CITY OF SALEM

555 Liberty St SE
Salem, OR 97301

Revisions to the Agenda #2

City Council

Tuesday, February 18, 2020 6:45 PM Council Chambers

City Council Work Session - Council Policy Agenda
****The work session will begin immediately following the Signing Ceremony for the Memorandum of Understanding between the Confederated Tribes of the Grand Ronde and the City of Salem****

2.a. 20-20 2020 Policy Agenda.

Ward(s): All Wards
Councilor(s): All Councilors
Neighborhood(s): All Neighborhoods
Result Area(s): Good Governance; Natural Environment Stewardship; Safe Community; Safe, Reliable and Efficient Infrastructure; Strong and Diverse Economy; Welcoming and Livable Community.

Revision - Revised Climate Actions Audit Report.
The revision pertains to a correction that was made on page 25 of the report.

CITY OF Salem
AT YOUR SERVICE

CLIMATE ACTIONS AUDIT

February 2020

Climate change is like an imminent car crash.

Mitigation is the brakes – it will reduce the magnitude of the impact.

Adaptation is the airbags – it will soften the blow.

We need BOTH to survive the crash intact.

(Boswell, Adrienne, & Seale, 2019)

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Abbreviations used in Climate Actions Audit

ADU ..... **Accessory Dwelling Unit**
APP ..... **Administrative Procedures and Policy**
CAP ..... **Climate Action Plan**
CIP ..... **Capital Improvement Plan**
CO2 ..... **Carbon Dioxide**
CO2e ..... **Carbon Dioxide equivalent**
CPSMP ..... **Comprehensive Parks System Master Plan**
EAP ..... **Environmental Action Plan**
EECBG ..... **Energy Efficient Conservation Block Grant**
EVs ..... **Electric Vehicles**
FOG ..... **Fats, Oil, and Grease**
GHG ..... **Greenhouse Gas**
GSI ..... **Green Stormwater Infrastructure**
HPS ..... **High Pressure Sodium**
ICLEI ..... **International Council for Local Environmental Initiatives**
IPCC ..... **Intergovernmental Panel on Climate Change**
IPM ..... **Integrated Pest Management Plan**
LED ..... **Light-Emitting Diode**
NHMP ..... **Natural Hazard Mitigation Plan**
OWRD ..... **Oregon Water Resources Department**
PCC ..... **Pacific Coast Collaborative**
PPS ..... **Portland Bureau of Planning and Sustainability**
PBOT ..... **Portland Bureau of Transportation**
UNEP ..... **United Nations Environment Programme**
VMT ..... **Vehicle Miles Traveled**
WMCP ..... **Water Management and Conservation Plan**
WMO ..... **World Meteorological Association**

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Executive Summary

This Climate Actions Audit documents the City of Salem's work over the past decade (2010-present) to reduce Greenhouse Gas (GHG) emissions through City projects, practices, programs, and plans. In addition to the inventory of actions, this report includes an in-depth review of adopted Climate Action Plans (CAPs) of 12 other cities, identifies necessary elements for a Salem-specific CAP, and recommends steps for the City to undertake in developing a CAP.

In order to determine where the City of Salem actions and policies stand with respect to cities that have adopted CAPs, a comparison was undertaken. Each adopted CAP and City of Salem planning/technical document was scored using the same rubric to ensure consistency. This comparison shows that Salem has completed 26 percent of actions and policies found within other adopted CAPs. Salem does not have a sole environmental plan, so the actions and policies are found within eleven planning and technical documents.

Areas where Salem is progressing comparable to other climate action cities include: non-motorized transport, green spaces, clean power and water infrastructure. Highlighted City of Salem actions include: improved park connectivity, energy use reduction at city buildings, increased mixed-use zoning opportunities and City of Salem's transition to renewable sources of energy (The City of Salem, 2019). Areas where Salem's actions and policies are lagging include: building quality, parking restrictions, mass transit, electric vehicle (EV) infrastructure and encouraging local renewable energy production.

This Climate Actions Audit contains five recommendations which are expanded upon in the *Recommendations* section:

1. Develop a Salem-specific Climate Action Plan (CAP).
2. Use Salem's 2019 Community Greenhouse Gas Inventory to set targets for emissions reduction.
3. Coordinate with *Our Salem* Comprehensive Plan development to ensure CAP actions and policies are incorporated into the forthcoming comprehensive plan.
4. Assess the feasibility of Salem joining the International Council for Local Environmental Initiatives - Local Governments for Sustainability, an international organization for local and regional governments committed to sustainable urban development.
5. Explore funding a new staff position of Sustainability Coordinator.

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Introduction

Climate action planning is a strategic planning process for developing policies, programs and actions for reducing (or mitigating) a community's GHG emissions and adapting to the impacts of climate change (Boswell, Adrienne, & Seale, 2019). CAPs are comprehensive roadmaps that outline the specific actions that a community will undertake to reduce GHG emissions and adapt to the effects of climate change (Institute for Local Government, 2015).

In preparation for developing a CAP, the City of Salem conducted this comprehensive Climate Actions Audit to identify completed actions, ongoing practices, and adopted plans that address climate change. Much of the work by the City has been incorporated into routine maintenance and operating practices, constructed as capital improvement projects, integrated into adopted comprehensive plans, or incorporated in the Salem Revised Code.

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Purpose of Climate Action Audit

The purpose of this Climate Actions Audit is twofold. First, this effort reviews and documents the Salem's actions—projects, practices, programs, and plans—established over the past decade (2010 to present) aimed at mitigating and adapting to the effects of climate change. As part of this review, the audit compares the City of Salem's completed actions to actions contained in other adopted municipal climate action plans.

Second, the Climate Actions Audit lays the foundation for drafting a Salem-specific Climate Action Plan. It does so by describing the necessary contents of a climate action plan, and then ascertaining current actions that need to be documented and identifying new elements that need to be incorporated in the plan.

This report is organized into five sections:

I. Review of existing environmental action planning framework.
II. Review of adopted municipal Climate Action Plans.
III. List of necessary and recommended elements for a Salem-specific Climate Action Plan.
IV. An inventory of Salem's implemented climate actions over the past decade.
V. Recommendations moving forward.

VI. Review of existing environmental action planning framework.

In order to understand the City of Salem's environmental action progress over the past decade, it is important to identify the actions and policies found within the City's environmental action planning work. Eleven core plans were identified and reviewed as part of this process. A brief description of each plan is located within this section, with a comprehensive list of environmental actions, documents, and policies located in Appendix C.

Salem Community Greenhouse Gas (GHG) Emissions Inventory (2019)

The *Community Greenhouse Gas Inventory*, completed in 2019, is the most recent environmental planning document of the City of Salem. The purpose of the inventory was to measure the community's impact on the environment. The 2016 data used for the inventory was gathered from federal, state, and local sources, including private utilities. This inventory does not include GHG emissions related to the consumption of goods within Salem's city limits that originated elsewhere. The inventory spans six emissions source categories:

1. Mobile emissions;
2. Stationary combustion;
3. Water and wastewater;
4. Electricity generation;

5. Agriculture and urban forestry; and
6. Waste generation.

In 2016, the City of Salem's residents, businesses, employees, and visitors produced 1,553,573 metric tons of CO2 equivalent (CO2e). This equates to roughly 9.59 metric tons of CO2e per capita. Of the six emissions source categories surveyed, mobile emissions made up over half (53 percent) of the CO2e produced. Electricity generation comprised over one quarter of all emissions, while residential and commercial fuel combustion was the third largest contributor at 16 percent. The GHG inventory can help City leaders set emission reduction goals and track progress, and can be used in the preparation of a Salem-specific CAP.

Environmental Action Plan (2011)

The City's *Environmental Action Plan* (EAP) provides a roadmap for conserving resources, preventing pollution, and improving the sustainability efforts for municipal corporation operations. The EAP contains actions from six broad categories:

1. Energy (electricity and natural gas);
2. Energy (fuel);
3. Drinking Water;
4. Stormwater;
5. Solid Waste; and
6. Parks and Open Space.

Each category contains goals, objectives (measurable metrics), and actions. Over 50 short- and long-term actions were identified in the plan, many of which have been accomplished as of late 2019. The EAP has not been updated since August 2011.

Another document that came out of the EAP process is the Administrative Procedures and Policy (APP) # 3.11: Sustainable Business Practices. APP # 3.11 sought to advance sustainability performance in the City by establishing guidelines for City operations and purchasing practices. APP #3.11 has not been updated since 2011.

Salem Community Energy Strategy (2010)

The *Salem Community Energy Strategy* (Strategy) serves as a road map for community-wide energy savings. It includes both short- and long-term goals, objectives, and actions that both the City and community can take to reduce GHG emissions, improve energy efficiency, and incorporate renewable energy into Salem area projects. This strategy was created and published in 2010 in conjunction with the City's award of a $1.5 million grant through the U.S. Department of Energy's Energy Efficient Conservation Block Grant (EECBG) program. The EECBG grant required recipients to develop an Energy Strategy to reduce fossil fuel emissions and reduce total energy consumption and create "green jobs." The Strategy has five goals, each goal having both short- and long-term actions:

1. Improve energy efficiency in buildings community wide.
2. Increase renewable energy used or produced by Salem residents and businesses, while decreasing total energy consumption.

3. Create and support a viable and diverse transportation network that focuses on moving people.
4. Position Salem as a leader in sustainable industry.
5. Conduct a public participation program that engages the community and communicates the value of energy saving and community wide GHG reduction.

Salem Comprehensive Policies Plan (2015)

The *Salem Comprehensive Policies Plan* is the longrange policy document for guiding development in the Salem urban area. The objective of the Goals and Policies section of this plan is to ensure orderly and efficient development to meet the community's future needs. Within this document, there are policies within the following categories:

- General
- Housing
- Economy and Employment
- Public Services and Facilities
- Natural Resources

The *Salem Comprehensive Policies Plan* is currently being updated through the *Our Salem* process.

Comprehensive Park System Master Plan Update (2013)

The *Comprehensive Parks System Master Plan* (CPSMP) identifies the goals, policies, and recommendations, and contains an implementation plan to guide park acquisition and development in the City of Salem through 2035. The CPSMP encourages open spaces, active community, and integration of nature into the built environment. The City established four primary goals, each with several supporting policies, to guide the planning, development, and operation of the parks system. The four primary goals are:

1. Provide efficient park services by acquiring, developing, and maintaining a system that fairly serves the park needs of all residents.
2. Provide high-quality recreational programs and facilities throughout the community that provide fun, educational, accessible, and safe environments for people of all ages, abilities, backgrounds, and income levels.
3. Provide a citywide park system that can be accessed by a variety of transportation modes.
4. Develop cost-effective and efficient methods of acquiring, developing, operating, and maintaining park facilities to support the city's existing and future needs.

Community Forestry Strategic Plan (2014)

In 2013, Public Works investigated ways to improve the City's community forest, with an emphasis on non-regulatory approaches and incentives. An advisory committee was formed to prepare a strategic plan for protecting, enhancing, and increasing the tree canopy in Salem, and to recommend a realistic tree canopy goal for Salem. The resulting *Community Forestry Strategic Plan* was adopted by City Council in August 2013 and published in January 2014. The *Community Forestry Strategic Plan* contains six goals and establishes specific actions, priorities, and partnerships to achieve the goals:

1. Protect, increase, and enhance Salem's tree canopy.
2. Increase education and outreach about tree benefits, community forestry program, tree regulations, and incentives.
3. Develop support at political, management, and public levels.
4. Improve City coordination, communication, and codes related to trees.
5. Develop and implement a Community Forestry Management Plan.
6. Establish stable funding for a Community Forestry Program.

Water Management and Conservation Plan (2014)

The *Water Management and Conservation Plan* (WMCP) guides development, financing, and implementation of water management and conservation programs to ensure sustainable water use by the City, while considering the City's future water needs. The WMCP was required by condition in the final order issued by the Oregon Water Resources Department (OWRD). OWRD's WMCP rules require municipal water providers to have five-year benchmarks for initiating or expanding conservation measures related to required conservation programs. Salem's benchmarks include:

- Annual water audit;
- System-wide monitoring;
- Meter testing and maintenance;
- Water rate structure;
- Leak detection program; and
- Public education.

Stormwater Design Handbook (2014)

Although not designated as a City planning document, the *Stormwater Design Handbook for Developers and Large Projects* provides information on Green Stormwater Infrastructure (GSI) requirements and methods for projects with 10,000 square feet or more of impervious surface. The handbook contains information relating to: site assessment and planning; stormwater facility selection; engineering for facility sizing and design; construction; and operations and maintenance.

Green stormwater infrastructure mimics natural hydrology and reduces stormwater runoff volumes through interception, infiltration, evapotranspiration, and/or stormwater reuse. Through GSI, water quality and stream habitat are better protected from the adverse impacts of stormwater runoff when compared to traditional stormwater management techniques. GSI has the added benefit of reducing the risk of flooding.

Salem Transportation System Plan (Updated 2018)

The Salem *Transportation System Plan* (TSP) provides a framework consisting of goals, objectives, and policies that will guide Salem's efforts at achieving mobility through the first third of the 21st century. The TSP describes community investment in future transportation planning programs and infrastructure to meet anticipated travel demands. The TSP is a collection of smaller plan elements that deal specifically with individual modes of travel of the complete transportation system. Below is a list of the elements which comprise the TSP:

- Street System
- Transportation System Management
- Neighborhood Traffic Management
- Local Street Connectivity
- Bicycle System
- Pedestrian System
- Transit System
- Transportation Demand Management
- Parking Management
- Intercity and Commuter Passenger Travel
- Freight Movement
- Transportation System Maintenance
- Long-range Transportation Strategy

Each TSP element has a specific goal with multiple policies supporting each goal. A complete list of the goals and their accompanying policies can be found in Appendix C.

Natural Hazard Mitigation Plan (2017)

The *Natural Hazard Mitigation Plan* (NHMP) helps prepare the City for the long-term effects resulting from natural disasters. The NHMP is intended to assist Salem to reduce the risk from natural hazards by identifying resources, information, and strategies for risk reduction. It is also intended to guide and coordinate risk mitigation activities throughout the city. This document was prepared for City of Salem Emergency Management by the University of Oregon Community Service Center and Oregon Partnership for Disaster Reliance. This plan is updated every five years to maintain Federal Emergency Management Agency compliance.

Capital Improvement Plan (CIP)

Salem's capital improvement plan (CIP) is a five-year forecast that identifies major (capital) projects requiring the use of public funds over and above routine annual operating expenses. A capital project creates, improves, replaces, repairs, or permanently adds to City assets including: land, site improvements, parks, buildings, streets, bike paths, bridges, utility improvements, major equipment, computer hardware, and communication systems purchases. Only projects with an identified and real funding source are included in the CIP. Other needs, such as City buildings and parks, without a funding source are listed in their respective infrastructure systems plans but excluded from the CIP. Many emission-reducing projects have been completed in the past 10 years.

VII. Review of adopted municipal Climate Action Plans (CAPs).

Over the last 10 years, the field of climate action planning has intensified. Cities of all sizes are producing good quality, achievable, and comprehensive CAPs. This section summarizes findings following a review of adopted municipal Climate Action Plans (CAPs) of 12 cities. The purpose of this review is to understand what common elements are prevalent throughout CAPs and the processes behind the development of these plans. This section will describe:

1. CAPs reviewed,
2. Key takeaways and common elements from CAPs review, and
3. Public involvement, comment and adoption processes.

CAPs Reviewed

Seven adopted Oregon CAPs were reviewed: Ashland, Beaverton, Bend, Corvallis, Eugene[1], Milwaukie, and Portland. CAPs from five other cities across the country were chosen for review based on those cities' unique characteristics:

Bellingham, Washington: Bellingham was selected due to its smaller population (90,000), and because it is home to Western Washington University and it is a community at significant risk from climate change (sea level rise). Further, Bellingham was selected because of the way that city separated of municipal-led actions and community-led actions within its CAP.

Boulder, Colorado: Boulder is home to the University of Colorado, has a large commuter population, has initiated a successful tax to fund its CAP, and has creative emission reduction strategies in place.

1 Eugene's CAP 2.0 was presented to City Council in December 2019 but since then has been reopened to allow further public comment and outreach. There is currently no timeline for adoption.

Evanston, Illinois: Evanston has a large commuter base (near Chicago), is home to Northwestern University, and has a strong social-capital building through its CAP development process. Evanston addresses both climate mitigation and adaptation in its thorough, yet concise CAP.

Fort Collins, Colorado: Fort Collins was chosen because of its similar population to Salem, proximity to a large metropolitan area (Denver), home of Colorado State University and its receipt of the C40 international award for its CAP.[2]

Tacoma, Washington: Tacoma has a population slightly larger than Salem, has ambitious goals and strategies, and is near a major city (Seattle). Tacoma's CAP is a user-friendly document. Tacoma is also the home of universities including University of Washington – Tacoma and University of Puget Sound.

To assess the quality of the selected CAPs, each plan was reviewed and scored based on its content and usability. The scoring matrix was established in peer-reviewed literature, (Guyadeen, Thistlethwaite, & Henstra, 2019) and (Deetjen, Conger, Leibowicz, & Webber, 2018), and modified for this audit to take into consideration regional differences and unique State of Oregon land use regulations. The scoring matrix, with each city's score, is in Appendix D, and a summary table showing each city's score is in Appendix E.

Key takeaways and common elements from CAPs Review

Quality CAPs cover mitigation and adaptation goals, policies, and actions.

Climate mitigation is defined as actions intended to reduce or prevent greenhouse gas emissions. Examples of mitigation efforts include increasing renewable energy use, upgrading and replacing equipment to more energy efficient models, and informing consumers so they can better make sustainable decisions. Policy and infrastructure mitigation efforts can include such actions as increasing public transportation, expanding bicycle pathways, and enhancing natural carbon sinks (areas that accumulate and store carbon) such as trees.

Climate adaptation is defined as actions designed to prepare for and adjust to the current and future impacts of climate change. Examples of climate adaptation include increasing energy efficiency to help offset increases in energy consumption due to extreme weather, ensuring the availability of cooling centers in the face of extreme heat events, and upgrading stormwater infrastructure to better withstand extreme rainfall events. Climate mitigation and adaptation strategies can be implemented simultaneously.

CAPs can come in other names or forms or be integrated into comprehensive plans.

Most jurisdictions have a stand-alone CAP, but the content can be also integrated into other planning documents. There are five common types of plans that, either singly or on combination, serve the purpose of climate action planning (Boswell, Adrienne, & Seale, 2019):

1. Climate Action Plans (CAPs): Stand-alone plans that discusses climate change and are based on the local GHG inventory and other climate vulnerability assessments.

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2 The C40 Cities Bloomberg Philanthropies Awards are granted in seven categories and provide global recognition for cities that are demonstrating climate action leadership. Information available at: www.c40.org/awards.

2. Sustainability and "Green Plans": Plans that address a variety of environmental issues while also including one or more sections specific to climate actions.
3. Energy Plans: Plans that focus on energy efficiency and conservation, but often touch on the energy saving's impact on climate change.
4. Adaptation and Resilience Plans: Plans that focus on preparing for and adapting to climate change. These plans often include discussion of natural disaster vulnerabilities (wildfire, sea-level rise, etc.) that can be directly linked to climate change.
5. Comprehensive Plans: Community plans that address all facets of community planning, and generally include a small section on natural environment and/or open spaces.

All plans examined as part of this review were stand-alone CAPs, which is the prevailing trend in climate action planning.

Climate planning is being done on both the global and local scale.

Most CAPs have a section at the outset of the document describing why climate action planning is needed by framing the issue as both a global and local issue. All 12 of the CAPs reviewed describe the current, best available science that validates the proposition that "human influence on the climate system is clear, and recent anthropogenic emissions of GHGs are the highest in history." (Change, 2014).

Global Scale

On the global scale, the United Nations Environment Programme (UNEP) and World Meteorological Organization (WMO) established the Intergovernmental Panel on Climate Change (IPCC). The role of the IPCC is to provide a clear scientific view on the current state of climate change and the associated social and environmental consequences. On a national scale, the U.S. Global Change Research Program releases reports which summarize the impacts of climate change in the United States.

State of Oregon Goals and Framework

On the state level, Oregon House Bill HB 3543[3] set specific, science-based emission reductions goals for the state (State of Oregon, 2018):

- By 2010, arrest the growth of Oregon's greenhouse gas emissions and begin to reduce them (completed);
- By 2020, achieve GHG levels that are 10% below 1990 levels (not on track); and
- By 2050, achieve GHG levels that are at least 75% below 1990 level (not on track).

The Governor also published Executive Order No. 17-21on Electric Vehicles (EVs) and Building Efficiency[4]:

- The Governor's Executive Order on Electric Vehicles established a goal of 50,000 zero-emissions vehicles in Oregon by 2020 (30,000 today).
- The Governor's Executive Order on Efficiency calls for new state-owned buildings to be

3 Available at: https://olis.leg.state.or.us/liz/2007R1/Downloads/MeasureDocument/HB3543/Introduced.

4 Available at: https://www.oregon.gov/gov/Documents/executive_orders/eo_17-21.pdf

carbon neutral in 2022; all new buildings to be solar ready by 2022; and new residential buildings to "zero energy ready" starting in 2023.

CAPs place an emphasis on community partnerships.

Statistics show that municipal corporation emissions are low compared to the community wide scale. The City of Eugene, Oregon calculated that City emissions account for less than 1 percent of overall emissions (City of Eugene, Oregon, n.d.). Although municipal corporation emissions are relatively small portion of community-wide emissions, planning work done by a local jurisdiction can have a significant influence on land use, transportation opportunities, and energy demand. Most municipal corporations are operating under the ideology of "leading by example" where municipal-led actions in turn promote community-led action. For example, a development code that has parking maximums instead of parking minimums has the potential to decrease the parking footprint of a development, which can increase the area available for parks, green stormwater infrastructure, and tree planting.

CAPs also contain GHG reducing actions over which the municipality has little to no control. Most CAPs reviewed for this report identify opportunities to engage with community partners to help accomplish goals and meet targets. For example, partnerships have been useful for communities that have goals for significant reduction of residential energy consumption. The City of Bend has a simple visual representation for implementation responsibilities (*See Figure 1*). Note that this implementation table does not determine the specific department within the City of Bend and remains vague on purpose. Omitting a specific department allows the Bend flexibility of spreading and sharing departmental responsibility. In addition to flexibility, often the action items do not fall squarely within the purview of a single department and therefore require a multi-department led implementation.

Figure I:
City of Bend Implementation Responsibilities
Source: Bend CCAP, 2019

On the other hand, some of the CAPs assign actions to a specific department to increase accountability, provide clear assignment of responsibility, and show the community which department(s) will be leading the actions. Below is an excerpt from the City of Portland's CAP displaying two agencies, Portland Bureau of Transportation (PBOT) and Portland Bureau of Planning and Sustainability (BPS) are the lead agencies for Action 4X.

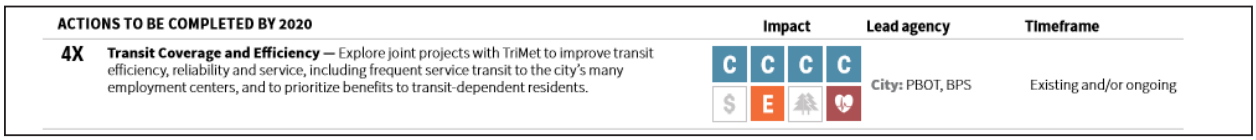

Figure II:
Portland Implementation Agency
Source: Portland CAP, 2015

Cities generally describe past and ongoing actions with commitments to future actions.

Some of the plans reviewed have been through multiple versions, with updates occurring, on average, every five years. The plans always describe ongoing work and work completed since the previous plan was adopted. For a city creating its initial CAP, it is important to show the community what has already been accomplished. Milwaukee, for example, listed its prior emission reduction actions by framing their CAP as "building on a strong foundation."

Oregon cities are leaders in U.S. climate planning.

In our review, the chosen CAPs were evaluated using a 56-criteria protocol. This protocol looks for presence or absence of certain elements, but also includes a scoring scale for the depth and breadth of actions and policies. The evaluation protocol will later be described in greater depth later in this report.

Portland has been developing and implementing climate strategies since the early 1990s and published its first carbon reduction plan in 1993. Portland has partnered with Multnomah County and has revised its CAP three times (2001, 2009 and 2015). Over the 25 years since its initial plan, the city and county's population has grown by 30 percent and its economy by 40 percent while there has been a 40 percent reduction in GHG since 1990 (The Oregonian, 2019). Oregon is unique in that it is not only the large cities that are developing CAPs (national trend), but many smaller cities such as Ashland, Corvallis, and Milwaukie have also developed community-specific CAPs.

CAPs are structured similarly and contain many common elements despite varying geographic, political, and economic pressures.

Climate action plans from 12 different jurisdictions were reviewed as part of the research process. Of the 12 reviewed, seven plans are from Oregon cities and five plans are from other cities around the nation.

In order to identify the common elements of CAPs, a scoring matrix was used to ensure consistency. Most elements are given a score of either 0 (absence) or 1 (presence) for each element. Since the actions and policies are the most important element of any CAP, these are scored on a more rigorous scale to account for the quality and quantity of actions and policies. The actions and policies scoring system is located below in the "Action and Policy Analysis Methodology" section.

Below is a general outline and description of each component consistently found in all CAPs examined.

1. **Introduction**

   The introduction provides a brief description of climate action planning, an outline of the rest of the document, emission reduction goals, and an historical background of emissions related to city actions. The introduction also includes acknowledgements for those who spent significant time in helping to produce the CAP.

2. **Climate science background**

   The background section includes an overview of why climate planning must be done, the science behind climate change, and the impacts of climate change (both global and local).

3. **Plan development**

   This section describes the process of plan development, beginning with any pre-CAP work, including public outreach actions, and continuing through the adoption of the CAP. This section often includes a description of the GHG inventory used to establish the baseline for emission reduction strategies.

4. **How to navigate this document**

   This section explains how the sections are interconnected, how to read graphics, and any other descriptions that would be helpful and applicable to the actions and policies. Important to note that almost every city uses a different way of displaying their proposed actions and therefore it is difficult in this report to pick a "best" approach.

5. **Categories of actions and policies**

   All actions and policies generally found in CAPs are often organized into the five categories below.

   Category 1: Buildings and Energy

   This category generally discusses increasing efficiencies of buildings in order to reduce the energy demanded during construction and operation. Examples of policies to lower energy usage include:

   - Adopt the latest energy codes for new residential and commercial buildings. (Fort Collins)
   - Reward builders who go beyond the efficiency codes with incentives programs. (Fort Collins)
   - Convert streetlights to LED lights. (Bellingham)
   - Encourage using recycled construction materials. (Bellingham)
   - Adopt a commercial and residential energy score program based on the City of Portland's methodology. (Milwaukie)
   - Implement more electric vehicle (EV) charging stations downtown and at multi-family complexes. (Milwaukie)
   - Use results from City Facilities Energy Audit to prioritize City Facilities Capital Improvement Plans and maintenance improvements. (Ashland)

- Encourage heat-tolerant building approaches such as cool roofs and passive cooling. (Ashland)

Category 2: Land Use and Urban Form

This category concerns the layout, density, and zoning of cities and seeks to promote more walkable neighborhoods, provide convenient access to transit/active transportation, and lower the community's carbon footprint. In some CAPs, land use and transportation policies are described together. Some examples of polices of land use and urban form include:

- Promote sidewalk credits in areas outside of pedestrian corridors and redirect funds to areas needing this infrastructure. (Milwaukie)
- Promote "neighborhood hubs" through Comprehensive Plan updates. (Milwaukie)
- Include connectivity as a requirement in new development. (Ashland)
- Revise community development plans to favor walkable neighborhoods and infill density. (Ashland)
- Support changes to state building code to achieve net zero energy consumption in new buildings by 2030. (Beaverton)
- Develop strategies to increase housing density. (Beaverton)
- Increase housing density along transportation corridors and increase housing density due to passage of HB 2001. (Eugene)

Category 3: Transportation and Fuels

Policies within this category seek to shift to more efficient fuels and promote active transportation and transit. Cities often address this category through two lenses: (1) municipal operations; and (2) community actions. The former generally concerns fleet and maintenance activities, whereas the latter is more targeted toward community-wide choices and actions. Some actions within this category include:

Municipal Actions

- Conduct a city fleet audit and use the results to set policies and targets for higher-efficiency vehicles, vehicle-sharing across departments, and out-of-town vehicle use. (Ashland)
- Join the West Coast Electric Fleets at the Highway Lane Level in 2016.[5] (Tacoma)
- Update the city's telecommuting and flexible work schedule to foster increased use when doing so meets city business needs. (Tacoma)
- Convert city and other public agency fleets to electric vehicles or other alternative fuels. (Bend)

5 West Coast Electric Fleets is an initiative of the Pacific Coast Collaborative (PCC) to accelerate a vibrant, low-carbon economy on the West Coast. The organization provides information, technical assistance and implementation resources to demystify zero-emission vehicles for fleet use.

Community Actions

- Develop an Electric Vehicle (EV) readiness plan. (Bend)
- Create a Mobility Hub program to improve access to a wide range of travel options and support multimodal lifestyles. (Bend)
- Update city codes to require electric vehicle charging infrastructure at multifamily and commercial developments. (Beaverton)
- Develop street standards to make streets safer and more welcoming to pedestrians and cyclists. (Beaverton)

Category 4: Consumption and Materials Management

This category describes actions that address emissions created from producing, using, and disposing of a product. Examples within this category include:

- Use warm-mix asphalt, a low-carbon alternative that has become the default asphalt sold in the region. (Eugene)
- Improve recycling at multifamily residences. (Bend)
- Expand use of low-carbon concrete in city projects and new development. (Bend)
- Ensure all city construction and demolition projects recycle waste and use recycled building materials. (Bellingham)
- Provide education and outreach to avoid edible food waste. (Milwaukie)
- Host a share program that allows people to check out items for a short-term use rather than purchasing the item new. (Beaverton)

Category 5: Natural Systems and Community Wellbeing

This category describes actions that are currently underway or will soon to be taken to improve natural systems to help offset the carbon footprint of the community. Natural systems play an important role in decreasing stream pollution, reducing the heat island effect, and providing space for healthy recreation. Often the community wellbeing is combined with natural systems because residents directly reap the benefits of improved green space. Some actions cities are taking include:

- Expand greywater and rainwater collection programs. (Beaverton)
- Enhance street tree strategies to increase water retention and to mitigate heat island effect through increased urban canopy. (Beaverton)
- Adjust design criteria to require on-site stormwater storage and water infiltration before release that meets future conditions. (Milwaukie)
- Remove pavement where possible to encourage stormwater infiltration. (Milwaukie)
- Investigate need and plan for community cooling centers and/or smoke refuge centers. (Eugene)

Actions and Policies Analysis Methodology

It is important to note that this report only contains a brief list of many actions and policies found in reviewed plans. There is a large discrepancy between the quantity and quality of proposed actions across all the plans that were reviewed. In order to quantify their overall quality, each plan was scored and compared to the other reviewed CAPs. Plan action and policy sections were scored for 22 different elements. Table I summarizes the 22 elements, which have been grouped into three different categorical weights (Essential, Priority, and Additional). Each essential policy has nine possible points, each priority policy has six possible points and each additional policy has three possible points. Partial points can be given for each policy. The three policy categories are described below:

1. **Essential Policies:** The exclusion of an essential policy would strongly undermine a climate action plan's success due to the interactions with numerous other polices.
2. **Priority Policies:** The exclusion of a priority policy would limit a climate action plan's effectiveness.
3. **Additional Policies:** Additional policies contribute to climate change mitigation but can be omitted from a climate action plan without significantly impacting broad GHG reduction strategies. These are policies that have trade-offs and/or that can be achieved through essential or priority policies.

Table I: **Policy Categorization**
Source: (Deetjen, Conger, Leibowicz, & Webber, 2018)

Essential	Priority	Additional
Building Quality	Mass Transit	Green Spaces
Parking Restrictions	Automobile Independence	Architectural Form
Dense Development	Non-motorized Transport	Direct Energy Systems
	Mixed Land Use Zoning	Vehicle Electrification
	Regional Planning	Clean Power Sector
	Strategic Growth	Local Renewables
	Transparent Assessment	Water Infrastructure
	Consumption-based Analysis	Solid Waste Emissions
	Consumer Habits	
	Appliance Efficiency	
	Smart Grid Management	

A complete scoresheet for the reviewed plans in in Appendix D.

6. **Next Steps**

   This section describes the next steps moving forward and how often the plan will be revisited/updated, and sources consulted.

7. **Supporting Information**

   Formatting and location within a report will vary, but supporting information can include references, sources consulted, a list of abbreviations, and a glossary of terms.

8. **Appendix**

   All CAPs have appendices. This section generally includes: (1) GHG emission inventory, (2) public engagement process overview and results, (3) glossary, (4) equity analysis, (5) risk and vulnerability assessment, (6) funding and financing studies, (7) acknowledgements, and (8) low priority strategies and actions. This is a comprehensive list of all appendices combined, no single plan contains all these documents as its complete appendix.

Public Involvement and Adoption Processes

While conducting a review of the 12 adopted municipal CAPs, the public involvement and adoption processes were also documented.

Often the first step of adopting a climate action plan is to have the city's mayor or highest representative sign a climate agreement or pact to reduce the emissions within their community. It is not imperative that a city take this action, but doing so indicates to the city staff, other elected officials, and the broader community that the city is taking actions to reducing its emissions. Another key step is to pass a resolution or ordinance that indicates the city shall work to lower its emissions. This resolution or ordinance comes in two main forms:

1. Include reduction targets. (Eugene, Boulder, Bend)
2. Do not include reduction targets, but more generalized statement that city will work toward reducing community emissions. (Corvallis)

After the resolution or ordinance is adopted, the city then sets the emission reduction goal(s) (if not defined in the ordinance) and begins work on developing the CAP. *Table II* below describes the public involvement, adoption process, and resident involvement in each jurisdiction examined.

Over the last two years, many cities across the country (including in Oregon) have gone a step further and declared a "climate emergency." A "climate emergency" ordinance or declaration puts the local government on record as supporting immediate and swift action to help reduce carbon emissions to curb global warming. In the northwest, Eugene, Milwaukie, Portland, Tacoma and Seattle all have such emergency declarations. All the northwest cities that have adopted a "climate emergency" ordinance or declaration did so after adopting other ordinances/plans and not as the initial step in emission reduction.

Table II: Public Involvement and Adoption Processes

Jurisdiction	Public Involvement	Adoption Process
Ashland	○ 3 open houses ○ 2 workshops ○ Stakeholder interviews ○ Online surveys	○ Adopted by Council with a unanimous vote. ○ Process guided by the Climate & Energy Action Plan ad-hoc Committee. • Met 1st and 3rd Wednesdays of every month.
Beaverton	○ Online surveys	○ Was adopted by City Council with a unanimous vote. (Nov. 2019). • Agenda Bill #19274 • Resolution #4610
Bellingham	○ Not available	○ Unanimously passed initial CAP in 2005. ○ City created a CAP Task Force in 2018. • Resolution 2018-06 • Meet once monthly (ongoing)
Bend	○ 2 online surveys (2,400 responses) ○ 30 presentations to community groups ○ 40 stakeholder interviews	○ 13-person Climate Action steering committee to develop strategies and actions for the plan. ○ Reduction goals were passed by Resolution 3044, steering committee's role was to draft the plan to reach the goals.
Boulder	○ 655 survey responses ○ 29 presentations to community ○ 15, 90-minute facilitated community dialogues ○ 4, 90-minute focus groups	○ Climate Commitment was unanimously adopted by city council. ○ Climate tax to fund projects was voter approved.
Corvallis	○ 3 public outreach sessions	○ Council adopted Climate Action Goal, which included implementation of a comprehensive, long-term climate action plan to reduce GHGs. ○ Council appointed task force to develop the plan.

Jurisdiction	Public Involvement	Adoption Process
Eugene	○ Engagement with stakeholders ○ Equity panel (10 meetings) • 6 community groups ○ Two open houses ○ Participated in city's project planning fair.	○ Passed a Climate Recovery Ordinance which set goals that must be achieved by certain years. The CAP is how the goals will be achieved. ○ Project plan was developed in consultation with the Mayor's Ad Hoc Climate Recovery Ordinance Work Group in 2017. ○ Work group set a vision for CAP to be the roadmap the community will take over the next 5-10 years to help Eugene reach community climate goals.
Evanston	○ Not available	○ Goals established by 17-member community working group. Met over a dozen times as a whole task force, and often in smaller groups. ○ Signed the US Mayors Climate Protection Agreement in 2005.
Fort Collins	○ Not available	○ Resolution 2014-028 established the need for an ad hoc advisory committee to develop a CAP for achieving a community wide GHG Emission reduction goal of 80% with respect to 2005 level by 2030. ○ Established a 23-person Citizen Advisory Committee in conjunction with staff and experts.
Milwaukie	○ Climate action fair ○ Community town hall ○ Spanish-language focus group ○ Online survey ○ 6 workshops with partners	○ Formation of climate action plan committee composed of residents and partners to advise the project team through process.

Jurisdiction	Public Involvement	Adoption Process
Portland	○ Open houses ○ Surveys ○ Workshops ○ Focus Groups ○ Extensive community outreach	○ Portland and the County established two working groups, a Steering Committee and an Equity Working Group in additional to several ad hoc technical working groups. ○ Steering committee – 20 members, met for two years until adoption of CAP. ○ Equity working group – participants from six local community organizations focused on advancing equity.
Tacoma	○ Public open house ○ Online survey	○ Council adopted resolution 39427 pledging to provide guidance and investment to meet the target goals for this plan. ○ Input from advisory committee, stakeholders, Tacoma sustainability commissions and general public.

Climate action planning is a quickly growing practice at the city level around the nation. CAPs are the most common document for such planning, albeit the same content can be found in different titled plans based on local government choice. The content of CAPs remains consistent even though there can be significant difference in the internal organization of CAPs themselves. The process of adoption remains common across the jurisdictions, with some differences of how the emissions reduction goals are set, which can be either by ordinance or through adoption of the plan that contains the emission reduction goal.

III. Recommended elements for a Salem-specific Climate Action Plan (CAP).

Informed by a review of leading CAPs, a summary of recommended elements is provided below. The comprehensive list of recommended elements is in Appendix B.

Fact Base (Baseline)

This section describes the scientific evidence behind climate change, the current state of emissions in the community, and specific vulnerable groups and locations within the city.

Goals

In this section, the City of Salem should establish measurable goals to assess progress. Goals should be both short- and long-term and should address both mitigation and adaptation.

Actions and Policies

This section is the core of a CAP. The actions and policies are to be implemented to assist the community in meeting the goals of the CAP. The five broad categories generally covered are:

Category 1: Buildings and Energy

Category 2: Land Use and Urban Form

Category 3: Transportation and Fuels

Category 4: Consumption and Materials Management, and

Category 5: Natural Systems and Community Wellbeing.

Implementation

The implementation section prioritizes actions and policies on an established timeline. Based on the review of the 12 climate action plans, most cities use a structure that includes short-term, mid-term, and long-term implementation instead of specific dates.

Monitoring and Evaluation

This section is one of the most important elements within CAPs. Under this section, there should be a plan for periodic monitoring and evaluation by the parties responsible for each action and policy. This is also where the city should provide a timeframe for plan updates and revisions.

Intra- and Inter-Organizational Coordination

The City of Salem has many plans in place that already address policies and actions typically contained in a CAP. Due to the overlap, it is vital to coordinate the CAP with the current policies and actions already in effect. One unique area where there should be significant coordination is with the development of *Our Salem*. Salem's goals and actions should also be consistent with relevant state and federal regulations and goals (e.g., State of Oregon GHG reduction goals).

Participation

This element should describe the public participation and outreach process that went into creating the CAP. Adopted CAPs generally have a brief description of the process, with the public participation plan and other outreach material included as an appendix.

Organization and Presentation

This element concerns the stylistic elements of the CAP. Adopted CAPs all contain an executive summary, table of contents, and graphics. Helpful for readers—but not included in all 12 CAPs reviewed—would be a glossary of terms and a list of abbreviations and acronyms.

Appendix J provides an outline of what a CAP could include for the City of Salem.

IV. Inventory of Salem's implemented climate actions over the past decade.

Although the City of Salem does not have a formalized CAP, the City has taken actions and implemented policies over the past decade that have been directly targeted at, or have had the co-benefit of reducing its GHG emissions. In order to determine completed and ongoing actions, roughly twenty interviews were conducted with City staff in various departments to understand actions each department has taken. The City of Salem's completed actions and policies in place were compared to completed actions and policies in places of other jurisdictions for assessing where the City stands in its climate action progress. The City of Salem has completed, or has in place, 26 percent of recommended actions and policies for CAPs (see Appendix D).

A brief list of highlighted completed actions is provided below, and a complete list of all actions is in Appendix A.

Table III: Highlighted Completed Environmental Actions

Category 1: Buildings and Energy	• Marion County Earthwise Certification[6] for all city facilities. • Civic center electricity consumption reduced 47 percent over last 10 years. • All new city facilities built to LEED Silver Standard.[7] • Shift to natural daylighting as part of retrofit projects. • City of Salem's participation in Green Future Impact program to boost the City's renewable energy by 60 percent. By end of 2021, 80 percent of the energy that powers city operations will come from renewable sources. City of Salem also participates in PGE's Clean Wind Program. • Conversion of streetlights and signals from High Pressure Sodium (HPS) to more energy efficient LED lights. • Wastewater Treatment Plant improvements to continue using clean, renewable energy from biogas to provide power for plant operations. Once completed, the facility will be able to produce up to 1,200 kW of electricity, which is about 50 percent of the electricity needed to operate the plant for a year, or enough to power over 900 homes.

6 EarthWISE Certification recognizes businesses in Marion County that have made a commitment to environmentally friendly practices. Businesses that immediately or over time meet pre-established criteria in the EarthWISE focus areas will earn the EarthWISE Certification. These businesses will receive public recognition for their green practices.

7 Leadership in Energy and Environmental Design (LEED) is the most widely used green building rating system in the world. LEED provides a framework for healthy, efficient, and cost-saving green buildings. There are four rating levels: platinum (highest), gold, silver and certified (lowest).

Category 2: Land Use and Urban Form	• Three new Mixed-use Zones prioritizing pedestrian oriented development. Mixed Use-1 and Mixed Use-2 do not have a maximum cap on housing density. • Redevelopment of downtown storefronts to create dense shopping, eating, and living areas. • Brownfields program to help revitalize formerly vacant land. • Reduced barriers to Accessory Dwelling Unit (ADU) development. • Reduced in parking minimums for Broadway overlay zone. • Requirements of open space in multi-family developments.
Category 3: Transportation and Fuels	• Safer Pedestrian Crossings Program seeks to improve alternate choices of transportation. • Between 2008 – 2016, the City completed nearly 50 different projects to upgrade existing or add new sidewalks, crosswalks, bike lanes, pedestrian crossing islands, shortened crossings at certain intersections, and radar speed signs. • Implementation of Downtown centered bikeshare program. • Rentable bicycle lockers. • Increased communication between Cherriots and City of Salem. • Electric Vehicle Charging stations have been installed in many city and community facilities.
Category 4: Consumption and Materials Management	• Energy tracking at multiple City facilities. • Participation in State of Orgon Sustainable Procurement procedures. • Revised building maintenance schedules to promote efficiency. • Fats, Oils and Grease (FOG) program to reduce/eliminate sanitary sewer overflows by providing alternatives to industries that currently discharge FOGs into the sanitary sewer system. The program reduces the frequency of sanitary sewer overflows. • Biogro (biosolids reuse) program involves beneficial reuse of water treatment byproducts for fertilization and land reclamation. In 2016, Salem generated 3,092.60 dry tons of biosolids that was applied to 1,060 acres of land consisting of hay, grass feed, and wheat.

Category 5: Natural Systems and Community Wellbeing	• Green stormwater code for large scale development (over 10,000 square feet). • Real-time monitoring of water pump stations throughout the city to maximize efficiency. Pumps have been recently upgraded to more efficient models. • Increased connectivity between parks. • Implementation of Integrated Pest Management Plan (IPM) focusing on long-term prevention of pests by managing their ecosystem. • Daylighting of Pringle Creek near Riverfront Park. • Shade modeling and riparian inventory report. • Expanding the Street Tree Program. • Community Tree Planting program. • Use of solar trash compactors in high use parks. • Youth environmental education program – average audience of 12,530 students per year.

V. Recommendations

The Climate Action Audit has provided a comprehensive understanding of the current landscape of environmental action planning in Salem. From this audit comes five recommendations.

Develop a Climate Actions Plan.

The development of a Climate Action Plan can be a multi-year process involving significant staff effort and public outreach resulting in a data-driven plan that will emphasize actions that have the greatest GHG reduction potential. A Salem-specific CAP can centralize all environmental action policy for future planning. Both mitigation and adaptation actions and strategies should be included in the plan for it to serve as a comprehensive roadmap to reducing GHG emissions.

Regarding plan development, generally large cities (Portland, Seattle, San Francisco) have developed their CAP in-house; most other jurisdictions bring on board consultants who specialize in CAP development.

Preliminary discussions with consultants estimate the CAP development process to cost in the rage of 52k-160k. Cost is heavily dependent on the scale of plan and community involvement desired. (See Appendix K).

Use the 2019 *Community Greenhouse Gas Inventory* to set emissions reduction targets.

The 2019 *Community Greenhouse Gas Inventory* provided the community with an assessment of the large sources of GHG emissions in Salem. This information can be used to inform the emission reduction goal-setting process. This inventory should be performed on a specified schedule to assess the effectiveness of the climate action plan.

Coordinate with *Our Salem* Comprehensive Plan Development to ensure CAP actions and policies are furthered by *Our Salem*.

There are other jurisdictions that have recently gone through a comprehensive plan update during and after a climate action plan has been adopted; the CAP process is generally shorter in timeframe than a comprehensive plan process. CAP policies can be implemented through the comprehensive plan through goals and policies. Strong coordination between CAP and comprehensive plan development ensures complementary and consistent language.

Assess the feasibility of joining the International Council for Local Environmental Initiatives an organization that promotes the sustainability efforts of local governments.

The International Council for Local Environmental Initiatives (ICLEI), formerly known as Local Governments for Sustainability, is an international association of local, state and national governments that have a focus on sustainability. ICLEI provides technical consulting, training, and information services to local governments that many not have in-house expertise or capacity. Annual membership dues are based on city population; the annual cost for City of Salem would be $1,750 (population 100,000 – 200,000) or $2,250 (population 200,000 – 300,000).

Explore a new staff position of sustainability coordinator.

Cities that have adopted CAPs generally also create a new position to administer the CAP, respond to community questions, and assist staff with drafting policies aligned with the CAP. Cities typically locate this position in either the City Manager's Office or Public Works department. In the City of Milwaukie, a full-time sustainably coordinator was created after the CAP was adopted. The sustainability coordinator in Milwaukie is part of the public works administration team and the public works department is responsible for implementing the CAP.

Appendices

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Appendix A: Inventory of completed climate actions

Policies/ Actions		
Essential Policies	**Description**	

Building Quality	Reduce life-cycle emissions and energy consumption of the building stock (e.g., promote statewide building code updates, residential home energy scoring program).	**Municipal Actions**
		• Marion County EarthWISE Certification of all City of Salem buildings and occupied spaces.
		• New city facilities built to LEED Silver standards.
		  ◦ Police Station
		  ◦ Fire Station(s)
		• Civic Center electricity (Portland General Electric) consumption reduced 47% (6,498,000 kWh to 3,236,400 kWh) from 2009 to 2019 though:
		  ◦ Installation of window film to reduce energy consumption during warmer season.
		  ◦ Use of Energy-Star rated appliances.
		  ◦ Use of Building Automated System (BAS) to control lighting and HVAC systems.
		  ◦ Civic Center chiller upgrade.
		  • New system uses 40% less power than the previous system saving 1.02 million kWh annually.
		  ◦ Library condensing boilers upgrade.
		  ◦ Energy Efficient Community Block Grant (EECBG) lighting (LED) and ballasts improvements saving 672,176 kWh annually.
		  • Green Physical Needs Assessment and Energy Audit of Salem Housing Authority's housing stock.
		• Library seismic retrofit improvements (ongoing)
		  ◦ Installation of solar panels on roof of library.
		  ◦ HVAC Efficiency upgrades.
		  ◦ Shift to LED lighting.
		  ◦ Natural daylighting.
		  ◦ Installation of energy efficient windows.
		• Salem Police Station
		  ◦ Solar panels on roof of station.
		  ◦ LED lighting throughout.
		  ◦ Energy efficient windows.
		  ◦ Natural daylighting for most work spaces.
		  ◦ Built to LEED Silver Standards.

		Community Actions • Not available.

Parking Restrictions	Reduce the availability and affordability of private vehicle parking (e.g., increased parking prices, optimized light traffic timing and high efficiency incentives).	**Municipal Actions** • Mixed-Use 1 and Mixed-Use 2 zones have parking maximums in lieu of parking minimums which enable development with less space dedicated to parking. • Broadway Overlay Zone has a 10% reduction of overall minimum parking requirements. • Parking adjustments are available in many zoning classifications that permit a development to reduce the number of vehicle parking spaces through alternative modes of transportation (SRC 806.015(e)). ◦ Up to a 10% reduction. **Community Actions** • Not available.

Dense Development	Encourage pursuing higher population, jobs, and building density; discourage sprawl (e.g., urban containment and promotion of increased density).	**Municipal Actions**
		• Brownfields Program
		  ◦ Reuse and Revitalization Program aims to encourage sale and development of underutilized sites city-wide by providing grant funding to inventory, assess, and conduct remediation planning for sites with perceived or real environmental contamination.
		• Redevelopment of the South-Waterfront Mixed Use Area.
		• Reduced barriers to Accessory Dwelling Unit (ADU) development.
		  ◦ No parking required.
		  ◦ No land use process required (administrative decision).
		  ◦ System Development Charges (SDCs) waived until 2024.
		  ◦ 45 ADUs have been approved or are currently in review.
		• State of Oregon HB 2001 - Single Family Home Zoning
		  ◦ Requires city to allow greater density than what is currently allowed in single-family zoning.
		• No expansion of the Urban Growth Boundary (UGB) contains development to a certain geographic bound.
		• Multi-Unit Housing Tax Incentive Program (MUHTP) to incentivize housing density in Riverfront and South Riverfront URA.
		• No max density of development within the Mixed-Use 1 and Mixed-Use 2 zones.
		Community Actions
		• Not available.

Priority Policies	Description	
Mass Transit	Enable safe, convenient, affordable public transit options (e.g., increased bus lines and expansion of transit network).	**Municipal Actions**
		• City of Salem does not manage public transportation within the city, but has regular coordination meetings with Salem Area Mass Transit District (Cherriots).
		Community Actions
		• State of Oregon HB 2017 enabled Cherriots to restore Saturday bus service, extend weekday service to 11 p.m. on many routes and added Cherriots Regional weekday trips. • Cherriots Trip Choice Program to encourage rideshare and alternatives to single-occupancy vehicles (SOVs).
Automobile Interdependence	Reduce private vehicle reliance; internalize public costs of private vehicles (e.g., congestion management and ride-sharing/ carpool support).	**Municipal Actions**
		• Photo enforcement cameras designed to reduce crashes by encouraging drivers to slow down. There has been a 92% decrease in traffic crashes at locations which have the cameras. • Congestion Task Force to evaluate options for reducing traffic congestion and improving vehicular mobility around the Marion and Center Street Bridges. • City of Salem participates in Oregon Department of Transportation (ODOT) Transportation Options program.
		Community Actions
		• Not available.

Non-motorized Transport	Enable safe and convenient walking and cycling (e.g., connected bike/ pedestrian paths and first/last mile connections).	**Municipal Actions**
		• Safer Pedestrian Crossings Program -- complete map of all projects available on City website.
		  ◦ Flashing beacons
		  ◦ Improved lighting
		  ◦ Traffic signals
		  ◦ Curb extensions
		  ◦ Signage/ additional markings
		  ◦ Median islands
		• Between 2008 – 2016, the city completed nearly 50 different projects to upgrade or add sidewalks, cross-walks, bike lanes, pedestrian crossing islands, shortened crossings at certain intersections and radar speed signs.
		• Code change (SRC 800.065) designed to require pedestrian access paths in some cases as part of new development. If a path or trail is identified in specified adopted City plans, developers must generally construct the path or trail through their site or provide an easement or dedication.
		• Requirement of bicycle parking at all developments, except single family.
		• Winter-Maple neighborhood Greenway connects roughly 2.5 miles between the Salem Parkway and downtown Salem in an attractive, safe and convenient route. Several projects are now complete including additional signs, and speed humps.
		• Rentable bicycle lockers.
		Community Actions
		• Downtown centered bikeshare program

Mixed Land Use Zoning	Co-locate residential, commercial, office, restaurants, and other land uses (e.g., financial incentives and specific targets for proximity of complementary uses).	**Municipal Actions**
		• Three new Mixed-Use zones prioritizing pedestrian oriented development in the last 10 years.
		  ◦ State Street Revitalization project.
		  • Mixed Use-1
		  • Mixed Use-2
		  ◦ South Waterfront Mixed Use
		• West-Salem Code Clean Up
		  ◦ Streamlined zoning regulations in certain areas along Edgewater Street NW, 2nd Street NW, and Wallace Road NW by removing overlay zones and creating single zones that contain more flexibility for residential, commercial, and mixed-use development.
		Community Actions
		• Not available.

Regional Planning	Incorporate inter-city travel into transportation planning (e.g., outline actions of how to reduce regional commuter emissions).	**Municipal Actions** • Participation in the Salem-Keizer Area Transportation Study (SKATS). **Community Actions** • Regional Planning authority, Salem-Keizer Area Transportation Study (SKATS), coordinates regional planning efforts.
Strategic Growth	Encourage development and affordable housing for population growth (e.g., inclusionary zoning and streamlines permitting process for increasing density).	**Municipal Actions** • *Our Salem* Comprehensive Plan update. • Current Comprehensive Plan Urban Area Goals and Policies. ◦ UD has worked with businesses to provide funding for redevelopment of downtown retail spaces. • Prohibition of drive-thru service style restaurants in certain areas of the city. • Urban Growth Boundary - no expansion since 1982 adoption. **Community Actions** • Not available.
Transparent Assessment	Record, validate, and report energy consumption and emissions data (e.g., regularly update city emissions and progression toward emission reduction target(s)).	**Municipal Actions** • Not applicable as the City does not have established emission reduction targets. **Community Actions** • Not applicable as the City does not have established emission reduction targets.
Consumption-based Analysis	Incorporate embedded emissions an energy into planning decisions (e.g., incorporate life-cycle analysis into emissions).	**Municipal Actions** • The Community Wide Greenhouse Gas (GHG) Inventory used a community scale inventory, only accounting for emissions from human activity within and originating from Salem's city limits. • Many cities are conducting consumption-based inventories which is based on a full life-cycle analysis of the emissions generated by the production, shipping, use and disposal consumed in its geographic bounds, regardless of where the GHG emissions were released to the atmosphere. **Community Actions** • Not applicable.

Consumer Habits, Education and Well-being	Aim to educate consumers on beneficial energy habits (e.g., provide online resources, workshops and training for city employees).	**Municipal Actions**
		• Youth environmental educational program.
		  ◦ 594 presentations and 10 discovery hikes per year.
		  ◦ Average audience is 12,530 students per year.
		• Clean Streams, Clear Choices program.
		• Residents allowed to have chickens.
		• STRIDE run/ walk series encourage residents to exercise and use parks at a low-fee.
		• Park Improvement Fund encourages neighborhoods to improve their parks.
		• Increased marking of storm drains to raise awareness that trash and dirty water that enters the storm drain system ends up in a local stream, where it creates pollution and can harm wildlife. The goal is to mark 100 drains per year, with community volunteer assistance.
		Community Actions
		• Partnership with University of Oregon and Sustainable Cities Initiative (SCI) to produce solutions to tackle important development, planning, and civic engagement issues (2010-2011).

Appliance Efficiency	Aim to improve energy efficiency of building appliances (e.g., establish rebate programs and efficiency mandates).	**Municipal Actions** • Energy-star appliances required throughout city facilities. • Conversion of Streetlights from High Pressure Sodium (HPS) to more energy efficient LED lights. This changed saved the city nearly $500,000 annually by reducing energy consumption by 4.51 million kWh annually. The LED streetlights use 50% less energy while lasting last four-times as long. The project came at the cost of 2.1 million funded by the streetlight utility fee. • Lighting upgrades to multiple city facilities reduce energy consumption and save the city thousands annually. **Community Actions** • Not available.

Smart-grid Management	Enable more flexible, controllable electricity demand (e.g., energy management plan for all city facilities).	**Municipal Actions**
		• Use of Building Automated System (BAS) to reduce building energy and maintenance costs compared to a non-controlled building.
		Community Actions
		• Not available.
Additional Policies	**Description**	
		Municipal Actions

Green Spaces and Urban Forestry	Create natural, undeveloped space in the city (e.g., tree planting goal and/ or resident proximity to park goal).	• Trees/ Urban Forest/ Canopy
		  ◦ Street Trees
		  • Contact with Treecology to play 150 street trees per year for 5 years, including 3 years of watering.
		  • Street Tree Inventory in progress to determine number of trees, health and species diversity.
		  ◦ Community Trees
		  • Friends of Trees contract since 2013 to do community planting events in city parks.
		  • Attempt to achieve 80-90% canopy along streams to improve quality of waterways.
		  ◦ City Tree Canopy Assessment
		  • Conducted every census year, required by code to (SRC 808) to assess effectiveness of code.
		  ◦ Member of Tree City USA (Arbor Day Foundation)
		  • Longest member in Oregon (43 years).
		  ◦ Salem Revised Code (SRC) 86 and Administrative Rule
		  • Increased permit requirements and review of City-owned tree removals and updating street tree list.
		  ◦ Annual Tree Report to City Council, first in 2018.
		  ◦ Free Tree Program - 250 trees per year.
		• Increased Park Connectivity
		  ◦ Riverfront Park to Minto-Brown Island Park Connection via the Peter Courtney Minto Island Bridge provides more than 20 miles of connected walking, running and biking trails. Union Street Railroad Bridge was adapted for re-use as a crossing for pedestrians and cyclists over the Willamette River in 2009.
		• Minto Island Conservation Area
		  ◦ Slough Restoration Phase 1 (2016-2020)
		• Expand the floodplain forest.
		• Increase tree canopy.
		• Provide important nesting and foraging opportunities for several song birds listed as threatened or species of concern.
		  ◦ Slough Restoration Phase 2 & 3 are planned, and restoration will conclude in 2024.
		  ◦ Increased opportunity for wildlife viewing.
		  ◦ Removal of asphalt paths and closed trail for nesting habitat restoration for native turtles.
		• Implementation of an Integrated Pest Management Program (IPM)
		  ◦ Began as a parks maintenance program but has expanded to citywide operations. IPM focuses on long-term preventions of pests by managing their ecosystem.

Green Spaces and Urban Forestry (cont.)	Create natural, undeveloped space in the city (e.g., tree planting goal and/or resident proximity to park goal). (cont.)	• Mayor's Monarch Pledge
		  ◦ Encouraging community members in Salem to plant monarch gardens at their homes or in their neighborhoods.
		  ◦ Connecting with community garden groups to encourage the planting of native milkweed and nectar-producing plants.
		  ◦ Working to revise mowing programs on city property to encourage the development of monarch habitat.
		  ◦ Planting monarch friendly demonstration gardens on city property including City Hall, located at 555 Liberty Street SE, and Eola Ridge Park.
		  ◦ Engaging schools and youth to plant native milkweed and nectar plants in their school gardens and on school property. Contact us to get on our mailing list to secure a presentation in the 2018-19 school year.
		  ◦ Working to adopt less harmful pesticide practices.
		• Community Gardens
		  ◦ Community Gardens are permitted in parks, where the food grown is donated to the Marion Polk Food Share.
		• Annual Fall leaf haul
		  ◦ Improve the quality of streams while reducing the chance of local street flooding.
		• Shade modeling and riparian inventory report.
		• Requirement of open space in multi-family developments.
		• Removal of culverts to promote fish passage.
		• Solar trash compactors in high use parks.
		• Daylighting of Pringle Creek.
		  ◦ Enhance natural streamflow of Pringle Creek.
		  ◦ Improve fish passage by replacing constructed fish ladder with instream pools and riffles.
		  ◦ Increase aquatic habitat through the installation of boulders and large woody debris.
		  ◦ Increase the diversity of wildlife through the planting of native plants along the stream.
		• Mill Creek Corporate Center Wetlands
		  ◦ 42 acres of wetlands are being developed to mitigate, or offset, the impact wetlands disturbed by the development of the corporate center.

		Community Actions
		• Significant volunteer for education and other outdoor environmental work. • Stream Cleaning summer internship -- removal of invasive species

Architectural Form	Encourage low-energy architectural forms (e.g., incorporate "green building" incentives into development practices).	**Municipal Actions** • Preservation of historical buildings with proposed code amendments to requiring sale, donation or reuse of historic salvage material. • Grants and loans to restore building facades and reuse of the current the building stock instead of new construction in the downtown area. • Requirement of 2-6 new trees per lot in new subdivisions (lot size dependent). • Updating design standards for multifamily housing by removing barriers to the development of multifamily housing and ensuring that new development is compatible with our neighborhoods. (in progress) **Community Actions** • Pringle Creek Community ° Utilization of geothermal, solar, pervious paving and rainwater harvesting. ° Painters Hall Community Center is Oregon's first net-zero energy commercial building.
District Energy Systems	Develop district-scale heating, cooling, and/or energy utility networks (e.g., increase awareness and planning for district energy systems).	**Municipal Actions** • Waste Water Treatment Facility - Willow Lake Cogeneration process upgrade. ° Use of biogas, a byproduct of wastewater treatment, to produce renewable energy. The natural process will supply nearly one-half of the total power needs at the wastewater treatment plant. This will keep 5,000 metric tons of pollution-causing gases from being released to our atmosphere. It is expected to save the City more than $300,000 in energy costs each year. ° Another notable energy saving improvement at Willow Lake is an upgrade to a more energy efficient blower system that provides oxygen for microorganisms critical to the wastewater treatment process. The new blower was installed in February 2017 and will save the City more than 552,000 kWh annually. **Community Actions** • Not available.

Vehicle Electrification and Transportation Improvements	Replace gas-powered private vehicles with electric vehicles (e.g., plan for electric vehicle charging infrastructure).	**Municipal Measures**
		• Electric Vehicle (EV) charging stations have been installed at the following city owned properties:
		  ◦ Salem Public Library
		  ◦ Salem Convention Center
		  ◦ Chemeketa Parkade
		  ◦ Liberty Parkade
		  ◦ Marion Parkade
		  ◦ West Salem Library
		  ◦ Riverfront Park
		  ◦ Minto Brown Park
		• City Fleet
		  ◦ Addition of Plug-in Hybrid(s) to city fleet.
		  ◦ Renewable Diesel in City Fleet.
		Community Measures
		• Many community members have installed EV charging stations throughout the community to help create a sustainable network of electrified transportation options. Partners include, but are not limited to:
		  ◦ Oregon Dept. of Energy, PGE, Pringle Creek Community, Salem Electric, Salem Golf Club, Walgreens and Walmart.

Clean Power Sector	Support low-emitting electricity generation in regional power grids (e.g., future goal of 100% renewable energy).	**Municipal Measures** • City of Salem has joined PGE's Green Future Impact program, that once implemented, will boost the City's use of renewable energy by 60%. By end of 2021, 80% of the energy that powers the City's operations will come from renewable sources. • The City currently participates in PGE's Clean Wind program, the Green Future Impact program will add Oregon-produced solar and/or wind power to the City's energy portfolio. **Community Measures** • Not available.
Local Renewables and Clean Power Generation	Encourage renewable generation, such as solar power, within the city (e.g., incorporate renewable energy into city buildings and remove barriers for renewable energy installation).	**Municipal Measures** • City will be installing Solar Panels on Library as part of the seismic retrofit project. • On-site renewables are considered with any new construction or renovation of municipal buildings **Community Measures** • Not available.

Water Infrastructure	Reduce water utility's energy consumption and emissions (e.g., real-time monitoring of city water, decentralized water treatment).	**Municipal Actions** • Biogro (biosolids reuse) program involves beneficial reuse of water treatment by-product for fertilization and land reclamation. In 2016, Salem generated 3,092.60 dry tons of biosolids and was applied to 1,060 acres of sites consisting of hay, grass feed and wheat. ◦ Biosolids can now be stored on-site during wet months, instead of being transported to Dufur. • Real-time monitoring of water pump stations throughout the city to maximize efficiency. Pumps have been recently upgraded to more efficient models. • Total Maximum Daily Load (TMDL) programs improve the quality of Salem's waterways. • Green stormwater code for large scale development (over 10,000 sq. ft.). **Community Actions** • Not available.
Solid Waste Emissions and Waste reduction	Reduce emissions from sewage treatment and municipal solid waste (e.g., improved recycling/ composting and consumer education.	**Municipal Actions** • Fats, Oils and Greases (FOG) program to reduce/eliminate sanitary sewer overflows by providing alternatives to industries that currently discharge FOGs into the sanitary sewer system. The program will result in a more infrequent and predictable sanitary sewer management system. • Operate Fix-it-Fair in conjunction with Marion County. • City engineering uses a complete electronic system for documents and plans, significantly reducing the departments paper and printing needs. • Follow State of Oregon Sustainable Procurement policies. • City-wide single use plastic bag ban. • City operations have significantly reduced waste through revised printing policies, twice-weekly deliveries and use of environmentally friendly custodial supplies. • Exclusive use of Eco-Green Products. **Community Actions** • Salem Convention Center disposes over 19,000 lbs. of materials a month, 75% of those materials are diverted for recycling and other secondary uses, meaning only 35% of disposed materials end up in the landfill. On average, the Convention Center donates 5,000 lbs. of food to the Salem Union Gospel Mission (UGM).

Appendix B: Comprehensive list of recommended elements

Recommended Elements for a Salem Climate Action Plan	
Fact Base (Baseline)	
Sub-Elements	**Description**
Climate Change Awareness	Include a description of the causes of climate change which describes both the naturogenic and anthropogenic causes of climate change along with quality, peer-reviewed widely accepted scientific evidence.
Climate Change Context	Frame climate change as both a global and local issue by starting at a worldwide scale and narrow the scale to a local context. It is important to localize worldwide changes.
Emissions Inventory	Include an emissions inventory, such as greenhouse gases (GHG) inventory to inform the local community of where it stands compared to scientific emission thresholds.
Emissions Inventory Breakdown	Include a breakdown of the emission inventory, such as providing an inventory of emissions by sector.
Base Year Emissions	Include a base year for emissions, often the year of the data used for the GHG inventory.
Emission Trends Forecast	Include an emissions forecast (e.g., carbon footprint reduction in the future).
General Climate Change Impacts	Include a discussion of the general impacts of climate change (e.g., sea level rise, increasing temperature, storm frequency, impact on quality of life, and local air quality).
Specific Climate Change Impacts	Include a discussion of the specific impacts of climate change to the jurisdiction (e.g., identifies specific locations in the jurisdiction that are vulnerable to the effects of climate change).
Vulnerability Assessment	Identify certain geographic areas that will be disproportionately affected by climate change (e.g., areas within floodplain on near Wildlife Urban Interface (WUI)).
	Identify certain demographic populations that will be disproportionately affected by climate change.
	Identify certain industries that will be disproportionately affected by climate change.
Past Actions	Describe environmental actions that have been taken to reduce carbon emissions; include a comprehensive list of relevant planning documents.

Goals	
Sub-Elements	**Description**
Adaptation – General	Include at least one broad goal related to adaptation or reducing vulnerability to climate change.
Adaptation – Specific	Include at least one specific goal related to adaptation or reducing vulnerability to climate change (e.g., reducing development in hazard areas found in the jurisdiction).
Mitigation – Community Emissions	Include at least one goal related to community emissions (i.e., how can the community reduce its impact related to climate change).
Mitigation – Government Emissions	Include at least one goal related to government emissions (i.e., how can the local government reduce its impact related to climate change).
Mitigation – Long-Term GHG Emissions	Include at least one long-term (i.e., 20 years or greater) target for reducing GHG emissions.
Mitigation – Short Term GHG Emissions	Include at least one short-term (i.e., less than 20 years) target for reducing GHG emissions.
Policies/ Actions	
Essential Policies	**Description**
Building Quality	° Reduce life-cycle emissions and energy consumption of the building stock (e.g., promote statewide building code updates, residential home energy scoring program).
Parking Restrictions	° Reduce the availability and affordability of private vehicle parking (e.g., increased parking prices, optimized light traffic timing and high efficiency incentives).
Dense Development	° Encourage pursuing higher population, jobs, and building density; discourage sprawl (e.g., urban containment and promotion of increased density).
Priority Policies	
Mass Transit	Enable safe, convenient, affordable public transit options (e.g., increased bus lines and expansion of transit network).
Automobile Interdependence	Reduce private vehicle reliance; internalize public costs of private vehicles (e.g., congestion management and ride-sharing/ carpool support).
Non-Motorized Transport	Enable safe and convenient walking and cycling (e.g., connected bike/pedestrian paths and first/last mile connections).
Mixed-Use Zoning	Co-locate residential, commercial, office, restaurants, and other land uses (e.g., financial incentives and specific targets for proximity of complementary uses).
Regional Planning	Incorporate inter-city travel into transportation planning (e.g., outline actions of how to reduce regional commuter emissions).

Strategic Growth	Encourage development and affordable housing for population growth (e.g., inclusionary zoning and streamlines permitting process for increasing density).
Transparent Assessment	Record, validate, and report energy consumption and emissions data (e.g., regularly update city emissions and progression toward emission reduction target(s)).
Consumption-Based Analysis	Incorporate embedded emissions an energy into planning decisions (e.g., incorporate life-cycle analysis into emissions).
Consumer Habits, Education and Well-Being	Aim to educate consumers on beneficial energy habits (e.g., provide online resources, workshops and training for city employees).
Appliance Efficiency	Aim to improve energy efficiency of building appliances (e.g., establish rebate programs and efficiency mandates).
Smart-Grid Management	Enable more flexible, controllable electricity demand (e.g., energy management plan for all city facilities).
Additional Policies	
Green Spaces and Urban Forestry	Create natural, undeveloped space in the city (e.g., tree planting goal and/or resident proximity to park goal).
Architectural Form	Encourage low-energy architectural forms (e.g., incorporate "green building" incentives into development practices).
District Energy Systems	Develop district-scale heating, cooling, and/or energy utility networks (e.g., increase awareness and planning for district energy systems).
Vehicle Electrification and Transportation Improvements	Replace gas-powered private vehicles with electric vehicles (e.g., plan for electric vehicle charging infrastructure).
Clean Power Sector	Support low-emitting electricity generation in regional power grids (e.g., future goal of 100% renewable energy).
Local Renewables and Clean Power Generation	Encourage renewable generation, such as solar power, within the city (e.g., incorporate renewable energy into city buildings and remove barriers for renewable energy installation).
Water Infrastructure	Reduce water utility's energy consumption and emissions (e.g., real-time monitoring of city water, decentralized water treatment).
Solid Waste Emissions and Waste Reduction	Reduce emissions from sewage treatment municipal solid waste (e.g., improved recycling/ composting and consumer education.

Implementation	
Sub-Elements	**Description**
Implementation Section	Include a separate section that addresses what needs to be done to implement the plan.
Plan Priority	Prioritize actions for implementation; often done in a tier system.
Organization Responsibility	Identify specific organizations (both internal and community partners) with responsibility for implementation.
Timelines	Identify timelines for implementation with either hard targets or a reference time frame.
Financial Tools	Include at least one policy on financial mechanisms to incentivize action or collect revenue related to climate change (e.g., carbon tax, GHG reduction fee, development charges, and funding for GHG reduction projects). Many of these are not within a city's control but a city can support state legislation.
Monitoring and Evaluation	
Sub-Elements	**Description**
Monitoring and Evaluation Section	Include a separate section that addresses what needs to be done to monitor and evaluate the plan with both evaluation criteria and responsible parties for monitoring the plan.
Organization Responsibility	Identify departments responsible for monitoring the plan.
Timeline for Plan Update	Identify a timetable for updating the plan based, in part, on results of monitoring changing conditions.
Quantifiable Goals and Policies (includes Indicators)	Include goals and policies that are quantifiable and based on measurable objectives and/or targets (includes indicators).
Inter-organizational Coordination	
Sub-Elements	**Description**
Horizontal Coordination	Include at least one horizontal connection with other local plans/programs (e.g., official plan documents and other climate change initiatives).
Vertical Coordination	Include at least one vertical connection to federal, state plans and regional plans (where applicable) (e.g., state legislation on climate change).

Participation	
Sub-Elements	**Description**
Stakeholder Engagement	Identify the organizations and stakeholders involved in the plan making process (e.g., staff from different agencies or departments, and politicians).
Public Engagement	Identify the public as part of the plan making process and promote a diverse public engagement strategy to include historically underrepresented communities.
Purpose of Participation	Include an explanation of why organizations and stakeholders were involved.
Evolution of Plan	Include a description of the evolution of the plan.
Organization and Presentation	
Sub-Elements	**Description**
Executive Summary	Include an executive summary or similar section that provides an overview/summary of the plan.
Table of Contents	Include a table of contents detailing plan chapters and subheadings.
Glossary of Terms	Include a glossary or definition of terms and acronyms.
Illustrations	Use clear illustrations (e.g., diagrams and graphs).

(Deetjen, Conger, Leibowicz, & Webber, 2018) was used to inform the Actions and Policies section, and (Guyadeen, Thistlethwaite, & Henstra, 2019) was used inform all other CAP elements above.

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Appendix C: List of actions and policies from City of Salem environmental action planning documents.

Environmental Action Plan

- Develop and capitalize a loan program that provides up front financing for energy efficiency upgrades in existing residential and commercial buildings.
- Develop a communitywide plan that encourages electric vehicle charging infrastructure.
- Design and implement bike route signage, lane markings (sharrows), and install bike lockers at key locations.
- Develop a marketing plan and materials to promote energy savings programs; develop a website to serve as clearinghouse of information; conduct ongoing outreach activities; complete final Energy Strategy report; and conduct outreach to raise awareness. Complete an energy website by August 2010 and conduct Community Energy Forum by December 2010.
- Finalize project development and begin implementation of heating efficiency projects for City Hall, Main Library, Liberty Parkade, Chemeketa Parkade, building 2, and Building 14.
- Installation of the new City Hall gas boiler began June 15, 2011 and is estimated for completion in mid Sept 2011.
- Use established baseline data to monitor energy use trends and modify lights and HVAC systems on all levels of City Hall and the Main Public Library.
- Install energy monitoring equipment in other City facilities that are managed by the "Building Automated System" (BAS), to establish baseline data and adjust lights and HVAC systems to improve efficiencies.
- Identify renewable energy opportunities, potential costs, and funding options.
- Increase opportunities for recycling aluminum and plastic at City locations.
- Work with stakeholders and department groups to identify needed collection bins and suitable collection points.
- Establish personal e-waste interoffice mail program.
- Locate a central place where office supplies that are no longer needed can be stored and made available to other departments.
- Perform an end-of-year waste audit to determine decrease in recycled goods being diverted from waste stream.
- Eliminate printing of earning statements for employees receiving electronic deposits.
- Complete Earthwise certification for all City facilities.
- Determine feasibility of using Garten Services for "Zero Waste" City events.
- Create more training and informational aspects to the sustainability pages on the intranet.
- Launch "Cover Your Backside" duplex printing campaign.
- Encourage the use of the intranet and make meetings as paperless as possible by decreasing the number of meeting handouts.

Drinking Water

- Install meters necessary to establish a baseline for each facility.
- Categorize each facility by primary use (domestic, irrigation, or industrial) and establish baselines based on the categories where feasible.
- Continue internal water-reduction projects (such as low-flow fixture replacement).
- Incorporate water conservation designs into building rehabilitation and remodeling projects.
- Initiate citywide water conservation educational activities.
- Identify possible locations and develop cost estimates to create a water conservation demonstration feature (partnership between Water Services, Water Resources, and Parks).
- Investigate installing/using drought-tolerant landscapes that reduce over-watering, high maintenance costs, bare soil, and high plant turnover.
- Initiate trial operation of variable irrigation reductions in parks and landscape areas.
- Identify and evaluate peak water usages and reduce peaks where possible.
- Develop a water conservation project prioritization list (using the CIP method) for under $50,000.
- Purchase additional leak detection instruments to be used throughout the distribution system.
- Replace 3,596 lineal feet of aged pipeline.
- Improve internal systems that estimate unmetered water uses by Salem Fire and Public Works.
- Implement recommendations of Condition Assessment of Transmission Mains 1 and 2 to reduce leaks.

Wastewater and Stormwater

- Maintain erosion control program compliance. Inspections has instituted an erosion control report tracking database to assure and document inspection on Citywide sites.
- Maintain compliance with the wastewater National Pollutant Discharge Elimination System (NPDES) Permit.
- Maintain compliance with the existing NPDES MS4 Permit and obtain a new stormwater NPDES MS4 Permit.
- Reduce sanitary sewer system infiltration and inflow (I&I) by replacing 7,000 lineal feet of aged pipeline by July 2011.
- Evaluate existing City infrastructure for opportunities in retrofitting stormwater treatment.
- Submit the proposed stormwater utility for City Council approval by November 2010 and implement the approved stormwater utility as proposed by Council.
- Draft and submit for City Council approval of a new stormwater code by December 2010 regarding the protection of the storm and surface water systems.
- Implement the revised Stormwater Management Design Standards by December 2010 to enhance stormwater treatment and detention in new development and redevelopment.

- Construct a permeable parking lot project.

Community Energy Strategy

In addition to the priorities identified for 2010-11 for US DOE funding, several additional short- and long- term actions have been identified, including:

- Improve energy efficiency in buildings community-wide.
    - Establish policy to construct City buildings to green building standards (LEED or equivalent).
    - Collaborate to fund energy manager position or similar.
    - Establish incentives to reduce permit fees for buildings that exceed state energy code and/or incorporate renewable energy generation.
- Increase renewable energy used or produced by Salem residents and businesses, while decreasing total energy consumption.
    - Partner with community organizations to incorporate renewable energy and energy efficiency innovation into projects.
    - Explore opportunities to expand Salem's low-head hydroelectric turbines.
    - Pursue powering City Parks with renewable energy.
- Create and support a viable and diverse transportation network that focuses on moving people.
    - Increase access to car sharing programs (i.e. Zip car).
    - Promote pilot programs for electric bicycles, bike sharing and solar charging, in tandem with Willamette University and other public institutions.
    - Add bicycle/pedestrian amenities to transit stops and stations including bike sharing and storage.
- Position Salem as a leader in sustainable industry.
    - Brand and market Salem as an energy efficient capital city.
    - Encourage partnerships with high schools and universities to train students in math and science.
- Conduct a public participation program that engages the community and communicates the value of energy savings and greenhouse gas reduction community-wide.
    - Develop clearinghouse of energy resources for businesses and residents; launch an educational campaign to alter behaviors about energy use.
    - Develop an inventory of community-wide energy data that can be updated/reported on annually.
    - Pursue student (university and K-12) involvement in community projects; get involved in Salem-Keizer schools "Green Schools Program".

Comprehensive Plan

General Development

- Energy
    - The city and Counties shall consider and foster the efficient use of energy in land

use and transportation planning

- Optimal use of the land
    - Structures and their siting in all residential, commercial, and industrial developments shall optimize the use of land. The cumulative effect of all new residential development in the Salem urban area should average 6.5 dwelling units per gross acre of residential development. Development should minimize adverse alteration of the natural terrain and watercourses, the potential for erosion and adverse effects upon the existing topography and soil conditions.
- Alternative energy sources
    - The city shall consider zoning and other site regulations for utilization of solar energy, wind power, on-site conversion of clean fossil fuels to electricity, and other renewable and increased efficiency alternatives
- Lighting
    - Exterior lighting shall be designed to provide illumination to the site and not cause glare into the public right-of-way and adjacent properties.
- Open Space
    - Land use regulations shall encourage public spaces, both natural and manmade for either active or passive enjoyment, including natural areas, open plazas, pedestrian malls, and play areas.

Urban Growth and Growth Management

- Infill
    - Development of land with existing urban services shall be encouraged before the conversion of urbanizable lands to urban uses.

Housing

- Infill
    - City codes and ordinances shall encourage the development of passed-over or underutilized land to promote the efficient use of residential land and encourage the stability of neighborhoods.
- Circulation system and through traffic Multi-family housing
    - Residential neighborhoods shall be served by a transportation system that provides access for pedestrian, bicycles, and vehicles while recognizing the neighborhoods physical constraints and transportation service needs:
    - The transportation system shall promote all modes of transportation and dispersal rather than concentration of through traffic;
    - Through traffic shall be addressed by siting street improvements and road networks that serve new development so that short trips can be made without driving;
    - The transportation system shall provide for a network of streets fitted to the terrain with due consideration for safety, drainage, views, and vegetation.
- Facilities and services location
    - Residential uses and neighborhood facilities and services shall be located to:
        - Accommodate pedestrian, bicycle and vehicle access;

- Accommodate population growth;
- Avoid unnecessary duplication of utilities, facilities and services; and
- Avoid existing nuisances and hazards to residents.

Mixed-Use Development

- Priorities for mobility and access
    - Facilitate development (land use mix, density, connectivity, design, and orientation) that reduces the need for, and frequency of, SOV trips and supports public transit, where applicable.
    - Reinforce streets as public places that encourage pedestrian and bicycle travel.
    - Provide roadway and pedestrian connections to residential areas.
    - Design and develop commercial and mixed-use areas that are safe, comfortable and attractive to pedestrians.
    - Provide flexibility in the siting and design of new developments, facilities, and redevelopment to respond to changes in the marketplace and infrastructure systems. Provide appropriate transitions between mixed-use areas and adjacent single-use neighborhoods.

Commercial Development

- Redevelopment
    - Redevelopment of existing shopping and service facilities should be encouraged where appropriate to provide neighborhood services or as part of mixed-use development with multifamily housing. The City may use financial and other tools to encourage redevelopment of existing shopping and service facilities, especially in Urban Renewal Areas.

Industrial Development

- Greenway requirements
    - New industrial development shall not be located in the Willamette River Greenway setback unless it is water related or dependent upon a waterway location.
- Efficiency
    - Efficient use of resources and energy, and the utilization of renewable energy sources serve the interests of the community and shall be encouraged during the development and operation of all industrial activities.
- Energy efficiency
    - New industries that utilize energy most efficiently or that manufacture products that contribute to efficient use of energy, including renewable energy sources should be encouraged.

Public Services and Facilities

- Pedestrian mobility
- Regional mobility
    - A balanced system of transportation facilities and services shall be designed to meet the regional travel patterns and mobility needs of residents, businesses, and industries.

- Multimodal transportation system
    - The transportation system for the Salem Urban Area shall consist of an integrated network of facilities and services for a variety of motorized and nonmotorized travel modes.
- Decreased reliance on the SOV
    - Local governments within the Salem Urban Area shall develop multimodal plans, services, and programs that decrease reliance on the SOV as the dominant means of travel. Progress toward this objective shall be monitored through benchmarks sets forth in Table #1 (Page 52).
- Transportation safety
    - Local governments within the Salem Urban Area shall make as a high priority the planning, design, construction, and operation of a safe transportation system for all modes of travel including minimizing conflicts between different travel modes.
- Environment
    - The City shall take proactive measures to reduce the environmental impacts from transportation programs and projects by ensuring that environmental resources are identified and evaluated for impacts early in the planning stage. Design, construction, and maintenance activities should avoid, minimize, or mitigate adverse environmental impacts. Where appropriate, the City shall look for cooperative opportunities with other public and private organizations to enhance the natural environment as a component of transportation projects and maintenance activities.
- Connectivity and Circulation
    - The vehicle, transit, bicycle, and pedestrian circulation systems shall be designed to connect major population and employment centers in the Salem Urban Area, as well as provide access to local neighborhood residential, shopping, schools, and other activity centers.

Open Space, Parks and Recreation

- Tree Preservation
    - Heritage and stands of significant trees, as defined by City ordinance, should not be cut or damaged except when deemed necessary for public safety or reasons stipulated by ordinance.
- Open space
    - The preservation and connection of identified natural open space areas shall be protected through public acquisition and/or land use regulation.
- Riparian access and preservation
    - The development of uses relating to the Willamette River and area streams for recreation and scenic enjoyment should be encouraged.

Natural Resources

- Waterways
    - Waterways shall be protected, preserved, and maintained as drainage courses and scenic, recreational, and natural resources. These characteristics shall be considered during the development review process. Public access to waterways for

maintenance purposes should be provided.

- Wildlife habitats
    - Identified significant wildlife habitats shall be protected and managed in accordance with State wildlife management practices. The importance of riparian vegetation as wildlife habitat shall be considered during the development review process.
- Wetlands
    - Salem urban area wetlands shall be identified, inventoried, and documented as to their significance as a resource. Such activities shall be coordinated among the jurisdictions. Appropriate comprehensive plan policies and development regulations shall be adopted by the next periodic review. In the interim development in areas identified as wetlands shall be permitted only to the extent granted by State and Federal regulatory agencies.

Comprehensive Park System Master Plan Update

The City has established four primary goals, each with a number of supporting policies, to guide the planning, development, and operation of the parks system.

Goal 1: Provide efficient park services by acquiring, developing, and maintaining a system that fairly serves the park needs of all residents.

- The City shall provide equitable park services to all city residents.
- Parks shall be equitably distributed. Locations shall be determined geographically and within the context of allowed development densities.
- Parks may be developed in phases, with improvements prioritized based on the individual park master plan and available funding.
- Community and urban parks may fulfill neighborhood park service area needs for residents adjacent to and within walking distance of these parks.
- The City shall strive to work with other governmental entities within the community to provide the best park and recreation facilities practicable.
- A site with unique features or natural assets shall be preferred for acquisition over other acceptable sites when those assets do not preclude the basic recreational uses of the park classification.
- Parks and open space shall be included, along with all other city infrastructure, in planning and growth management for new development.
- The City tree canopy goals shall be considered in park planning and master planning.
- Trees and tree groves shall be preserved and protected during park development, to the extent possible.
- The goals and priorities of the Community Forestry Strategic Plan (if adopted) will be considered along with passive and active recreation needs as individual site master plans are developed.

Goal 2: Provide high-quality recreational programs and facilities throughout the community that provide fun, educational, accessible, and safe environments for people of all ages, abilities, backgrounds, and income levels.

- Parks shall comply with the park classification design guidelines.
- Facilities and services shall be provided within the park classifications.
- Predevelopment Guidelines have been established to outline procedures for minimal improvements at undeveloped park sites and to allow interim use of these parks prior to preparation of a site master plan or full park development.
- The City shall strive to develop a Site Assessment and Interim Management Plan within one year of new park acquisition and to complete predevelopment at new parks within two years of site acquisition.
- Private entities may predevelop park land exacted during land use procedures to meet service area requirements, in compliance with the Predevelopment Guidelines.
- Park Capital Improvement Projects (CIP) are prioritized in the CPSMP, adopted by City Council, and updated as needed.
- Site-specific park improvements shall be made in accordance with the individual park master plan, created with public input and with the approval of both the Park and Recreation Advisory Board and City Council.
- Acquisition and integration of natural areas for conservation and preservation shall be promoted as part of the park system.
- Park and recreation facilities shall be developed using best design and construction practices to support sustainable practices, maintenance efficiencies, safety, and public use.
- Parks and recreation facilities shall be developed and managed in a manner that is consistent with other adopted public infrastructure and land use plans.
- The City shall encourage water conservation in the park system through use of sustainable practices.
- The City shall integrate green building technology and sustainable development practices in park design, maintenance, and operations where feasible.
- Prior to any development of the site, the City shall delineate sensitive natural resources within a natural area, in compliance with the Sensitive Areas Management Handbook.
- Neighborhood parks shall be designed to minimize impacts to adjacent properties.
- The city shall develop a process to guide facility naming and selection and placement of art, statuary, and memorials in parks.

Goal 3: Provide a citywide park system that can be accessed by a variety of transportation modes.

- Access barriers to existing parks and open spaces shall be evaluated and prioritized for removal or mitigation to provide equitable service to all residents of the community.
- Greenways or similar uninterrupted linkages may be included in park acreage if they improve access, overcome barriers, or extend the service area.
- Natural areas and public open space are community assets that should be utilized, when possible, to the highest and best use for the recreational benefit of the public. Public access should be developed, when possible, as part of a linear, natural, or greenway system

when the affected area is in public ownership or encumbered by an easement. Park and trail location, construction, or use shall not endanger or jeopardize threatened or endangered plant or animal species.

- Park access shall be provided utilizing public right-of-way corridors, publicly owned land, access easements, and other means as necessary.
- Pedestrian and bicycle access shall be considered the primary transportation modes for neighborhood parks. For facilities with larger service areas, public transit and automobiles should also provide access. New facilities should be located near transit, when possible, to minimize traffic impacts and to provide equitable access by all city residents.
- Create a citywide, multi-modal trail system that ties into existing transportation corridors, serves a variety of users, is accessible, it easy to navigate, and connects parks, schools, and other community facilities.
- The City shall comply with the Americans with Disabilities Act (ADA) Standards for Accessible Design, in development of new facilities and renovation of existing facilities.

Goal 4: Develop cost-effective and efficient methods of acquiring, developing, operating, and maintaining park facilities to support the city's existing and future needs.

- The City shall provide a system of improvements to meet the needs of the current and future population with the park acreage planning goal of seven acres per 1,000 residents: 2.25 acres of neighborhood, 2.25 acres of community and 2.5 acres of urban park land. Acreage standards for linear parks/trails, special use facilities, historic sites, and natural areas are not established.
- Park System Development Charges (PSDCs) shall fund growth-related park facility acquisition and development identified in the CPSMP. Facility deficiencies, rehabilitation, and renovation that are not growth-related shall be funded through a variety of sources allocated through the City's General Fund, grants, private donations, and other taxes or fees. Park service areas with partial buildout may be funded through a combination of PSDC and non-PSDC sources.
- The City is responsible for meeting the community's park, open space, and recreation facility needs. Priorities shall be established to meet the greatest demand for the least public cost. Cost/benefit analysis techniques shall be applied to inform decisions.
- Development of park improvements in growth areas may proceed when buildout of the park's service area exceeds 50 percent of projected density, and as funding becomes available.
- Park development will be prioritized based on percent build-out of service area and population density, with equitable geographic distribution throughout the city, and as funding becomes available.
- Sites that serve multiple purposes, such as parks and stormwater detention areas shall be managed through comprehensive design to maximize recreational use while addressing multiple uses. Costs for improvements shall be apportioned based on area occupied by each use.
- Park SDCs may be used to purchase and develop additional land to meet the acreage needs identified for a neighborhood park service area.
- The City may seek to fulfill unmet recreation needs through cooperative agreements with

private, public, and non-profit organizations that supplement the recreation facilities and services in the community.

- The City may encourage opportunities for private programs, volunteers, and other appropriate methods to supplement and extend the City's resources in developing and maintaining the park and recreation system, provided that their use does not preclude other uses or users.
- The City shall provide adequate operation and maintenance of the City's park system to the extent feasible.

Community Forestry Plan (2014)

The overarching themes of this plan are to Preserve, Increase and Educate. Trees provide many economic, environmental, and social benefits including stormwater reduction, air quality improvement, and improved urban livability. Due to the advantages trees provide, Public Works investigated ways to improve the city's community forest, with an emphasis on non-regulatory approaches and incentives. This plan establishes six goals and specific actions, priorities, and partnerships needed to achieve the goals in line with the themes. The Goals are:

Goal 1: Protect, increase, and enhance Salem's tree canopy;

Preserve existing wooded parks and natural areas; plant trees in parks, natural areas, and other public open spaces to improve overall tree canopy on City-owned properties.

- Promote tree preservation and tree planting to maximize future canopy while recognizing infrastructure and site limitations.
- Develop and offer incentives to encourage the preservation and planting of trees and tree groves on private property.
- Support a non-governmental organization that can assist in funding and organizing tree planting events.

Goal 2: Increase education and outreach about tree benefits, community forestry program, tree regulations, and incentives;

- Develop outreach and education material about the benefits of trees and Salem's community forest: website updates, articles, events, social media, workshops, etc.
- Provide opportunities for volunteer involvement; recruit neighborhood associations, community groups, schools, and businesses for tree planting events.
- Educate the public about tree codes and tree best management practices for tree health and risk reduction.

Goal 3: Develop support at political, management and public levels;

Encourage the Salem City Council and neighborhood associations to support the Strategic Plan goals.

- Inform the Salem City Council and other community decisionmakers about the state of the community forest and how the strategic plan is progressing on implementation.
- Invite decision-makers and community leaders to participate in Arbor Week, Tree City USA, and other tree-related events.

Goal 4: Improve City coordination, communication, and codes related to trees;

Promote tree-friendly development and land-use practices, such as innovative ways to reduce conflicts between sidewalks and trees.

- Review development plans to ensure that the right tree is planted in the right place to increase tree longevity, reduce conflicts with other infrastructure, and provide for future canopy growth.
- Incorporate tree preservation and tree plantings into City projects and master plans and use trees as a means to meet regulatory requirements under the Clean Water Act.

Goal 5: Develop and implement a Community Forestry Management Plan; and

Update the City's street tree list to include diverse species and incorporate large canopy trees where appropriate.

- Establish industry-appropriate best management practices, standards, and protocols for tree care and risk and hazard reduction.

Goal 6: Establish a stable funding for Community Forestry Program.

- Seek traditional and non-traditional funding through foundations, non-profits, and federal grant opportunities and through corporate and business partnerships
- One of the key goals of the Strategic Plan is to set a goal of 23% canopy and to focus efforts on City properties and low-canopy neighborhoods. Under Salem Code, a tree canopy assessment is required each year. In 2010, Salem's tree canopy measured 18.3%, an increase of 0.1% over the previous 9 years.

Annual Tree Report (2019)

This report provides an update on the status of the Salem community forest. Out of this report, and the 2019 Street Tree Sample Inventory, came the following recommendations:

- Plant more young trees to replace aging trees.
- Select more diverse species for new plantings, avoid maples and deemphasize cherries, pears and ash.
- Plant more evergreen trees to achieve greater environmental benefits from year-round canopy.
- Plant large maturing trees where space allows.
- Use location data from survey to identify planting opportunities.
- Expand site data to identify planting opportunities, focus on low canopy areas and neighborhoods with planting strips.
- Expand the street tree inventory for greater accuracy and usability.

Water Management and Conservation Plan (WMCP)

The following measures are actions within the WMCP to ensure sustainable use of the city's water supply.

- Annual water audit
- System metering

- Meter testing and maintenance
- Rate structure based on quantity of water metered
- Leak detection program
- Public education
- Leak repair or line replacement program
- Technical and financial assistance programs
- Retrofit and replacement of inefficient fixtures
- Water reuse, recycling, non-potable opportunities
- Rate structure and billing practices to encourage conservation

Transportation System Plan

The TSP is the guiding document for providing a framework of goals, objectives and policies that will guide the community's effort at achieving mobility. The plan contains many policies and actions that have a benefit or co-benefit of reducing the emissions share of mobile missions as outlined in the GHG Emissions Inventory. Below are goals and policies the TSP sets forth to achieve a more efficient transportation system.

Comprehensive Transportation Policies: To Provide a balanced, multimodal transportation system for the Salem urban Area that supports the safe and efficient movement of goods and people.

- Multimodal Transportation System
    - The transportation system for the Salem Urban Area shall consist of an integrated network of facilities and services for a variety of motorized and nonmotorized travel modes.
- Supportive of Land Use Plan Designations and Development patterns.
    - Local governments shall develop integrated land use and transportation plans that help improve livability by promoting changes in land use patterns and the transportation system that makes it more convenient for people to walk, bicycle, use transit, and drive less to meet their daily needs.
    - Local governments shall encourage the expansion of transit services throughout and beyond the Salem Urban Area, especially to areas of increased residential densities, major commercial concentrations, and large institutional and employment centers.
- Decreased Reliance on the SOV.
    - Local governments within the Salem Urban Area shall develop multimodal plans, services, and programs that decrease reliance on the SOV as the dominant means of travel.
- System Efficiency
    - The implementation of transportation system and demand management measures, enhanced transit service, and provision for bicycle and pedestrian facilities shall be evaluated as a first choice for accommodating travel demand and relieving congestion in a travel corridor, before widening projects are constructed.

    - The Salem Transportation System Plan shall identify methods that citizens can use to commute to work and decrease overall traffic demand on the transportation system. Such methods include transit ridership, telecommuting, carpooling, van-pooling, flexible work schedules, walking, and bicycling
- Economic Development
    - The Salem Transportation System Plan shall identify methods that employers can use to better facilitate the commute of their employees, encourage employees to use alternative travel modes other than the SOV, and decrease their needs for off-street parking.
- Neighborhood Livability
    - Transportation facilities shall be designed and constructed to minimize noise; energy consumption; neighborhood disruption; economic losses to the private or public economy, and social, environmental, and institutional disruptions; and to encourage the use of public transit, bikeways, and walkways.
- Environment
    - The City shall take proactive measures to reduce the environmental impacts from transportation programs and projects by ensuring that environmental resources are identified and evaluated for impacts early in the planning stage. Design, construction, and maintenance activities should avoid, minimize, or mitigate adverse environmental impacts. Where appropriate, the City shall look for cooperative opportunities with other public and private organizations to enhance the natural environment as a component of transportation projects and maintenance activities.

Street System: Provide a comprehensive system of streets and highways that serves the mobility and multimodal travel needs of the Salem Urban Area.

- Multimodal Capacity
    - The City shall fulfill its systemwide travel capacity needs through the utilization of multiple travel modes within the public rights-of-way.
- Multimodal Street Design
    - The City of Salem shall design its streets to safely accommodate pedestrian, bicycle, and motor vehicle travel, including transit service.
- Multimodal Intersection Design
    - Arterial and collector street intersections shall be designed to promote safe and accessible crossings for pedestrians and bicyclists. Intersection design should incorporate measures to make pedestrian crossings convenient and less of a barrier to pedestrian mobility. Accommodations shall be made for transit stops at or near street intersections.

Transportation System Management: To maximize the efficiency of the existing surface transportation system through management techniques and, facility improvements.

- Improve the Efficiency of the Signal System
    - The City shall continue to modernize the signal system and improve its coordination and efficiency by ultimately connecting all of its signals to the centralized

Traffic Control Center. The City shall increase its communication abilities with the traffic signals and cameras through installation of fiber optic communication network, or through the most cost-effective and reliable method available. The City shall employ traffic signal timing plans that maximize the efficiency of the system given the particular travel demand of that time of day. City traffic signals should be evaluated and retimed, as warranted, at least every three years to maximize the operational performance of the system.

- Maintain Signal System Operations
    - The City shall conduct regular and preventive maintenance on the signals within its inventory so as to prevent traffic delays and congestion due to avoidable malfunctions.
- Giving Intersection Improvements Priority
    - Consistent with adopted LOS standards, the City shall give the physical improvement of intersections a higher priority in the design process than general street corridor widenings when seeking ways to increase capacity and relieve congestion on a street.
- On-street Parking Management
    - Where on-street parking is permitted on a congested arterial street, the City shall give first priority to removing on-street parking as a means of enhancing the capacity of the facility. Depending upon the situation and proper analysis, the City may consider timed on-street parking prohibitions during peak travel periods in lieu of permanent removal.
- Bus Bays on Arterial Streets
    - The City shall consider installing bus bays on congested arterial streets as a means of facilitating traffic flow during peak travel periods. The feasibility, location, and design of bus bays shall be developed in consultation with the Salem Area Mass Transit District.

Neighborhood Traffic Management: To preserve and enhance neighborhood livability and safety through community supported education, enforcement, and engineering measures that address vehicle speed and volume appropriate to the street's designated functional classification.

- Neighborhood Traffic Measures Shall be Multimodal and not Limit the Use of the Street by Public Transit Services, Emergency Response Vehicles, School Buses, and Other Service Delivery Vehicles
    - NTM projects shall not prevent and should not negatively impact the flow of pedestrians and bicycles on the street system. NTM projects shall not prevent public transit and emergency response vehicles from using a street needed to provide these services. NTM should enhance pedestrian safety and provide a more desirable environment for bicyclists (e.g., slower vehicle speeds) and transit users (e.g., curb extensions). NTM should not significantly slow the response time of emergency vehicles.

Local Street Connectivity: To provide an interconnected local street system that allows for dispersal of traffic and encourages a mix of travel modes.

- To provide an interconnected local street system that allows for dispersal of traffic and encourages a mix of travel modes.
    - Applicants submitting preliminary development plans shall provide for extension of local streets to adjoining undeveloped properties and eventual connection with the existing street system. Street alignments should be sensitive to natural features, topography, and layout of adjacent development.
- A local street system designed to meet the needs of pedestrians and encourage walking as a transportation mode
    - All development shall include sidewalk and walkway construction as required by the Salem Revised Code and the adopted City of Salem Design Standards. All new road construction or reconstruction projects shall include sidewalks as specified in the Pedestrian Element of the Salem Transportation System Plan.
    - The City shall set a maximum block-length standard of 600 feet between street centerlines unless the City determines that adjacent layout or topographical conditions justify greater length.
    - The City may require pedestrian and bicycle accessways to connect to cul-de-sac streets, to pass through long blocks, and to provide for networks of public paths creating nonmotorized access to neighborhood activity centers.
- Provide for minimal paved area and dimensional requirements for local streets consistent with efforts to reduce street construction and maintenance costs, storm water runoff and environmental impacts, and provide for pedestrian-friendly streets.
    - In order to facilitate pedestrian crossing, discourage through traffic, and reduce speeds, local streets shall not be excessive in width. However, public local streets must have sufficient width to allow for emergency access and provide parking on at least one side.
    - Construction of cul-de-sac streets shall be minimized to the extent practicable.

Bicycle System: To provide a comprehensive system that accommodates a range of bicyclists with varying skill levels by providing a well-connected system of bicycle facilities that will encourage increased ridership, safe bicycle travel, active transportation, and support public health.

- The City of Salem will create a comprehensive system of bicycle facilities.
    - Bicycle lanes shall be provided on all newly constructed Arterial and Collector streets. Arterial and Collector streets undergoing overlays or reconstruction will be re-striped with bicycle lanes, as designated on Maps 7-1 through 7-5. Every effort will be made to retrofit existing Arterials and Collectors with bicycle lanes, as designated on the Maps. Where bicycle lanes are difficult to accommodate on existing Arterials and Collectors due to limited right-of-way or other environmental constraints, alternate bicycle facilities may be provided on a parallel street within the vicinity of an existing Arterial or Collector.
    - To enhance the system of on-street bicycle lanes, the City shall encourage the development of a connecting, multiuse trail network using linear corridors such as: rivers, creeks, utility easements, and abandoned rail lines using such programs as rail-banking that complements the on-street bicycle system.

- The City shall actively pursue a comprehensive system of bicycle facilities through designing and constructing projects, as resources are available, and implementing standards and regulations designed to eliminate barriers to bicycle travel. As a result of this policy, new developments or major transportation projects will neither create new, nor maintain existing, barriers to bicycle travel. Through the implementation of development Codes and standards, the City will require the creation of pathways and connections for bicyclists to schools, neighborhood shopping, and other activity centers. The City will adopt, include, and use bicycle supportive design and signage standards as part of roadway design standards, zoning and subdivision regulations, parking code requirements, railroad crossing standards, and other appropriate documents. As resources are available, the City will support projects designed to eliminate identified barriers relating to bicycle travel, either as stand-alone projects or as part of a major capital improvement project.
- As resources are available, the City shall, in consultation with local bicyclists, review existing and proposed bicycle lanes, family-friendly bikeways, cycle tracks, buffered bicycle lanes, crossing treatments, other bicycle facilities, and other streets, to identify a preferred bicycle system, and make improvements as necessary for these routes to function better for bicyclists. The system shall be identified using wayfinding signage on facilities and shown on updates of the bicycle route map. Wayfinding signage shall be prioritized to aid cyclists' ability to navigate from arterials or collectors to nearby, parallel family-friendly bikeways, especially in areas with a high number of destinations such as shopping areas.

- Increase citywide journey to work (U.S. Census) bicycling mode share to 3 percent by 2020 and 5 percent by 2030 (2008 baseline is 1.6 percent based on 2006-2008 American Community Service data).
  - Upon adoption of the Plan, the City will conduct the necessary research to establish a baseline of bicycle use for all trips. Necessary facility inventories and usage surveys will be performed every five years to determine the success or failure of the Plan's bicycle goal, objectives, and policies.
  - Recognizing that a completed system of bicycle facilities is one of the most important factors in encouraging bicycle travel, the City will construct 70 percent of the bicycle network by 2030. The "bicycle network" is defined as shared lane markings, family-friendly bikeways, bike lanes (buffered, raised, and colored included), off-street paths, and cycle tracks, with priority given to projects that fill a missing link in the bicycle system or address an identified safety hazard.
  - The City shall require each urban street construction project within the city to include consideration of bicyclists in the traffic control plan; including placement of signs, routing, and lane width. High standards for resurfacing and sweeping shall be required of all construction projects in the roadway right-of-way.
  - The City of Salem Revised Code will contain bicycle parking supply requirements and standards that require new developments to provide a minimum amount of bicycle parking, based on the needs of the specific zone or land use type.
  - To assist businesses desiring to install bicycle parking, standards and placement criteria will be developed for acceptable short- and long-term bicycle parking

facilities, including bicycle parking corrals. Annually, the City will provide a limited number of installed bicycle racks to existing businesses and agencies in commercial districts that were developed prior to bicycle parking requirements, by request, on a first come, first served basis, as resources are available.

    - The City shall encourage the installation of secure, public bicycle parking facilities for both short- and long-term parking needs at park and ride facilities, transit stations, bus terminals, train stations, airports, and other intermodal facilities. The City shall encourage the continuation of bicycle racks on transit vehicles.
    - The City shall encourage bicycling by sponsoring or participating in activities that promote bicycle transportation and recreation.
    - Where practicable, the City shall provide secure bicycle parking and lockers for employees and visitors at all City offices and provide showers and lockers for employees.
    - The City encourages all forms of active transportation, including the use of skateboard and similar devices, in a manner that protects the safety of all roadway users.

- The City of Salem shall encourage education services and promote safe bicycle travel in order to reduce the number of accidents involving bicyclists by 50 percent and aim for zero fatalities by the year 2030 (note: 60 reported bicycle crashes in 2008).
- The City shall work with the Salem-Keizer School District and neighborhood associations to maintain and improve its programs to evaluate the existing bicycle access to local schools and supporting infrastructure at schools (bicycle racks, lockers, etc.), estimate the current and potential use of bicycling as a travel mode, evaluate safety needs, and propose changes to increase the percentage of children and young adults safely using this mode.

Pedestrian System: To provide a comprehensive system of connecting sidewalks and walkways for a range of pedestrians with different abilities that will encourage and increase safe pedestrian travel and active transportation to support public health.

- The City of Salem shall create a comprehensive system of pedestrian facilities.
    - To complete the pedestrian facility network, the City shall establish a Sidewalk Construction Program that reflects the City's funding resources. This program will give priority to the construction of missing sidewalks in already developed areas of the City that would provide improved access to schools, parks, shopping, and transit services.
    - Sidewalks and walkways shall complement access to transit stations/stops, train stations, and multiuse paths. Activity centers and business districts should focus attention on and encourage pedestrian travel within their proximity.
    - All future development shall include sidewalk and walkway construction as required by the Salem Revised Code and adopted City of Salem Design Standards. All road construction or renovation projects shall include sidewalks. The City shall support, as resources are available, projects that address identified barriers to pedestrian travel or safety.
    - All signalized intersections shall have marked crosswalks. School crosswalks will

be marked where crossing guards are provided. Marked crosswalks, along with safety enhancements (medians and curb extensions), shall be provided, as resources are available, at unsignalized intersections and uncontrolled traffic locations in order to provide greater mobility in areas frequently traveled by persons with limited pedestrian capabilities. Marked crosswalks may also be installed at other high-volume pedestrian locations without medians or curb extensions if a traffic study shows there would be a benefit to those pedestrians.

- Increase citywide journey to work walking mode share (U.S. Census) to 7 percent by 2020, and 11 percent by 2030.
    - Comprehensive Plan land use designations and zoning shall be developed to allow for mixed land uses which promote pedestrian travel.
    - The City shall encourage efforts that inform and promote the health, economic, and environmental benefits of walking for the individual and the community. Walking for travel and recreation shall be encouraged to achieve a more healthful environment that reduces pollution and noise to foster a more livable community.
    - The City shall encourage the development of a connecting, multiuse pathway network, using linear corridors such as rivers, creeks, utility easements, and abandoned rail lines, using such programs as rail-banking, which complement and connect to the sidewalk, park, and transit systems.
- The City of Salem shall encourage education services and promote safe pedestrian travel in order to reduce the number of accidents involving pedestrians by 50 percent and aim for zero fatalities by 2030. (Note: 45 pedestrian-related crashes, with 5 resulting in fatalities in 2008.)
    - The City shall work with the Salem-Keizer School District and neighborhood associations to maintain and improve its programs to evaluate the existing pedestrian access to local schools, estimate the current and potential use of walking as a travel mode, evaluate safety needs, and propose changes to increase the percentage of children and young adults safely using this mode.

Transit System: A public mass transit system that provides convenient and accessible transit services to the citizens of the Salem Urban Area.

- Ensure that transit services are accessible to Salem Urban Area residences and businesses.
    - The City shall encourage transit services be routed in a manner that, where practical, provides service coverage within a quarter-mile walking distance of Salem Urban Area residences and businesses.
    - To encourage accessibility and increased ridership, the City shall encourage future transit-supportive land uses, such as mixed uses, multiple family, and employment centers, be located on or near transit corridors. Likewise, appropriate transit services should be made available to existing transit-supportive land uses.
    - Through its zoning and development regulations, the City shall facilitate accessibility to transit services through transit-supportive streetscape, subdivision, and site design requirements that promote pedestrian connectivity, convenience, and safety.
    - The City shall include the consideration of transit operations in the design and op-

eration of street infrastructure in identified transit-oriented centers and corridors, as well as in other appropriate locations.

    - The City of Salem shall encourage connectivity between different travel modes. Transit stops, transfer centers, and park-and-ride facilities should be accessible by pedestrian, bicycle, bus, and automobile travel. Priority should be given to completing the sidewalk network within a quarter-mile of high frequency corridors and at all transit stops. Intercity passenger bus, aviation, and rail terminals should be accessible by transit services.
    - The City will support the efforts made by the Salem Area Mass Transit District to increase mobility for transportation disadvantaged citizens, in providing the maximum level of access to social, work, welfare, and resources, including the creation of a customer-oriented, regionally coordinated public transit system that is efficient, effective, and founded on present and future needs.

- Develop and operate a public transit system that provides both convenient service and travel times that are competitive enough with the automobile to attract increased ridership.
    - The City shall support the development and implementation of the Salem Area Mass Transit District's public transit system.
    - The City shall support attempts made by the Salem Area Mass Transit District to increase the frequency of transit services (shorter headways), extend its hours of operation, and provide weekend service.
    - The City shall continue to work with the Salem Area Mass Transit District and other State and local jurisdictions to identify and develop capital facilities for express, connector, and regular transit services, vanpools, and carpools.
    - The City shall support the Salem Area Mass Transit District's express transit services to and from outlying park-and-ride facilities and the central core area of Salem.
    - The City shall support efforts by the Salem Area Mass Transit District to develop and implement transit fares that balance the need for passenger revenues with the goal of maximizing ridership.
    - The City shall work with the Salem Area Mass Transit District to implement the latest transit priority technology to facilitate transit service efficiency.
- To mitigate a portion of the traffic pressures expected by regional growth, increase overall daily transit ridership in the Salem Urban Area to the point that at least 25 percent of all work commute trips are completed using transit or travel modes other than the single-occupant vehicle.
    - The City shall support efforts of the Salem Area Mass Transit District to increase commuter transit ridership through voluntary employer-based incentives such as subsidized transit passes and guaranteed ride home programs.
    - The City shall support the Regional Rideshare Program and other Transportation Demand Management (TDM) efforts to assist in the effective marketing of transit services to Salem Urban Area residents and businesses.
    - The City shall develop and implement parking policies that manage the supply

and costs of public parking in a manner that supports increased transit ridership taking into consideration the economic needs of surrounding business districts.

Transportation Demand Management: To reduce the demands placed on the current and future transportation system by the single-occupant vehicle.

- The City shall work toward reducing per capita vehicle-miles-traveled in the Salem Urban Area by assisting individuals in choosing alternative travel modes.
    - The City of Salem shall continue to be an active supporter of the regional TDM program, including Cherriots Rideshare.
    - The implementation of the regional TDM program shall be an important component in any comprehensive strategy to increase more efficient transportation choices and achieve a reduction in the number of per capita vehicle-miles-traveled.
- Reduce automobile travel demand generated by employment sites, colleges, and schools.
- The City shall support the regional TDM program's efforts to target marketing to groups which have the greatest potential for reducing automobile trips, including employers and employment sites, and commuting students.
- The City shall support the regional TDM program's efforts to provide assistance to employers in designing and implementing trip reduction plans at their work sites. Trip reduction plans will include strategies to encourage employees to use alternative transportation modes and discourage them from commuting in single-occupant-vehicles. Alternative work hours and teleworking will also be recommended as a way of reducing peak hour congestion.
- The City shall support the regional TDM program's efforts to provide information on forming and joining vanpools to employers and individuals.
- The City of Salem shall encourage the State of Oregon to implement, through its agencies, significant measures that will reduce peak hour travel demand on Salem's street system. These measures should include the widespread institution of flexible work schedules, increased carpooling, vanpooling, teleworking, and transit ridership.
- Increase public awareness of alternative transportation modes.
    - The City shall coordinate with the regional TDM program to provide information to the public on transportation options at appropriate public events to raise awareness of available options and to encourage the use of alternative transportation modes.
    - The City shall coordinate with the regional TDM program to conduct outreach activities at schools and community groups to inform them about transportation mode choices and their benefits. Outreach to schools should be designed to educate children about alternative transportation modes before they start driving.
- The City of Salem shall encourage the use of alternative travel modes by serving as an institutional model for other agencies and businesses in the community.
    - The City shall serve as a leading example for other businesses and agencies by maximizing the use of alternative transportation modes among City employees through incentive programs. The City shall provide information on alternative

transportation modes and provide incentives for employees who use alternatives to the single-occupant vehicle.

- The City shall implement measures directed at City employees that will reduce peak hour travel demand on Salem's street system. These measures should include the widespread institution of flexible work schedules, increased carpooling, van-pooling, teleworking, and transit ridership.

Parking Management: To ensure the Salem Urban Area has an appropriate supply of parking facilities that supports the goals and objectives of the Salem Transportation System.

- The City of Salem will define an appropriate role for on-street parking facilities.
  - The provision of on-street parking is second in priority to the needs of the travel modes (i.e., vehicle, transit, bicycle, pedestrian) using the street right-of-way, except where abutting properties have no ability to provide their own off-street parking or where on-street parking is needed to support an existing business district.
  - Where practical, existing on-street parking will be removed in preference to widening streets for additional travel lanes. Efforts will be made to mitigate the impact of parking removal in those areas where abutting properties have no ability to provide their own adequate supply of off-street parking or where on-street parking is needed to support an existing business district.
- The City of Salem shall promote economic vitality and neighborhood livability by requiring an appropriate supply of off-street parking facilities.
  - To avoid the unnecessary utilization of lands for off-street parking, the Salem Revised Code will contain off-street parking supply requirements, specific to individual zoning designations and/or land use types, that require new development to provide:
    - A minimum amount of parking based on the needs of the specific zone or land use type;
    - A maximum amount of parking allowed based on the needs of the specific zone or land use type.
  - The location of major activity centers shall be accessible by transit and shall meet their parking demand through a combination of shared, leased, and new off-street parking facilities.
  - New developments are encouraged to design features or institute programs to promote use of alternative modes of transportation as one way to reduce the needs for off-street parking facilities.
- To decrease reliance on the SOV and encourage the use of alternative modes of travel, the City of Salem will work toward meeting the State Transportation Planning Rule requirement to reduce the regional parking supply per capita by 10 percent by the Year 2015.
  - The City of Salem will allow owners and lessees of nonresidential developments to satisfy off-street parking requirements by implementation of a plan to provide for, or increase the use of, alternative modes of transportation as detailed in the Salem Revised Code.
  - To encourage Salem Area workers to carpool, ride transit, and use alternative

modes of travel, the City of Salem shall charge for parking at City-owned parking facilities, and encourage other government agencies to do likewise at their facilities.

- The City will set prices for City-owned parking facilities in Central Salem to a level that discourages employees from driving alone to work, reflects the relative demand for parking supply, and the cost of constructing, maintaining, and operating such facilities. The City will investigate charging its own employees for parking, or implementing other financial incentives, at its facilities located outside of Central Salem that are on, or near, transit routes.

- In order to encourage the use of carpools and vanpools, the City will offer discounted prices for City-controlled carpool parking facilities.
  - The City will encourage other Federal, State, regional, and local government agencies to charge their employees for parking at their facilities in Central Salem and at other locations in the City that are on or near transit routes.
  - The City will charge for, or otherwise restrict, on-street parking in Central Salem to encourage use of alternative modes of travel by regular commuters to the Central Salem area. This district may be expanded to on-street parking facilities in other areas of Salem as conditions warrant.

Intercity and Commuter Passenger Travel: To provide safe, efficient and convenient locations for passengers to access a variety of local and intercity travel services.

- The City of Salem shall work to ensure the availability of various intercity and commuter passenger travel services.
  - The City shall support Federal and State programs that increase the frequency, intercity travel speed, commuter service, and quality of passenger rail services available to the Salem Urban Area.
  - The City shall encourage the continued operation and, where possible, expansion of intercity and commuter bus services available to the Salem Urban Area.
- The City of Salem shall work to ensure that intercity passenger facilities within the Salem Urban Area are located conveniently and efficiently in relation to other travel services and major activity centers.
  - To facilitate convenient passenger rail service, the City shall work with federal, state, and local government agencies to ensure the continued operation and physical improvements to the existing Salem passenger railroad station. Improvements should include connections to transit, intercity bus, and taxi services, as well as improvements to access the surrounding street, bicycle, and pedestrian system, including convenient secured bicycle parking facilities.
  - To promote convenient connections to other intermodal facilities, the City shall strongly encourage intercity bus providers to locate their primary passenger terminals within the Central Salem area. Intercity bus terminals shall be accessible by bicycles and pedestrians. Additional connections should be made convenient to rail, transit, and taxi services.
  - The City shall work with the Salem Area Mass Transit District to ensure that transit transfer facilities are accessible to pedestrians and bicyclists, including provi-

sions for secured bicycle parking. Provisions should be made for accommodating passenger pick up/drop off and taxi services.

    - Where the consolidation of intercity passenger facilities and services is not possible, intercity facilities should be linked via adequate transit, taxi, or shuttle services. Intercity passenger facilities should be linked by adequate pedestrian and bicycle facilities.

Freight Movement: To ensure a multimodal transport system for the efficient, safe, and competitive movement of goods and services to, from, and within the Salem Urban Area.

- The City of Salem shall encourage accessibility to a range of viable and competitive transport modes that fulfill the needs of Salem area shippers.
    - The City of Salem shall create a street and highway system that provides direct and efficient access to and between Salem Urban Area industrial and commercial centers, regional intermodal freight facilities, and statewide transport corridors.

Transportation System Maintenance: To provide adequate maintenance to the City of Salem's street, sidewalk, and bikeway system.

- Consistently clean and safe travel ways.
    - The City shall have a street and bike lane cleaning program of sufficient frequency that will reduce dust accumulations.
    - The City shall have a street cleaning program that uses Best Management Practices (BMPs) to reduce the impact on water quality from street runoff.
    - The City shall have a cleaning program that provides a timely and adequate response to removal of debris from streets and bicycle lanes.

Long-range Transportation Strategy: A long-term transportation strategy that guides Salem toward eventual build-out of its existing UGB, through principles aimed at providing mobility, accessibility, and developing efficient and livable urban form.

- Urban Standard Streets
    - The City shall make it a priority to bring the arterial and collector street system within the Salem Urban Area up to urban design standards, having such features as curbs, sidewalks, corner curb ramps, bicycle lanes, drainage, and illumination. Local streets should be improved to urban standards, as feasible and appropriate.
- Efficient Regional Transit Service
    - The City shall support the development of a transit system that, over the long term, will provide a level of service that can accommodate the travel demands expected over the long term. The city will need to be served by a system of buses that have short headways and provide a system of direct and convenient connections to employment, retail, institutional, and educational centers. The city's street system will need the transit system to help relieve its capacity deficiencies by providing express transit service during peak travel periods. Express transit routes should be served by a series of park and ride facilities.
    - The City shall support the development of an expanded transit system that provides frequent service to outlying satellite communities such as: Woodburn,

Silverton, Dallas, Monmouth, Independence, Turner, Sublimity, Stayton, Aumsville, and others. The City shall also support the development of frequent and convenient intercity passenger services that connect the Salem-Keizer region to the Portland metropolitan area, Coast, and other Willamette Valley cities.

- Arterial Street Width
    - The City shall limit its arterial streets to a total cross section of no more than five lanes wide. Some intersections may need to exceed the five-lane standard. State facilities and those roads classified as Freeways and Parkways may also need to exceed this standard. Travel demand that would require the exceedance of five-lane arterial cross sections should be accommodated through increased transit service, demand management techniques, and alternative travel modes. Applications of technology and access control should be used to maximize the capacity of the existing and planned street system.
- Off-street Facilities
    - The City shall explore the feasibility of establishing exclusive rights-of-way for future high capacity transit operations and the development of a system of off-street bicycling and walking pathways or trails.
- Activity Subcenters
    - The City shall support the continued development of the Central Salem core area as the focal point of the community, while creating opportunities for employment and retail centers outside of the downtown that will spread travel demand more uniformly throughout the urban area, easing pressure on Salem's radial arterial streets. These activity centers should be served extensively by transit services.
- Mixed Use Developments
    - The City shall facilitate the development of mixed-use developments that reduce automobile dependence and encourage walking, bicycling, and transit ridership. This can be accomplished through revisions to the Salem Area Comprehensive Plan and Salem Revised Code. Comprehensive Plan and Zoning Code maps should identify where mixed-use developments can be located. They should be located where they can be best supported by the overall city transportation system.
- Increased Residential Densities
    - Through future amendments to the Salem Area Comprehensive Plan, the City shall provide opportunities for increased residential densities in locations that support increased use of alternative travel modes, especially transit.
- Local Street Connectivity
- The City shall require subdivision and development plans to provide local street connections to neighborhood activity centers, such as parks, schools, and neighborhood retail centers, thus reducing automobile demand and promoting walking and bicycling. Accessibility to transit service shall be provided via connections to streets designated as transit routes.

Appendix D: Adopted CAPs scoring matrices

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Fact Base (Baseline)														
Sub-Elements	**Description**													
Climate Change Awareness	Include a description of the causes of climate change which describes both the naturogenic and anthropogenic causes of climate change along with quality, peer-reviewed widely accepted scientific evidence.	1	1	1	1	1	1	1	1	1	1	1	1	0
Climate Change Context	Frame climate change as both a global and local issue by starting at a worldwide scale and describing how the local community will be affected. It is important to localize worldwide changes.	1	1	1	1	1	1	1	1	1	1	1	1	0
Emissions Inventory	Include an emissions inventory, such as greenhouse gases (GHG) inventory to inform the community of where it stands compared to scientific emission thresholds.	1	1	1	1	1	1	1	1	1	1	1	1	1

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Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Emissions Inventory Breakdown	Include a breakdown of the emission inventory, such as providing an inventory of emissions by sector.	1	1	1	1	1	1	1	1	1	1	1	1	1
Base Year Emissions	Include a base year for emissions, this is generally the year of the data used for the GHG inventory.	1	1	1	1	1	1	1	1	1	1	1	1	1
Emission Trends Forecast	Include an emissions forecast (e.g., carbon footprint reduction in the future).	1	1	1	1	1	1	1	1	1	1	1	1	0
General Climate Change Impacts	Include a discussion of the general impacts of climate change (e.g., sea level rise, increasing temperature, storm frequency, impact on quality of life, and local air quality).	1	1	1	1	1	1	1	1	1	1	1	1	0
Specific Climate Change Impacts	Include a discussion of the specific impacts of climate change to the jurisdiction (e.g., identifies specific locations in the jurisdiction that are vulnerable to the effects of climate change).	1	1	1	1	1	0	1	1	1	1	1	1	0

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Vulnerability Assessment	Identify certain geographic areas that will be disproportionately affected by climate change (e.g., areas within floodplain on near Wildlife Urban Interface (WUI)).	1	1	1	1	1	0	0	1	1	1	1	1	0
	Identify certain demographic populations that will be disproportionately affected by climate change.	1	1	1	1	1	1	1	1	1	1	1	1	0
	Identify certain industries that will be disproportionately affected by climate change.	0	0	0	0	0	0	0	0	0	0	1	1	0
Past Action	Describe environmental actions that have been taken to reduce carbon emissions; also include all a brief description of all relevant planning documents.	1	1	1	1	1	1	1	1	1	1	1	1	0
	Section Score	**11**	**11**	**11**	**11**	**11**	**9**	**10**	**11**	**11**	**11**	**12**	**12**	**3**

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Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Goals														
Sub-Elements	**Description**													
Adaptation – General	Include at least one broad goal related to adaptation or reducing vulnerability to climate change.	1	1	1	1	1	1	1	1	1	1	1	1	0
Adaptation – Specific	Include at least one specific goal related to adaptation or reducing vulnerability to climate change (e.g., reducing development in hazard areas found in the jurisdiction)	1	1	1	1	1	1	1	1	1	1	1	1	0
Mitigation – Community Emissions	Include at least one goal related to community emissions (i.e., how can the community reduce its impact related to climate change).	1	1	1	1	1	1	1	1	1	1	1	1	0
Mitigation – Government Emissions	Include at least one goal related to government emissions (i.e., how can the local government reduce its impact related to climate change).	1	1	1	1	1	1	1	1	1	1	1	1	0

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Mitigation – Long-Term GHG Emissions	Include at least one long-term (i.e., 20 years or greater) target for reducing GHG emissions.	1	1	1	1	1	1	1	1	1	1	1	1	0
Mitigation – Short Term GHG Emissions	Include at least one short-term (i.e., less than 20 years) target for reducing GHG emissions.	1	1	1	1	1	1	1	1	1	1	1	1	0
	Section Score	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**0**
Policies/ Actions														
Sub-Elements	**Description**													
Building Quality	Reduce life-cycle emissions and energy consumption of the building stock (e.g., promote statewide building code updates, residential home energy scoring program).	6	9	9	9	9	6	9	9	9	9	9	6	0
Parking Restrictions	Reduce the availability and affordability of private vehicle parking (e.g., increased parking prices, optimized light traffic timing and high efficiency incentives).	6	0	9	0	6	3	6	9	9	9	6	0	0

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Dense Development	Encourage pursuing higher population, jobs, and building density; discourage sprawl (e.g., urban containment and promotion of increased density).	6	3	9	3	3	3	6	3	3	6	6	3	3
Sub-Elements														
Mass Transit	Enable safe, convenient, affordable public transit options (e.g., increased bus lines and expansion of transit network).	4	4	6	6	4	2	4	6	4	6	4	4	2
Automobile Interdependence	Reduce private vehicle reliance; internalize public costs of private vehicles(e.g., congestion management and ride-sharing/ carpool support).	6	4	6	4	4	2	4	4	4	4	6	4	2
Non-motorized transport	Enable safe and convenient walking and cycling (e.g., connected bike/pedestrian paths and first/last mile connections).	4	4	4	2	2	2	6	6	6	6	6	4	4

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Mixed land use zoning	Co-locate residential, commercial, office, restaurants, and other land uses (e.g., financial incentives and specific targets for proximity of complementary uses).	2	2	6	0	4	0	4	4	2	0	6	2	2
Regional Planning	Incorporate inter-city travel into transportation planning (e.g., outline actions of how to reduce regional commuter emissions).	4	4	2	2	2	0	0	4	4	4	4	2	2
Strategic growth	Encourage development and affordable housing for population growth (e.g., inclusionary zoning and streamlines permitting process for increasing density).	2	4	6	2	2	0	4	4	4	2	4	0	0
Transparent assessment	Record, validate, and report energy consumption and emissions data (e.g., regularly update city emissions and progression towards emission reduction target(s)).	4	4	4	4	2	2	6	2	6	4	4	4	0

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Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Consumption-based analysis	Incorporate embedded emissions an energy into planning decisions (e.g., incorporate life-cycle analysis into emissions).	4	2	4	4	2	0	6	2	4	4	6	0	0
Consumer habits	Aim to educate consumers on beneficial energy habits (e.g., provide online resources, workshops and training for city employees).	4	4	4	4	4	4	6	6	4	4	6	4	0
Appliance efficiency	Aim to improve energy efficiency of building appliances (e.g., establish rebate programs and efficiency mandates).	4	2	6	4	4	2	4	4	4	6	4	4	2
Smart-grid management	Enable more flexible, controllable electricity demand (e.g., energy management plan for all city facilities).	4	6	4	4	4	4	4	2	4	6	2	0	2

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Sub-Elements														
Green spaces	Create natural, undeveloped space in the city (e.g., tree planting goal and/or resident proximity to park goal).	3	3	3	0	3	2	3	3	0	3	2	2	3
Architectural form	Encourage low-energy architectural forms (e.g., incorporate "green building" incentives into development practices).	2	3	3	1	2	1	1	2	2	2	3	1	1
District energy systems	Develop district-scale heating, cooling, and/or energy utility networks (e.g., increase awareness and planning for district energy systems).	0	3	2	2	1	1	0	1	1	1	3	0	2
Vehicle electrification	Replace gas-powered private vehicles with electric vehicles (e.g., plan for electric vehicle charging infrastructure).	3	1	3	3	3	2	3	3	3	3	3	2	0
Clean power sector	Support low-emitting electricity generation in regional power grids (e.g., future goal of 100% renewable energy).	1	3	2	3	2	1	3	3	3	3	2	2	3

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Local renewables	Encourage renewable generation, such as solar power, within the city (e.g., incorporate renewable energy into city buildings and remove barriers for renewable energy installation).	3	2	3	3	3	2	2	2	3	2	3	1	0
Water infrastructure	Reduce water utility's energy consumption and emissions (e.g., real-time monitoring of city water, decentralized water treatment).	2	2	2	1	3	2	2	2	2	2	2	2	2
Solid waste emissions	Reduce emissions from sewage treatment municipal solid waste (e.g., improved recycling/ composting and consumer education.	3	2	2	1	2	2	3	1	2	2	3	1	1
	Section Score	**77**	**71**	**99**	**62**	**71**	**43**	**86**	**82**	**83**	**88**	**94**	**48**	**31**

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Implementation														
Sub-Elements	**Description**													
Implementation Section	Include a separate section that addresses what needs to be done to implement the plan.	1	1	1	1	1	1	1	1	1	1	1	0	0
Plan Priority	Prioritize actions for implementation; often done in a tier system.	0	0	1	0	1	1	1	1	1	1	1	0	0
Organization Responsibility	Identify specific organizations (both internal and community partners) with responsibility for implementation.	1	1	0	1	0	0	1	1	1	1	1	1	0
Timelines	Identify timelines for implementation with either hard targets or a reference time frame.	1	0	1	0	1	0	1	1	1	1	1	1	0
Financial Tools	Include at least one policy on financial mechanisms to incentivize action or collect revenue related to climate change (e.g., carbon tax, GHG reduction fee, development charges, and funding for GHG reduction projects). Many of these are not within a city's control but city can support state legislation.	1	0	1	0	1	1	1	1	1	0	1	0	0

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
	Section Score	**4**	**2**	**4**	**2**	**4**	**3**	**5**	**5**	**5**	**4**	**5**	**2**	**0**
Monitoring and Evaluation														
Sub-Elements	**Description**													
Monitoring and Evaluation Section	Include a separate section that addresses what needs to be done to monitor and evaluate the plan with both evaluation criteria and responsible parties for monitoring the plan.	1	0	1	1	1	0	0	1	1	1	1	0	0
Organization Responsibility	Identify departments responsible for monitoring the plan.	1	1	0	1	1	0	1	1	1	0	1	1	0
Timeline for Plan Update	Identify a timetable for updating the plan based, in part, on results of monitoring changing conditions.	1	1	1	0	1	0	0	1	1	1	1	1	0

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Quantifiable Goals and Policies (includes Indicators)	Include goals and policies that are quantifiable and based on measurable objectives and/or targets (includes indicators).	1	0	1	1	1	0	1	1	0	1	1	1	0
	Section Score	**4**	**2**	**3**	**3**	**4**	**0**	**2**	**4**	**3**	**3**	**4**	**3**	**0**
Inter-organizational Coordination														
Sub-Elements	**Description**													
Horizontal Coordination	Include at least one horizontal connection with other local plans/programs (e.g., official plan documents and other climate change initiatives).	1	1	1	1	1	1	1	1	1	1	1	1	0
Vertical Coordination	Include at least one vertical connection to federal, state plans and regional plans (where applicable) (e.g., state legislation on climate change).	1	1	1	1	1	1	1	1	1	1	1	1	0
	Section Score	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**0**

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Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Participation														
Sub-Elements	**Description**													
Stakeholder Engagement	Identify the organizations and stakeholders involved in the plan making process (e.g., staff from different agencies or departments, and politicians).	1	1	1	1	1	1	1	1	1	1	1	1	0
Public Engagement	Identify the public as part of the plan making process and promote a diverse public engagement strategy to include historically underrepresented communities.	1	1	1	1	1	1	1	1	1	1	1	1	0
Purpose of Participation	Include an explanation of why organizations and stakeholders were involved.	1	1	0	1	1	1	1	1	0	1	1	1	0
Evolution of Plan	Include a description of the evolution of the pan.	1	1	1	1	1	1	1	1	1	1	1	1	0
	Section Score	**4**	**4**	**3**	**4**	**4**	**4**	**4**	**4**	**3**	**4**	**4**	**4**	**0**

Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
Organization and Presentation														
Sub-Elements	**Description**													
Executive Summary	Include an executive summary or similar section that provides an overview/summary of the plan.	1	1	1	1	1	1	1	1	1	1	1	1	0
Table of Contents	Include a table of contents detailing plan chapters and subheadings.	1	1	1	1	1	0	1	1	1	1	1	1	0
Glossary of Terms	Include a glossary or definition of terms.	1	1	0	1	1	0	1	1	1	1	1	0	0
Illustrations	Use clear illustrations (e.g., diagrams and graphs).	1	1	1	1	1	1	1	1	1	1	1	1	0
	Section Score	**4**	**4**	**3**	**4**	**4**	**2**	**4**	**4**	**4**	**4**	**4**	**3**	**0**
	Total Actions and Policies Score	77	71	99	62	71	43	86	82	83	88	94	48	31
	Total Possible Actions and Policies Score	117	117	117	117	117	117	117	117	117	117	117	117	117

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Adopted CAPs Scoring Matrix														
		Ashland	Beaverton	Bellingham	Bend	Boulder	Corvallis	Eugene	Evanston	Fort Collins	Milwaukie	Portland	Tacoma*	Salem
	Plan Actions and Policies Score (%)	66%	61%	85%	53%	61%	37%	74%	70%	71%	75%	80%	41%	26%
	Total Score	108	98	128	90	102	67	115	114	113	118	127	77	34
	Total Possible Score	154	154	154	154	154	154	154	154	154	154	154	154	154
	Plan Score (%)	70%	64%	83%	58%	66%	44%	75%	74%	73%	77%	82%	50%	22%

(Deetjen, Conger, Leibowicz, & Webber, 2018) was used to compute scores for the Actions and Policies section, and (Guyadeen, Thistlethwaite, & Henstra, 2019) was used to compute scores for all other CAP elements above.

Actions and Policy Scoring Rubric Table	
Policy Type	**Points Awarded**
Essential policies	
Building quality	3 – communicates intentions to improve building quality, but mentions no specific policies or building code updates.
	6 – plans to update building codes to promote higher efficiency new construction and retrofits.
	9 – promotes urban regeneration, net zero energy, and/or embodied energy accounting for construction and demolition materials.
Parking restrictions	3 – includes one of restructured zoning requirements (e.g. revised parking minimums/ratios), improved pricing (e.g. increased off-street parking rates and unbundled parking), or high-efficiency incentives (e.g. preferential parking for EVs or carpools).
	6 – contains two of restructured zoning requirements, improved pricing, or high-efficiency incentives.
	9 – contains all three of restructured zoning requirements, improved pricing, and high-efficiency incentives.
Dense development	3 – mentions goals to increase density without specific policies.
	6 – develops specific policies for one of density bonuses, repurposing existing buildings, minimum floor area ratios or building heights, or urban growth boundaries.
	9 – develops multiple urban containment and density promoting policies.
Priority policies	
Mass transit	2 – mentions goals to expand transit network without specific policies or development plans.
	4 – includes specific plans for transit-oriented development, increased bus lines, expansion of transit network, etc.
	6 – outlines a complete overhaul of the current transit system and/or expands the transit network to include rail.

Automobile independence	2 – mentions need for congestion management and includes one specific policy including ride-sharing/carpool support, fuel taxes, higher parking prices, congestion charges, optimized traffic light timing, etc.
	4 – includes two specific policies.
	6 – includes more than two policies and/or goals to reduce vehicle travel by substantial amounts.
Non-motorized transport	2 – mentions need to increase non-motorized transport without specific plans.
	4 – includes specific plans for pedestrian paths, bike lanes, and/or complete streets.
	6 – develops ambitious program for expanding bike/sidewalk infrastructure, traffic free zones, adding bike racks to buses, etc.
Mixed land use zoning	2 – mentions mixed-use planning without specific policies, or implements small-scope plans.
	4 – develops city-wide plans for mixed-use and affordable development, financial incentives, and specific targets for proximity.
	6 – includes land use survey for entire city to guide policy.
Regional planning	2 – mentions regional transportation planning without specific policies.
	4 – includes policies for transit between surrounding towns/suburbs, and/or mentions airport GHG emissions.
	6 – includes policies for transit between other metro areas or states.
Strategic growth	2 – plans mention “smart growth” or other verbiage allowing for future population growth.
	4 – includes either policies focused on affordable housing (e.g. inclusionary zoning) or streamlined development (e.g. redesigned processes for approving permitting and zoning changes).
	6 – includes both affordable housing and streamlined development policies.

Transparent assessment	2 – regularly updates climate action plan but city-level emissions data are not available on the city website.
	4 – provides city emissions data on a scheduled basis.
	6 – verifies city emissions data via an independent, third-party.
Consumption-based analysis	2 – emissions accounting incorporates one consumption-based metric such as air travel emissions, construction emissions, life-cycle analysis, fuel processing, food packaging, waste disposal, etc.
	4 – emissions accounting incorporates two consumption-based metrics.
	6 – emissions accounting incorporates multiple consumption-based metrics including life-cycle analysis.
Consumer habits	2 – online resources, pamphlets, and suggestions in the climate action plan for consumers.
	4 – workshops available for consumers, such as retrofit and appliance efficiency education – training for city employees.
	6 – advertising and outreach to connect design professionals and commercial sector with educational tools – quantifiable outreach goals for engaging the public with educational tools.
Appliance efficiency	2 – focuses on low-impact, city owned assets, such as street lighting or government buildings.
	4 – also includes larger scope policies such as rebate programs and efficiency mandates.
	6 – also includes aggressive strategies, such as Energy Star building leadership or plans for retrofitting majority of city's homes.
Smart-grid management	2 – includes basic grid infrastructure updates, installing AMI infrastructure without describing future policies for its use, or energy management plans only include city government buildings.
	4 – encourages one of smart grid technology, real time pricing, demand response, energy storage, or microgrids.
	6 – includes more than one policy implemented at the city-wide level.

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Additional policies	
Green spaces	1 – mentions green space development with no specific policies.
	2 – develops specific policies for increasing green space in the city.
	3 – develops aggressive goals relative to other plans (e.g. everyone within a 5-minute walk to a park or 1 million trees planted).
Architectural form	1 – mentions only one policy, or promotes efficient architectural form without specific policies mentioned.
	2 – mentions multiple policies and attempts to engage the design community through education and outreach.
	3 – also actively promotes education and involvement of the design community through professional workshops and organizations.
District energy systems	1 – promotes district energy integration with no specific plans or policies.
	2 – identifies district energy or combined-heat-and-power projects, develops district energy financing plans.
	3 – city already utilizes district energy systems.
Vehicle electrification	1 – plans to transition city vehicle fleet toward hybrid vehicles.
	2 – plans for EV charging infrastructure, EV incentives, electrification of transit, fuel taxes, etc.
	3 – plans for aggressive vehicle electrification with four or more policies mentioned.
Clean power sector	1 – supports renewable energy, lobbies utilities for more renewables without specific policies in mind, or has low renewable goals.
	2 – pursues coal divestment, renewable PPAs, RECs, and/or working with utility to develop new, utility-scale renewable projects.
	3 – includes future goals for 100% renewables.

Local renewables	1 – incorporates renewable energy technology in government buildings.
	2 – includes policies that incentivize or remove barriers for one type of local renewable energy technology.
	3 – promotes selling back to grid, maps out ideal locations, mentions incentives for multiple types of renewable energy technology.
Water infrastructure	1 – limits policies to city government buildings, or plans to use renewable energy sources for powering the water system.
	2 – plans for water infrastructure improvements, water audits, leak detection, storm water capture, etc.
	3 – plans for city-wide real-time monitoring of water system (SCADA), thermal hydrolysis for wastewater treatment, decentralized water treatment.
Solid waste emissions	1 – mentions waste reduction without specific policies, or only includes recycling policies.
	2 – includes multiple policies covering composting, improved recycling, pay-as-you-throw, and/or consumer education.
	3 – includes zero waste goals, waste-to-energy plants, landfill gas recapture.

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Appendix E: Adopted CAPs scores

Adopted CAP Scores													
	Ashland	**Beaverton**	**Bellingham**	**Bend**	**Boulder**	**Corvallis**	**Eugene**	**Evanston**	**Fort Collins**	**Milwaukie**	**Portland**	**Tacoma***	**Salem ****
Total Actions and Policies Score	77	71	99	62	71	43	86	82	83	88	94	48	31
Total Possible Actions and Policies Score	117	117	117	117	117	117	117	117	117	117	117	117	117
Plan Actions and Policies Score (%)	66%	61%	85%	53%	61%	37%	74%	70%	71%	75%	80%	41%	26%
Total Overall Score	108	98	128	90	102	67	115	114	113	118	127	77	34
Total Possible Overall Score	154	154	154	154	154	154	154	154	154	154	154	154	154
Plan Score (%)	70%	64%	83%	58%	66%	44%	75%	74%	73%	77%	82%	50%	22%

* Denotes Tacoma having two other plans that feed into their CAP significantly. Much of the content is located within the other plans, reflecting a lower score for Tacoma.

** Salem does not have a CAP, therefore it lacks many plan specific elements such as: goals, implementation strategy, public participation and organizational coordination.

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Appendix F: Plan Relevance Chart

Local, State and Federal Plans Relevant to Recommended CAP Sections					
	Buildings and Energy	**Land Use and Urban Form**	**Transportation and Fuels**	**Consumption and Materials Management**	**Natural Resources and Community Wellbeing**
City Specific					
Environmental Action Plan	X	X	X	X	X
Community Energy Strategy	X	X	X	X	X
Salem Area Comprehensive Plan	X	X	X		X
Comprehensive Park System Master Plan Update		X			X
Community Forestry Strategic Plan		X			X
Water Management Conservation Plan				X	X
Stormwater Design Handbook	X	X			X
Transportation System Plan		X	X		X
Community Wide GHG Emission Inventory	X		X	X	X
Capital Improvement Plan	X	X	X	X	X
City of Salem Natural Hazard Mitigation Plan		x			x
Community and Regional Partners					
Portland General Electric Integrated Resource Plan	X	X	X		X
Energy Trust of Oregon Strategic Plan	X				X
Salem Keizer Regional Transportation System Plan		X	X		X
State and Federal Level					
Oregon Renewable Portfolio Standard (RPS)	X				
State of Oregon - Biennial Energy Plan	X	X	X	X	
Oregon 10 Year Energy Plan	X	X	X	X	
Oregon Statewide Planning Goals	X	X	X		X
State of Oregon - GHG Goals	X	X	X	X	X
Climate and Health Reliance Plan					X
Oregon SB 263 Recovery Goals				X	
SB 1547 Oregon Clean Electricity and Coal Transition Plan	X				X
Oregon Clean Fuels Program			X		
Federal C.A.F.E. Standards			X		
SB 2001 - Single Family Housing	X	X			
Oregon DEQ Materials Management Vision				X	X

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Appendix G: ICLEI information

ICLEI is an organization that gives local governments access to tools, support, resources, and network that have been established and used in hundreds of jurisdictions. The organization offers technical assistance, emissions calculation software (ClearPath) and step-by-step guidance through their established 5 Milestones:

1. Inventory GHG Emissions (City of Salem has completed, 2019)
2. Establish reduction target
3. Develop Climate Action Plan (CAP)
4. Implement Policies and Measures
5. Monitor and verify results

ClearPath Software

The ClearPath program **is** compatible with the GPC protocol. Therefore, if the city wants to do part(s) of the "5-milestone" process in-house, the *GHG emissions Inventory* (2019) could be input directly into the ClearPath software. ICLEI also gives access to consultants hired by member cities – I am not sure if consultants have prior access to the program or if they only gain access through the client.

The software contains 4 modules*:

1. **Inventory:** City of Salem has already completed an inventory but could be useful for future updates to the inventory.
2. **Forecasting:** Users can apply custom growth rates with a broad brush or at fine detail and can account for the impact of actions taken by higher levels of government such as renewable portfolio standards or fuel economy standards. Completed forecasts can be used to generate attractive charts and reports that serve as the foundation for a Climate Action Plan.
3. **Planning:** The Planning Module of ClearPath allows for analysis of emissions reductions potential from Climate Action Plan measures. Users still have access to a wide range of reduction measures but can now interactively apply them in a scenario planner to visualize their impact on the emissions forecast in real time. This module introduces new cutting-edge capabilities not available in other tools, including:
    - Accounting for programs that expand year over year or wear out over time.
    - Employing sophisticated algorithms to avoid double-counting of emissions.
    - Performing financial impact calculations to convey the co-benefits of measures.
4. **Monitoring:** With the Monitoring module, users have the power to actively monitor and track government operations and community scale implementation measures created in the Planning Module. Users can better interpret their data and support a process of continuous improvement in climate performance. Extensive monitoring reports provide users

with the added benefit of comparing whether or not actual implementation measures are performing as envisioned in adopted action plans.

** descriptions from this section taken directly from ICLEI.*

Cost

Annual membership dues are based on city population; the annual cost for City of Salem would be $1,750 (pop. 100k- 200k) or $2,250 (pop. 200k-300k). It is possible to obtain access to just the ClearPath software and that price is only available upon request.

Jurisdictions in Oregon that are part of ICLEI, and have used ClearPath, include:

- Ashland
- Beaverton
- Bend
- Eugene
- Lake Oswego
- Milwaukie
- Newberg
- Portland

Appendix H: Salem Climate Actions Audit Work Scope

Work Scope

For

City of Salem Climate Actions Audit

November 6, 2019

In anticipation of developing a climate action plan, the City of Salem is undertaking a comprehensive Climate Actions Audit of completed actions, ongoing practices, and adopted plans that address climate change. Much of the work by the municipal corporation[1] has been incorporated into routine maintenance and operating practices, constructed as capital improvement projects, integrated into comprehensive plans, and incorporated in the *Salem Revised Code*. As a result, the Salem community is mostly unaware of the overall progress that has been made by the municipal corporation in mitigating or reducing impacts to the natural environment, including reductions in greenhouse gases.

The goal of Climate Actions Audit is twofold. First, the effort will review and document the municipal corporation's actions—projects, practices, programs, and plans—established over the past decade (2010 to present) aimed at mitigating the effects of climate change. As part of this review, the audit will compare the City of Salem's actions to actions contained in other adopted municipal climate action plans. Second, the Climate Actions Audit will lay the foundation for drafting a Salem-specific climate action plan. It will do so by describing the necessary content of a climate action plan and then ascertaining current actions that need to be documented and identifying new elements that need to be incorporated in the plan.

Work Tasks

1. Conduct a literature review of the City of Salem's existing environmental action-related planning work, including but not limited to:
    - 1.1. Strategic Plan
    - 1.2. Environmental Action Plan
    - 1.3. Infrastructure master plans
    - 1.4. 2014 Community Forestry Strategy plan
    - 1.5. Willow Lake Cogeneration facility
    - 1.6. CIP Program
    - 1.7. Community GHG Inventory
    - 1.8. Community Energy Strategy

1 For this work effort we will be using the term "municipal corporation" to refer to efforts by the City of Salem, and "city" to refer to efforts by the community.

1.9. 2019 Community Report

2. Draft script for interviews with City Staff to ensure consistent information gathering and maximize time efficiency.
3. Interview staff from the following units to understand the work completed to date and determine if there are other documents that should be reviewed.
   - 3.1. Courtney Knox Bush/City Manager's Office
   - 3.2. Robert Chandler/Public Works Department
   - 3.3. Patricia Farrell/Public Works Department
   - 3.4. Mina Hanssen/Human Resources Department
   - 3.5. Kristin Retherford/Urban Development Department
   - 3.6. Deborah Topp/Public Works Department
   - 3.7. Norm Wright/Community Development Department
   - 3.8. Others as recommended by the interviewees
4. Document the Salem municipal corporation's existing environmental action planning work in a summary memorandum
5. Review other adopted Municipal Climate Action Plans
   - 5.1. Collect **<u>all</u>** ***adopted*** Oregon municipal climate action plans
   - 5.2. Research and collect *adopted* municipal climate action plans that are considered the best national examples
     - 5.2.1. Document why the chosen examples are considered the best national examples
   - 5.3. Research and collect exemplary enacted municipal climate action plans that are considered the best international examples.
     - 5.3.1. Document why the chosen examples are considered the best international examples.
   - 5.4. Highlight the common elements of the Oregon adopted climate action plans, as well as exceptional examples
   - 5.5. Research and document the public review and adoption process undertaken for municipal climate action plans of cities of a similar size to Salem (population between 100,000 and 250,000 +/-)
   - 5.6. Document the findings of this work task in a summary memorandum
6. Identify and define the necessary elements for a Climate Action Plan for Salem
   - 6.1. Research the key elements that make up a state-of-the-art climate action plan
     - 6.1.1. Elements from the adopted plans discovered in Work Tasks 5.1 and 5.2
     - 6.1.2. Elements discovered from additional research that are not included in adopted plans
   - 6.2. Recommend elements that the City of Salem should include in a climate action plan
     - 6.2.1. Municipal corporation operational actions

6.2.2. Code changes for community requirements

6.3. Summarize the recommended elements discovered in Task 6.2 in a table

7. Inventory Salem's implemented climate actions over the past decade (2010 – present)

7.1. Use the table developed in Task 6.3 to inventory Salem's municipal corporation's actions

7.2. Review the following City documents (2010 – present) to document completed work

7.2.1. Capital Improvement Plan(s)

7.2.2. Capital Construction Budget(s)

7.2.3. City Council staff reports related to climate action issues

7.2.4. Salem Public Works Design Standards

7.2.5. Salem Revised Code

7.3. Interview staff from the following work units to understand work completed by the municipal corporation

7.3.1. Human Resources Department/Facilities

7.3.2. Human Resources Department/Fleet

7.3.3. Legal Department

7.3.4. Public Works Department/Engineering

7.3.5. Public Works Department/Parks and Environmental Planning

7.3.6. Public Works Department/Stormwater Quality

7.3.7. Public Works Department/Transportation

7.3.8. Public Works Department/Natural Resources and Park Planning

7.3.9. Others, as necessary

7.4. Complete Table created in Task 6.3 with Salem municipal corporation actions

Deliverables

1. Schedule

1.1. Project schedule that lays out expected completion dates for each of the key elements of the study

1.1.1. Initial project schedule will be due within the first week of beginning assignment

1.1.2. Updated schedules to be presented monthly

2. Reports

2.1. Summary memorandums and tables from Tasks 4, 5.5, 6.3, 7.4[2]

2.1.1. Deliverable for Task 6.3 must be approved prior to initiating work in Task 7.

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2 Summary memorandums are due as work is completed for each task.

2.2. Final Report documenting research efforts, findings and recommendations

3. Presentation

3.1. Prepare a detailed presentation to the City's Leadership Team illustrating the research, findings and recommendations

Appendix I: Climate Action Compendium

This information in this document is a compendium of climate actions from many Climate Mayors cities that includes:

1. Emission reduction targets and dates;
2. Signification climate actions and policies; and
3. New or recent notable actions from cities.

This document is available at: https://drive.google.com/file/d/1PXmumvRvTNMlS8SRpiDoLY-ElMc9xfEnR/view

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Appendix J: Draft outline for Salem-specific Climate Action Plan

1. **Introduction**
    1.1. Message from Mayor
    1.2. Acknowledgements
2. **Fact Base**
    2.1. Science behind climate change
    2.2. Current state of emissions in the community
    2.3. Vulnerability assessment
    2.4. Public participation in plan development public participation plan in appendix)
    2.5. Past environmental action work
3. **Climate Action Goals**
    3.1. Short and long-term goals
    3.2. Goals should address both mitigation and adaptation
4. **Category** Specific Actions and Policies
    4.1. Buildings and Energy
    4.2. Land Use and Urban Form
    4.3. Transportation and Fuels
    4.4. Consumption and Materials Management
    4.5. Natural Systems and Community Wellbeing
5. **Implementation**
    5.1. Responsible departments and community partners
    5.2. Monitoring and evaluation with timeframes for plan updates and revisions
6. **Appendices**

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Appendix K: Notes from Meeting with Good Company on February 11th, 2020 in Eugene, Oregon.

Attendees:

Sid Hariharan, City of Salem Climate Actions Audit Intern

Joshua Proudfoot, Principal – Good Company (GC)

Aaron Toneys, Senior Associate – Good Company (GC)

Overall Process Description

- GC starts with a basic education to provide all interested parties with Climate Action Plan (CAP) information. This will ensure that everyone starts with the same baseline knowledge.
- GC encourages that a steering committee be set up based on important and interested community stakeholders.
- GC comes to the conversation with main categories of policies, actions and programs which are scientifically proven to reduce GHG emissions. Stakeholders are then asked what they need, or how do they want to meet reduction goals. The main categories include: buildings, materials, transportation, resilience, etc.
- GC stresses the importance of coming in early in the process so that communities do not create very lofty and extensive actions that are unattainable due to no one at the table committing to carrying out policies, actions and programs.
- City will have to determine what scale the CAP will be on in order to determine which stakeholders should be invited.
- GC will divide stakeholders into 5 different groups based on the category of GHG emissions reduction.
    - For example, GC would include a car dealership owner into the transportation sub-group to help formulate discussions about how to increase efficient vehicle ownership.
    - GC will staff these meetings and it is the city's role will be to facilitate.
- For community-wide engagement – if desired, GC's partner Enviroissues conducts this work.

CAP Document Conversation

- Very important to determine who the audience is as this can guide the scope, complexity and scale of the document.
- Useful to pair both mitigation and adaptation in a CAP.
- Consider update cycles – and the cost associated with updates.
- Three fundamental ways which CAP can operate (#2 is most costly):
    1. Stand-alone document that may be incorporated into regulations in the future.

2. Stand-alone document that is also integrated into other planning documents – TSP, Comprehensive Plan and Water Management Plans.
3. Special projects pathway where the CAP stands alone and any project or action within the CAP is treated as a special project.

Costs

Rough costs were discussed for a complete community-wide CAP. GC stated an estimate of 52k-160k is appropriate. The cost is heavily dependent on the levels of tools the city requires. For the cost to be on the low end of the estimate, the city would have to do a substantial portion of the work in house, with assistance from GC. The high end of the estimate entails GC doing most of the CAP process work and conducting extensive public involvement.

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