

MINUTES
Climate Resiliency Committee
July 8, 2022
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MINUTES

JOINT CLIMATE RESILIENCY COMMITTEE

August 12, 2022

9:00 a.m.

VIA ZOOM/IN PERSON

PRESIDING: Dan Richardson

MEMBERS PRESENT: Scott Randall, Brian Reel, Lisa Gambée, Paula Gendel, Bruce Schwartz, Debi Ferrer, Ryan Bessette, Kurt Conger

MEMBERS ABSENT: None

STAFF PRESENT: Tyler Stone, Jean Corbin

GUESTS: Flora G. with Columbia Gorge News

CALL TO ORDER

The meeting was called to order by Chair Dan Richardson at 9:00 a.m.

ROLL CALL

Roll Call was conducted by Secretary Jean Corbin. Present 8 in person; 1 via Zoom.

APPROVAL OF AGENDA

It was moved by Randall and seconded by Gambée to approve the agenda as submitted. The motion carried 9 to 0; Richardson, Randall, Gambée, Gendel, Schwartz, Ferrer, Bessette, Conger voting in favor; none opposed.

APPROVAL OF MINUTES

There was consensus to approve the July 8, 2022 Climate Resiliency Committee Meeting Minutes

Climate Resiliency Committee

“To address the increasing impacts of climate change; we will recommend local, affordable, and achievable actions and strategies to the City of The Dalles and Wasco County”

AUDIENCE PARTICIPATION/PRESENTATION

NONE

COMMITTEE REPORTS

Inventory of Climate Resiliency Activities

Lisa Gambie presented the committee with a Climate Action Asset Map, which compiles local organizations and their climate mitigation/adaptation actions currently taking place, please continue to send information to Lisa and she will continue to update the map. **see attached exhibit A**

Richardson asked Gambie to reach out to the school districts to inquire about their climate action plan.

DISCUSSION ITEMS

A. Reports on other Community Climate Action Plans

Debi Ferrer reported on her findings

1. Eugene Climate Action Plan **see attached exhibit B**
2. Columbia River Gorge Climate Action Plan **see attached exhibit C**
3. Primer on Oregon Cities Climate Action Plans - the document prepared for the Bend CAP summarizing highlights for 25 western climate action plans **see attached exhibit D**
4. Climate Action Plan Examples and task assignment (email Debi if you'd like to take one on) **see attached exhibit E**
5. Bruce Schwartz shared resources he felt the committee would like to explore **see attached exhibit F**

Richardson asked each committee member to read the Bend summary [3 pages - Exhibit D: pages 17-19 of this packet] and **bring thoughts to discuss at the September meeting.**

Climate Resiliency Committee

“To address the increasing impacts of climate change; we will recommend local, affordable, and achievable actions and strategies to the City of The Dalles and Wasco County”

B. Review Brainstorming list from July's meeting

1. Richardson asked to add Wildfire to the brainstorming list
2. Conger asked to change the wording from Power supply/affordable to Power supply/affordable and reliable
3. Richardson asked members to bring thoughts about (1) priorities from the brainstorming list, and (2) guest speakers the committee might invite.

Updated Round Robin/Brain Storm Sub Committees:

- Charging Stations
- Water supply/consumption
- Power supply/affordable-reliable
- Small scale/renewable energy
- City Water Master Plan currently being updated
- Energy Audit
- Heat Islands
- Water Quality
- Vehicle/fleet
- Incentive programs/education
- Wildfires

C. Protocol to add agenda items

It was discussed and decided on that if a committee member would like to add an agenda item to a Climate Resiliency Meeting, the committee member needs to reach out to the

Climate Resiliency Committee

“To address the increasing impacts of climate change; we will recommend local, affordable, and achievable actions and strategies to the City of The Dalles and Wasco County”

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Chair. If the Chair agrees to add the item, the chair will contact the Secretary and have the item added to the agenda.

Next Meeting: September 9, 2022

ADJOURNMENT

Being no further business, the meeting adjourned at 10:30a.m.

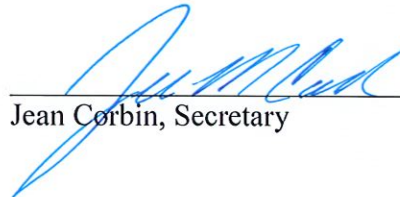
Submitted by/
Jean Corbin, Secretary

SIGNED:



Dan Richardson, Chair

ATTEST:



Jean Corbin, Secretary

Climate Resiliency Committee

“To address the increasing impacts of climate change; we will recommend local, affordable, and achievable actions and strategies to the City of The Dalles and Wasco County”

EXHIBIT A

Climate Action Asset Map

The table below compiles organizations and the climate mitigation/adaptation actions they are already doing.

Organization	Climate Impact Actions
Tri-County Hazardous Waste & Recycling https://tricityrecycle.com/ 541-506-2632	<ul style="list-style-type: none"> • Household Hazardous Waste collection events • Recycling • Composting and other waste reduction information
Mid-Columbia Economic Development District https://www.mcedd.org/ 541-296-2266	<ul style="list-style-type: none"> • Reduces carbon emissions by providing public transportation (The Link)
The Dalles Disposal https://www.thedallesdisposal.com 541-298-5149	<ul style="list-style-type: none"> • Residential Collection of yard waste. Commingled Recycling and Glass • Commercial collection of cardboard, organics, recycling, construction and demolition debris
Dirt Hugger Landscape Supply https://www.dirthugger.com/ 541-946-3478	<ul style="list-style-type: none"> • Produce organic compost using locally available feedstocks such as fruit, wood and beer yeast. By composting, organics don't go to the landfill where they create methane, a greenhouse gas 23 times more harmful than CO2.
Mid-Columbia Community Action Council https://www.mccac.com/energy-and-utility-assistance 541-298-5131	<ul style="list-style-type: none"> • Provide weatherization services to reduce home energy usage • Energy Education classes • Transitional Housing & Shelter Services (shelter for homeless)
Columbia River Gorge Commission http://www.gorgecommission.org/ 509-493-3323	<ul style="list-style-type: none"> • Draft Climate Change Action Plan for the Columbia River Gorge National Scenic Area
USDA Natural Resources Conservation Service and Wasco County Soil & Water Conservation District	
http://wascoswcd.org/ 541-296-6178	
<ul style="list-style-type: none"> • <i>Conservation Reserve Program (CRP)</i> - Conservation cover is a permanent vegetative cover usually located on past grain cropland. Plants that produce high volumes of organic matter are recommended when this practice is applied to increase carbon sequestration, build soil health, improve water quality and strengthen benefits to wildlife or pollinator habitat. 	

EXHIBIT A

Organization	Climate Impact Actions
	<ul style="list-style-type: none">• <i>Residue and Tillage Management (No-Till / Direct Seeding)</i> - No-till limits soil disturbance to manage the amount, orientation and distribution of crop and plant residue on the soil surface. No-till may increase soil carbon sequestration while reducing emissions from the field and delivering the co-benefits of reducing fossil fuel use, increasing plant-available moisture, and improving water quality. No-till reduces the amount of soil carbon released into the atmosphere when compared to soil disturbance practices, while also reducing emissions and sequestering carbon.• <i>Prescribed Grazing</i> - Prescribed grazing is managing the harvest of vegetation with grazing or browsing animals to achieve specific ecological, economic and management goals. Prescribed grazing may sequester carbon in perennial biomass and soils while delivering the co-benefits of enhancing or maintaining desired plant species for forage, improving water quality, increasing stocking rates and livestock vigor, and building soil health.• <i>Riparian Forest Buffer (CREP)</i> - A riparian forest buffer is an area covered by trees or shrubs that is located along a body of waterbody (i.e. stream). Riparian forest buffers may generate carbon sequestration in perennial biomass and soils while generating the co-benefits of improving water quality, restoring diversity of riparian plant communities, providing wildlife habitat, and improving stream conditions for certain species.• <i>Tree and Shrub Establishment</i>- This conservation practice establishes woody vegetation by planting seedlings or cuttings, direct seeding or through natural regeneration. Established trees or shrubs may increase carbon sequestration in perennial biomass and soils while delivering the co-benefits of maintaining or increasing plant diversity, establishing wildlife or pollinator habitat, reducing erosion, and improving water quality.• <i>Upland Wildlife Habitat Management</i>- This practice supports land managers in establishing and maintaining upland habitats and connectivity within the landscape for wildlife. Examples include creating food plots and planting cool season grasses or legumes, forbs, trees, or other woody vegetation depending on the target wildlife species. Upland wildlife habitat may increase carbon sequestration in perennial biomass and soils while generating the co-benefits of improving wildlife and plant species diversity, increasing wildlife and pollinator habitat, and improving water quality.• <i>Forest Stand Improvement</i>- The manipulation of species composition, stand structure, and stocking by cutting or killing selected trees and understory vegetation. Pre-commercial thinning is the removal of non-merchantable trees (either due to size, condition, or species) to maximize site's potential for remaining trees.<ul style="list-style-type: none">Environmental Benefits Include:<ul style="list-style-type: none">○ Improve and sustain forest health and productivity.○ Reduce damage from pests and moisture stress.○ Initiate forest stand regeneration.○ Reduce fire risk and hazard and facilitate prescribed burning.○ Restore or maintain natural plant communities.○ Improve wildlife and pollinator habitat.○ Alter quantity, quality, and timing of water yield.○ Increase or maintain carbon storage.

EXHIBIT A

Organization	Climate Impact Actions
	<ul style="list-style-type: none"> • <i>Provide Technical and Financial assistance to landowners in Wasco County.</i> Through cost share programs and financial payments through both NRCS and FSA by enrolling into programs that include the conservation practices above.
<p>Northern Wasco County People's Utility District</p>	
<p>https://www.nwascopud.org/ (541) 296-2226</p> <ul style="list-style-type: none"> • Climate Impact Resources: Educational programs and project funding to support terrestrial and aquatic improvements https://www.nwascopud.org/about/kids/ https://www.nwascopud.org/programs-and-services/mcnary-fisheries-compensation-committee/ https://www.mcnary.fish/what-we-do • Sources of Electrical Energy: Hydroelectric power, renewable energy options, and the history of power resources in the District https://www.nwascopud.org/about/power-sources/ https://www.nwascopud.org/programs-and-services/pure-power-program/ https://www.nwascopud.org/local-power-supply/ • Electric Vehicles: Information about the technology, GHG reduction potential, incentives, and features https://www.nwascopud.org/programs-and-services/electric-vehicles/ • Energy Efficiency Upgrade Programs: Rebates for weatherization, appliances, heat pumps, and commercial buildings https://www.nwascopud.org/programs-and-services/energy-efficiency-and-rebate-programs/ • Net Metering for Renewable Energy: Customers service policies for Net Metering available to Residential and Commercial customers https://www.nwascopud.org/wp-content/uploads/Customr-Service-Policy-March-2022.pdf Policy 41 at page 24 https://www.nwascopud.org/residential/residential-rates/ https://www.nwascopud.org/commercial/commercial-rates/ 	
<p>Wasco Electric Co-Op https://www.wascoelectric.com 541-296-2740</p>	<ul style="list-style-type: none"> • Offers weatherization audits • Offers rebates on energy efficient items like windows and doors, insulation, washer/dryer, smart thermostat, heat pumps, etc.

EXHIBIT B

City of Eugene Climate Action Plan – Ideas / Take-aways (note that there is a separate Lane Co CAP)

Website: <https://www.eugene-or.gov/4284/Climate-Action-Plan-20>

The Plan: https://www.eugene-or.gov/DocumentCenter/View/55835/CAP-20_Summer_2020_FINAL-w-appendices-compressed

Background / Timeline:

- 2014 Eugene City Council passed Climate Recovery Ordinance (CRO).
- 2016 Updated CRO with a community-wide GHG emissions goal. (see goals below)
- 2017 Climate Action Plan (CAP 2.0) to meet goals began with a visioning process.
- 2019 Draft CAP and public review process including community survey and focus groups
- 2020 City Council approved CAP 2.0.

CRO Goals:

1. By the year 2020, all city-owned facilities and city operations shall be carbon neutral, either by reducing greenhouse gas emissions to zero, or, if necessary, by funding of verifiable local greenhouse gas reduction projects and programs or the purchase of verifiable carbon offsets for any remaining greenhouse gas emissions.
2. By the year 2030, the city organization shall reduce its use of fossil fuels by 50% compared to 2010 usage.
3. By the year 2030, all businesses, individuals, and others living or working in the city collectively shall reduce the total (not per capita) use of fossil fuels by 50% compared to 2010 usage.
4. By the year 2100, total community greenhouse gas emissions shall be reduced to an amount that is no more than the city of Eugene's average share of a global atmospheric greenhouse gas level of 350ppm, which is estimated in 2016 to require an annual average emission reduction level of 7.6%.

CAP 2.0 Three Areas of Focus:

- Data-Driven
 - Focuses primarily on measuring and reducing GHG emissions
- Mitigation and Resiliency
 - Reduce emissions and prepare for the impacts of climate change; includes 115 actions that local partners have committed to, and 25 actions at the state and federal level
- Community Capacity-Building
 - Focused on engaging community partners in new ways – local government entities, educational institutions, Chamber of Commerce, public and private utilities, community groups, and more. Also created an Equity Panel to work on recommendations concerning marginalized communities.

EXHIBIT B

CAP 2.0 Development:

The Mayor appointed a CRO Ad Hoc Work Group which brought together a diverse set of stakeholders, including elected officials, youth voices, business, non-profits, and public sector leaders. This group set a vision for the CAP2.0 to be the roadmap of actions the community will take over the next 5-10 years to help Eugene reach the community climate goals in the CRO. The Work Group reconvened in 2020 to provide recommendations for revisions to the first draft CAP2.0.

CAP 2.0 Guiding Principles:

- Clear statements about what community can commit to and what still needs to be figured out
- Keeping communities most impacted by climate change at center of work on the plan
- Building momentum on existing efforts, plans, policies
- Share achievements and next steps
- Engage community partners
- Equity Panel made up of 6 local agencies that contributed to CAP 2.0

Identifies local impacts of climate change

Focuses on GHG emission reduction rather than reducing fossil fuel use; 85% of Eugene GHG emissions come from fossil fuel use; three “buckets” concept used throughout the plan to describe source of GHG emissions and strategies to reduce them:

- Transportation (53% of local emissions in Eugene)
- Building energy use (32% of local emissions)
- “Fugitive” emissions - all the emissions from waste and refrigerant leakage, including emissions from the landfill (about 15%)

Interesting comparison graphs on plan p 31-34 showing GHG emissions with no action, forecasted emission with implementation of High Impact Practices (HIPs), and the emissions level needed to achieve the CRO goal (approx. 64% reduction in each bucket). This analysis identified that they still needed to do more to achieve their goals.

Other contributions toward reduction goals beyond those measured above:

- Negotiations with NW Natural to reduce GHG from natural gas production and consumption
- EO 20-04 requires state agencies to adopt rules and new policy that will reduce carbon emissions to be 50% below 1990 levels by 2030
- Considering carbon offsets as a “bridge strategy” to reduce emissions outside of Eugene to compensate for emissions within Eugene while they develop other strategies

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Reducing Local Emissions Chapter 5

Transportation Goals and Actions

- 264 total transportation projects planned over next 20 years.....
- 6 projects to improve transit service
- 238 projects entirely pedestrian or bicycle including 89 neighborhood greenways, 22 on-street bike lanes, 18 shared use paths, 12 protected bike lanes, and 85 separated path/sidewalk projects (6 transit plus 238 bike/ped projects make up 51% of transportation budget over next 20 years)
- 6 complete street upgrades with significant bike/pedestrian components (10% of budget)
- 3 rail projects (6% of budget)
- Only 3 projects (8% of budget) have no explicit bike/ped/transit component
- A number of actions related to housing / planning to reduce driving; a few examples:
 - Make compact urban development easier in downtown area and near transit by removing regulatory barriers
 - Facilitate the building of smaller, clustered, and attached housing (fewer emissions, more affordability)
 - Plan for growth so that residents can meet most of their daily needs by walking or by a short drive
 - Incentivize transit-oriented development and walkable neighborhoods using tools such as the Multi-Unit Property Tax Exemption (MUPTTE), a state-enabled 10-year property tax exemption, to stimulate the construction of multiunit housing downtown and along key corridors
 - Explore ways to promote use of micromobility (such as e-scooters and e-bikes)
 - Electric car share pilot programs in affordable housing sites
 - Community-wide broadband to allow residents to learn and work remotely (and drive less)

Interesting Fact: Oregon DEQ studied the emissions impact of the lifecycle of a home, evaluating emissions impacts from extracting materials to build, transportation of materials, construction, occupancy, maintenance and finally demolition. The study found that 80% of a home's emissions over a 70-year lifespan are associated with occupancy. Building smaller not only has a smaller carbon footprint because it uses less materials to build, its benefits also accrue over time as it uses less energy.

Building Energy Goals and Actions (majority of emissions are from natural gas use):

- Implement a voluntary Home Energy Score in partnership with the Oregon Department of Energy by 2021.
- Research and report to City Council potential regulatory options related to advancing energy efficiency and carbon reduction through rental housing
- Implementing facilities updates including conservation and efficiency improvements

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- UO to implement UO Climate Action Plan updates which includes actions to reduce emissions from buildings. Recent accomplishments include reinsulating the steam tunnel, establishing and filling an energy manager position and relaunching the energy revolving fund. Upcoming work includes a study to identify low carbon heating alternatives to steam made from natural gas for our campus.

Fugitive Emissions

Fugitive emissions come from waste and refrigerant leakage. The largest source of fugitive emissions come from Short Mountain Landfill and the wastewater treatment plants that serve everyone in our community. These emissions combined with fugitive refrigerants comprise about 15% of local GHGs. The fugitive refrigerants come from our cooling of interior spaces as well as keeping food cold to avoid spoilage. While the Montreal Accord began the worldwide transition to lower GHG refrigerants, fugitive emissions from refrigerants are on the rise across the state. To reduce fugitive emissions in the solid waste system, we need to both reduce the volume of organic waste (mostly food and yard waste) as well as do a better job collecting the gas that is generated from the rotting of food and plant material. To reduce the loss of refrigerants, we need to encourage our building owners and operators to better maintain their cooling and refrigeration systems to avoid leaks, and whenever possible to choose a refrigerant gas that functions with a lower GWP.

- Lane County plans to convene community partners to explore options related to the development of a waste processing facility to divert organics from the waste stream toward an anaerobic digestion/ biogas facility.
- Bethel to increase composting through implementing district wide food waste collection for all 11 school facility kitchens as of 2019, and 4J School District increased collection of food waste from 12 school kitchens in 2018-19 to all 33 4J district schools and facilities in 2020.
- Continue to explore adopting a franchise system of residential solid waste collection with the goal of reducing hauler fleet-generated greenhouse gases, route redundancy and road wear.

Consumption Emissions Inventories Chapter 6

- Most of the CAP2.0 focuses on emissions emitted within the geographic boundaries of Eugene. This approach to measuring locally generated emissions is called a sector-based inventory. Sector-based emissions inventories (SBEI) assume that goods and services that are imported into the community are accounted for elsewhere.
- Consumption-based emissions inventories (CBEI) account for total emissions from producing, using and disposing of a product. These are the emissions produced elsewhere to serve the community. Using this type of greenhouse gas emissions accounting typically doubles a person's carbon footprint.
- The City of Eugene received a grant from ODEQ to better understand their "imported" emissions with a CBEI. Here's what they learned:
 - Food and beverage production, processing, transport, and retail made up 16% of "imported" emissions; Americans waste approx 40% of all food; eliminating food

EXHIBIT B

- waste eliminates wasted energy on production, etc. ; shifting to low-carbon food types further decreases imported emissions.
- Construction materials make up 10% of imported emissions, with concrete and asphalt making up the majority of this. These materials are energy intensive to produce and release process GHGs during production. The reduction in the use of the binders through substitutions and recycling of industrial wastes such as fly ash from historic coal power generation and slag from steel production offer great potential to mitigate these emissions.
 - Consumer goods represent about 13% of imported emissions, mostly during production, transport and retail; solutions include repairing and reusing consumer goods, hosting Fix-It Fair events, supporting lending libraries like the ToolBox Project, and supporting local thrift businesses. Buying a durable, used object is always best, but sharing and buying new durable and repairable objects is also a good path toward reductions.
 - Most of the Actions in this section centered on improving recycling, composting, and opportunities to re-use materials, doing away with styrofoam, paper, and plastic utensils and using plant-based compostable utensils. There were some other interesting ones:
 - Investigate the legal authority to incentivize the construction of smaller residential units by levying a building permit fee to account for lifecycle carbon emissions at the state level.
 - Support changes to state building codes to allow for greater use of reused materials in construction and incentives for adaptive reuse of existing buildings.
 - Bethel works with the Farm to School program and is a leader in providing locally-sourced fresh fruit and vegetables in its school meals. Bethel School District also operates the Bethel Farm, a working farm that serves as an outdoor classroom while raising produce for school meals and local food pantries.

Climate Resiliency Chapter 7 Sample Actions (Note – there are some great ideas on p. 73-79)

- Pursue a water reuse partnership with MWMC as part of the community effort to prepare for drought.
- Research and incorporate extreme weather safety awareness into the Cities' public outreach program
- Actively seek funding to update the Eugene/Springfield floodplain maps
- Parks Dept is developing a water conservation and drought management plan
- Continue the Community Emergency Response Team (CERT) training to citizens
- Increase average city-wide urban tree canopy to 30%, ideal for Eugene's size.
- Develop an updated Urban Forest Management Plan
- Utilize relevant vulnerable populations maps, developed for the Lane Livability Consortium, develop an outreach plan to engage vulnerable populations to be two weeks ready with emergency supplies by 2023.
- COE was on a 15-year pruning cycle pace. Maximize the health of mature street trees and minimize loss by solidifying a best management practice 10-year pruning cycle by 2025 and maintaining it as canopy coverage increases.

EXHIBIT B

- Ensure that people who need power wheelchairs for mobility, refrigeration of medicines, hearing aids, and screen reading software have access to electricity if the power grid is compromised.
- Provide cooling stations and charging stations for unhoused people and people who need electricity to operate health care and disability-related equipment, as well as people with conditions such as multiple sclerosis and nerve disorders.

Building Community Capacity

- Equity Panel - Staff selected six organizations (based on application process) to participate on the panel: Sapsik'wafá, Huerto de la Familia, Eugene Springfield NAACP, Lane Independent Living Alliance, Food for Lane County, and National Alliance on Mental Illness Lane County. Each organization chose their own representative. The only requirement of the Panel members was to be an expert on their own lived experience and/or the experiences of those served by their organizations. Here are some of their recommendations:
 - Develop practices to engage Tribal Traditional Ecological Knowledge (TEK) in decision-making about land and water use.
 - Host public hearings in multiple locations that increase access to information to working peoples.
 - Develop strong partnerships between the City and organizations on specific projects that benefit frontline communities impacted by climate change. For instance, making city land accessible for migrant garden education.
- Eugene Climate Collaborative - The ECC includes organizations with significant responsibilities and resources to advance the community's climate work around all the topics included in the CAP2.0. The ECC model will help these organizations find ways to move the community's climate work forward.
 - City of Eugene • Lane County • Bethel School District • Eugene 4J School District • Lane Community College • University of Oregon • Lane Transit District • Eugene Water and Electric Board • Metropolitan Wastewater Management Commission • Northwest Natural • PeaceHealth • Chamber of Commerce
- Education – Eugene has a huge advantage having Lane CC and UO, where students and staff are actively researching issues related to climate change mitigation and resiliency.
- Mayor's ad hoc committee was involved along the way as a community advisory committee, but majority of work was done by staff.
- Community members were invited to contribute further ideas for potential actions, resulting in a very interesting list of 75 potential future actions for consideration. See p. 94 – 101 for a very creative list!
- Individual Actions (p. 101-103) is a section devoted to what community members can do on their own to reduce their impact. This is potentially a great tool that could be used for public education, with tools for calculating one's carbon footprint and tips for how to reduce it and save money.

EXHIBIT C

CRGC Draft Climate Action Plan Review

Climate change is the most sweeping and urgent thread facing land and resource managers today.

Two CCAP objectives:

- Build resilience in our natural and built systems to cope with climate change (**adaptation**)
- Reduce greenhouse gas emissions (**mitigation**).

Purpose is to “identify our greatest needs and opportunities to build resilience and reduce emissions, and to guide our ongoing climate work.”

Some examples of evidence: increasing air and water temp extremes, less snowpack, more spring flooding, increased wildfire.

These things disproportionately impact people of color, Tribes, rural communities, and natural resource-based economies.

Four land and water adaptation priorities: cold water refuge streams and riparian habitat; wetlands; Tribal treaty rights and culturally important plants; oak woodlands and deer and elk winter range.

Four GHG Mitigation Priorities: Regional transportation; EV infrastructure; Carbon storage; fire risk. Transportation is by far the largest contributor to GHG in the Gorge and in the northwest

Organization of Plan: For each adaptation and mitigation priority, they developed goals, strategies, actions, and metrics to track progress.

Reminder of NSA Act purposes:

1. To establish a national scenic area to protect and provide for the enhancement of the scenic, cultural, recreational, and natural resources of the Columbia River Gorge
2. To protect and support the economy of the Columbia River Gorge area by encouraging growth to occur in existing urban areas and by allowing future economic development in a manner that is consistent with the first purpose.

EXHIBIT C

Adaptation

- Resilience is “the ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity of self-organization, and the capacity to adapt to stress and change.”

Mitigation

- Oregon and Washington indicate greatest contributions to GHG emissions come from transportation, followed by electricity production.
- Land use planning (housing closer to work) and reducing VMT can both help mitigate transportation GHG. Reduce idling, increase public transit, and alternatives (bikes, walking). Increase EV infrastructure. Reducing agency emissions. Protecting carbon storage.
 - P60 - By some estimates, a transition to 80% electric vehicles will result in a 10-15% increase in electricity use, with new peak demand challenges. While the Pacific Northwest offers abundant renewable energy, much of the existing power grid relies on hydroelectric dams. Members of Tribal Nations from the Klamath River in California to Chile are advocating to the United Nations against reliance on hydroelectric dams to reach energy goals, citing myriad environmental and cultural consequences of dams and the significant emissions created by methane degassing in reservoirs (Harrison et al. 2021). Hydroelectric power is often characterized as “cheap and renewable,” while Indigenous people bear profound and ongoing costs as a result of hydropower’s impacts to rivers, fish, and wildlife.

Priority Actions and Strategies

- Criteria for setting adaptation / mitigation strategies: vulnerability and risk rankings, ability to influence, existing partnerships, impact on historically excluded groups, vital signs indicators, rareness, high GHG emissions
- P68 Table – CCAP Adaptation and Mitigation priorities
 - Adaptation – cold water streams and riparian, wetlands, Tribal treaty rights, white oak and winter range
 - Mitigation – regional transportation, EV infrastructure, carbon storage in habitat and working lands, fire risk
- Additional criteria to prioritize immediate goals: potential to inform management plan, feasibility of achieving action given resources, serves historically excluded groups.

EXHIBIT C

Sample Action to see organizational structure:

EV Infrastructure

Desired Condition

EV charging supports a just transition from fossil fuels



Transportation emissions are far and away the largest source of GHG emissions in the Gorge, and in Oregon and Washington. Nationally and globally, a transition away from fossil fuels is a key climate mitigation strategy. Several decision-support tools and funding sources are ramping up now to rapidly increase charging in the region.

Read more about EV infrastructure as a [mitigation opportunity](#) on page 37. EV priority actions are described in [Part III](#) on page 58.

Goals for EV Infrastructure

1. By 2025, public direct current (DC) fast charging is available at least every 25 miles along I-84 or SR-14, and 50% of Urban Areas have public Level 2 or DC fast charging stations.
2. By 2025, the Gorge has a strategy for the desired locations and types of charging stations, and partnerships in place to implement them by 2030.

Strategy 1: Urge inclusive and proactive regional EV planning.

Strategy 2: Support incentives and reduce barriers to EV charging stations.

Action Outcomes:

- Increased funding and a strategy for the locations and types of charging facilities advance EV infrastructure in the Gorge.
- Pilot projects and innovation reduce fossil fuel and hydroelectric power draw from EVs.

Action Outcomes:

- Policy updates and partnerships accelerate EV infrastructure in the Gorge.

How will we measure success?

We will track the number of charging stations using public data such as PlugShare and the Alternative Fuels Data Center.

NOTE: Because of the draft nature of this plan, I'm not including details about that specific actions as they may change with the final draft. The full list of goals, strategies and priority actions begin on page 47 of the Draft CCAP.

EXHIBIT D

A Primer on Climate Action Plans: What are Other Oregon and Western U.S. Cities Doing?

-- Prepared by Russ Donnelly for the Bend Climate Ordinance Working Group --

As Bend considers passing a climate action ordinance, it is valuable to know what other municipalities in Oregon and the western U.S. have been doing in the same policy area.

Oregon Cities with Pending or Established Climate Action Plans

The Oregon cities below have pending or adopted climate action ordinances and/or climate action plans that include specific GHG reduction targets to be met over a period of years (e.g. – 2030 and 2050). Some cities have used sustainability plans that includes GHG reduction targets. Other have used the GHG reduction targets as the lead element in their climate plans.

City	Population	Plan (Year of Implementation)	GHG Reduction Target 1	GHG Reduction Target 2
Ashland (a)	20,713	Climate and Energy Action Plan (2017)	RFP Released 12/15, targets TBD	RFP Released 12/15, targets TBD
Beaverton (b)	92,697	Sustainability Action Plan (2014)	N/A	80% by 2050
Corvallis (a)	55,008	Climate Action Plan (2017)	57% by 2030	83% by 2050
Eugene (b)	160,000	Climate Recovery Plan (2014)	50% by 2030	80% by 2050
Gresham (b)	109,397	Sustainability Initiative (2011)	100% renew/2030	80%/2050
McMinnville (b)	33,139	Sustainability Action Plan (2009)	10% by 2015	N/A
Milwaukie (b)	20,512	Sustainability Plan (2009)	10% by 2015	100% renewable by 2029
Portland (b)	610,000	Climate Action Plan (rev. 2015)	40% by 2030	80% by 2050

(a) Cities with Pending Climate Action Plans or Environmental Action Plans:

(b) Cities with adopted Climate Action Plans

EXHIBIT D

Cities in Other Western States with Climate Action Plans

Other Western/ Southwest Cities:	Population	Plan (Year of Implementation)	GHG Reduction Target 1	GHG Reduction Target 2
Albuquerque, NM	556,495	Climate Action Plan (2009)	30% by 2020	80% by 2050
Boulder, CO*	103,166	Climate Action Plan Commitment 2015, w/ Climate Commission	20%/2020	44% by 2030 81% by 2050
Fort Collins, CO	152,061	Updated Climate Action Plan (2015)	20% by 2020	80% by 2030 Neutral by 2050
Sacramento, CA	479,686	Climate Action Plan (2005)	38% by 2030	80% by 2050**
San Diego, CA	1,356,000	Climate Action Plan (2015)	40% by 2030	80% by 2050**
San Francisco, CA	837,442	GHG Reduction Ord. (2008)	40% by 2025	80% by 2050
Seattle, WA	652,405	Climate Action Plan (2013)	40% by 2030	Net Zero GHG emissions by 2050

* - Boulder has had a CAP Tax since 2006. It was extended in 2015.

** - Legally binding (research on entire list not complete)

Sample of Common Categories and Strategies for Action Plans

In researching more than 25 cities' current, pending and implemented climate/sustainability action plans, there were five consistent categories of greenhouse gas emissions and associated reduction strategies. The categories, with examples of strategies, are:

- Buildings and Energy
 - Move toward 100% renewable energy sources
 - Net zero energy codes
 - Energy-efficient retrofits
 - Create a public free-energy capturing system and related incentives (for city and community)
 - More urban density/mix-use neighborhoods
 - Incentives for developers: E.g. – give developers options to reduce GHGs with their projects. In return, they get points and after achieving certain thresholds, they are permitted to bypass certain parts of the environmental review process. [Santee, Ca.]

- Food and Agriculture
 - Buy/Eat local, vegetarian
 - Soil sequestration

EXHIBIT D

- Expand community gardens
- Land Use and Transportation
 - Encourage 20-minute neighborhoods
 - Incentivizing Efficiencies
 - Increase level of bikeability and walkability
 - Build electric vehicle charging infrastructure
 - Invest in broadband connectivity to promote telecommuting
- Urban Forests and Natural Resources/Systems
 - Plant trees/Forest management
 - Create wildfire defensible spaces
- Consumption and Waste
 - Reduce consumption/expand composting
 - Expand recycling
 - Mayor's Climate/Carbon Challenge

Some cities have a three additional categories as a part of their key climate action plan categories: Education, Equity, and Climate Change Adaptation/Preparation. Equity means the just distribution of the benefits of climate protection and alleviation of unequal burdens created by climate change.

Ten Typical Renewal Energy/Carbon Emissions Reduction Goals:

- Create **Clean Tech Jobs** focusing on innovation
- Reduce Per Capita **Energy Use** by 50%
- Receive 100% of Our **Electrical Power** from Clean, Renewable Sources
- Build or Retrofit a targeted number of Square Feet of **Green Buildings**
- **Divert 100% of waste** from Landfill and **Convert Waste** to Energy
- Recycle or Beneficially Reuse 100% of **Wastewater**
- Adopt a General Plan with **Measurable Standards** for Sustainable Development
- Ensure that 100 Percent of city **Fleet Vehicles Run on Alternative Fuels**
- Plant **100,000 New Trees** and Replace 100 Percent of Streetlights with **Smart, Zero Emission Lighting**
- Create Miles of **Trails** connecting with miles of on-street **bikeways**

EXHIBIT E

Climate Action Plan Examples

If you find other good examples for review, or if you want to “adopt” one of these to review, please email Debi to update this document (debifererer@gmail.com).

City/County	Website	Reviewer
Hood River Energy Plan	https://www.mcedd.org/industry-development/special-projects/	Debi
Port Townsend / Jefferson Co, WA	https://www.co.jefferson.wa.us/637/Climate-Action-Committee	Lisa
City of Bend	https://www.bendoregon.gov/city-projects/sustainability/community-climate-action-plan	
Eugene Climate Action Plan 2.0	https://www.eugene-or.gov/4284/Climate-Action-Plan-20	Debi
Columbia River Gorge Commission (Draft)	http://www.gorgecommission.org/initiatives/climate-change	Lisa, Debi
Oregon Climate Action Plan – EO 17-20	https://www.oregon.gov/gov/Documents/executive-orders/eo_17-20.pdf Two Year Progress Report March 2022 - https://assets.nationbuilder.com/reneworegon/pages/1321/attachments/original/1647119874/Two_Year_OCAP_Progress_Report_2022.pdf?1647119874	
Ashland	https://ashlandor.org/climate-energy/climate-plan/	
Corvallis	https://www.corvallisoregon.gov/community/page/corvallis-climate-action	Dan
Acton, MA	https://www.acton-ma.gov/DocumentCenter/View/7404/CAP-Blueprint	Bruce

EXHIBIT F

Explore policies for Municipal Separate Storm Sewer System (MS4) permit

Explore eco-roof installations

Promote a culture of re-use with swap-shops at transfer stations

Conduct a waste audit

Provide resources and information to residents

Property Assessed clean energy program (PACE) <https://www.energy.gov/eere/slsc/commercial-property-assessed-clean-energy-pace-toolkit>
<https://www.energy.gov/eere/slsc/property-assessed-clean-energy-programs>

Solarize campaign - sort of a crowdsource program.

<https://www.solarcrowdsource.com/how-it-works-solarize/>

https://earth.org/data_visualization/agrophotovoltaics-the-benefits-of-solar-agriculture/

Ecoroofs can generate renewable energy, manage stormwater, reduce heating loads in a building, and/or mitigate urban heat island effect, depending on the type of roof installed.

<https://www.portlandoregon.gov/bes/44422>

I-Tree <https://www.itreetools.org/>