimously directed staff to develop a Community Climate and Energy Action Plan (CEAP).[4] All City operations and City-owned facilities were to be carbon-neutral by 2020. During the same year, the Council committed the City to work with its partners to develop a plan to set carbon emission goals, to suggest effective emission reduction strategies, and to identify ways in which the community can adapt to the anticipated changes. Four months later, the Council expanded the action plan to include steps for achieving a 50 percent reduction in community-wide ***fossil fuel*** consumption by 2030. This plan is the product of those efforts to understand what climate change and fuel cost increases could mean for Eugene, and to find ways that lessen the expected impacts and meet the goals for reducing emissions and fossil fuel consumption.

While there is considerable discussion and some debate on the issues of climate change in the community and beyond, this plan was undertaken in response to Council direction and is informed by the scientific evidence available at the time of its publishing.

The Community Climate and Energy Action Plan (CEAP)

Goals

1. Reduce community-wide ***greenhouse gas*** emissions to 10 percent less than 1990 levels by 2020 and 75 percent below 1990 levels by 2050.[5]
2. Reduce community-wide fossil fuel use 50 percent by 2030.[6]
3. Identify strategies that will help the community adapt to a changing climate and increasing fossil fuel prices.[7]

Geographic Scope and Timeline

Citizens, topic experts and partners from inside and outside of the City of Eugene were invited to develop a plan for the broader community. This public engagement process identified challenges and opportunities and presented options and action items that will require partnerships and joint efforts across the community.

The CEAP establishes general directions and offers specific actions over the next three to five years; however, the scientific and general community's understanding of climate and energy challenges are evolving rapidly and Eugene's direction and goals will likely need to be updated.

[4] More policy detail and background can be found in Appendix 9.

[5] This goal matches Oregon's stated GHG reduction targets from House Bill 3543. While this target is not equivalent to the fossil fuel reduction target, it reflects the degree of GHG reductions that are necessary, according to scientific research. Additional discussion of relative greenhouse gas targets begins on page 14 of Appendix 8.

[6] This goal, unanimously adopted by Eugene City Council February 2009, will use the base year 2005, the year of data used for the 2007 community greenhouse gas inventory.

[7] The full text of the City Council directives related to the CEAP can be found in Appendix 9.

How was the plan developed?

The Climate and Energy Action Plan Advisory Team

The CEAP advisory team was assembled in May 2009 and was composed of 11 community members and representatives of partner agencies. In June 2009, the team began providing input on the public outreach and general planning processes. The group brought expertise to the public meetings, observed and participated in topic discussions, provided feedback on the development of the plan and the plan document, and provided background data.

Team Member	Partner Agency/Group
Chuck Gottfried	City of Springfield
Sarah Mazze	Resource Innovation Group and The UO Climate Leadership Initiative
Joshua Proudfoot	Eugene Area Chamber of Commerce
Jason Heuser	Eugene Water and Electric Board
David Hinkley	Friends of Eugene
Lorraine Kerwood/Twila Souers	Eugene Human Rights Commission
Joe McCormack	Lane Transit District
Mike McKenzie-Bahr	Lane County
Jan Wostmann	Neighborhood Leaders Council
Heidi Beierle/Bill Randall	City of Eugene Planning Commission
Shawn Boles	City of Eugene Sustainability Commission

The Public Engagement Process

News releases, print and online calendars, website announcements, and emails invited members of the public to participate in seven public forums. A kickoff event was held in September 2009 and one public forum was held on each of the six topics between October 2009 and March 2010. More than 500 members of the public participated, sharing concerns about climate uncertainty and fuel price volatility, and weighing in on what should be the community's highest priorities. Below are the six topics or action areas:

- Buildings and Energy
- Food and Agriculture
- Land Use and Transportation
- Consumption and Waste
- Health and Social Services
- Urban Natural Resources

The process for identifying action items for each of the six topic areas was as follows:

1. A strategy list was compiled using information submitted by regional experts and gleaned from municipal- and state-level climate and energy plans from across the nation. The list was reviewed by the topic specialists, refined, and then used as a starting place for the public forums.
2. Topic specialists were identified from across the community. Eight to twelve expert community members with broad knowledge of the topic and the ability to bring a variety of perspectives to the public forums were invited to assist with the plan. The topic specialists contributed to the development of the strategy lists, provided technical information support at the public forums, and assisted with the prioritization of strategies. A complete list of Topic Specialists can be found in Appendix 3.
3. Public forums were held to engage members of the community who are interested in climate and energy challenges as they relate to each of the six topics. Each of the forums were attended by 50 to 120 community members, including topic specialists, CEAP advisory team members, neighborhood leaders, and Sustainability Commissioners. Forum participants reviewed the strategy list for the subject topic, provided perspectives on which actions should be given the highest priority, identified missing actions or strategies, and provided detail on how individual actions could be implemented.
4. Topic specialists reviewed proposed actions in greater detail, provided input on priorities, clarified ideas, identified opportunities and challenges, and helped to ground the process in Eugene's unique economic, social, and environmental conditions.
5. Advisory team members weighed information from background documents, input from the public forums and the topic specialist meetings, and offered their varied perspectives on each topic area. The team completed a final review of the strategies and reviewed and commented on the draft Community Climate and Energy Action Plan.
6. Additional Research was conducted after the draft was released to clarify some of the relative costs and benefits of actions. This adds confidence that the priorities included in the plan are the best places for our community to take action. Targets and measures were also added.[8] This information is compiled in the attached spreadsheet, Appendix 1.

The Outcomes

Of the several hundred possible action items suggested, reviewed, and discussed in the public engagement process, the plan only includes those that are expected to best reduce fossil fuel consumption and GHG emissions, and to prepare Eugene for the impacts of energy price volatility and climate uncertainty. A strict cost-benefit analysis wasn't feasible, but the project team designed a process that weighs the relative importance of potential actions in the context of the three stated goals.

[8] The targets associated with objectives and actions in the Plan reflect best estimates of the reductions necessary. Creating targets that are carefully calibrated to the overall GHG and fossil fuel reduction goals will require additional research.

What Happens Next?

Funding: In the 2011 fiscal year budget, $200,000 of one-time funding was earmarked for use in implementing both the Community Climate and Energy Action Plan and the City's Diversity and Equity Strategic Plan. These funds are in addition to the work already underway across the City organization in Solid Waste management, the Green Building program, Stormwater Management, Urban Forestry, and many other existing City programs.

Reporting back: The City Council will receive annual reports assessing the progress being made on each of the multiple objectives included in the plan.

Updating the plan: Our understanding of the complex issues around climate change and greenhouse gas ***sources*** is continually improving, and as our community moves forward on the priorities included in this plan, it will be important to revisit, revise, and update Eugene's Community Climate and Energy Action Plan every three to five years.

How is the Community Climate and Energy Action Plan Organized?

The strategies are divided into six action areas. The first four are the primary targets for greenhouse gas emissions and fossil fuel reductions, and the last two focus on actions necessary to adapt to climate change and rising fuel prices.

- Buildings and Energy
- Food and Agriculture
- Land Use and Transportation
- Consumption and Waste
- Health and Social Services
- Urban Natural Resources

Please note that the actions in each area are not organized by priority. The first action in each section is not necessarily the most important, nor is the last the least important.

A table containing all of the actions and associated targets, measures, estimated financial impacts, and estimated greenhouse gas reductions data is available in the Compiled Priority Action Items Tables in Appendix 1.

Terms in *italics* are defined in the glossary located in Appendix 2.

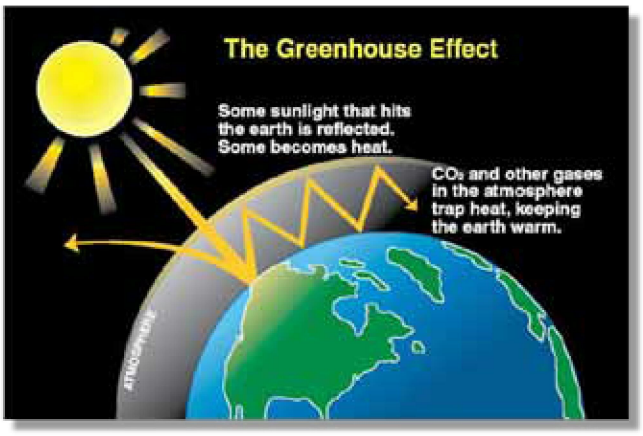


Figure 1 - Source: State of Washington Department of Ecology

How will Climate Change and Volatile, Rising Fuel Prices Affect Eugene?

How Do Greenhouse Gases Contribute to Climate Change?

The earth receives radiant energy from the sun—part of which is reflected back to space. Greenhouse gases, including ***carbon dioxide***, ***methane***, and ***nitrous oxide***, surround the earth and trap some of this energy—keeping the surface warm and making life on earth possible (see Figure 1). Since the start of the Industrial Revolution we have been burning fossil fuels such as oil, coal, and ***natural gas*** to heat and light our homes and businesses, create electricity, and provide transportation. By burning fossil fuels and releasing carbon dioxide, these activities have increased the amount of greenhouse gases in the ***atmosphere***, causing more of the sun's energy to be trapped. The trapped energy warms the earth and changes our climate. Climate scientists have been telling us if we are to avoid further intensifying the ***greenhouse effect*** and its impact on our climate, we will need to reduce our greenhouse gas emissions. Nations, states, and communities must work to decrease greenhouse gas emissions and plan for climate change.

How Will Our Climate Change?

Carbon dioxide and other greenhouse gases produced today will remain in the atmosphere and continue to affect the climate for decades to come. However, reducing greenhouse gas emissions now is expected to decrease the magnitude of climate change over time. "Preparing for Climate Change in the Upper Willamette River Basin of Western Oregon: Co-Beneficial Planning for Communities and Ecosystems,"[9] published in 2009, identifies several important changes expected to affect our community:

- Average annual temperatures increase by 8 to 12° F by around 2080.
- Reduced ***snowpack*** and resultant lower stream flows in summer
- Increased demand for water for agricultural uses.
- Reduced summer hydroelectric power ***generation*** capacity (due to lower stream flows in summer) and increased summer demand for electricity.
- Increased storm intensity, flooding, and wildfires.
- Higher rates of heat-related illness , exhaustion, asthma, and respiratory diseases.

In addition to these physical impacts, climate change is expected to have significant financial impacts, particularly if it accelerates and if we don't prepare our systems for the impacts just outlined. The report, "An

[9] *"Preparing for Climate Change in the Upper Willamette River Basin of Western Oregon: Co-Beneficial Planning for Communities and Ecosystems," US Department of Agriculture, Climate Leadership Initiative, and National Center for Conservation Science and Policy, 2009.*

Overview of Potential Economic Costs to Oregon of a Business-As-Usual Approach to Climate Change,"[10] makes several important observations, including the following: "If spread evenly, Oregon's households, on average, could incur annual costs of $1,930 per year by 2020. Of this amount, $830 relate to expenditures on energy, $460 relate to health-related costs, and $370 to the adverse effects of climate change on salmon populations. These costs are not negligible. The 2020 average of $1,930 represents more than 4 percent of the current median household income in Oregon." The report continues by listing many of the costs that haven't yet been calculated, and states that, "Far greater costs might materialize elsewhere or in future centuries, the result of a business-as-usual approach to climate change over the next few decades. If temperatures rise to the maximum levels predicted under the business-as-usual scenario, billions of people in less-developed countries likely would endure increased thirst and starvation, thousands of species would face extinction, sea levels would rise several meters, and vast areas of the oceans could become essentially barren. To the extent that these distant effects matter to today's Oregonians, the potential costs would be far greater than we indicate."

"Continued dependence on coal, oil, and natural gas affects not only our climate, it influences the stability of our local and national economy"

In contrast to these costs, several reports suggest that taking action now will result in significant savings. "Washington Western Climate Initiative Economic Impact Analysis"[11] and "Pathways to a Low-Carbon Economy,"[12] suggest that reducing energy use and preparing for climate change will quickly save citizens, businesses, and governments millions of dollars by reducing energy costs and creating sorely needed jobs.

How Will a Rise in Fuel Prices Affect Eugene?

Continued dependence on coal, oil, and natural gas affects not only our climate, it influences the stability of our local and national economy. Global demand for oil and natural gas has increased rapidly over the last 30 years. The supply of these non-renewable resources is limited, and over the last decade, concern about the shrinking supply and rising demand has increased. Many credible sources project that global oil supply will go into irreversible decline within the next five to ten years.[13]

Gas prices over $4 per gallon during the summer of 2008 reminded consumers of how dependent Eugene's economy is on these fuels for

[10] *"An Overview of Potential Economic Costs to Oregon of a Business-As-Usual Approach to Climate Change," CLI Et. al. 2009*

[11] *"Washington Western Climate Initiative Economic Impact Analysis," ECONorthwest, 2010*

[12] *"Pathways to a Low-Carbon Economy: Version 2 of the Global Greenhouse Gas Abatement Cost Curve," McKinsey and Company, 2009*

[13] *"Peaking of World Oil Production: Recent Forecasts," US Department of Energy, 2007*

our daily activities. The increased costs of fuel, transportation, food, and consumer goods had a significant impact on many consumers and businesses, and hit small businesses and lower- and fixed-income households the hardest.

The City of Portland Peak Oil Task Force studied the likely impacts of rising fuel prices and in 2007, published their findings in "Descending the Oil Peak: Navigating the Transition from Oil and Natural Gas."[14] The report identifies a number of ways in which northwest communities such as Eugene are vulnerable to changes in global energy markets. For example, transportation of freight via air and truck is expected to become more costly and to cause food prices to rise. Increased costs for fertilizer, animal feed, and processing will also put upward pressure on food costs. Likewise, heating and cooling buildings will become significantly more expensive. Rising costs and shrinking disposable incomes will result in economic weakness, increased unemployment, and higher demand for social services. As is the case with the effects of climate change, the impacts of rising costs and a weakening economy will be felt broadly across the region and those hardest hit by the changes will be the most vulnerable—children, the elderly, and those with lower or fixed incomes.

While there is clearly a need to transition away from dependence on oil, coal, and natural gas, there aren't always easy substitutes. That is in part because these fossil fuels provide a huge amount of energy in a very small volume that can be easily transported, stored, and used by just about anyone. Just one gallon of gasoline, currently sold for about $3, is roughly equivalent to three weeks of labor for one person.[15] Our economic systems have become very reliant on this incredibly cheap and convenient source of "labor" and when the cost of this "labor" goes up, so do the prices of goods and food that depend on this energy for production and distribution.

In contrast to convenient and energy-dense oil, most of the available renewable substitutes like wind, solar and wave energy all generate electricity that requires heavy and expensive batteries to store. The energy transmission and storage systems that will be required for widespread use of these alternatives will take 10 to 20 years and significant investment to develop.[16] In order to reduce the impacts of high fossil fuel prices, these investments must be made soon. Heavy investments in ***renewable energy*** sources will only help replace part of our current energy need, so reduced energy use overall is essential.

[14] *"Descending the Oil Peak: Navigating the Transition from Oil and Natural Gas," City of Portland Peak Oil Task Force, 2007.*

[15] *"The Tightening Conflict: Population, Energy Use, and the Ecology of Agriculture," M. Giampietro, D. Pimentel, 1994.*

[16] *"Peaking of World Oil Production: Impacts, Mitigation,& Risk Management," Hirsch et. al. 2005.*

What has Eugene Done to Prepare for Climate Change and Rising Fuel Prices?

Internal Climate Action Plan: In 2009, at the direction of City Council, the City of Eugene created an Internal Climate Action Plan[17] that describes how the organization will reduce energy use in internal operations with the goal to be ***climate neutral*** by 2020. This will be done by increasing ***energy efficiency***, increasing waste prevention, improving purchasing methods, and offsetting any remaining energy use by purchasing quality carbon offsets.

Waste reduction plan: The City of Eugene is currently creating an internal waste reduction plan with the goal to reduce waste 90 percent by 2030. This will also reduce greenhouse gas emissions from City operations.

Food Scope document: In early 2010 staff completed a scoping and resource plan for development of a food security plan in conjunction with community partners.[18] This work is a positive step toward improving food security in Eugene, and an important part of preparing for climate change.

The Community Greenhouse Gas Emissions Inventory for Eugene

In 2007, as a first step toward creating a climate and energy action plan, City staff and community partners compiled an inventory of the community's greenhouse gas (GHG) emissions. The Eugene Community Greenhouse Gas Emissions Inventory Report[19] provides useful detail about the community's emissions related to buildings, energy use, and transportation.

This report, however, does not account for the energy and associated emissions, that are "embodied" in consumer goods, energy and services. ***Embodied energy*** is all of the energy—including electricity, oil and natural gas—used in making, transporting, storing, distributing and disposing of the consumer goods we use—from drinking cups and lawn furniture, to refrigerators and cars. It is the energy used to mine the metal, harvest the wood, grow the cotton, extract the oil to make the plastic, as well as to manufacture, distribute, and finally to dispose of these items. Many products today are made of components which come from several places and have been shipped around the world before we encounter them. For this reason, calculating the amount of energy in any one item is very difficult; the data and methodology for this type of analysis have been developed only recently.

[17] The City of Eugene Internal Climate Action Plan can be found in Appendix 4 and on the City's website.

[18] "City of Eugene Food Security Scoping and Resource Plan," City of Eugene, April 2010.

[19] See Appendix 8 for the full text of the "Eugene Community Greenhouse Gas Emissions Inventory Report," July 2007.

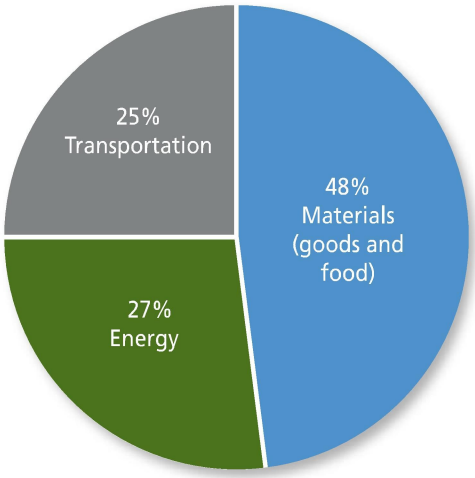


Figure 2 - Greenhouse gas emissions by system. Source: Metro regional greenhouse gas inventory.

A Greenhouse Gas Inventory for the Metro Portland Region

In April 2010, Metro, the regional government for the metropolitan Portland area published "Regional Greenhouse Gas Inventory; The Carbon Footprint of Residents and Businesses Inside the Portland Metropolitan Region." The report, the first of its kind in the nation, is based on analysis which considered the embodied energy of all the goods, services, transportation modes, and energy consumed in the metro area.

Metro's GHG inventory reveals additional information that, along with the Eugene GHG Report, provides a more complete picture of the community's greenhouse gas emissions. For example, Metro's study revealed that 48 percent of greenhouse gas emissions are related to the production, manufacture and disposal of materials, goods and food. (Note that many of these emissions were not estimated in Eugene's GHG Report.) Also, 25 percent of emissions are associated with transportation, which includes the use of passenger vehicles, light trucks, and mass transit services. The final 27 percent are produced by residential, commercial, and industrial consumption of natural gas and electricity.

This new analysis provides valuable information about the real emissions impacts of particular choices and strategies; businesses and residents now have even greater control over their greenhouse gas footprint.

A Greenhouse Gas Inventory for the Eugene/Springfield Metro Area

Lane Council of Governments is conducting a community greenhouse gas inventory for the Eugene/Springfield metropolitan area using the same methodology employed to generate the Portland Metro inventory outlined above. This inventory will be available in the fall of 2010 and the findings will be compared with the Portland Metro inventory to further inform this plan.

Buildings and Energy

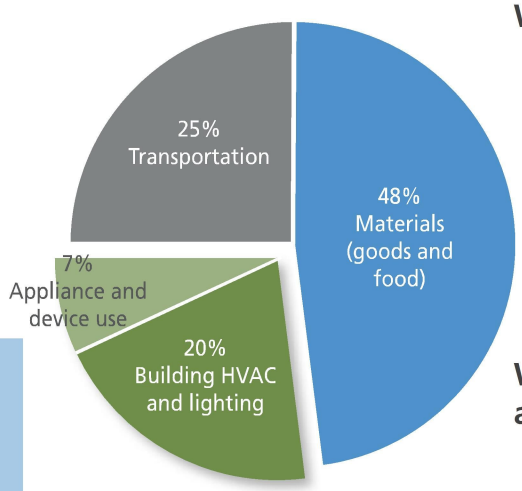


Figure 3 - Greenhouse gas emissions by system. Source: Metro Regional GHG Inventory

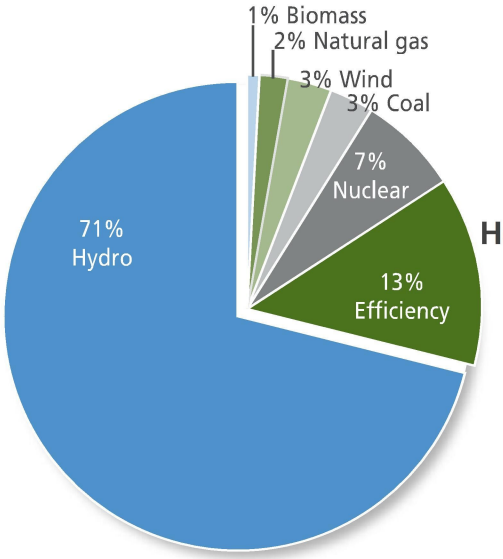


Figure 4 - EWEB power source by type. From EWEB data.

What is the Buildings and Energy Action Area?

This section focuses on all the energy used to provide heating, cooling, light, and power in residential, commercial and industrial buildings in Eugene and on the resulting GHG emissions. The emissions from this sector come from a wide variety of power uses such as operating a commercial businesses (e.g., supermarkets), producing industrial products (e.g., operating sawmill equipment), to powering events (e.g., lighting at Autzen Stadium), as well as the traditional heating/cooling/power needs of homes, apartments, office buildings, manufacturing facilities, etc.

What Part of Eugene's GHG Footprint Comes from Buildings and Energy?

The GHG inventory created by Metro[20] shows that emissions from energy use in buildings accounts for roughly 27 percent of that community's GHG emissions (see Figure 3). This plan assumes that those numbers are generally true for Eugene. The community GHG inventory created by the City of Eugene[21] shows the bulk of emissions associated with building energy use comes from burning natural gas to heat water and buildings, and not from electricity use. There is still need to pay close attention to electricity use, however, because any increases in electricity use, whether from growing population or increased overall demand, is likely to be met by burning coal or natural gas to generate electricity. Therefore, ongoing efforts at electricity conservation are essential to avoiding increased GHG emissions.

How Do Buildings and Energy Contribute to GHG Emissions?

The primary utilities for Eugene are the Eugene Water and Electric Board (***EWEB***), a publicly-owned utility, and the NW Natural Gas Company, an investor-owned utility. Though natural gas is cleaner than coal or oil combustion, it still produces significant amounts of greenhouse gases. The 2007 community GHG inventory projects that by the year 2020 the community will produce more emissions by burning natural gas than by burning gasoline for transportation.

Compared to other communities, a small amount of Eugene's GHG emissions result from electricity generation and use; largely because EWEB sources most of its electricity from hydroelectric dams and other low-GHG-emitting energy sources (see Figure 4). In addition, over the past several decades, EWEB has met much of the increased demand for electricity in Eugene through "efficiency". Instead of additional power plants to meet increasing demand EWEB funds energy conservation programs to reduce demand. This has reduced the amount of electricity that EWEB needs to generate or purchase on behalf of customers by 13 percent. Continuing to reduce the GHG emissions from the local electricity mix by increasing conservation and including more renewable energy sources will ensure a low-carbon electricity mix well into the future. Note that even renewable

[20] *"Regional Greenhouse Gas Inventory; The Carbon Footprint of Residents and Businesses Inside the Portland Metropolitan Region" Metro, April 2010.*

[21] *For more detail on greenhouse gas emissions from buildings and energy use in Eugene, see Appendix 8 "Eugene Greenhouse Gas Emissions Inventory Report" City of Eugene, July 2007.*

energy sources, such as wind and solar power, have some associated GHGs—primarily from construction of the required infrastructure; however, the amounts are minimal compared to burning fossil fuels to generate electricity.

The big opportunities to reduce GHG emissions are increasing the percentage of energy that is renewable, retrofitting existing buildings and equipment, and maximizing efficiency in new buildings. The Northwest Power and Conservation Council[22], EWEB[23] and the ***Energy Trust of Oregon***[24] all call for increased conservation and use of renewable energy sources correlating directly with the recommendations outlined in this plan.

How Will Rising Fuel Prices Impact Buildings and Energy?

In order to significantly reduce fossil fuel use and GHG emissions in the buildings and energy sector, the community must make structural and behavioral changes. The increase in fuel costs associated with the projected increase in demand and decreased supply of oil will have considerable impacts on the ability of residents and business owners to heat and power their homes and businesses. Because they are less energy efficient, many older homes and non-residential structures will become increasingly expensive to heat, light, and operate. Rising fuel prices will also increase the cost of constructing new buildings and retrofitting existing ones, especially as the costs to extract and process raw materials and transport goods increases. This increase is likely to encourage the reuse of buildings and building materials.

How Can We Prepare the Buildings and Energy Sector for Climate Change?

While Eugene takes steps to reduce the community's GHG emissions, we must also prepare for the projected impacts of climate change. More intense storms, reduced snowpack, lower summertime stream flow, and more extreme summertime heat events, will have tangible impacts on buildings and energy resources. Some of the changes can be mitigated through the application of the following ***adaptation*** strategies:

- Maximizing energy and water efficiency in buildings.
- Designing buildings, and locating them in ways that take advantage of the sun and natural ventilation.
- Using landscaping to increase summer shading and minimize air conditioning use.
- Reducing the ***urban heat island*** effect by planting trees and incorporating reflective roofs and light-colored pavement.
- Designing buildings to be more durable and to withstand more intense storm events.
- Incorporating ***stormwater*** management strategies such as green roofs, ***bioswales*** and raingardens.

[22] The Northwest Power and Conservation Council's 6th Plan calls for all new electricity load growth in the region to be met through conservation (over 5,800 average megawatts-aMW) or renewables.

[23] EWEB's "2008-2027 Energy Conservation Resource Strategy 2008-2027" identifies the acquisition of over 54 aMW in conservation measures over the next 20 years at a cost of less than $0.055/kWh.

[24] Energy Trust of Oregon's current 5-year Strategic Plan includes the goal of saving over 22.5 million annual therms of natural gas through efficiency and conservation. "Strategic Plan 2009-2014," Energy Trust of Oregon. 2009. ***http://energytrust.org/About/policy-and-reports/Plans.aspx***

EWEB Greenpower

In 1999 EWEB became the first public utility in Oregon to build and own a wind farm. Today, Adams Elementary School and Northwest Youth Corps are both preparing to mount solar panels on their roofs. And if you charge your electric car at Lane Community College, that power too, will be coming from the sun.

Projects like these, funded by EWEB Greenpower, help meet the goal to increase the amount of energy that comes from renewable sources. If Eugene is to experience a dramatic shift away from fossil fuels, investments will need to be made at many levels and fortunately for businesses and residents, supporting this transition to renewable energy has become very easy and affordable.

EWEB Greenpower is a voluntary program for customers who can pay as little as $1.50 per month to support the program. These Greenpower funds, collected from neighbors and local businesses, are then combined to support renewable energy projects right here in the Northwest. To learn more, visit **www.eweb.org/greenpower.**

Fortunately, many adaptation strategies will help the community reduce both energy use and GHG emissions.

Efforts Underway

Several organizations are working to increase energy efficiency and reduce GHG emissions in Eugene. Local utilities have effective conservation programs that have had a very significant impact on energy consumption. For example, EWEB has offered energy conservation programs for its customers for over 30 years for an annual energy savings that exceeds 500 million ***KWh*** per year—more than the combined output of the utility's six hydroelectric projects.[25] Other efforts underway:

- The City of Eugene offers assistance for energy-efficiency through housing rehabilitation loans, business loans, and the Green Building Incentive Program.
- The Climate Master™ program created by the Climate Leadership Initiative.
- Housing and Community Services Agency (HACSA) offers energy efficiency incentives.
- The Energy Trust of Oregon offers incentives.
- BRING Recycling offers the ReThink Business program.
- The City of Eugene is implementing its Internal Climate Action Plan to reduce GHG emissions from City-owned buildings and City operations.

[25] *"2008 Facts & Figures," Eugene Water and Electric Board. 2009.*

Objectives and Actions for Buildings and Energy

Objective 1:
Reduce total GHG emissions from existing buildings by 50 percent by 2030.

According to the Metro Regional Greenhouse Gas Inventory, residential, commercial and industrial energy use in existing buildings accounts for about 27 percent of all GHG emissions. Sixty-six percent of Eugene's housing stock was built before 1980 when efficiency standards were much lower, signifying a substantial opportunity to increase energy-efficiency in existing buildings. Their retrofitting will be accelerated by expanding the successful programs offered by EWEB, Energy Trust of Oregon, and other partners. Educational and outreach programs will continue to be an important tool to reduce energy use by changing the behavior of building occupants. For example, requiring that information about a building's energy use is made available at the time of sale will empower builders, building owners, renters and buyers to make informed choices and will increase market demand for more energy-efficient buildings.

High-Priority Actions

1.1. Identify the most ***cost-effective*** opportunities for increasing efficiency in existing buildings. Support the existing efforts of local utilities to find these opportunities.

1.2. Expand assistance and incentive programs for building retrofits that increase energy efficiency and reduce the carbon footprint of existing buildings.

1.2a) Work with Energy Trust of Oregon to focus on improving efficiency in buildings that are heated with natural gas.

1.2b) Target sectors with high-efficiency potential including rental buildings, multifamily housing, remodels, and commercial tenant infill.

1.3. Establish a project fund to complement existing loan and incentive programs by focusing on long-term, low-interest financing mechanisms for residential and commercial energy efficiency and/or renewable energy system installations.

1.4. Target ***occupant behavior*** in order to reduce energy use in all types of buildings.

1.4a) Strategies include Advanced Meter Infrastructure (already planned for by EWEB), real-time energy consumption information and community-based social marketing programs.

1.5. Adopt an ***energy performance score*** program or similar tool to disclose total energy use in existing and new buildings for use by builders, realtors, owners, and renters.

District Energy

In a district energy system, steam, or hot or chilled water is produced in a central plant and distributed to multiple buildings in a defined area through underground pipes. These systems eliminate the need for heating or cooling equipment in each building, reducing upfront costs and saving energy. Also, district energy systems may offer more flexibility in the type of fuel used resulting in an easier transition from fossil fuel. An additional value of district systems is the distribution of expenses across all users for operations, maintenance and/or retrofitting, thereby reducing costs to customers. District energy systems, especially those that use renewable fuel sources, can play an important role in reducing the carbon footprint of Eugene's buildings.

Objective 2:
Reduce GHG emissions from new construction by 50 percent by 2030.

Advances in technology and emphasis on *whole building design* and *integrated design* are enabling construction of buildings that can achieve far greater energy efficiency than previously imagined. New construction also provides an opportunity to incorporate adaptation strategies that allow buildings to work effectively in a changing climate. Facilitating construction of high-performing new buildings can play a significant role in reducing GHG emissions. The actions listed below aim to improve efficiency standards and increase assistance for energy efficiency and climate adaptation strategies in new buildings.

High-Priority Actions

2.1. Lobby for adoption and actively participate in development of building code amendments that meet the *Architecture 2030* standards for energy efficiency (standards outlined in Appendix 11).

2.2. Increase incentives for highly energy-efficient new buildings aiming toward ***zero net energy*** and ***carbon neutral*** buildings.

2.2a) Revise or expand incentives to encourage smaller homes that require less energy to operate and fewer building materials to construct.

Objective 3:
Expand Development of Renewable and District Energy Systems.

Renewable energy comes from resources that can be naturally replenished such as wind, hydroelectric, and solar—in contrast to fossil fuels like coal and oil that cannot. Renewable energy sources also produce much fewer GHG emissions than fossil fuels. Increasing use of renewable energy will reduce our use of fossil fuels, decrease GHG emissions, generate green jobs and increase local energy self-sufficiency.

High Priority Actions:

3.1. Increase the use of on-site renewable energy systems, such as solar hot water, ***photovoltaic***, and ground-source heat pumps, by removing financial, infrastructural, regulatory, and perceptual *barriers*.

3.1a) Invest in EWEB's downtown network to allow surplus energy from photovoltaics on downtown buildings to be integrated into the electricity grid.

3.1b) Address the financial barriers to onsite renewable energy by expanding financing options like long-term loans and property-assessed clean energy bonds.

3.1c) Assess and reduce barriers to solar energy use and balance priorities for solar access.

3.3. Develop at least one *community scale renewable energy* pilot project by 2015.

3.4. Develop *district energy* systems in Eugene.

3.4a) Remove legal, technical, policy, governance, and financial barriers to district energy systems.

3.2b) Complete the viability study for a district energy system for the EWEB Riverfront Master Plan.

3.2c) Develop at least one clean district energy, or shared energy, system pilot project by 2015 by working with property owners and local utilities.

Objective 4:
Increase the implementation of climate change preparation strategies for the built environment.

While Eugene takes steps to lower greenhouse gas emissions, the community must also prepare for the inevitable impacts of climate change. Since buildings constructed today will likely be in use for decades, state building codes must facilitate climate preparation strategies. These strategies that improve energy efficiency will also help the community adapt to the effects of climate change. Increasing efforts to conserve water will also help reduce the amount of energy used to treat and distribute water, and will improve Eugene's ability to adapt to the projected reductions in water supply.

High Priority Actions:

4.1. Encourage the use of passive systems in buildings for heating, cooling, ventilation, water delivery, and incorporate climate change preparation strategies into building design and construction.

4.4a) Lobby to improve state building codes.

4.4b) Develop incentives to encourage the use of passive heating and cooling systems, lighting, ventilation, and other strategies that reduce energy demand and better adapt buildings for a changing climate.

4.2. Provide education, assistance and incentives to reduce potable water use in new and existing buildings and landscaping.

4.2a) For example: low-flow fixtures, appropriate (xeriscape) landscaping, use of *greywater* and onsite rainwater catchment systems, behavior change, etc.

City of Eugene Green Building Program

The goal of the City's Waste Prevention and Green Building Program is to make sustainable waste prevention and green building practices the norm in Eugene, through the guide2Green Program. Priority goals for the program are to reduce GHG emissions, promote sustainable economic development and support local self-sufficiency activities. To achieve these goals, the Program provides technical assistance, education and training, and grants and incentives to the Eugene community. In September 2009, the City implemented a Green Building Incentive Program. To be eligible, projects must seek green building certification through either *Earth Advantage* or Leadership in Energy and Environmental Design (*LEED*) programs. Incentives include priority plan review and inspections, same-day permits, reduced systems development charges, technical assistance, and recognition and publicity benefits. Residential projects that meet high standards for energy efficiency and waste reduction are also eligible for rebates on permit fees, which are partially funded by the American Recovery and Reinvestment Act through the Energy Efficiency and Conservation Block Grant Program.

Appendix 1

Compiled Priority Action Items

APPENDIX 1: COMPILED PRIORITY ACTION ITEMS

	High Priority Action Areas	Relative GHG Reduction	Fossil Fuel Reduction	Adaptation Value*	Cost	Savings	Leader (L) / Partners (x)													Timing				
							City of Eugene	Utilities	Business Sector	Residents	Neighborhoods	School Districts	Lane County	U of O	Lane CC	State of Oregon	Lane Transit Dist	Non-Profits	Other	Ongoing	2011	2012	2013	Future
Buildings & Energy Use																								
	Objective 1: Reduce total green house gas emissions from existing buildings by 25 percent by 2030.																							
	1.1 Identify the most cost-effective opportunities for increasing efficiency in existing buildings.	**H**	**H**	**CC/FF**	**$**		**x**	**L**	**x**			**x**	**x**	**x**	**x**	**x**					**x**			
	1.2 Expand assistance programs for retrofits that increase energy efficiency and reduce the carbon footprint of existing buildings.	**H**	**H**	**CC/FF**	**$$$**	**$$**	**x**	**L**								**x**				**x**				
	1.3 Establish a project fund to expand financing mechanisms for residential energy efficiency and/ or renewable energy system installations.	**M\L**	**M\L**	**CC/FF**	**$$$**		**x**	**L**								**x**		**x**			**x**			
	1.4 Target occupant behavior in order to reduce energy use in all types of buildings.	**M**	**M**	**CC/FF**	**$$**	**$$**	**x**	**L**	**x**	**x**		**x**	**x**	**x**	**x**	**x**		**x**		**x**				
	1.5 Adopt an energy performance score program or similar tools, to disclose total energy use including natural gas and electricity in existing and new buildings, for use by builders, realtors, owners, and renters.	**L**	**L**	**N**	**$**		**L**	**x**	**x**							**x**		**x**			**x**			
	Objective 2: Reduce greenhouse gas emissions from new construction 50percent by 2030.																							
	2.1 Lobby for adoption, and actively participate in development, of building code amendments that meet the Architecture 2030 standards for energy efficiency.	**L**	**L**	**CC/FF**	**$**		**L**	**x**	**x**	**x**			**x**					**x**				**x**		
	2.2 Increase incentives for highly energy-efficient new buildings, aiming toward zero net energy and carbon neutral buildings.	**L/M**	**L/M**	**CC/FF**	**$$/$$$**	**$**	**L**	**x**	**x**							**x**				**x**				
	2.2a Revise or expand incentives to encourage smaller homes that use less energy to operate and fewer building materials to construct.	**L**	**L**	**CC/FF**	**$**	**$$**	**L**	**x**								**x**					**x**	**x**		

$ = $0 - $99,000
$$ = $100k - $999k
$$$ = $1 million +

* An action has adaptation value when it prepares the community or a system for for climate change (CC) and/or volatile or increasing fossil fuel prices (FF)

APPENDIX 1: COMPILED PRIORITY ACTION ITEMS

	High Priority Action Areas	Relative GHG Reduction	Fossil Fuel Reduction	Adaptation Value*	Cost	Savings	Leader (L) / Partners (x)													Timing				
							City of Eugene	Utilities	Business Sector	Residents	Neighborhoods	School Districts	Lane County	U of O	Lane CC	State of Oregon	Lane Transit Dist	Non-Profits	Other	Ongoing	2011	2012	2013	Future
	Objective 3: Expand use of Renewable and District Energy Systems.																							
Buildings and Energy Use	**3.1** Increase the use of on-site renewable energy systems, such as solar hot water, photovoltaic, and ground-source heat pumps, by removing barriers to such systems.	L/M	L/M	CC/FF	$$$		x	L	x	x		x	x	x	x	x				x				
Buildings and Energy Use	**3.1a** Invest in EWEB's downtown network to facilitate net metering, a program which would allow connection to photovoltaic systems on downtown buildings.	L	L	CC/FF	$$$		x	L	x				x		x	x					x	x		
Buildings and Energy Use	**3.1b** Address the financial barriers to onsite renewable energy by expanding financing options such as long-term loans and property-assessed clean energy bonds.	L	L	CC/FF	$$$	$$	x	L								x			Banks			x	x	
Buildings and Energy Use	**3.1c** Assess and reduce barriers to solar energy use and balance priorities for solar access.	n/a	n/a	FF	$		L	x	x	x	x	x	x	x	x	x		x					x	
Buildings and Energy Use	**3.2** Develop at least one community scale renewable energy pilot by 2015.	L	L	CC/FF	$$$		x	L	x	x		x	x			x		x			x	x	x	
Buildings and Energy Use	**3.3** Develop district energy systems in Eugene.	L	L	CC/FF	$$$		x	L	x	x		x	x			x		x			x	x	x	
Buildings and Energy Use	**3.3a** Develop at least one clean district energy, or shared energy, system pilot project by 2015 by working with property owners and EWEB.	M	M	FF	$$$	$$	x	L	x	x	x	x	x	x	x									
	Objective 4: Increase the implementation of climate change preparation strategies for the built environment.																							
	4.1 Encourage the use of passive systems in buildings for heating, cooling, ventilation, water delivery, and incorporate climate change preparation strategies into building design and construction.	M	M	CC/FF	$	$$	L									x				x				

$ = $0 - $99,000
$$ = $100k - $999k
$$$ = $1 million +

* An action has adaptation value when it prepares the community or a system for for climate change (CC) and/or volatile or increasing fossil fuel prices (FF)

APPENDIX 1: COMPILED PRIORITY ACTION ITEMS

High Priority Action Areas		Relative GHG Reduction	Fossil Fuel Reduction	Adaptation Value*	Cost	Savings	Leader (L) / Partners (x)													Timing				
							City of Eugene	Utilities	Business Sector	Residents	Neighborhoods	School Districts	Lane County	U of O	Lane CC	State of Oregon	Lane Transit Dist	Non-Profits	Other	Ongoing	2011	2012	2013	Future
4.1a	Lobby for state building code amendments.	L	L	CC	$		L	x		x						x		x		x				
4.1b	Develop incentives to encourage the use of passive heating and cooling systems and other strategies that reduce energy demand and better adapt buildings for a changing climate.	L	L	CC/FF	$/$$	$$	L	x													x			
4.2	Provide education, assistance and incentives to reduce potable water use in new and existing buildings and landscaping.	L	L	CC	$$	$$	x	L	x			x		x	x	x		x		x				

$ = $0 - $99,000
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APPENDIX 1: COMPILED PRIORITY ACTION ITEMS

Suggested Measures	Suggested Targets	Adaptation Explanation
Natural gas use and electricity use total and per capita; greenhouse gas intensity of electricity.	**Target set:** Reduce community wide fossil fuel use 50 percent by 2030	
	Reduce greenhouse gas emissions from existing buildings by 25 percent by 2030	
EWEB completes conservation potential assessment (CPA) - analysis of efficiency opportunities.	Complete by summer 2010	(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Dollars spent annually by EWEB and City of Eugene on efficiency grants and incentives; Number of residents/ businesses/ customers participating; percent of residents/ businesses/ customers participating.	Increase participation 5 percent annually	(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Fund created; dollars available annually.	Establish fund by 2013	(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Number of customers reached; estimated GHG reductions for targeted occupants.		(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Energy Performance Score adopted or available for use.	Create Energy Performance Score system by 2015	
	Reduce greenhouse gas emissions from new construction by 50 percent by 2030	
Adoption of Architecture 2030 standards as state building code.	Adoption of standards by 2018	(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Incentives offered by City of Eugene and EWEB	Revise and expand incentives by 2012	(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Incentives offered by City of Eugene and EWEB	Revise and expand incentives by 2012	(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.

$ = $0 - $99,000
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APPENDIX 1: COMPILED PRIORITY ACTION ITEMS

Suggested Measures	Suggested Targets	Adaptation Explanation
Identification and reduction of barriers; annual use of on-site renewables.		(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Downtown net metering available.	Net metering available by 2016	(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Financing options available.		
Code updated	Update code by 2013	(FF)Aids in investment in onsite renewables reducing reliance on natural gas to generate electricity.
Number of projects completed.	At least one project complete by 2015	(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Number of projects developed.	At least one developed by 2015	(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Incentives or other encouragement available		Improves livability of homes during extreme weather events. Reduces cost of home operation when fossil fuel prices rise.

$ = $0 - $99,000
$$ = $100k - $999k
$$$ = $1 million +

* An action has adaptation value when it prepares the community or a system for for climate change (CC) and/or volatile or increasing fossil fuel prices (FF)

APPENDIX 1: COMPILED PRIORITY ACTION ITEMS

Suggested Measures	Suggested Targets	Adaptation Explanation
Adopted COE legislative policies include climate change/building code elements.		
		(FF)Reduces reliance on natural gas to generate electricity. (CC)Increased efficiency can reduce energy demand (and cost) during extreme summertime heat events.
Dollars spent for water conservation education. Numbers of customers reached. Water use per capita.		reduces demand on freshwater resources, that are expected to decline during summer drought under climate change conditions.

$ = $0 - $99,000
$$ = $100k - $999k
$$$ = $1 million +

* An action has adaptation value when it prepares the community or a system for for climate change (CC) and/or volatile or increasing fossil fuel prices (FF)

ATTACHMENT D

Intergovernmental Relations

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MEMORANDUM

Date: September 12, 2011

To: Mayor Piercy and City Council and EWEB Board of Commissioners

From: Brenda Wilson, Intergovernmental Relations Manager
City of Eugene

Subject: Background Memorandum for September 12, 2011 Meeting

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This memorandum provides information on a number of issues and projects that city and EWEB staff are actively involved with. While the issues discussed herein may be of mutual interest to both policy bodies, they are not the focus of the two staff presentations planned for the joint work session. However, following the staff presentations, there will be an opportunity for open discussion. Staff invites questions regarding the topics below and staff contact numbers have been included should you need more detailed information on these issues following our discussion.

EWEB's Enhanced Utility Bill Assistance Program

EWEB has a long history of bill assistance programs, and has adapted funding levels and services over time. Most of the major adaptations were made in response to significant economic changes, such as the 2001 energy crisis, when electricity prices soared. Starting in 2002, about $2M in funds were allocated annually for low income bill support using a dedicated funding stream as opposed to relying on voluntary donations. This was a 15-fold increase over previous assistance levels.

More recently, in response to the economic recession, EWEB's Board approved an enhanced temporary assistance fund to help customers with bill payments during the downturn. The Community Care program reached out to multiple segments of the community, such as the newly unemployed, that would not normally be eligible for assistance based on income guidelines. Other programs included funding assistance for shelter care programs, expanded arrearage for senior and disabled customers, loan deferrals, and a crisis fund. Assistance above traditional levels was $3.8 M, $1.8 M and $1 M for 2009, 2010 and 2011, respectively, and was taken from reserves to mitigate any rate impact. A prominent marketing campaign accompanied this effort to raise public awareness of the programs.

In addition, EWEB expanded the Energy Management & Conservation Services available to landlords and renters to help reduce the cost of utility service for eligible customers. EWEB also participated with the City in a highly successful energy retrofit program targeting six multi-family unit complexes. In total, EWEB has provided nearly $12 million to assist low-income, jobless and other customers hit by the economic crisis in the past three years.

Given the prolonged economic downturn, and uncertainty around future levels of federal funding available for utility bill assistance programs, EWEB has been wrestling with setting an appropriate level of support moving forward. The Board requested that staff meet with community experts to develop measures, or 'triggers' that could be more consistently applied when setting future customer support funding levels.

On August 5th, staff met with ten community members to discuss potential triggers, like changes in the County unemployment rate, to help guide such funding decisions. Staff will be presenting proposing measures to the Board at its September 6th meeting, with a recommendation for an elevated level of bill assistance for the 2012 budget year, and to utilize the agreed upon triggers when setting next year's bill assistance budget.

For more information contact Mark Freeman, EWEB Customer Service Manager at (541) 685-7061.

Ward Redistricting

Every 10 years, the Eugene City Council adjusts council ward boundaries to accommodate population changes and shifts. The purpose of ward redistricting is to make sure each ward has about the same number of people so that Eugene residents are represented equally on the Eugene City Council and on the Eugene Water & Electric Board.

Based on 2010 U.S. Census data, Eugene's population totaled 156,222 which means that each of the eight wards should have approximately 19,528 residents.

Ward	Total Population	Target Population	Percent difference from equal target population
1	17,597	19,528	-9.9%
2	17,705	19,528	-9.3%
3	21,003	19,528	7.6%
4	19,215	19,528	-1.6%
5	20,047	19,528	2.7%
6	21,603	19,528	10.6%
7	19,449	19,528	-0.4%
8	19,603	19,528	0.4%
Grand Total	156,222	156,222	

In spring 2011, council provided direction on the public involvement and decision-making process for ward redistricting and, following public input, on the criteria that drive the drawing of potential boundaries. During a July 25th work session, the council reviewed two possible ward boundary scenarios. The two ward scenarios consider geographic and neighborhood features and strive for relative compactness and contiguity. The scenarios also attempt to bring the population for each of the potential new wards to within 3 percent of the even population target of 19,528 people.

Maps of the two scenarios are available for public review at www.eugene-or.gov/redistricting (or see Attachment E). These scenarios provide a starting point for further refinements toward selection of final boundaries by the Eugene City Council. An interactive map, available on the website, allows people to compare the scenarios to current wards as well as to other boundaries such as neighborhood associations and major roads.

In addition, the interactive map can help users find any city address and identify which ward it would be in for both scenarios. The map also displays U.S. Census data used in the ward redistricting process as well as demographic statistics for each scenario. A comment form on the map and a link to an online survey will collect feedback and suggestions from the public on the redistricting scenarios. Staff will also be available to present the scenarios to interested groups throughout August and September. A public hearing on the scenarios is scheduled for September 19, 2011.

Issues of particular relevance to EWEB include:

1. Four of the EWEB Board members are each elected to represent two wards, with the fifth seat an at-large representative (currently, Commissioner John Simpson). Commissioner Joann Ernst currently represents Wards 1 and 8, Commissioner Bob Cassidy Wards 2 and 3, Commissioner John Brown Wards 4 and 5, and Commissioner Rich Cunningham Wards 6 and 7. The scenarios result in ward populations within 3 percent of the equal population target. Under Scenario 1, no two wards are more than 2.8 percent of one another. Under Scenario 2, no two wards are more than 3.8 percent of one another. For the combined EWEB wards, no double-ward is greater than 1.5 percent of another for Scenario 1 and 3.8 percent for Scenario 2.

2. By Eugene City Charter, Section 33, the council is responsible for dividing the city into wards and redefining boundaries to accord city residents equal protection under the laws, and no person may vote at a city election in a ward other than in which she or he resides.

For more information, including agenda packets provided to the Eugene Council earlier this year, please visit the City's ward redistricting website: www.eugene-or.gov/redistricting. Or contact Laura Hammond, Eugene Planning & Development Department at (541) 682-6021

Electric Vehicle Project Update

The I-5 corridor between Eugene and Portland was selected as one of the original test sites for the federally funded EV project. The list of participating cities has since expanded to 18 cities across six states. Deployment of charging infrastructure began last winter, as did delivery electric vehicles to

customers. The actual adoption rate of EV's in Eugene/Springfield and other parts of the country has been slower than originally anticipated. The earthquake in Japan was a factor in delayed delivery of vehicles. As of today, there are twelve known EV buyers in our area who will have received their cars and installed in-home chargers by the end of the year. EV buyers who qualify to participate in the project receive a residential charger at no cost.

Public charging infrastructure has also been slow in coming. The latest information is that 68 commercial charging stations are in progress around the state. The City has been working with ECOtality, the company leading the EV Project, to find optimum locations for electric vehicle charging stations on City owned property. Location decisions are based on several factors, including the electrical service capacity of the area, the distance from the electrical source to the parking space, and the parking space location itself.

Earlier this year, the City identified the downtown Eugene Public Library parking garage, the Overpark Parking Garage, and the Broadway South Parking Garage as initial installation locations. After reviewing these sites with ECOtality, the Parcade Garage, Train Depot Parking Lot, Hilyard Community Center, and the new Police Building on Country Club road were added to the list of locations for grant funded installations. The City is still working with ECOtality on finalizing costs and scheduling. EWEB is also in conversations with ECOtality to locate two charging units in front of the headquarters building later this year. ECOtality indicates that another 15-20 public chargers at local commercial/retail establishments are planned.

EWEB has established a staff team to plan for the integration of EV technology in our electric infrastructure and identify potential impacts and barriers to adoption. For example, the team developed EV adoption rate forecasts to include in our 2011 energy plan, and created public information materials for our website and to provide at car dealerships for prospective EV owners. To address concerns about the capability of EWEB's electric system to handle high concentrations (clustering) of EVs in any one area, staff did a loading analysis on two distribution feeders that serve a high concentration of residential and light commercial customers. The results indicated that the existing distribution transformer plant is sufficient even if half of our customers in a particular neighborhood purchase an EV.

More recently, EWEB chose to enter the commercial EV market with a 2011 Ford Transit Connect all-electric van for courier use. The existing van was due for replacement and because of its consistent and relatively high usage, it made economic as well as environmental sense to purchase the e-van. Over the anticipated 10-year life expectancy of the e-van, we expect to save money while also avoiding the burning of 9,200 gallons of gasoline and the emission of 77.6 metric tons of CO2.

EWEB is also initiating a pilot project with new EV owners to give customers a $200 bill credit in exchange for allowing EWEB to analyze their charging patterns and for agreeing to participate in periodic information sharing events. Under the terms of a confidentiality agreement, EWEB will also

receive aggregate charging data as an EV Project participant. We hope to use information from these sources as well as our own e-van to better understand the long-term impact of EVs on our system, as well as promote the feasibility of this technology to our customers.

For more information contact Jeff Petry, Eugene Parking Services Manager at (541) 682-5729, or Dean Alhsten, EWEB Systems Engineering & Substation Reliability Manager at (541) 685-7136.

Carmen-Smith Relicensing Agreement

The Carmen-Smith Hydroelectric Project, which is located 71 miles east of Eugene on the upper McKenzie River, represents almost half of EWEB's total owned generation capacity. EWEB received an initial federal operating license for the Carmen-Smith Project in 1958. Staff have been engaged in a process to relicense the Carmen-Smith Project since 2002. In early 2007, EWEB entered into settlement negotiations with a 16-member stakeholder group that included federal and state agencies, three Native American tribes, and a number of non-governmental organizations. The negotiations concluded in October 2008 with an agreement signed by all participants and submitted to the Federal Energy Regulatory Commission (FERC).

The agreement calls for construction of an upstream fish ladder and a downstream fish screen and piping system at Trail Bridge Dam, increasing year-round instream flows in the Smith and Carmen bypass reaches above Trail Bridge Reservoir, greatly improving fisheries spawning and rearing habitat throughout the project area, rebuilding the three campgrounds in the area, and constructing new day-use sites at all three reservoirs. The agreement also contains measures addressing vegetation, wildlife, and historic and cultural resources.

EWEB anticipates that the FERC will act on EWEB's license application in the next couple of months. Once the new license is issued, EWEB and the Settlement Agreement parties will have 30 days to review and accept or challenge the licensing order. A number of activities are currently underway to prepare for implementation of the new license. This includes upgrades to the power plant, design of fish passage and other habitat improvements, refinement of several resource management plans, and completion of discrete engineering projects needed for license implementation. EWEB has contracted with an engineering design firm, CH2M Hill, and a construction manager/general contractor, Wildish, to lead the fish passage design and construction efforts. CH2M Hill is also leading the powerhouse rehabilitation work, although portions of that scope are being completed directly by EWEB staff.

Based on the current projection for license issuance, a request to City Council to issue bonds to finance the Carmen-Smith improvements is planned for early 2012. Analysis is now underway to developing a valid and actionable cost estimate for the implementation package for bonding purposes, and to refine the estimated length of time the power plant will be out of service, which impacts total project costs. EWEB will be requesting a work session with City Council later this year to discuss the project financing request in more detail.

For more information contact Mike McCann, Carmen-Smith License Implementation Manager at (541) 685-7379.

Veneta Pipeline Construction Update

In April 2010, EWEB entered into a contract to sell wholesale water to the City of Veneta. Ground water currently serves as Veneta's sole water supply source, with five ground water wells presently owned and operated by the City. However studies have indicated that the aquifer has a limited ability to provide sufficient water to meet future needs. The contract with EWEB provided certainty that Veneta could obtain a safe and reliable source of water by building a 9.7 mile pipeline to the Eugene city limits and connecting into the EWEB water distribution system.

Wholesale water supply contracts benefit EWEB customers. Treating and delivering water comes with high fixed overhead costs. Spreading those costs over a wider retail and wholesale base helps lower costs and minimize the magnitude of future rate increases. Currently, wholesale water sales represent about 8 percent of EWEB's total annual water sales. Two of the three water rights EWEB holds for the McKenzie are perfected. The utility must demonstrate to state water authorities that it can put the volume granted under the third water right to beneficial use within a reasonable time frame. Selling surplus water to wholesale customers helps EWEB show there is a need for that water.

The proposed project consists of connecting a new a 24-inch diameter water line to an existing EWEB main at West 11th Avenue (Highway 126) and Terry Street in west Eugene. The new water line will run approximately 9.7 miles to the City of Veneta Public Works yard. Installation will be primarily by trenching along the roadside, with boring used in crossing sensitive habitats (Coyote Creek on Cantrell Road, Job Swale and the West Fork of Coyote Creek on Perkins Road). The only portion of the 9.7-mile long project that will have a temporary impact to wetlands is the 1.7-mile length alongside Highway 126. No permanent wetland impacts will occur with the proposed project.

The City of Veneta has secured ARRA funds to help offset the construction costs, and is currently in preliminary design phase for this project. The City anticipates that it will start the construction bidding process in late March of 2012. EWEB's portion (approximately 1 mile along the north side of Highway 126 from Terry Street west to Greenhill Road) of the construction project will be bid around this same time. The preliminary schedule is that construction will begin in July of 2012 with an expected completion data of September 2013.

In times of water shortage or drought, city of Eugene customers would have first priority to the water. Under the contract, Veneta will maintain a secondary source of water in case of EWEB water shortage or curtailment.

For more information contact Brad Taylor, EWEB Water Planning Supervisor at (541) 685-7385).

EWEB Master Plan Update

Since the mid-1900s, Eugene's Downtown Riverfront has been the home of the Eugene Water & Electric Board's operations and maintenance yard. In preparation for the relocation of EWEB's operations to West Eugene, EWEB and the City entered into a Memorandum of Understanding to develop a master plan for the site and set the stage for its redevelopment.

To date, EWEB's effort to prepare for the redevelopment of the riverfront property has included two phases: 1) a master planning and public involvement process that generated a community-endorsed master plan for the re-use of the riverfront property, and 2) land use consulting to prepare the necessary plan amendments, zone changes, and development standards required to implement the approved master plan.

Phase 1: Master Planning and Public Involvement Process (May 2009-June 2010)

The master planning process for the EWEB riverfront property is a major step in the decades-long process to renew the connection between Downtown Eugene and the Willamette River. The vision for the redevelopment of the EWEB riverfront is based upon an understanding that our community's social, ecological, economic, and sustainability concerns are interdependent. Planning for the redevelopment of the riverfront property represents the unique opportunity to advance these interests simultaneously, and to transform a now vacated utility yard into a vibrant riverfront district.

The master plan is based on principles of balance, sustainability, authenticity and feasibility. It establishes the shared vision for the redevelopment of a vibrant, green, mixed-use neighborhood along Eugene's Downtown Riverfront—the only area of Downtown Eugene to touch the Willamette River. The plan's framework includes 8 acres of public open space, dramatically improved public access to the riverfront, new redevelopment blocks at the heart of the city, and specific design elements that teach about our river, our history, and our city.

The public process to complete the master plan was open, intensive, and responsive. A jointly appointed, nine-member Community Advisory Team (CAT) was selected by EWEB and the City to lead the master planning process. This group of community members brought a diversity of expertise to the advisory team and met in biweekly public work sessions for nearly two years to guide the project. Their work included the development of an RFP/Q, the selection of the design consultant (Rowell Brokaw Architects), the development of form-based design guidelines for redevelopment, and the review of an ecological assessment before approving the final design.

The CAT solicited broad public input throughout the planning process and hosted several major public events at critical points in the process. Rowell Brokaw Architects also led an AIA-supported design charrette, arranged numerous focus groups, and interviewed more than 130 stakeholders to provide the CAT with project context and ensure the development of a community-supported design. Over a 12-month period, more than 1,000 community members directly participated in the development of the

master plan. The design process culminated with an event attended by more than 300 people at the Eugene Hilton in March 2010 and a public open house on the EWEB site in May 2010. In June 2010, the EWEB Board of Commissioners unanimously approved the master plan after receiving consensus approval from the Community Advisory Team.

Phase 2: Land Use Consulting and Applications (November 2010-January 2012)
In November 2010, EWEB hired Cameron McCarthy Landscape Architecture & Planning and Rowell Brokaw Architects to complete the land use phase and codify the approved master plan. This work includes the development of: 1) Code amendments (to implement a new Special Area Zone and Specific Area Plan based on the master plan); 2) Metro Plan amendment application; 3) Refinement Plan amendment application; 4) Zone change application; 5) Willamette Greenway permit application; 6) Transportation Planning Rule and Traffic Impact Analysis.

The new code being constructed for the Downtown Riverfront (S-DR Zone) uses a combination of traditional zoning and form-based standards to guide redevelopment. The new code is intended to achieve a balance certainty and flexibility in the redevelopment process; to support the appropriate enhancement of riverfront habitat; and to promote a mix of uses that complement and support existing downtown and riverfront uses.

Traditional codes are characterized by extensive land use controls and prescriptive criteria and standards employed to ensure that development is compatible with surrounding uses. Form-based codes place an emphasis on predictable physical outcomes. They include regulations that shape the public realm and support the development of pedestrian-friendly, mixed-use urban environments.

The code development now underway is ambitious, forward thinking, and technical. In order to achieve an appropriate balance between certainty and flexibility, the draft code employs both techniques with use controls in specific locations that promote a vibrant, active, "people place" and form-based standards that shape the public realm. In addition, the code contains standards and criteria for a new riverfront park and promotes the adaptive reuse of buildings, interim parking strategies, and green infrastructure (stormwater bioswales, green streets, etc.).

In keeping with the policies established by the 2004 Downtown Plan, the objectives of the Downtown Riverfront Special Area Zone are to:

- Create a "people place" that is active, vibrant, accessible and multi-use.
- Provide appropriate setbacks, deeper where environmental or habitat issues are more critical, shallower in other areas.
- Incorporate appropriate building and site design techniques that address environmental concerns.
- Include educational aspects that teach about the city, river and history.

- Implement Nodal Development policies outlined by the Metro Plan) and adopted Growth Management policies.
- Foster the redevelopment of a pedestrian-oriented, livable riverfront district consistent with the principles and objectives of the Downtown Riverfront Specific Area Plan.

Next Steps

The consultant team is currently conducting due diligence to resolve conflicts, streamline products, build partnerships, and ensure that the land use package includes all necessary components for successful implementation. The consultant team will complete work on the Downtown Riverfront's Special Area Zone and Specific Area Plan in September/October 2011. Upon initiation and after filing, the application package will follow the standard Type V review process, which involves Planning Commission and City Council review and approval.

For more information contact Gabe Flock, Senior Land Use Planner at (541) 682-5697, or Jeannine Parisi, EWEB's Community Outreach and Local Government Relations Coordinator at (541) 685-7451.

Steam Transition Update

Faced with rising costs, an eroding customer base and an inefficient distribution system, EWEB is in the process of shutting down its steam utility. After several years of study, in 2008, the EWEB Board of Commissioners adopted a policy to guide the transition of customers off the steam system and closure of the facility. The policy states that the transition will be completed in a manner that is:

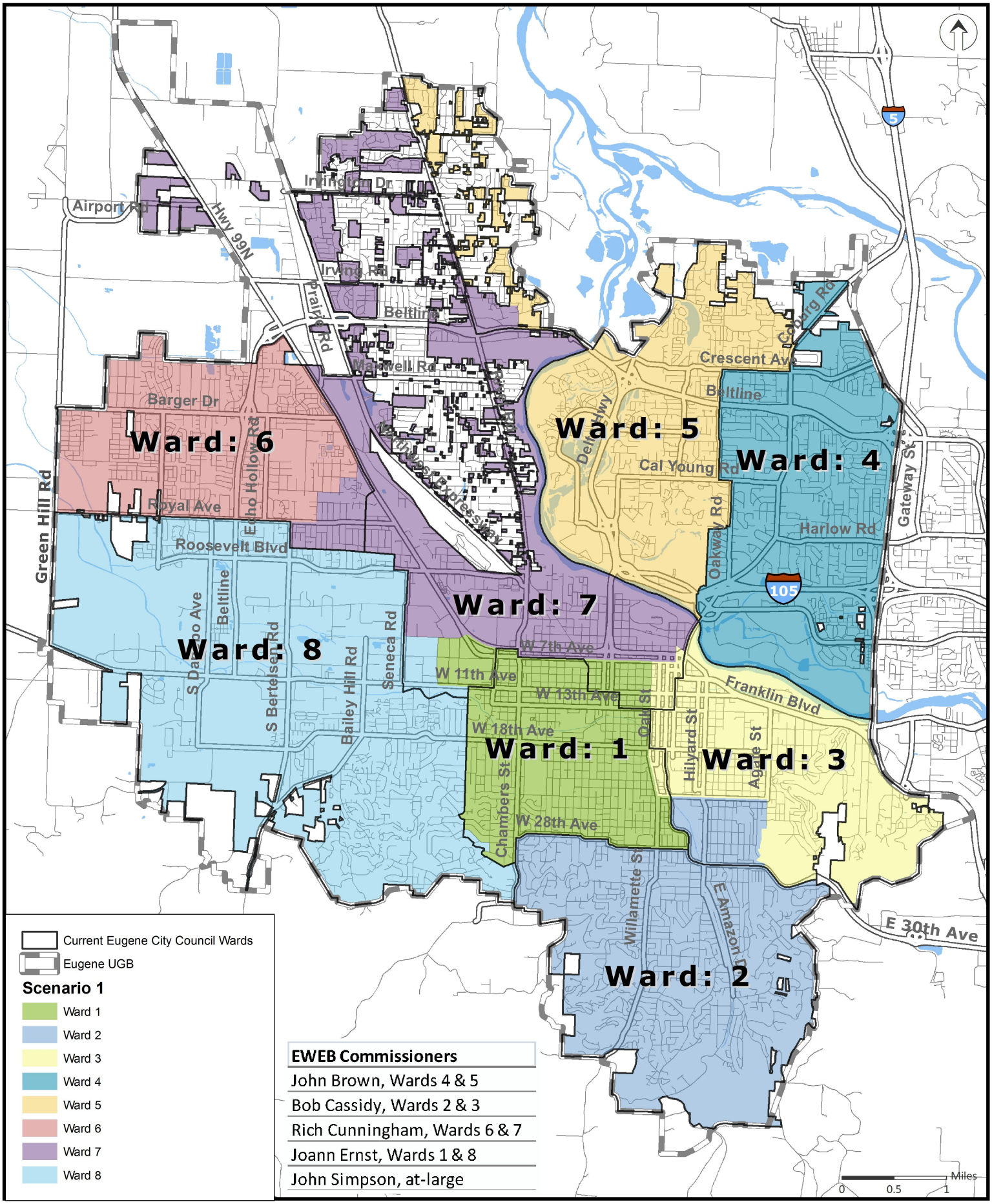
- Socially responsive
- Environmentally and financially responsible · To the fullest extent possible, balances the considerations of steam customers, the downtown community, the community at large and EWEB's electric utility interests

Staff have since been working with steam customers to secure engineering consultations and identify funding options to smooth the way to a more efficient heating and cooling system. Out of the 58 buildings that utilized the steam system when the transition plan started, 38 buildings have converted or disconnected from the EWEB steam system. Two customers chose to simply disconnect due to building or business obsolescence rather than invest in new equipment. It is anticipated that by the start of this heating season (November 2011), an additional 12 conversions will be underway, bringing the total number of conversions to about 86%. There are eight remaining customers that EWEB has been in communication with, but have not yet committed to a conversion strategy and schedule for disconnection. They are keenly aware of the June 2012 steam system shut-down deadline.

EWEB has worked closely with the Oregon Department of Energy to provide loans to qualifying customers; however, some projects are not eligible for state support. To help ensure we don't have 'stranded' customers, staff estimate that EWEB will provide low cost financing to 18 customers in the amount of $3.2 million. In addition to increased energy efficiency and improved building value, the transition off the steam system will result in significant CO2 reductions. Conservative estimates put carbon emission reductions at 19,600,000 lbs/yr.

For more information contact Mark Freeman, EWEB Customer Service Manager at (541) 685-7061.

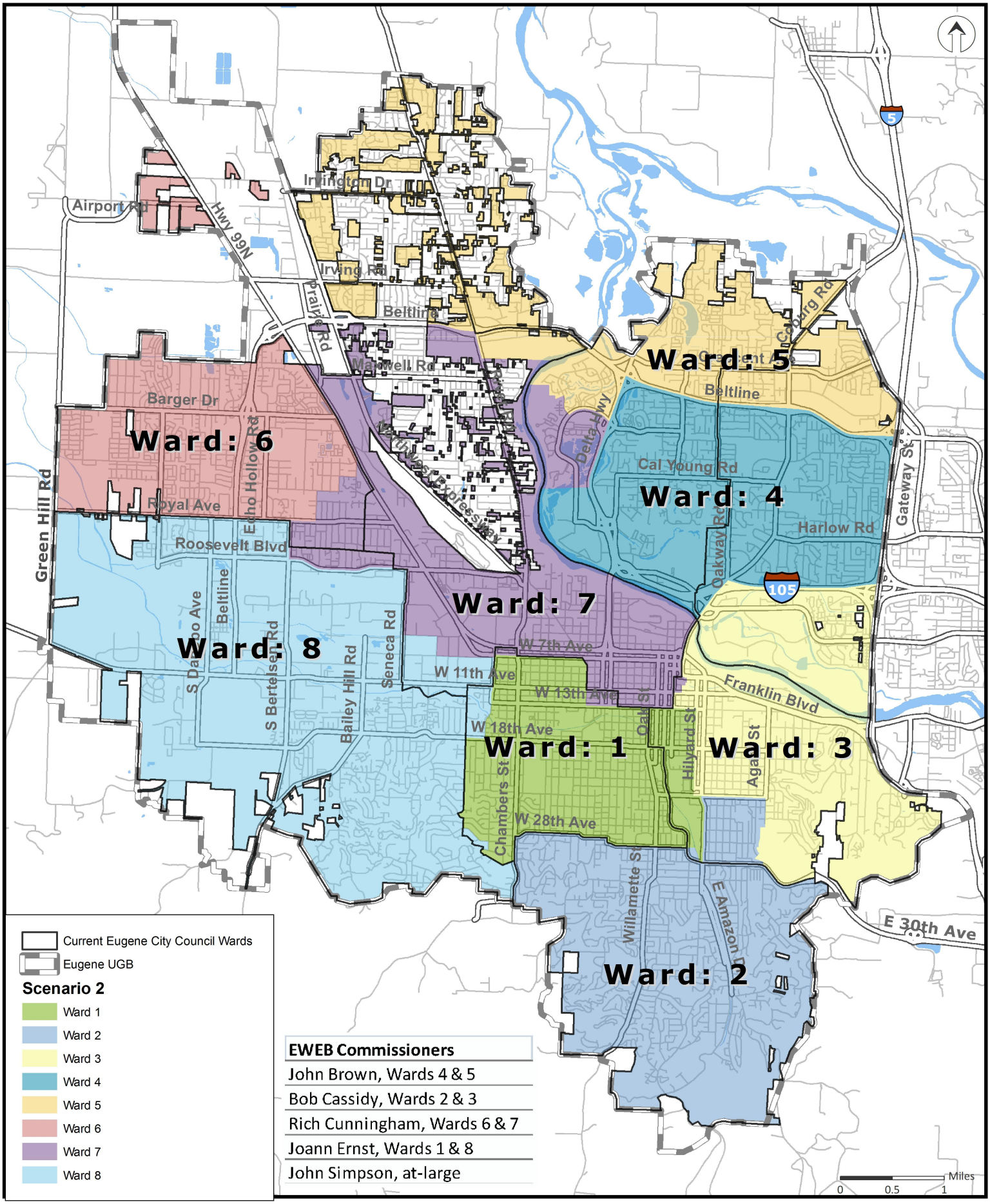
Draft Ward Scenario 1



Data Sources: City of Eugene and Regional GIS data
Caution: This map is based on imprecise source data, subject to change, and for general reference only.

City of Eugene -July 21, 2011
Planning and Development Department - Community Development Division

Draft Ward Scenario 2



Data Sources: City of Eugene and Regional GIS data
Caution: This map is based on imprecise source data, subject to change, and for general reference only.

City of Eugene -July 20, 2011
Planning and Development Department - Community Development Division

Base data

Eugene Council Ward	Total Population	Target Population	Percent change from equal population by ward	Hispanic or Latino	Hispanic or Latino population as a % of Total population for that ward	Not Hispanic or Latino	White Alone	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and other pacific islander alone	other race alone	two or more races	Total Population Age 18 and over	Population Age 18 and over as a % of population for that ward
Ward 1	17,597	19,528	-9.9%	1,393	7.9%	16,204	14,584	255	144	487	23	59	652	14,840	84.3%
Ward 2	17,705	19,528	-9.3%	841	4.8%	16,864	15,304	164	112	561	22	48	653	14,341	81.0%
Ward 3	21,003	19,528	7.6%	1,027	4.9%	19,976	16,722	267	89	1,931	48	34	885	19,593	93.3%
Ward 4	19,215	19,528	-1.6%	1,072	5.6%	18,143	15,839	333	131	1,026	49	39	726	15,661	81.5%
Ward 5	20,047	19,528	2.7%	1,166	5.8%	18,881	17,068	226	130	787	35	35	600	15,951	79.6%
Ward 6	21,603	19,528	10.6%	2,176	10.1%	19,427	17,678	210	235	470	66	26	742	16,404	75.9%
Ward 7	19,449	19,528	-0.4%	2,265	11.6%	17,184	15,419	249	243	367	55	45	806	15,911	81.8%
Ward 8	19,603	19,528	0.4%	2,267	11.6%	17,336	15,436	252	184	581	43	22	818	15,033	76.7%
Grand Total	**156,222**	**156,222**		**12,207**		**144,015**	**128,050**	**1,956**	**1,268**	**6,210**	**341**	**308**	**5,882**	**127,734**	

Scenario 1

Eugene Council Ward	Total Population	Target Population	Percent change from equal population by ward	Hispanic or Latino	Hispanic or Latino population as a % of Total population for that ward	Not Hispanic or Latino	White Alone	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and other pacific islander alone	other race alone	two or more races	Total Population Age 18 and over	Population Age 18 and over as a % of population for that ward
Ward 1	19,488	19,528	-0.2%	1,521	7.8%	17,967	16,161	291	172	536	33	64	710	16,617	85.3%
Ward 2	19,760	19,528	1.2%	920	4.7%	18,840	17,093	184	122	627	25	50	739	16,178	81.9%
Ward 3	19,503	19,528	-0.1%	970	5.0%	18,533	15,401	261	86	1,878	46	37	824	18,290	93.8%
Ward 4	19,215	19,528	-1.6%	1,072	5.6%	18,143	15,839	333	131	1,026	49	39	726	15,661	81.5%
Ward 5	19,553	19,528	0.1%	1,112	5.7%	18,441	16,675	222	123	781	35	35	570	15,569	79.6%
Ward 6	19,400	19,528	-0.7%	1,998	10.3%	17,402	15,776	198	208	452	64	26	678	14,630	75.4%
Ward 7	19,641	19,528	0.6%	2,347	11.9%	17,294	15,612	215	242	327	46	35	817	15,705	80.0%
Ward 8	19,662	19,528	0.7%	2,267	11.5%	17,395	15,493	252	184	583	43	22	818	15,084	76.7%
Grand Total	**156,222**	**156,222**		**12,207**		**144,015**	**128,050**	**1,956**	**1,268**	**6,210**	**341**	**308**	**5,882**	**127,734**	

Scenario 2

Eugene Council Ward	Total Population	Target Population	Percent change from equal population by ward	Hispanic or Latino	Hispanic or Latino population as a % of Total population for that ward	Not Hispanic or Latino	White Alone	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and other pacific islander alone	other race alone	two or more races	Total Population Age 18 and over	Population Age 18 and over as a % of population for that ward
Ward 1	19,514	19,528	-0.1%	1,409	7.2%	18,105	15,943	254	156	875	29	68	780	16,755	85.9%
Ward 2	19,748	19,528	1.1%	920	4.7%	18,828	17,082	184	122	627	25	49	739	16,168	81.9%
Ward 3	19,977	19,528	2.3%	1,027	5.1%	18,950	15,749	349	99	1,813	47	36	857	18,507	92.6%
Ward 4	19,227	19,528	-1.5%	1,026	5.3%	18,201	16,451	228	116	677	42	28	659	15,342	79.8%
Ward 5	19,263	19,528	-1.4%	1,348	7.0%	17,915	16,238	200	128	719	46	32	552	14,853	77.1%
Ward 6	19,415	19,528	-0.6%	2,001	10.3%	17,414	15,787	198	209	452	64	26	678	14,638	75.4%
Ward 7	19,769	19,528	1.2%	2,256	11.4%	17,513	15,639	270	263	437	45	49	810	16,578	83.9%
Ward 8	19,309	19,528	-1.1%	2,220	11.5%	17,089	15,161	273	175	610	43	20	807	14,893	77.1%
Grand Total	**156,222**	**156,222**		**12,207**		**144,015**	**128,050**	**1,956**	**1,268**	**6,210**	**341**	**308**	**5,882**	**127,734**	

Data source: U.S. Census Bureau Redistricting PL 94-171, Regional GIS

Caution: This map is based on imprecise source data, subject to change and for general reference only.

7/21/2011