2016 CORVALLIS CLIMATE ACTION PLAN ISSUE PAPER NO. 2
THE CONTEXT FOR DEVELOPING A COMMUNITY AND ORGANIZATIONAL CLIMATE ACTION PLAN: EXISTING CONDITIONS, STRATEGIES, POLICIES, PLANS, AND PRACTICES

(DEVELOPMENTAL DRAFT TO BE COMPLETED THROUGH TASK TEAM INPUT AND ADDITIONAL PUBLIC ENGAGEMENT)

ISSUE:

This issue paper is intended to provide context for the development of a Climate Action Plan (CAP) in Corvallis. This includes summaries of existing greenhouse gas (GHG) inventories for the City organization and the community. It also includes background information on local efforts and strategies to quantify or reduce greenhouse gas emissions or address and mitigate the impacts of rising greenhouse gas emissions. These efforts and strategies include both previous and existing policies, plans, practices, and programs that affect the community's greenhouse gas emissions or mitigate its impacts by the municipal and county governments, local non-profits, local businesses, and state, regional, and national organizations and government entities.

This document is currently a starting place--an incomplete draft and will grow as the public engagement process continues and more organizations contribute information about their efforts. This iteration provides a look at higher-profile, community-wide efforts conducted mainly by the City of Corvallis, Benton County, the Corvallis Environmental Center, and the Corvallis Sustainability Coalition through government-funded or government-supported programs.

CITY OF CORVALLIS:

The City of Corvallis has been engaged in climate change issues since at least the year 2000, when the City committed to the Cities for Climate Protection Campaign. By 2005, the City had signed on to the Mayors Climate Protection Agreement and the City Council passed a resolution committing to purchasing renewable energy for the organization and encouraging community members to do the same. In 2008, the Corvallis Energy Challenge, Oregon's first community energy project, was underway with leadership from the Corvallis Sustainability Coalition and Energy Trust of Oregon. Additionally, the City joined ICLEI – Local Governments for Sustainability, to advance its climate protection efforts. In 2009, the City completed its first organizational greenhouse gas inventories.

In 2010, the community was recognized for its use of renewable energy and awarded the U.S. Environmental Protection Agency's (EPA) first Green Power Community of the Year award, and was awarded an EPA Climate Showcase Communities grant. That three-year grant created several programs that are still working to reduce energy use in the community: Take Charge Corvallis and Classrooms Take Charge. Additionally, funding from the grant supported the Community Greenhouse Gas Inventory, conducted in 2013 by City staff. Also in 2010, the City Council's Energy Strategy Ad Hoc Committee (ESAHC) completed the Community Energy Strategy "in a context of increasing urgency and a strong sense that we need to begin acting now to increase our energy security and reduce our contribution to global climate change." The 10-year plan focuses on energy conservation and efficiency, renewable and/or low carbon energy sources, and local clean energy business. The ESAHC also compiled existing energy and sustainability policies, and conducted a gap assessment to determine where City could be doing more to achieve community energy goals.

GREENHOUSE GAS INVENTORIES:

Greenhouse gas inventories provide a starting point and periodic points of comparisons to track how communities and organizations are progressing in achieving GHG reductions in accordance with established targets. The City of Corvallis conducted initial GHG emissions inventories for its own operations in 2009 for the years 2004 and 2008. The City recently completed an update using 2013 data. A GHG emissions inventory for the community was completed in 2013 using 2012 data. Methodologies and results are summarized below.

Organizational Greenhouse Gas Inventories:

The 2004 and 2008 organizational inventories were conducted at the same time in order to establish an initial year (2004) and comparison year (2008). They both followed the Local Government Operations Protocol, which was developed as a collaboration of The Climate Registry (TCR), the California Air Resources Board (CARB), the California Climate Action Registry (CCAR, now the Climate Action Reserve), and ICLEI—Local Governments for Sustainability. Emissions data were then collated and calculated using ICLEI's Clean Air and Climate Protection (CACP) 2009 software program, which was obsolete by the time the 2013 inventory was started. The 2013 inventory used the same Local Government Operations Protocol, but a version updated in 2010.

The data sets available for 2004 and 2008 were different, so only a partial comparison is possible. During 2008, City of Corvallis emissions from fuel and power use by buildings and vehicles were 20,198 Metric Tonnes of Carbon Dioxide Equivalent (MT CO_2e). This represented a 2% increase over 2004 in Scope 1 emissions (i.e. direct emissions from owned or controlled sources) and Scope 2 emissions (i.e. indirect emissions from the generation of purchased energy). Scope 3 emissions (i.e. all other indirect emissions other than those from Scope 2, which include all lifecycle emissions from the supply chain of goods and services procured, for example) were not included in the 2004 data. Therefore, Scope 3 emissions for the organization can only be compared from 2008 to 2013. In 2013, total GHG emissions rose to 25,099 MT CO_2e, a 24% increase over 2008 emissions. (This comparison includes Scope 3 emissions as well as Scopes 1 and 2). The reasons for the increased emissions are difficult to pinpoint due to differences in the methodologies used to estimate emissions, variations in emission sources included, and the now-obsolete software used in the 2004 and 2008 inventories made data access impossible. The charts below summarize the emissions data for 2008 and 2013. While some areas of emissions, such as electricity and stationary combustion went down over this time period (as should be expected from the significant energy efficiency improvements, reductions in fossil fuel usage and the economic recession that occurred during this time period), some areas (such as wastewater, mobile combustion and the supply chain) increased markedly for reasons we cannot attribute to actual changes in City operations. The breakdown of inventoried emissions for 2008 and 2013 are shown in Figure 1 below.

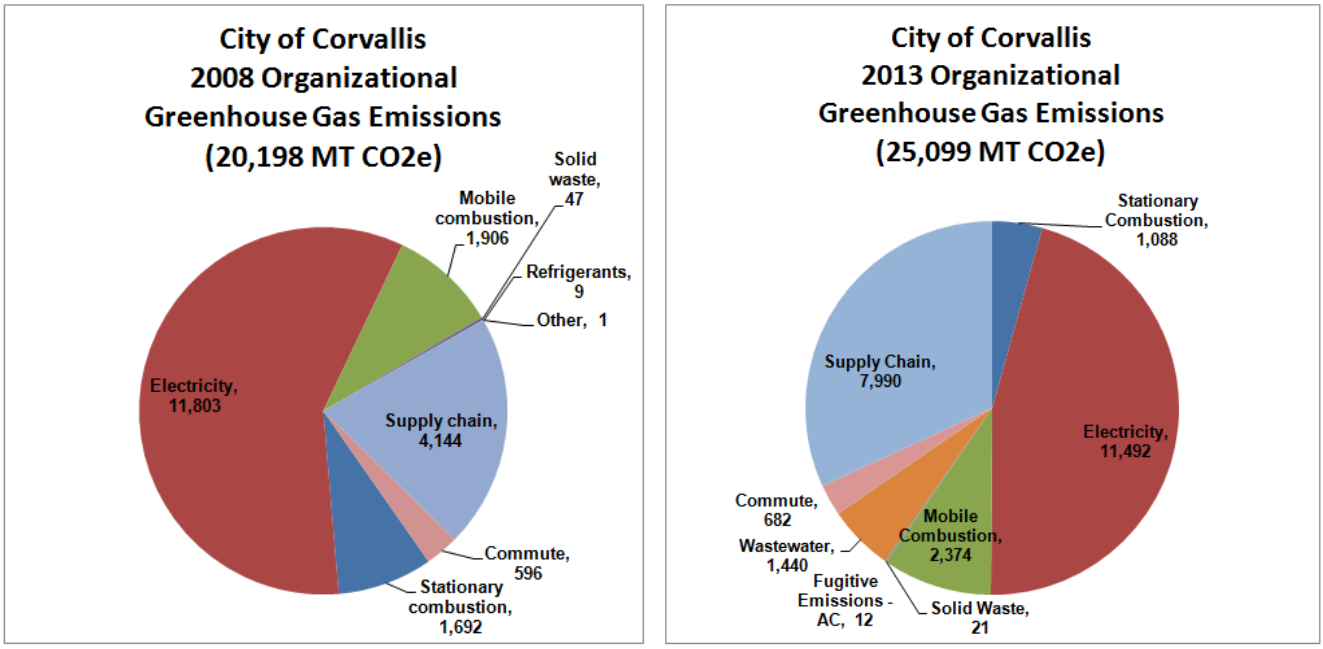

Figure 1. 2008 and 2013 Greenhouse Gas Emissions from City Operations.

Community Greenhouse Gas Inventory:

As noted above, the City of Corvallis conducted a Community Greenhouse Gas Inventory for Corvallis, Oregon for the 2012 calendar year. The city limits serve as the physical boundaries. The inventory was completed under the U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions, a methodology developed by ICLEI – Local Governments for Sustainability and released in October, 2012. Emissions sources included in the inventory cover the broad categories of stationary emissions, electricity, transportation, solid waste, and the emissions associated with household and government consumption of food, goods and services.

Total emissions in 2012 for the Corvallis community are estimated at 1,257,115 MT CO_2e. Figure 2 below summarizes the findings based on the five Basic Emissions Generating Activities plus Household and Government Consumption.

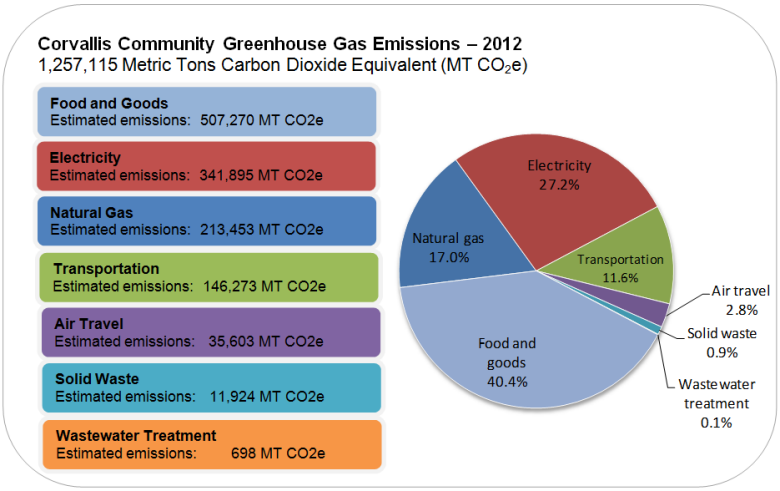

Figure 2. Corvallis Community Greenhouse Gas Emissions--2012

EXISTING PLANS AND POLICIES THAT SUPPORT CLIMATE ACTION:

City of Corvallis:

The City of Corvallis has several adopted long-range plans (or is currently updating existing plans) and/or policies that support actions that already have been implemented to reduce GHG emissions or that will be contemplated in developing the CAP to further mitigate climate change. These plans and policies serve as the existing context for near term actions. And, a review of existing plans and policies relative to newly identified climate change mitigation and adaptation actions will help reveal gaps in agency programs and policies.

The attached spreadsheet, which will ultimately serve as the CAP implementation and tracking tool identifies specific elements of the City's policies and plans that address reductions in greenhouse gas emissions, strategies to seek emissions reductions, and adaptation measures that strive to address the impacts of climate change. Once priority actions are determined and added to the implementation tool, areas where additional policies or enabling ordinances are needed can be identified for future development.

Policies and Plans that are included in the implementation tool to date include:

- Corvallis Comprehensive Plan (1997)
- Energy Conservation Policy
- Organizational Sustainability Policy
- Transportation System Plan (2016)
- Stormwater Master Plan (2002)
- Community Energy Strategy

These policies and plans touch on both community and operational elements in each of the selected categories except Food and Agriculture.

Benton County:

Benton County's work touches on all categories with a broad web of policies, programs, plans, and practices that work to improve public health. For example, in collaboration with the Oregon Health Authority's Public Health Division, Benton County Health Department worked to develop the Climate and Health Adaptation Plan. Using the Centers for Disease Control's five-step Building Resilience Against Climate Effects (BRACE) framework allowed Benton County to provide an overview of local climate change and health projections, and for the development of possible interventions that would allow communities and identified vulnerable populations to adapt to predicted changes.

Benton County provides a broad array of services to the community, and as such they have a long list of policies, plans, and practices employed to address climate change mitigation and adaptation. A summary of those policies and practices will be identified in the public engagement process where many County employees will be included and asked to identify specific policies, plans, and practices and their link to action items in the CAP.

Corvallis Environmental Center:

The Corvallis Environmental Center (CEC) has been a long-time advocate, sponsor, and host for community energy efficiency programs and campaigns. Strong leadership, in partnership with the Corvallis Sustainability Coalition, on the Corvallis Energy Challenge led the way with the first, community-wide, residential energy reduction program in 2008. From 2011-2014, CEC's efforts were integral to the programs funded by the Climate Showcase Community grant from the EPA. The resulting "Energize Corvallis" programs engaged one in ten Corvallis residents and reduced emissions by more than15,000 MT CO_2e. Take Charge Corvallis, Classrooms Take Charge, and Campuses Take Charge are extensions of those programs and have continued to reach more of the community.

Since 2015, the CEC has led the effort behind the Corvallis community competing for the $5 million Georgetown University Energy Prize, continuing to motivate the community to find innovative ways to save energy.

Corvallis Sustainability Coalition:

The Corvallis Sustainability Coalition (Coalition) has been vital in gaining momentum around sustainability issues since its inception in 2007. They have twelve Action Teams working in specific areas of sustainability:

- Community Inclusion
- Economic Vitality
- Education
- Energy
- Food
- Health & Human Services
- Housing
- Land Use
- Natural Areas
- Transportation
- Waste Prevention
- Water

These Action Teams rely on volunteers with interest or expertise in a particular area to advance the community towards the Coalition's goals for that area. Each Action Team is guided by goals documented in the *2013 Framework for Action*, developed through an inclusive, community-wide initiative involving a broad cross-section of the community. For example, the Coalition has two goals related to water that the Water Action Team pursues. One of those goals seeks, by 2050, to reduce the quantity of water flowing through the Corvallis municipal water systems by 50% compared to 2008 levels. Specific strategies and actions identified in the *Framework for Action* guide the direction of those reduction efforts.

The efforts of the Coalition's Action Teams began in 2008 with the first iteration of the *Framework for Action*, called the *2008 Action Plan.* Insight into the types of programs and their effectiveness will come as the public engagement process proceeds, as many members of the Action Teams have been identified as possible Task Team members or Reviewers.

Climate Action Plan for Corvallis, Oregon 2015 (Developed by a citizen/community task force):

The Climate Action Plan, prepared by a citizen group called the Corvallis Climate Action Plan Task Force (which should not be confused with the City Council-appointed Climate Action Task Force that is overseeing preparation of the City of Corvallis Climate Action Plan), strives to offer direction and focus for the entire community to address climate change and its impacts. The report prepared by community volunteers puts forth a considerable list of existing programs and recommended potential partners and programs, which will be considered by the City in developing the Corvallis organizational and community CAP. The following excerpts from the community CAP include lists of existing and potential programs and partners, organized in the same categories that will be used in the Corvallis CAP.

Buildings and Energy:

Numerous organizations are working to increase energy efficiency and reduce greenhouse gas emissions in Corvallis. Corvallis residents and businesses can also take advantage of efficiency incentives from the City of Corvallis (low flow toilet rebates), the federal government and State of Oregon (tax credits), local utilities, and the Energy Trust of Oregon. Other efforts underway include:

- Corvallis Environmental Center programs: Communities Take Charge, Classrooms Take Charge, Clean Energy Works
- Direct installation of energy saving or renewable energy producing products by local businesses
- Community Services Consortium Home Weatherization Program
- Oregon State University is implementing its Climate Action Plan to reduce GHG emissions from university buildings and operations
- Solar installations: municipal (Blue Sky grants), household (tax credits, ETO incentives, third party financial plans), community (Seeds for the Sol – local investment opportunity)
- Green Street Loans from Umpqua Bank
- Trade Ally contractors working with the Energy Trust of Oregon
- Georgetown University Energy Prize competition 2015-2016

Food and Agriculture:

Many organizations and community groups are working to increase local food production and consumption, support organic gardening and farming, and develop regionally adapted seeds. For example, the Corvallis Sustainability Coalition's Food Action Team organizes an annual Local Eats Week and several edible front-yard garden tours. The Edible Corvallis Initiative also helps local schools source more locally grown fruit and vegetables for students. The City of Corvallis recently lowered the regulatory barriers to urban food production by reforming some of its zoning code. The list of existing efforts is too long to comprehensively describe, but here is a partial list:

- OSU Extension Service provides Master Gardener education, organizes educational gardening events, provides resources for land management of small acreages, and supports local, regional and farm-direct marketing among other efforts.
- Benton County Health Department is partnering with emergency food providers and other community groups to strategically plan for a South Corvallis Food Center.
- Corvallis Sustainability Coalition Food Action Team organizes an annual Local Eats Week and several edible front-yard garden tours, and annually publishes the Corvallis Garden Resource Guide.

- Farm-to-School/Edible Corvallis Initiative introduced tasting tables to Corvallis elementary schools where students get a taste of locally grown fruits and vegetables.
- Farmers' markets
- Local food initiatives at Grocery Stores
- Food pantries, meal sites, and SNAP (Food Stamps)
- Gleaners groups
- Granges
- Slow Food Corvallis
- Small Farms Program
- Southern Willamette Valley Bean & Grain Project is rebuilding the local food system by stimulating the cultivation and local marketing of organically grown staple crops like beans and grains to provide a foundation for year-round food resources in the Willamette Valley.
- Women, Infants and Children (WIC) Office and Clinic

Land Use and Transportation:

A number of government agencies, business, and non-profit organizations are working to reduce the community's dependency on fossil fuels for transportation. For years Corvallis has developed and implemented land use regulations, such as the state required Urban Growth Boundary, which facilitate compact growth and reduce transportation demand. The community has nationally recognized mass transit and bicycle infrastructure systems that decrease dependence on single occupancy vehicles. City staff works with national and local alternate modes advocates to develop more active transportation infrastructure:

- League of American Bicyclists
- Oregon Department of Transportation's Bicycle and Pedestrian Program
- Cascades West RideShare
- Bicycle Transportation Alliance
- Corvallis Bicycle Collective
- Mid-Valley Bike Club

With broad community input, the Corvallis Sustainability Coalition's Land Use Action Team established four goals to support a sustainable, compact city: walkable, mixed-use, diverse neighborhoods; easy access to diverse natural areas; green building practices; and increased access to locally owned and produced foods and goods while protecting resource lands, quality of life, and the environment. The Land Use team worked with local community volunteers to complete a citywide inventory of neighborhood amenities, walkability, and bikability and created a series of maps to help identify current conditions and opportunities to improve non-auto access to common amenities. The team is currently working with partner organizations to conduct a review of local land use codes to identify changes necessary to achieve more walkable, mixed-use neighborhoods, functioning neighborhood centers, and a vibrant downtown.

Consumption and Solid Waste:

The City of Corvallis participates in Benton County's Solid Waste Advisory Council (SWAC), a State mandated board comprised of local officials and citizens who represent various areas throughout Benton County. The SWAC is an advisory committee for the Benton County Board of Commissioners on all solid waste issues for Benton County. The Corvallis Sustainability Coalition's Waste Prevention Action Team also has set goals and

accomplished much in the area of waste reduction. The Team works in partnership with Republic Services, Corvallis' provider of garbage, recycling and organics collection and services. The Waste Prevention Action Team has helped to implement the following programs:

- Curbside collection of compost in yard debris bins
- Recycling block captain program
- Reuse directory
- Repair fairs
- Faith Community Education

Oregon State University (OSU) Campus Recycling manages a comprehensive waste management system that focuses on reducing, reusing and recycling with disposal as a last resort. Campus Recycling is also actively engaged in outreach activities. Campus Recycling works with Republic Services to offer Master Recycler classes and has a variety of other programs and challenges, such as Waste Watchers volunteers, Repair Fairs, the Recycle Mania Civil War, the Residence Hall Move-Out Donation Drive, and the Coffee Cup Coup Campaign.

Health and Social Services:

Numerous organizations in Corvallis and Benton County are working to address health and social service needs related to climate change. Following are some of those that have taken the lead in addressing social inequities that may be exacerbated by the effects of climate change:

- Benton County Health Department
- Benton Habitat for Humanity
- Cascades West Rideshare
- City of Corvallis Transportation Options Program
- Community Services Consortium
- Corvallis Environmental Center (Edible Corvallis Initiative and Energize Corvallis)
- Corvallis Sustainability Coalition
- Healthy Aging Coalition
- Housing First (formerly Corvallis Homeless Shelter Coalition)
- Linn-Benton Food Share
- Linn-Benton Health Equity Alliance
- Mid-Valley Health Care Advocates
- South Corvallis Food Bank
- Willamette Neighborhood Housing Services

Urban Natural Resources:

The City of Corvallis collaborates with other public agencies to conserve and responsibly manage the natural resources within its purview, including the Benton Soil and Water Conservation District, OSU-Benton County Extension Service, U.S. Forest Service, U.S. Fish and Wildlife Service, Oregon Department of State Lands, Oregon Department of Fish and Wildlife and Oregon Department of Environmental Quality. The City has completed a number of resource inventories and natural resource plans to preserve the quality of its natural resources:

- Natural Features Inventories throughout the Corvallis Urban Growth Boundary (2003)
- Corvallis Forest Stewardship Plan (2006)
- Urban Forestry Management Plan (2009)

- Understory Vegetation Baseline Monitoring in the City of Corvallis Rock Creek Watershed (2010)
- Corvallis Forest Natural Resources Inventory (2010)
- Parks and Recreation Master Plan (2013)

Non-profit organizations also work to conserve native species and habitats in the Corvallis area through restoration, research and education. These include:

- Greenbelt Land Trust
- Native Plant Society of Oregon
- Institute for Applied Ecology
- Marys River Watershed Council
- Marys Peak Group Sierra Club
- Audubon Society of Corvallis
- Neighborhood Naturalist
- Chintimini Wildlife Center

CONCLUSIONS:

The Corvallis community's achievements in energy efficiency, climate change awareness, and strategies to achieve renewable energy development reflect strategic planning and strong, collaborative efforts of City government, residents, non-profits, businesses, and educational institutions. These serve as a foundation for the City's development of future strategies and actions to mitigate climate change and to prepare the community to adapt and be resilient to imminent changes in the climate and local natural systems and infrastructure.

As noted above, this document and the associated CAP implementation tool will be further developed as the Task Team representatives provide additional information, and as the public engagement process continues. It will be updated with the efforts, policies, plans, and programs of many more organizations that will play a role in CAP development.