# FINAL PROGRESS REPORT

# 2015 Climate

acton





# **PREPARED BY**

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# 4// **01 INTRODUCTION**

This report summarizes progress on actions that were identified in the 2015 joint City of Portland and Multnomah County Climate Action Plan. Those actions were broadly aimed at reducing local carbon emissions and better preparing the community for the impacts of climate change. Most of the actions identified in the Climate Action Plan have been completed or are on track to be completed by the end of 2020.

Total local carbon emissions have decreased to 19% below 1990 levels and per person emissions have decreased 42% (based on 2018 data<sup>1</sup>). Despite the success with long term emissions reductions, recent data suggests progress has plateaued, and transportation emissions have actually increased from 1990 levels.



As the dire warnings from climate science grow all the more severe, and the demands from the community to take action have become louder, the City of Portland (City) and Multnomah County (County) are committed to a new chapter of climate planning that will:

1

Center climate justice and frontline communities,

Seek to identify the actions required to make sure that community members that are most vulnerable to the impacts of climate change, including flooding, heat and wildfire smoke are protected,



3

Transform our energy and transportation systems to ensure that our community reaches carbon emission reduction targets, and

Ensure that communities that have been left behind economically because of systemic racism and institutional discrimination are leading the transition.



# 01a a long history of addressing climate change

In 1993 Portland became the first city in the United States to develop a plan for reducing carbon emissions at the local level. In response to inaction at the national and international scale, the plan aimed to create a roadmap for local governments to use for developing their own strategies for carbon reduction. While national and international efforts continue to falter, a global network of cities has emerged who are learning together and implementing innovative carbon reduction strategies and climate crisis adaptation plans.



With the 1993 Global Warming Strategy, the City of • Portland became the first local government in the U.S. to adopt a greenhouse gas reduction plan.

The City and County begin their partnership to tackle climate change with the jointly adopted 2001 Local Action Plan on Global Warming.

The City and County adopted the modern incarnation of the Climate Action Plan, establishing long term goals for carbon emissions reductions (40% below 1990 levels by 2030 and 80% below 1990 levels by 2050) and an initial set of five year actions.

The current iteration of the Climate Action Plan was adopted in 2015, expanding the focus to include climate adaptation planning, public health, and social equity.

The Climate Action Plan two year progress report was released.<sup>2</sup>

An updated carbon emissions inventory was released.<sup>3</sup>

This report provides the final status update on the implementation of actions contained in the 2015 Climate Action Plan.

View the history and key documents of climate planning and action in Portland at the <u>City of Portland's Climate Action website.</u>

# 01b a changing context

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The politics of climate planning are changing. The public is demanding bolder and more concrete actions by local, state and Federal governments.

For nearly two decades, the City and County have had a strong partnership in addressing climate change. While much has been achieved during this time, recent data shows that these efforts have been insufficient to meet established climate goals.

The politics of climate planning are changing. The public is demanding bolder and more concrete actions by local, state and Federal governments. Recent national polling finds that about 80%<sup>4</sup> of Americans say that human activity is fueling climate change, and roughly half believe action is urgently needed within the next decade if humanity is to avert its worst effects. Locally, new coalitions of climate activists and community based organizations that serve communities of color have emerged, demanding aggressive action from the City and County.



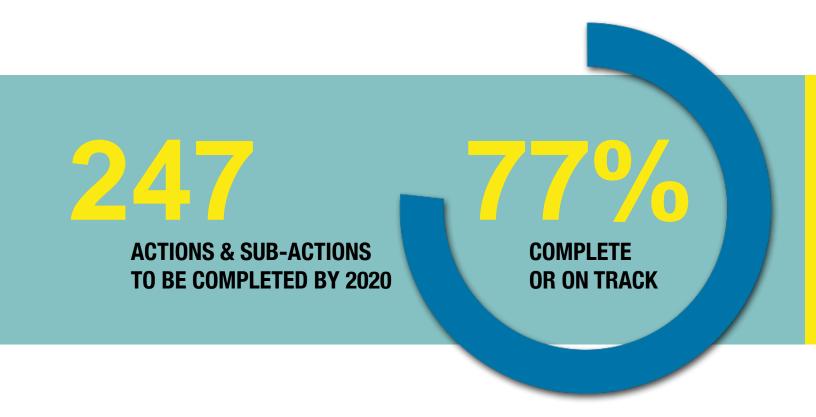


The science is also changing, with the accuracy of climate models now confirmed<sup>5</sup> and observations tracking toward what once seemed like worst case scenarios. Climate scientists are sounding urgent warnings that by 2030 global emissions must be halved to keep the Earth below what is considered a critical threshold of 1.5 °C warming. Parts of the world have already exceeded the 2 °C warming threshold<sup>6</sup> with devastating impacts and strong evidence connecting ocean heat waves, forest fires, super storms, glacial retreat, rising sea levels, crop failure, refugee crises, and more to a warming climate. As emissions continue to rise, the subsequent warming will as well. The climate crisis is the defining issue of the 21st century, and what we do now to change systems and reduce our reliance on fossil fuels matters greatly. To avoid catastrophic impacts, by the year 2050, human sources of carbon emissions must be eliminated, and atmospheric carbon capture must be implemented on a wide scale to stabilize and ultimately reduce atmospheric concentrations.<sup>7</sup>

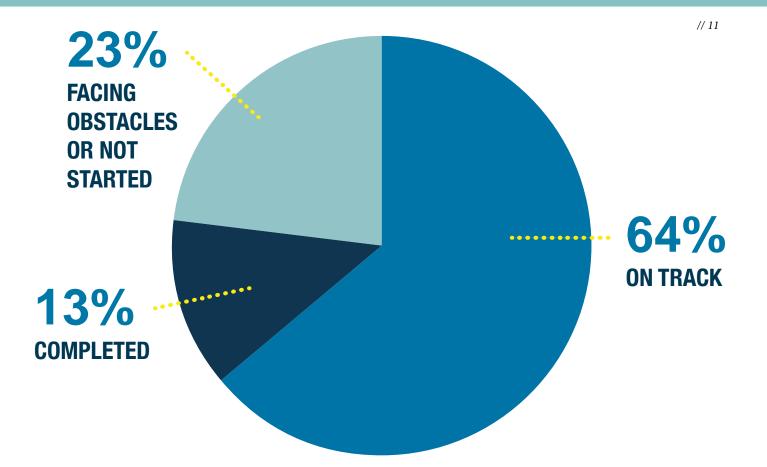
Our community finds itself at a crucial juncture of needing to rapidly decarbonize, while also preparing for the worst impacts of the unfolding climate crisis, and do so in a way that challenges existing systems and social paradigms, including institutional racism, that have created significant disparities in our society along race and class lines.

# 01C 2015 Climate Action Plan performance

The City and County's 2015 Climate Action Plan charted a path to reduce local carbon emissions 40% by 2030 and 80% below 1990 levels by 2050 and to maximize the economic, social and environmental co-benefits of transitioning away from fossil fuels. This document captures a snapshot of the status of implementing actions from the 2015 Climate Action Plan.



The 2015 Climate Action Plan identified over 247 actions to be completed or significantly underway by the end of 2020. Leadership and staff at the City and County, along with a number of partner organizations, have worked together to ensure that these actions are implemented. Nearly all the actions in the 2015 Climate Action Plan are underway, with 77% of the identified actions completed or on track to be completed by the end of 2020. This highlights the deep integration of the 2015 Climate Action Plan into the priorities and programs of each organization.



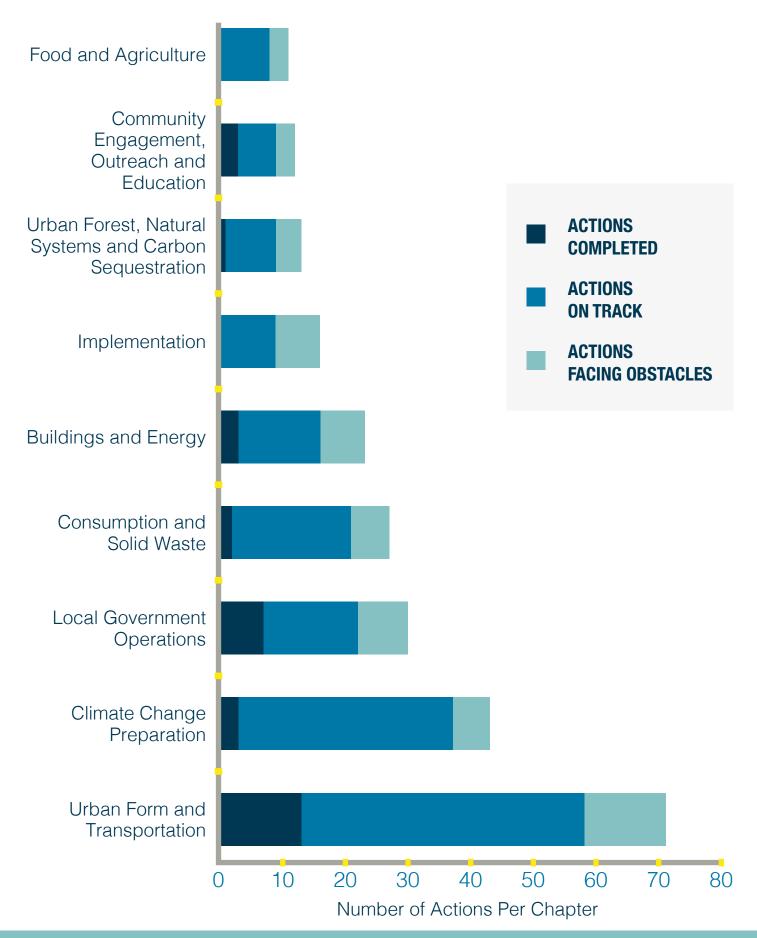
Some of the actions were specific to the City or the County, and some actions were shared between both entities. Looking at progress by the chapters in the 2015 Climate Action Plan, the distribution of actions that are completed, ongoing/on-track, facing obstacles, or not started can be put into deeper context. For instance, Urban Form and Transportation has the most completed actions and has the most action items overall. Comparatively, Food and Agriculture has the fewest actions, but the highest proportion of items facing obstacles.

Section 4 of this report breaks out actions for each of the chapters of the plan and provides short narrative summaries of a few of the completed actions. The status of each individual action can be found in the appendix to this report.

While there are many implementation stories to point to, it should also be noted that not all the actions in the plan have met with success. In some instances, this is because of outside factors like State or Federal legislative action or inaction. In other cases, shifting priorities or a lack of resources have prevented work, or a strategy identified in 2015 is no longer relevant in today's context. Section 5 of this report details some of the obstacles and challenges that have played out over the implementation phase of the plan.

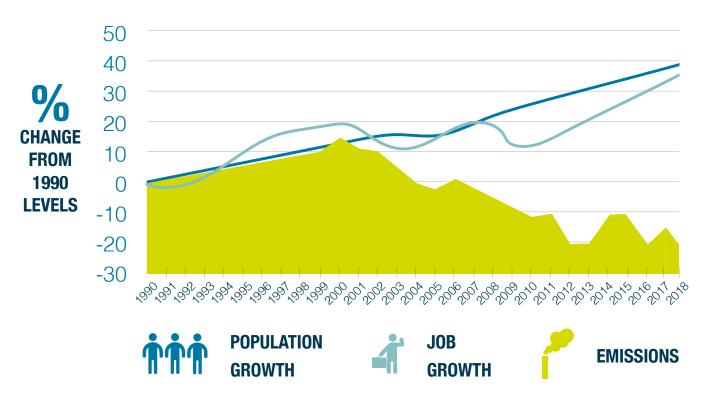
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# **CLIMATE ACTION PLAN: ACTION PROGRESS BY CHAPTER**



# 02 CARBON EMISSIONS SUMMARY

The past 26 years of climate planning and carbon mitigation efforts have driven local carbon emission 19% below 1990 levels as of 2018 (most recent data available, tracked at the county level). These reductions place Portland and Multnomah County on the forefront of communities internationally in achieving real carbon emissions reductions. The reductions to date are especially impressive given the growth of 39% more people and 36% more jobs during the same time period, meaning per capita emissions in Multnomah County have been reduced by 42% since 1990. This means that a person living in Portland today produces 42% fewer carbon emissions than they would have in 1990.



### **POPULATION AND JOBS UP / EMISSIONS DOWN**



The 19% decline in overall local carbon emissions reflects the continued growth of renewable energy resources like wind and solar in the Pacific Northwest, investments in transit and bike infrastructure, dense and walkable neighborhoods, renewable transportation fuels, as well as the transition from fuel oil to natural gas for heating. However, the data is both a success story and a warning.

The 2018 data also shows that carbon reductions have started to plateau and that current emissions trends are not sufficient to meet the needed reduction targets that need to be achieved. To achieve the goal of a 50% reduction in carbon emissions by 2030 as identified by climate science, local emissions must be reduced by an additional 31% in the next 10 years. This is a daunting task.

Additional detail about emissions reductions can be found in the chapter details of Section 4, and in the "<u>Multnomah County 2017 Emissions and Trends</u>"<sup>8</sup> report developed by the City's Bureau of Planning and Sustainability.

# 03 EQUITY CONSIDERATIONS IN THE 2015 PLAN

The 2015 Climate Action Plan forged a new path by ensuring equity played an integral role in all phases of its development, including an intentional community engagement process. This process included the creation of an Equity Working Group made up of representatives from six community-based organizations working with low-income populations and communities of color. A case study highlighting this process can be found at <u>https://beta.portland.gov/sites/default/files/2019-07/cap-equity-case-study-web29jul.pdf</u>.

The insights and local knowledge that these groups provided was invaluable and resulted in a plan that strove to be inclusive and that elevated the perspectives and expertise of communities typically excluded from climate action planning efforts. This intentional integration throughout the plan attempted to ensure that the 2015 Climate Action Plan was more than just words on paper, but a plan for inclusive, accountable implementation. Many of the recommendations of the Equity Working Group focused on "how" actions were implemented, which led to the development of an implementation focused chapter in the 2015 Climate Action Plan.

This chapter focuses on building both the capacity of City and County staff to prioritize equity in their work, and building partnerships between government staff and community partners to ensure under-represented<sup>9</sup> and under-served communities<sup>10</sup> directly benefit through the implementation of the 2015 Climate Action Plan.





In the past four years of implementation of the 2015 Climate Action Plan, much has changed around climate equity. Equity as a concept has become more mainstream and is increasingly expected to be central in public policies and programs implemented by the City and County. This process remains uneven, however, with widely varying degrees of how equity is actualized.

The City and County's integration of equity into climate work has advanced in several ways. This includes increased capacity of City and County staff to understand and apply an equity lens in their work, building new organizational partnerships that has increased accountability of City/County to community, and expanded policy perspectives such as the recognition that housing stability is a key climate resilience and mitigation strategy. At the same time, the capacity of community based organizations to engage in climate and energy work and to advocate in public processes has significantly increased. However, community capacity remains insufficiently supported.



### FRONTLINE COMMUNITIES

People who experience the "first and worst" consequences of climate change. These include Native communities, whose resources have been exploited, and laborers whose daily work or living environments are polluted or toxic.

To date, the City and County's efforts to advance climate equity, including meaningful and mutually beneficial partnerships with communities on the frontlines of climate change, including communities of color and low-income populations and the community-based organizations that support them, have had only limited success. Social, economic and health outcomes for communities of color continue to fall far behind white community members, including in key areas related to the focus of the Climate Action Plan such as transportation, housing, and workforce access/opportunities, and disparate climate related impacts such as high heat and poor air quality. Implementation of the 2015 Climate Action Plan, which takes place across City bureaus and County departments, has not always included meaningful engagement with frontline communities and community organizations, including those participating in the Equity Workgroup. In part this was a result of an unclear structure for ongoing priority setting and accountability following the Plan's adoption.

Communities on the frontlines of climate change, however, have significantly expanded their power and impact on climate policies and programs, as demonstrated through their groundbreaking development of the voter adopted Portland Clean Energy Community Benefits Fund<sup>11</sup>. A climate justice movement is underway in Portland that goes beyond responding to an equity lens based on shared benefits and burdens, to one that centers power and priorities on the needs and solutions of frontline communities. The future climate work of the City and County must embrace this model, and acknowledge that while significant effort has been made to reduce emissions and advance a more equitable society, the current approach is failing to deliver both justice and emissions reductions goals.

A new way forward is required.



# 04 PROGRESS HIGHLIGHTS BY CHAPTER

### **OBJECTIVES AND ACTIONS**

To put Portland and Multnomah County on track to reach the 2050 goal of an 80% reduction in carbon emissions, the 2015 Climate Action Plan established 20 strategic objectives to achieve the interim goal of a 40% reduction in emissions by 2030, and 247 specific five year actions that would advance the community towards the 2030 objectives. These objectives and actions are divided into nine chapters, each focused on a particular facet of addressing climate change.

### **BUILDINGS AND ENERGY**

**URBAN FORM AND TRANSPORTATION** 

**CONSUMPTION AND SOLID WASTE** 

**FOOD AND AGRICULTURE** 

**URBAN FOREST, NATURAL SYSTEMS AND CARBON SEQUESTRATION** 

**CLIMATE CHANGE PREPARATION** 

**COMMUNITY ENGAGEMENT, OUTREACH AND EDUCATION** 

LOCAL GOVERNMENT OPERATIONS

**IMPLEMENTATION** 



The actions are intended to be updated every five years, and in addition to the carbon emissions trends discussed earlier, serve as the basis of how the City and County track progress on the Climate Action Plan over time.

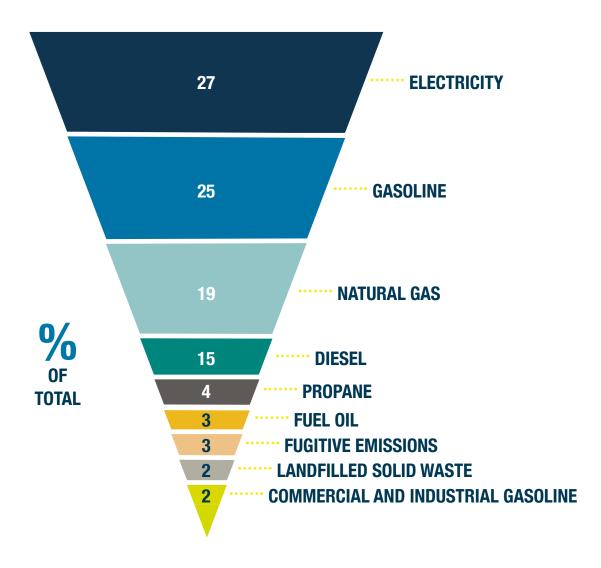
City and County staff worked with a Steering Committee, an Equity Working Group and technical advisors to develop both the objectives and actions (see the 2015 Climate Action Plan for more details about these groups.<sup>12</sup>). These groups helped to identify the near-term actions most likely to result in the changes necessary to achieve the Climate Action Plan's long-term carbon reduction and climate preparation goals, while also advancing other community goals related to prosperity, the environment, health and equity.

Work is beginning to update the Climate Action Plan and identify actions that reflect the scientific clarity about the rate of carbon emissions reductions necessary, the acceleration and severity of projected climate impacts, and the increased awareness and expectations of community partners for bold and decisive action that is rooted in climate justice.

# 04a buildings and energy

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Electricity generation is the single largest source of local carbon emissions, 27%. These emissions are the result of the carbon intensity of coal and natural gas burned to produce the electricity that powers Multnomah County households and businesses. Direct use of natural gas, primarily used to heat buildings, water, and in industrial processes, is the third major source, at 19%.



### 2018 EMISSIONS BY SOURCE

Emissions resulting from residential and multifamily energy use have declined 29% below 1990 levels, a per-person decrease of 49%. This is primarily a result of the improved efficiency of appliances and lighting, weatherization retrofits of homes, the transition from oil to natural gas as a home heating fuel, and the increased use of renewable energy by utilities.



Emissions from energy use in the commercial sector have declined by 10% since 1990. Over the same period, emissions from the industrial sector have declined by 51%, while the total number of jobs has increased by 36%. This is the result of improved efficiency and shifts toward lower-carbon fuels, both in direct consumer use and by electric utilities. For the industrial sector, there remains strong demand for industrial jobs and industrial land, indicating that the reductions are the result of a decrease in the carbon-intensity of industrial jobs, as opposed to a loss of industrial sector jobs. There has also been a shift from energy intensive manufacturing, like aluminum smelting to less energy intensive manufacturing activities.

Total energy use in commercial and residential buildings has increased by 19% above 1990 levels as of 2018, but carbon emissions from these sectors have been reduced by 19% over the same time period due to cleaner sources of energy. Large buildings over 20,000 square feet in Portland have reported at 3.5% decrease<sup>13</sup> in energy use intensity between 2016 and 2018.

The source of electricity supplied in Multnomah County continues to be derived primarily from fossil fuels, though significant strides have been made to "clean the grid." As of 2018, electricity supplied within Multnomah County was 35% less carbon intensive (per unit of

electricity) than the 1990 baseline. Long-range planning by the investor-owned utilities serving Multnomah County businesses and residents reflect a substantial shift from fossil fuel based resources to renewable energy sources (e.g., solar, wind) and other key strategies (e.g., energy efficiency, battery storage) in making the transition to a 100% renewable electricity supply. This is in part a response to the City/County commitment under the Climate Action Plan, and the City/County adoption of the 100x50 resolution<sup>14</sup> (see the related action highlight below), which commits the community to a path of 100% renewables by 2035, and 100% renewable sources of all energy by 2050.

Buildings are the single largest contributor to carbon emissions in Multnomah County,

accounting for nearly half of all sector-based emissions. Reducing carbon emissions from building energy use requires three key strategies:

- Significantly improve the energy efficiency of existing buildings.
- Ensure that new buildings are built to achieve net zero carbon emissions.
- Reduce the carbon intensity of the region's electricity supplies through the use of renewable energy supplies like wind and solar.

Each of these strategies are reflected in the 2030 objectives for this chapter.

This chapter contains 23 specific actions to advance each of the chapter's 2030 objectives. The majority of these actions (70%) have already been completed or are on track to be completed or substantially underway by the end of 2020. The remaining actions face obstacles, including statewide policy action/inaction and funding availability.





This chapter identified several actions that had a high potential to positively impact public health and equitable outcomes for the community. For example, the 2015 Climate Action Plan recognizes that quality, stable, efficient housing for all is critical to a thriving community. Actions in this chapter include a focus on weatherizing homes, particularly low-income housing, and the development of a local funding mechanism for low-income weatherization and renewable energy projects built off the groundwork laid by <u>Clean Energy Works Oregon</u>. The <u>Portland Clean Energy Community Benefits Fund</u>, created as a result of Oregon's first environmental ballot initiative created and led by communities of color, supports the implementation of many of the objectives and actions described in the Climate Action Plan. In addition, the City/County 100x50 resolution prioritizes community-based development of renewable energy infrastructure, and set a target of supplying 2% of community-wide energy needs via such infrastructure by 2035.

### **BUILDING RENEWABLE, RESILIENT POWER (ACTION 3B)**

In December 2019, Portland Fire and Rescue flipped the switch on a solar plus battery storage system, also known as a microgrid, at Fire Station 1. The system is Portland's first renewable, resilient power project installed at an emergency response facility and Oregon's first renewable microgrid on a fire station.

The vanguard project includes a 30 kW solar electric system, a 60kWh commercial-sized battery, and an existing onsite generator. These three components allow the site to generate and store power from multiple sources in the event of a prolonged power outage. Most solar applications only work when the sun is shining, but with the addition of a battery, the energy generated from the solar array can be saved and used later. The battery can provide three to four hours of electricity for critical systems.

In a disaster, that time could be vital. All of Portland's fire stations have back-up diesel generators, but they require liquid fuel. If a disaster event disrupts the supply of liquid fuels, like the Cascadia subduction zone earthquake, the ability to maintain a steady flow of diesel fuel for generators will be hindered, possibly for weeks. The solar and battery system at Fire Station 1 means some critical station functions will



be able to be powered indefinitely. In the worst of scenarios, Fire Station 1 could be the only fire station in the city with a continuous power supply. The microgrid project is a result of a partnership between the Bureau of Planning and Sustainability (BPS), Portland Fire & Rescue (PF&R), Portland General Electric, Energy Trust of Oregon, EC Company and a variety of technical partners and vendors.

### **INVESTING IN RESILIENT BUILDINGS (ACTION 1E)**



Commercial Property Assessed Clean Energy (CPACE) is a way for state and local governments across America to provide access to strategic, longterm financing for energy efficiency, renewable energy, water conservation, and seismic resiliency projects, enabling owners, developers, and investors in commercial buildings to enhance performance. The County, in partnership with Prosper Portland and the Energy Trust of Oregon, was the first and so far only jurisdiction in Oregon to authorize a CPACE program, which has been named PropertyFit. Since its formation, PropertyFit has encouraged the investment of <u>\$6.8M in high</u> performance and resilient building measures. And importantly, the County and its partners established a framework for communities around Oregon to join in expanding PropertFit or launch their own version of the program.

# **EXPANDING RENEWABLES (ACTION 3A)**

Multnomah County's electricity supply is served primarily by two investor-owned utilities, Portland General Electric and Pacific Power. While each have made efforts to shift toward increased use of renewable energy in our electricity supplies to comply with state mandates, both utilities are predominantly serving local residents and businesses with electricity generated from fossil fuels such as coal and natural gas derived from fracking. As such, the City and County have played a growing advocacy role during electric utility regulatory proceedings. One important victory to note, in 2017 the City and County strongly advocated for Portland General Electric to reconsider a proposal that would have built two new gas fired power plants as part of their long term resource planning. This proposal was dropped in favor of a longer term commitment primarily to renewable resources. In addition, the City and County encouraged Portland General Electric and Northwest Natural, the natural gas provider in Multnomah County, to conduct deep decarbonization studies that have begun to drive investments in decarbonization strategies in these organizations. While advocacy by the City and County alone may not have caused these shifts, their advocacy has been recognized by name in utility regulatory proceedings.



# 04b urban form and transportation

Transportation fuels (e.g., gasoline, diesel, propane, ethanol, biodiesel) combined account for 43% of local carbon emissions. These emissions are the result of driving vehicles powered by gasoline, diesel and propane, the transportation of goods, off-road vehicles and equipment used for construction, and a transit system dominated by diesel buses. Taken together, transportation emissions are the single largest source of emissions in Multnomah County.

While emissions are down in other sectors, the reverse is true for transportation. Transportation sector emissions have climbed over their low in 2012, and are now 6% above 1990 levels. Transportation now makes up over 43% of total carbon emissions in Multnomah County, with emissions growing nearly twice as fast as population growth over the past six years.

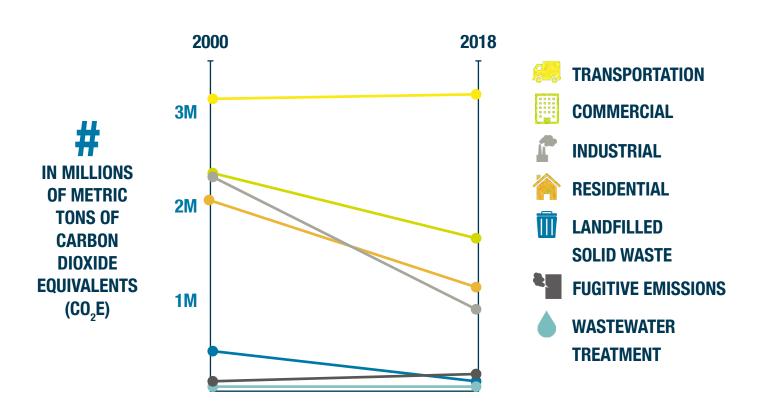




actions



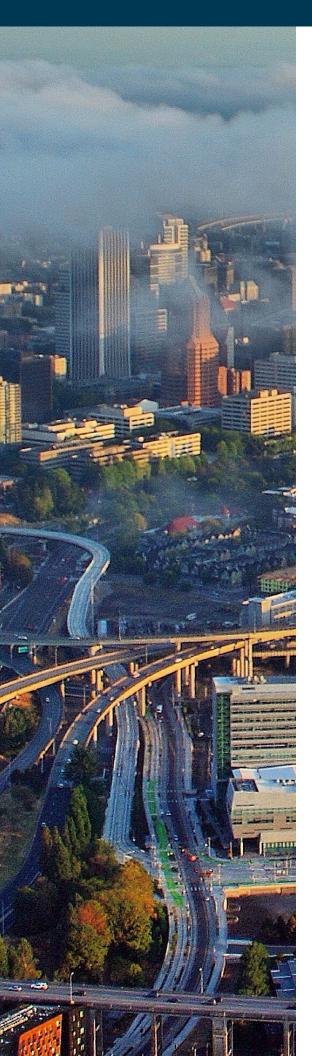
actions FACING OBSTACLES Daily vehicle miles travelled (VMT) per capita for the Portland Metro region decreased 3.9% from 2008 levels as of 2018 (most recent data available). However, with population increases over the same time period, total miles travelled have increased by over one-million per day.



### TRANSPORTATION EMISSIONS HAVE GONE UP WHILE NEARLY ALL OTHER SECTORS HAVE GONE DOWN

### **EMISSIONS CHANGES ALL SECTORS**

Fortunately, an increasing percentage of these trips are being made via electric vehicles, with nearly 8,000 battery electric vehicles and plug-in hybrid electric vehicles registered in Multnomah County as of December 2019. In addition, the Oregon Clean Fuels Program, which the City and County have consistently advocated for, as well as the City's renewable fuel standard, led to a 2% decrease in the carbon intensity of transportation fuels. These programs are on track to reducing carbon content of fuels by 10% from 2015 levels by 2025.



Land use planning and transportation policies and investments represent major opportunities for the region to address carbon emissions. Three factors strongly influence carbon emissions from transportation and are reflected in the 2030 objectives of this chapter:

- The overall urban form or shape of the community, including where jobs and housing are located, the presence of parks and open spaces and the location of stores and services.
- How people and goods move around (e.g., on foot, by bicycle, bus, car or truck).
- The fuels used to power transit, cars and trucks (e.g., electricity, biofuels, diesel, gasoline).

This chapter contains 71 specific actions to advance each of its 2030 objectives. The majority of these actions (82%) have already been completed or are on track to be completed or substantially underway by the end of 2020. The remaining actions face obstacles, including statewide policy action/inaction and funding availability.

This chapter identified a number actions that had a high potential to positively impact public health and equitable outcomes for the community. These include addressing air quality impacts related to transportation and construction (see below), and linking housing, transportation and affordability, among others.

# **EXPANDING ELECTRIC VEHICLE CHARGING (ACTION 7B)**

The City conducted an analysis and developed a map that identifies priority areas of the city to encourage the expansion of publicly available electric vehicle (EV) charging infrastructure by external stakeholders such as utilities, investors, businesses and non-profit organizations. Through this analysis the City seeks to prioritize the installation of charging infrastructure that is: in close proximity to residents driving longer commute distances and areas with higher proportions of multi-family housing and garage-free homes, at large businesses outside of the city's central core with employees that commute longer distances, in areas with fewer existing public EV chargers and with limited access to frequent transit and bike routes.

The City has used this map analysis to guide conversations with Electrify America, Tesla, Pacific Power, PGE and any organization interested in installing charging infrastructure in Portland. The mapping exercise has received positive feedback from local organizations as well as from national and international sustainable transportation professionals.

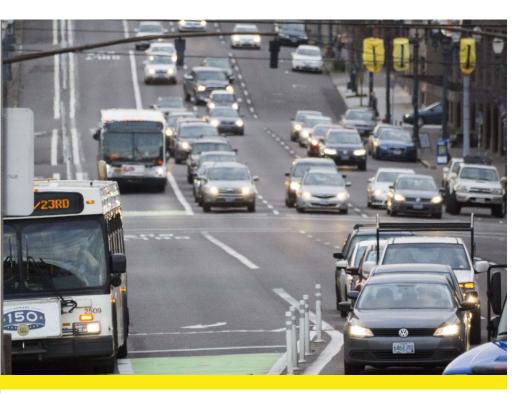


One very tangible result of this work is that it was used to inform the location of PGE's most recent Electric Avenue charging hub which is located at Portland's Eastport Plaza.

### **INCREASING PUBLIC TRANSIT PERFORMANCE (ACTION 4W)**

City Council unanimously adopted the Rose Lane Project, the City's plan for making public transit better in Portland. Rose Lanes are corridors where different transit priority tools will be used to keep buses and streetcars out of traffic. There are over 20 tools that can be used flexibly and strategically based on transit conditions in a particular area, including changes to traffic signals, transit stop improvements and bus priority lanes. High ridership transit is one of the most efficient, equitable, and sustainable ways to move people around our growing city. Giving buses and streetcars priority on our streets will improve the speed and reliability of transit, making it more competitive with driving.

The Rose Lane Project will benefit more than 100,000 current transit riders and has the potential to provide access to up to 25,000 more jobs by a 45-minute (or less) transit trip for Portlanders when fully built-out. The Project is guided by a series of "better-off" measures, co-developed with community partners. These measures will be used to ensure project decisions and investments are made in a way that advances racial equity and reduces climate impact. The City will begin rolling out Rose Lane projects as pilots in 2020 using low cost, quick build methods which will allow the evaluation and tweaking of projects to maximize benefit.



# **CLEANING OUR AIR (ACTION 7F)**

Portland and Multnomah County residents have the highest exposure to air toxics in the state and are well above national averages for cancer risk and respiratory hazards from air toxics. Soot from older diesel engines is among the most prevalent and harmful airborne toxics in the region and makes residents more susceptible to health impacts from climate impacts such as increased temperatures and exposure to wildfire smoke. Particulate matter (PM) from older diesel engines also exacerbates a warming climate by creating a localized greenhouse effect and can accelerate snowpack melt.

The Oregon Department of Environmental Quality (DEQ) estimates these emissions lead to more than 400 premature deaths and \$3 billion in economic losses a year. In Multnomah County, African Americans are three times more likely to be exposed to diesel particulate matter, and Latinos are 2.5 times more likely, than white county residents<sup>15</sup>. More than 50% of diesel particulate matter in the region comes from construction equipment, so in 2019 the City and County committed to a Clean Air Construction Procurement Standard, and strongly advocated for the 2019 passage of a clean diesel bill in the Oregon Legislature. These actions will dramatically reduce emissions from older diesel engines in the region.



04c

# consumption and solid waste

Close to 70% of the carbon emissions from the food and goods that we buy are associated with producing, transporting and selling of those products. While recycling and composting help reduce disposal emissions, the majority of carbon emissions are generated before we even purchase the products.

To achieve carbon reduction goals, individuals, businesses, governments, and other organizations not only need to recycle and compost but also make more sustainable production and purchasing decisions. This chapter's 2030 objectives prioritize three key strategies:

- Encouraging sustainable consumption and minimizing carbon intensity of local supply chains.
- Significantly reducing food waste and recyclables sent to landfill.
- Significantly reducing the overall amount of waste generated.







The City and County also recognize that while consumption patterns carry a carbon footprint beyond what is sustainable for a stable climate, many of our community members lack the resources to purchase the goods and services they need for their families to thrive. As government and community work to address the issue of sustainable consumption, this tension between reducing emissions from consumption for some, while seeking to increase access to necessary goods and services for others, must be considered.

This chapter contains 27 specific actions to advance each of its 2030 objectives. The majority of these actions (78%) have already been completed or are on track to be completed or substantially underway by the end of 2020. The remaining actions face obstacles, including statewide policy action/inaction and funding availability.

### **REDUCING EMISSIONS FROM CONSUMPTION (ACTION 8A)**

The City's Bureau of Planning and Sustainability is developing a Sustainable Consumption and Production Strategy to address the significant carbon emissions associated with the consumption of goods, services, food, and other materials. These emissions are double the emissions produced locally, but are produced in other parts of the world due to the extraction and processing of raw materials and manufacturing of goods. These emissions are accounted for in the Multnomah County consumption-based emissions inventory.



This work is critical as the global economy has shifted production of goods and food to other parts of the world. The Sustainable Consumption and Production Strategy uncovers the important role of government in shifting the conditions in which consumers make decisions and changing the systems that lead to high consumption lifestyles. In addition, sustainable consumption provides consumers with significant opportunities to reduce global carbon emissions through their choices. This may include reducing consumption of meat, or repairing and servicing old clothes and appliances rather than buying new products.

In support of the development of the Strategy, City staff held workshops with C40 and Kate Raworth's Doughnut Economics through the Thriving Cities Initiative to identify drivers of consumption-based emissions and have collaborated with community partners on the identification of strategies and actions local governments can take to reduce consumption-based emissions.

# **PRIORITIZING LOW IMPACT PURCHASES (ACTION 8A)**

AsaresultoftheCity'sSustainableSupplyChainAnalysis(SSCA)(https://www.portlandoregon. gov/brfs/article/627973), the City began requiring product-specific environmental product declarations (EPDs) for concrete mixes being used on City-owned construction projects to better understand the carbon content of various mixes. Pilot tests of lower carbon intensive concrete mixes are also underway at the City. The SSCA found that in 2014-15, the carbon emissions associated with the City's purchases (goods and contracts) was equivalent to 4.3 times the total emissions from the City use of energy, including electricity, natural gas, and transportation fuels. In addition, the County required EPDs for the construction of the Multnomah County Courthouse as a pilot project to explore a future EPD policy.



## 04d food and agriculture

Approximately 15% of local consumption-based carbon emissions come from supplying food to residents and businesses in Multnomah County. This figure may approach 30% when other food system impacts, such as importing, processing and agriculture related deforestation and soil degradation are included.<sup>16</sup>







There is a relationship between healthy eating and a low-carbon diet. Eating more fresh fruits, vegetables and less processed foods helps support healthy bodies while at the same time reducing carbon emissions associated with food production. However, low-income populations and communities of color may not have equitable access to healthy and affordable food. 15% of all residents, and 20% of children in Multnomah County are considered food insecure.<sup>17</sup>

Consequently, access to lower-carbon food choices — especially fruits, vegetables and less processed or packaged foods — may be constrained by price and accessibility. This chapter's 2030 objective prioritizes increased access to healthy foods and the reduced consumption of carbon intense foods in support of a thriving community food system.

This chapter contains 11 specific actions to advance the 2030 objective. The majority of these actions (73%) are on track to be completed or substantially underway by the end of 2020. The remaining actions face obstacles, including statewide policy action/inaction and funding availability.

### **EXPANDING ACCESS TO HEALTHY FOOD (ACTION 12B)**

The Community-Supported Agriculture (CSA) Partnerships for Health is now in its fourth year of providing access to healthy, low carbon foods at significantly reduced rates (and free for those who cannot afford a copay) using a prescription CSA model. The program began as a 2015 pilot at the County's Mid County Health Center, pairing 25 patients with the nonprofit Zenger Farm. Four years later, the partnership has expanded to service 251 patients' families across five county clinics: Mid County, Southeast Health Center, North Portland Health Center, La Clinica de Buena Salud, and the newest, Rockwood Health Center. Kaiser Permanente, Wallace Medical Concern, OHSU Family Medicine at Richmond and Outside In also provide shares to their members.

The pick-up sites are located at the same

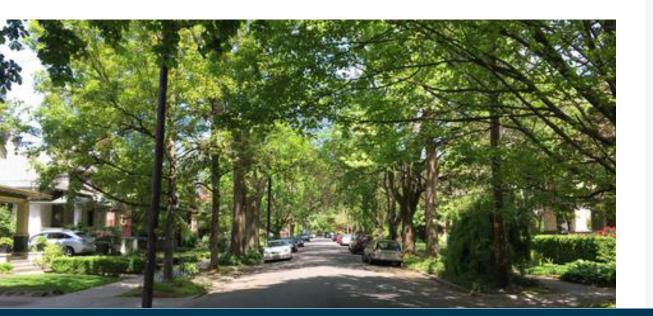




clinics where clients see their providers, and staff send text message reminders to CSA members. They coordinate clinic staff, volunteers and clients to make special deliveries when needed and schedule medical transports for clients who can't drive or take the bus. Those efforts have helped CSA Partnerships for Health make striking changes in clients' lives: 88% of members report improvements to their health and 86% report they've learned new ways to prepare vegetables.<sup>18</sup>

## 04e urban forest, natural systems and carbon sequestration

In addition to providing a critical role in preparing for the impacts of climate change, trees and other green infrastructure help the City and County reach carbon reduction goals by sequestering carbon dioxide and reducing building energy use through cooling and shading in summer and lessening heat loss in winter. Trees improve local air quality and reduce the urban heat island effect in neighborhoods. Reducing impervious area helps retain space for trees, vegetation, soil and other green infrastructure as the community grows.







This chapter's 2030 objective prioritizes increasing equitable tree canopy distribution across all neighborhoods in Multnomah County and recognizes that community partnerships and participation are essential to achieving this goal over time.

As of 2018, Portland's urban forest covered 30% of the city and is estimated to sequester over 88,000 tons of carbon dioxide annually. However, households in the top quintile of income have on average 20% more canopy than those in the bottom quintile.

This chapter contains 13 specific actions to advance the 2030 objective. The majority of these actions (69%) have already been completed or are on track to be completed or substantially underway by the end of 2020. The remaining actions face obstacles, including statewide policy action/inaction and funding availability.

## **EMPOWERING YOUTH TO HELP GREEN THE COMMUNITY (ACTION 13A)**

Over the last four years, the City and County have sought to improve the natural world while also giving jobs to young people who might not otherwise be exposed to the environmental field and face barriers to employment. Portland Parks & Recreation launched the Youth Conservation Crew, a diverse group of youth who work to protect, restore, and manage Portland's parks and natural areas while developing job skills and exploring environmental and outdoor careers.





Over the past two years, the County has partnered with the City of Gresham and other non-profit partners to launch Green Gresham, Healthy Gresham, with the goal of making a healthier urban environment for people living in areas of west Gresham that lack of dense tree canopy. The project is improving the health and well-being of three neighborhoods that are more diverse and lower-income than regional average by planting more than 225 trees to help address the high urban heat island effect experienced in these areas.



## **RESTORING CRITICAL HABITATS (ACTION 13D)**

A wide range of partners have come together over the past decade to restore critical creeks in the urban environment, including Beaver Creek and Crystal Springs Creek, that are home to a number of native and threatened species such Coho, Lamprey and others. These projects included replacing numerous culverts that carry the creeks under roads, but blocked fish from swimming upstream to reach spawning and rearing habitat. In addition to culvert replacements, restoration efforts included adding large logs, root wads, and boulders to slow water and create pools for fish.

Native plants along the stream banks are helping to prevent erosion, keep the water cool and become food for fish and other creatures. These efforts have made a difference. For example, Beaver Creek now produces 9% of the native salmon in the Sandy River Basin.



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## climate change preparation

To prepare for the impacts of climate change, the City and County are working to reduce exposure to risks and strengthen the capacity to respond. Because of the breadth of potential impacts, preparing for climate change requires an adaptive management approach. This is an approach that monitors efforts and promotes flexible strategies that leave a range of future options available. Preparing for climate change also requires steps to understand how impacts may affect people most vulnerable to issues such as heat, poor air quality and flooding. The City and County need to prioritize climate change preparation actions in areas facing current and historical disparities, including where low-income populations and communities of color live.





The impacts of climate change needs to be routinely considered in virtually all aspects of the City and County's work, including setting policy, making budget decisions, updating code, investing in infrastructure, delivering health services and preparing for emergencies. This chapter's 2030 objectives prioritize:

- Reducing the risks and impacts from heat, drought and wildfire by preparing for hotter, drier summers with increased incidence of extreme heat days.
- Reducing the risks and impacts from flooding and landslides by preparing for warmer winters with the potential for more intense rain events.
- Building City and County staff and community capacity to prepare for and respond to the impacts of climate change.

This chapter contains 43 specific actions to advance the 2030 objectives. The majority of these actions (86%) have already been completed or are on track to be completed or substantially underway by the end of 2020. The remaining actions face obstacles, including statewide policy action/inaction and funding availability.





## **BUILDING RESILIENT INFRASTRUCTURE (ACTION 14C)**

The City has been advancing a multi-bureau collaboration related to infrastructure resilience and recovery planning. The project began in early 2017 as an effort to better understand the risks posed by major natural disasters to infrastructure, and to identify near- and long-term steps to build the resilience of those systems. City staff from six bureaus, along with partners at Portland State University's Institute for Sustainable Solutions, used disaster scenarios that included a focus climate impacts like landslides and flooding to help identify critical infrastructure, assess interdependencies, and estimate the expected time required to recover and/or rebuild those systems. The workshops confirmed, refined, and elevated the importance of resilience and recovery planning work. Current efforts include developing a proposal for recovery decisionmaking structures, creating a citywide resilience and recovery strategy, and securing resources to create a resilience hub pilot project at the East Portland Community Center.



### **PREPARING FOR INCREASED WILDFIRE RISKS (ACTION 14M)**

Few things have been as visible of a sign in the Northwest of the climate crisis as raging wildfires, including the 2017 Eagle Creek Fire. With wildfires across California and summer blazes in the arctic, Amazon, and Indonesian rainforests, wildfire is becoming a global issue on a scale never seen in recorded history. The smoke from wildfires worsens air quality and human health, damages and destroys public and private property, and harms wildlife, habitat, and recreation areas.

Due to increasingly dry conditions and many people living where houses and forests come into contact (known as the wildland urban interface), the need for raising awareness about the dangers of forest fire has never been higher. In September 2019, a group of experts from several organizations gathered together to increase community wildfire safety. The group included City and County staff as well as community rescue volunteers and neighborhood preparedness teams, who spent half a day learning about wildfire hazard mitigation, public alerts, and the levels of evacuation so they could share this lifesaving information with other

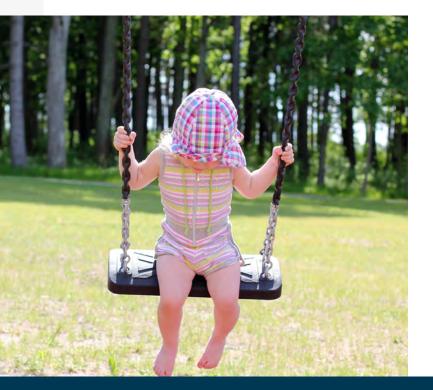


community members. In addition to continuing community skills training and education, The County is leading a project to update zoning codes in the rural parts of Multnomah County to limit housing in high risk areas and ensure mitigation measures are taken to reduce risk, and is updating its wildfire protection plans.

## **RESPONDING TO HEAT EMERGENCIES (ACTIONS 14D AND 14E)**

The County Office of Emergency Management maintains and annually updates a standard operating procedure (SOP) for excessive heat. Recent changes to the SOP include the incorporation of improved heat risk tools from the National Weather Service, as well as an adaptable and flexible approach to implementing cooling spaces. Multiple County departments contribute to communication tools used during a heat emergency, including messages in several languages and an interactive map of safe cooling places.

The County's Health Department also routinely monitors the incidence of heat related illness. The County's website, <u>Help for When it's Hot</u>, provides a wealth of resources that can be deployed during extreme heat. These include downloadable posters in multiple languages, videos, and even information for keeping your pet safe. These resources are becoming increasingly needed as the number of high-heat days increase in Multnomah County. The <u>Centers for Disease Control and Prevention</u> estimates that the annual number of days over 90° F in Multnomah County will increase from 14 in 2020 to 17 in 2030, and 24 in 2050.



## 04g community engagement, outreach and education

The Climate Action Plan recognized that City and County must meaningfully engage all residents to achieve an 80% reduction in emissions by 2050. Each resident, business and institution has an opportunity to take action. The Climate Action Plan also recognized that achieving broad and robust engagement is a two-way street, and that the City and County needed to do more to reach new communities who were often left out of sustainability conversations. The kind of bold policy initiatives that support deep carbon reductions require active community support. The City and County understand and value the critical role and democratic principle of community activism, and must be responsive to community priorities by leveraging public resources to advance community initiatives.





Creating the space, time, and trust to identify shared interests and opportunities for mutual benefit is essential to achieving both climate protection and equity goals. Inequity is an issue today because past decisions created deep disparities in Portland, among many other places. An essential step to addressing these inequities is to create opportunities for people most impacted to be at the table for today's decisions. That can only happen if policymakers and members of under-represented and under-served communities know each other, trust each other and work collaboratively toward common interests and priorities.



The 2030 objectives of this chapter attempt to realize these values through these priorities:

- Engaging all communities, especially impacted under-represented and under-served populations, in the development and implementation of climate change-related policies and programs.
- Motivating all Multnomah County residents and businesses to change their behavior in ways that reduce carbon emissions.

This chapter contains 12 specific actions to advance the 2030 objectives. The majority of these actions (75%) have already been completed or are on track to be completed or substantially underway by the end of 2020. The remaining actions face obstacles, including funding availability.

### **CONVENING AROUND ENERGY JUSTICE (ACTIONS 17A AND 17C)**

How do we transition to renewable energy in a way that is just and equitable to historically oppressed people? That question was at the heart of the Community Energy Justice Summit, a three-day workshop in summer of 2018 jointly organized, funded and hosted by community-based organizations — including the Coalition of Communities of Color, Verde, OPAL Environmental Justice Oregon, Asian Pacific American Network of Oregon, Native American Youth and Family Center and Immigrant and Refugee Community Organization /Africa House — and the City and County.



A kickoff reception brought together community

members with a wide swath of partners, including local elected and non-profit leaders, as well the Chair of the Public Utilities Commission of Oregon, and representatives from local utilities. However, the main portion of the event limited participation to frontline community members and organizations and a limited number of City and County staff participants in order to ensure that the voices of frontline communities were prioritized. The event curriculum was co-created with the support of national leaders in energy democracy, including Partners for Collaborative Change and Movement Strategy Center, and the Local Clean Energy Alliance.

The two-and-a-half-day interactive curriculum was conducted simultaneously in English and Spanish, and supported local community-based organizations and their members to build a collective understanding of energy development fundamentals and energy democracy. The summit helped both community and government begin crafting a shared understanding of the values of and path towards a community-based energy system.

## **GETTING TO NET ZERO CARBON BUILDINGS (ACTIONS 17A AND 17C)**

The Zero Cities Project is a group of twelve cities, including Portland, that is developing a zero carbon building policy roadmap through a community collaboration process that centers on equity and is informed by technical analysis. Zero Cities Project serves the twin goals of increased racial equity and a zero carbon building sector by 2050.

The Bureau of Planning and Sustainability (BPS) recruited Verde, a community-based, culturally-specific organization, to serve as an anchor partner for the Zero Cities Project. Verde then recruited additional community partners.

This group created a community-led engagement process, known as participatory action research, to identify where community priorities intersect with net zero carbon building policies. Through an innovative series of trainings, meetings and one big community policy forum, the Zero Cities team identified minimum energy efficiency standards for rental housing and renter protections as the top priority for building sector policy in Portland. The City has committed to advancing this policy priority over the next two years.

Additional community partners in Zero Cities Project include Asian Pacific American Network of Oregon, Coalition of Communities of Color, OPAL Environmental Justice Oregon, and Portland African American Leadership Forum.

## 04h Iocal government operations

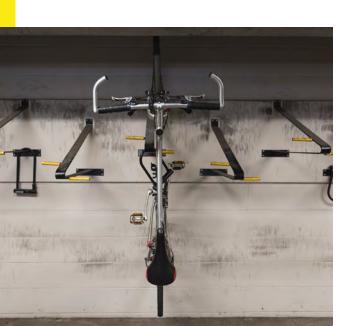
Just as the City and County provide enabling policies, technical assistance, education and outreach, incentives and other support to help the community achieve the objectives in the Climate Action Plan, the City and County must also lead the way in their own operations.



Carbon emissions from local government operations account for about one percent of total local emissions and result from various activities and facilities, including:

- Buildings such as fire and police stations, offices, parks and community centers, detention facilities, libraries and health clinics.
- Transportation infrastructure like streetlights and traffic signals, as well as the Portland Streetcar.
- Drinking water, wastewater and stormwater systems, including treatment facilities and pump stations.
- Fleets of passenger vehicles as well as heavy-duty construction equipment.
- Extensive information technology systems, including emergency communications such as 911 services.







The carbon emissions and financial costs of operating these facilities and other purchases of goods and services essential to local government functions are significant. To protect the climate and to reduce operating costs, the 2030 objective in this chapter commits the City and County to reducing carbon emissions from their operations by 53% from FY 2006–07 levels.

As of FY 18-19, emissions from City and County operations are 41% and 64% below FY06-07 levels, respectively. These reductions were achieved in large part to the pursuit of the 30 specific actions in this chapter. The majority of these actions (73%) have already been completed or are on track to be completed or substantially underway by the end of 2020. The remaining actions face obstacles, including statewide policy action/inaction and funding availability.

### **SUPPORTING NEW RENEWABLE POWER (ACTION 19F)**

Responding to renewable policy commitments from local governments like the City/County 100x50 resolution, Portland General Electric launched Green Future Impact, a new product that allows large commercial and industrial customers to source 100% of their electricity from new renewable energy facilities.

While the City and County both continue to seek new opportunities to develop renewable energy facilities on site, the reality is there are not enough suitable sites to generate sufficient renewable power to meet 100% of their electricity load. The City and County have purchased renewable energy certificates (RECs) through third parties to address this gap, in part. While RECs support renewable energy development generally, they provide less certainty that the City and County commitments are directly contributing to the development of new renewable resources.

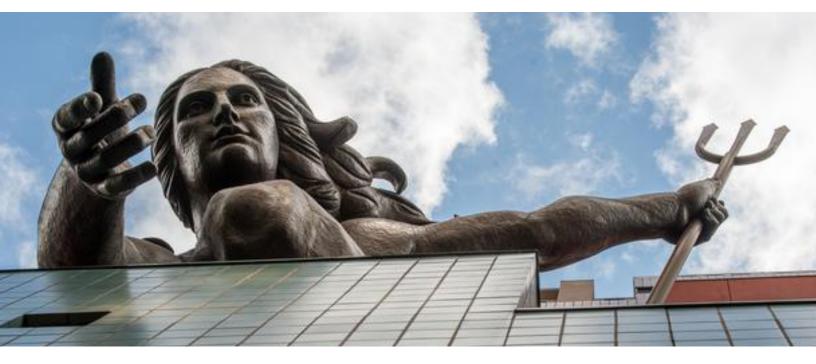
To shift this dynamic, the City and County made commitments to purchase more than half of each organization's electricity provided from Portland General Electric through a dedicated power purchase agreement under the Green Future Impact program. These purchases will



directly support the development of a new solar facility in The Dalles, Oregon. In addition, the long-term contract means that the cost of participating in the program is less expensive than purchasing a commensurate amount of RECs from the market, meeting City and County local energy goals more cost effectively.

## **TARGETING NET ZERO MUNICIPAL BUILDINGS (ACTION 19H)**

The City and County's recent major building construction projects are in line to achieve LEED Gold Certification and demonstrate that the City and County are committed to achieving the goal of net zero building projects by the year 2030. The City's Portland Building Reconstruction project, and the County's Central Courthouse and Gladys McCoy Building projects reflect the commitment to innovation and efficiency. Each building is on track to achieve significant energy efficiency benchmarks despite project complexity, a major renovation of an historic building in the case of the Portland Building, and site constraints for the Central Courthouse and McCoy Buildings. In addition to efficiency gains, each building was designed with the well-being of public staff who work there and the community members who are served in mind. Each of the projects sought to maximize the opportunities to grow a more diversified trades workforce, and ensure that contractors on the project received fair wages and health care and were treated with dignity and respect on the job.



## 04i implementation

Building the capacity of staff and the community to implement and evaluate actions to reduce carbon emissions and prepare for climate change is critical to achieving the vision and goals outlined in the 2015 Climate Action Plan. To that end, the Climate Action Plan commits City and County staff to work collaboratively across bureaus, departments and jurisdictions to:

- Review climate research, trends, regulations and best practices.
- Foster cross-disciplinary collaboration between agencies and program areas, as well as with academia, the private sector, nonprofits and community organizations that serve communities of color and low-income populations.
- Ensure the actions are implemented equitably.
- Follow an adaptive management approach to allow continual improvements and reprioritize when necessary.
- Implement actions that benefit under-served and under-represented communities and the communities and natural systems most vulnerable to climate change impacts.
- Reexamine and update the key findings and actions of this strategy every five years.
- Annually report on progress toward implementing the actions outlined in the Climate Action Plan annually, as well as on progress toward more equitable outcomes.

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actions

COMPLETED

actions

**ON TRACK** 

actions

FACING

OBSTACLES



These commitments are the basis of the 2030 objective for this chapter, and are reflected in many of the chapter's five year actions. The majority of these actions (56%) have already been completed or are on track to be completed or substantially underway by the end of 2020.

The 2015 Climate Action Plan broke new ground in its commitment to changing the way the City and County approached climate work to deliver more equitable outcomes. By taking an interdisciplinary and intersectional approach, the foundation was set for great transformation but also added much greater complexity. Perhaps it is unsurprising then that this section, which in large part focuses on the "how" of the work, has proven the most challenging to implement. Working differently requires shifts in the City and County as organizations, something that both are invested in but that will take time.

## **ADVANCING HEALTH EQUITY (ACTION 20A)**

The Action Communities for Health, Innovation and Environmental Change (ACHIEVE) Coalition has guided the Multnomah County Racial and Ethnic Approaches



to Community Health (REACH) program since 2009. The ACHIEVE Coalition includes community members, representatives from local community organizations and faith based agencies, along with County and state agency staff. Under the ACHIEVE Coalition's guidance, the Centers for Disease Control (CDC) funded REACH program works to end health inequities in chronic diseases for the African American and African immigrant/refugee communities in Multnomah County. Black community members in the county disproportionately experience the highest burdens of chronic disease, including hypertension, heart disease, Type 2 diabetes, and obesity. These diseases are often directly linked to environmental injustices such as the disproportionate exposure of air toxics to people of color in the county, and community members experiencing health inequities including overburden of chronic disease are more susceptible to climate impacts such as extreme heat.

REACH 2.0, also CDC funded, continues the work to implement a comprehensive model of health that advances positive health outcomes for the Black community. REACH 2.0 addresses the social determinants of health through multi-sectoral systems and policy actions, and empowers community members and partners to become creators for solutions that make the healthiest choice the easiest choices. This work includes: increasing access to healthier foods through food hubs and establishing healthy nutrition standards in childcare settings, schools, faith-based settings, and jails; establishing new or improved pedestrian, bicycle, and transit transportation systems that link health justice with improved land use and environmental design; and bridging community engagement with transportation policies though a public health lens. Examples of REACH 2.0 in action include the distribution of food shares from Black-owned farm Mudbone Grown to Black families across the County, and connecting incarcerated teens, who are disproportionately people of color, with fresh, local produce through policy and program changes.

## **BUILDING STAFF CAPACITY TO LEAD WITH EQUITY (ACTION 20C)**

The City launched two initiatives to build the capacity of staff to develop and evaluate climate efforts through an equity lens. The first was a year-long applied learning experience to develop metrics to help assess if the City was delivering more equitable outcomes through the implementation of actions in the climate action plan. Staff learned and practiced the principles and methodologies of developing and evaluating both quantitative and qualitative measures of impact. One of the primary findings of the project was how successfully integrating equity into climate work is largely contingent upon both diversifying the staff working on climate and sustainability issues to ensure a variety of lived experiences are at the decision-making table, as well as to help staff deepen their racial equity analysis both personally and professionally.

The second project was a multi-workshop learning journey where staff gained a deeper understanding of using human-centered design principles and applying those approaches to the development and implementation of climate actions. This project resulted in a cohort of City staff with expanded perspectives on how to better center frontline communities in climate work, as well as how to test, evaluate and refine project implementation in order to deliver better outcomes.

## EXPANDING CONSTRUCTION AND COUNTY WORKFORCE EQUITY (ACTIONS 20C AND 20D)

The County's Construction Diversity and Equity Fund seeks to help build a more diverse by increasing the number of women and minorities entering the construction trades and providing small business development. Established in 2018, the Construction Diversity and Equity Fund draws 1% from County remodeling projects with budgets above \$200,000 and new construction over \$1 million. The fund supports pre-apprenticeship programs, retention programs and other



supports for groups that have long been underrepresented in the building trades. Funds support small certified businesses with technical assistance and training in developing bids, back office support and mentoring. The goal is to create a pathway for people who don't have a traditional pathway -- through a family business -- to rise in the trades.

While the Fund addresses issues of diversity in the construction trades, the County also has a painful history of discrimination that needs to be addressed. Recognizing the need for change, employees of color and the Office of Diversity and Equity brought forward the Workforce Equity Strategic Plan in 2018.

The plan is the County's response to longstanding inequities in the organization's recruiting, hiring, professional development, promotion and retention practices. It is meant to serve as a starting point for additional work that builds upon the value of centering the voices of those most negatively impacted by the County's existing and historical organizational culture and practice.

The plan identifies four areas in which to invest to begin dismantling systems and cultures that create an inequitable work environment. For each area -- organizational culture, promotion and professional development, retention, and recruitment and workforce pipelines -- the strategy identifies objectives, minimum standards and performance measures that are tracked annually.

## 05 BARRIERS AND REFLECTIONS

## **OPPORTUNITIES TO IMPROVE**

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Projects, policies and programs identified in the 2015 Climate Action Plan have not always met the ideals for equity, inclusion, or accountability that were hoped for at the outset of the plan. In addition, not all actions identified in a plan will be completed or remain relevant given shifting community and political priorities, new information and science, and additional implementation experience. Some of the Climate Action Plan's shortcomings, however, offer important insights that must be learned from so that the next iterations of climate action will be more effective.

In addition to the highlights listed in Section 4, City and County staff identified barriers to implementing climate actions, including:

- Challenges with cross-department collaboration and sharing of resources.
- Limited funding and budget cuts.
- Lack of champions for specific efforts.
- Shifting priorities due to a greater focus on integrating equity in climate work. (Some actions in the 2015 Climate Action Plan do not align with current community priorities.)



**Example - Natural Systems and Increased Temperatures (Action 14I):** Portland Parks & Recreation City Nature staff has had to cut positions and rely on grants to fund work to reduce wildfire risks in natural areas. This work is on-going but at a slower pace than anticipated and is now more dependent on partnership with the Fire Bureau.



#### Example - Food and Agriculture Policies and

**Programs (12D):** With political transitions and budget cuts the County lost food policy positions, and while food policy work did not stop completely, a continued centralized focus was lost. Similarly, key staff at the City focused on food system issues retired and decisions were made to divert those resources toward delivering on other high priority climate action efforts.

## CRITICAL REFLECTION AND LESSONS LEARNED

As City bureaus and County departments reported on their progress, they were asked to briefly express lessons learned. As a follow-up, six interviews were conducted to better understand the challenges of climate action implementation. The interviews exposed areas for growth both within specific climate action areas, and towards the future of climate planning.

The interview results suggest that climate action is more important now than ever before and that we need to both "keep on keeping on" with several 2015 Climate Action Plan actions, but also "really question how things have been done in the past." There was also a strong sentiment towards a "more focused and narrower" work plan, with "better prioritization" that has "measurable indicators, and targets compared to set points" and "funding sources identified along with calls to action."

Partnership, collaboration, and information sharing are seen by several people as major components of future climate action work. However, barriers were noted, including needing to develop capacity and new skillsets to prioritize and continuously improve equitable outcomes in planning and implementation of climate action.

While the 2015 Climate Action Plan remains an important organizing tool for the City and County's work on climate, there is a strong desire among staff for the next plan to be bolder, better prioritized, measurable, and more equitable.

If there is one thing that could potentially distinguish future plans, it's the ability of the City and County to identify past shortcomings and chart new approaches that are more effective. Moving from consultation with community-based organizations that represent under-represented and under-served communities to collaboration is one major area for improvement.

Other areas include ensuring that carbon reduction interim targets match available data to ensure clear and consistent reporting on progress towards those goals. Finally, prioritizing ongoing collaboration with the community, local and state governments, regulators and businesses will continue to be essential and require leadership at all levels of City and County government.



# 06 CONCLUSION

The Climate Action Plan was an important roadmap over the last five years to help ensure the City and County continued their progress toward carbon reduction goals. The 2015 Climate Action Plan broke important new ground by including several important elements:

- An equity analysis and projects specifically identified for promoting and advancing equitable outcomes.
- A consumption-based inventory that accounted for the global carbon emissions created by the consumption of goods and services by residents and businesses in Multnomah County.
- Goals that were in line with the most recent (at the time) IPCC reduction targets.
- Climate change preparation goals and actions, acknowledging the impacts of climate change such as heat and flooding.

These aspects, especially the focus on equity, were unique for climate action plans at the time. The focus on equity also carried through to the implementation of the plan with many projects looking to blend climate mitigation or adaptation measures with equity driven outcomes. Many examples of this approach were detailed in Section 4 of this report. In recognition of the comprehensive and innovative plan the City of Portland was recognized by C40, the international Cities Climate Leadership Group, as the best climate action plan in the world when it was adopted. Disappointingly, the global trend over the last five years has been toward higher carbon emissions, yet in Multnomah County carbon emissions have continued to trend down since their peak in 2000.

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The plan was written knowing that circumstances would change, and the scientific body of knowledge would also grow. Indeed, the world's scientific understanding of the climate crisis has changed substantially in recent years. The 2019 IPCC Report drew the starkest warning yet, not only documenting the many devastating impacts of a changed climate system that are already occurring, but also



setting a timer for urgent action before the window to avoid catastrophe closes. The need for bold action on climate has never been greater, nor has the opportunity or the urgency for the City and County to lead been more important.

The residents of our community have in many ways been the true climate champions over the past several decades. Portland leads the country in the number of households signed up to buy green power, and public transportation in our region – while not sufficient in many places – is widely available thanks to strong advocacy and dedicated ridership. The unprecedented coalition of organizations led by people of color that came together to pass the Portland Clean Energy Community Benefits Fund to create a green workforce and energy efficient homes is a powerful example of what community organizing can accomplish. That spirit of community support and solidarity will be needed as we look ahead to write a new chapter of bold climate action.

In conclusion, there is a lot more left to do and the need to go farther, faster and be better aligned with community priorities is clear. The leadership and staff of the City and County stand ready to do so.

# 07 ENDNOTES

<sup>1</sup> Note: 2018 data is preliminary.

<sup>2</sup> https://beta.portland.gov/sites/default/files/2019-07/cap\_progress-report2017\_web.pdf

<sup>3</sup> <u>https://beta.portland.gov/sites/default/files/2019-09/climate-data-report-final.pdf</u>

<sup>4</sup> <u>https://www.washingtonpost.com/climate-environment/americans-increasingly-see-climate-change-as-a-crisis-poll-shows/2019/09/12/74234db0-cd2a-11e9-87fa-8501a456c003\_story.html</u>

<sup>5</sup> <u>https://climate.nasa.gov/news/2943/study-confirms-climate-models-are-getting-future-warming-projec-tions-right/</u>

<sup>6</sup> <u>https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-worl-</u> <u>d/?itid=lk\_inline\_manual\_23</u>

<sup>7</sup> IPCC Special Report on Global Warming of 1.5 °C (<u>https://www.ipcc.ch/sr15/</u>)

<sup>8</sup> Note: The referenced report only has data through 2017, and does not reflect the preliminary 2018 data referenced in this progress report. <u>https://beta.portland.gov/sites/default/files/2020-02/climate-data-report-final-31janupdate.pdf</u>

<sup>9</sup> Under-represented: Communities that have historically and currently not had equal voice in institutions and policy-making, or inequitable participation in programs and services.

<sup>10</sup> Under-served: People and places that historically and currently have not have equitable resources, access to infrastructure, healthy environments, housing choice, etc. Disparities may be recognized in both services and in outcomes.

- <sup>11</sup> https://portlandcleanenergyfund.org
- <sup>12</sup> https://beta.portland.gov/sites/default/files/2019-07/cap-2015\_june30-2015\_web\_0.pdf

<sup>13</sup> <u>https://www.portland.gov/sites/default/files/2019-11/pepr\_2018buildingperformancereport\_final\_0.pdf</u>

<sup>14</sup> <u>https://multco.us/sustainability/100-renewable-2050</u>

<sup>15</sup> <u>https://multco.us/file/37530/download</u>

<sup>16</sup> https://science.sciencemag.org/content/360/6392/987

<sup>17</sup> 2019 Poverty in Multnomah County Report <u>https://multco.us/multnomah-county/news/new-report-in-comes-multnomah-county-one-third-households-unable-meet-basic</u>

<sup>18</sup> Evaluation by Betty Izumi, professor in the OHSU-Portland State University School of Public Health.

# 08 APPENDIX

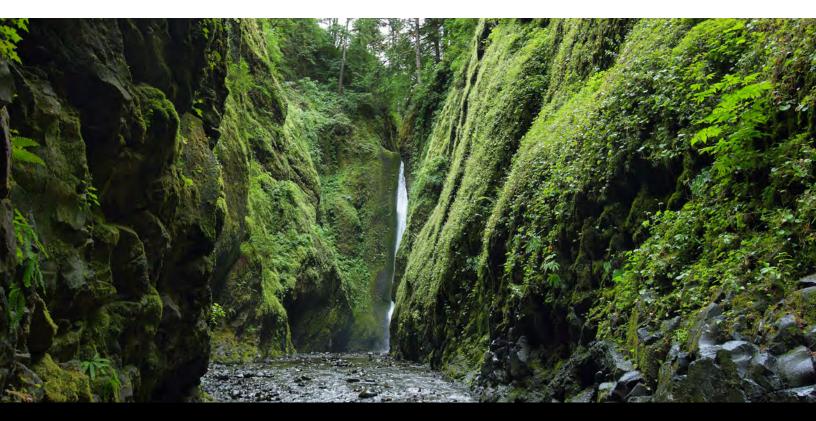
This appendix details the progress made to date by the City and County in implementing the actions contained in the 2015 Climate Action Plan.

#### The rating system used in this report places actions into three categories:

The action is completed.

The action is on track for completion by 2020.

The action is facing obstacles for completion by 2020.



## **CLIMATE ACTION PLAN: ACTION PROGRESS BY CHAPTER**

	ACTIONS COMPLETED	ACTIONS ON TRACK	ACTIONS Facing Obstacles	TOTAL ACTIONS
	33	157	57	247
CHAPTER				
Food and Agriculture	00	08	03	11
Community Engagement, Outreach and Education	03	06	03	12
Urban Forest, Natural Systems and Carbon Sequestration	01	08	04	13
Implementation	00	09	07	16
Buildings & Energy	04	13	07	24
Consumption and Solid Waste	02	19	06	27
Local Government Operations	07	15	08	30
Climate Change Preparation	03	34	06	43
Urban Form and Transportation	13	45	13	71

## buildings and energy

#### **ACTIONS TO BE COMPLETED BY 2020**

#### **OBJECTIVE 1: REDUCE THE TOTAL ENERGY USE OF ALL BUILDINGS BUILT BEFORE 2010 BY 25 PERCENT.**

Commercial Energy Performance Benchmarking — Implement energy performance tracking and annual reporting program for commercial buildings and explore options for multifamily buildings. Support improved access to utility data for building owners and managers seeking to improve energy and water performance.

- Residential Energy Performance Ratings Require energy performance ratings for all homes
   so that owners, tenants and prospective buyers can make informed decisions about energy costs and carbon emissions.
- Energy Partnerships Establish long-term partnerships to coordinate equitable access to energy-efficiency resources, incentives, assistance, financing, outreach, education and other tools to residents and businesses. Support neighborhood efforts, including ecodistricts, to improve energy performance of buildings.
- Operations and Maintenance Work with partner organizations to promote building re tro-commissioning and operation and maintenance practices that improve affordability, comfort, indoor air quality and energy efficiency in all commercial and multifamily buildings.

Funding — Establish a clean energy fund to invest in energy efficiency and renewable energy projects. Develop and expand financing tools such as Clean Energy Works and commercial Property Assessed Clean Energy that are broadly accessible to households and building owners, including rental properties, throughout the community. Remove financial barriers to building retrofits, including limiting property tax increases due to completed energy projects.

- **1F** Residential Retrofits Partner with Clean Energy Works, Energy Trust of Oregon, utilities and contractors to retrofit 1,000 homes and improve the efficiency of 1,000 multifamily units per year. Establish minimum standards for rental housing.
- Small Commercial Support energy efficiency improvements to small commercial buil dings, especially in under-served communities. Ensure financial tools such as Commercial Property Assessed Clean Energy can be used by small commercial buildings.
- Carbon Price Support a statewide carbon tax or cap to generate new funding for carbon reduction while alleviating regressive impacts. If the state does not adopt a carbon price, the City will consider local adoption of a carbon pricing mechanism. Prioritize local investments that create jobs and benefit low-income populations and communities of color.

1E

#### **STATUS**

#### **ACTIONS TO BE COMPLETED BY 2020**

**11** Weatherization Requirement — Explore removing the City Charter weatherization prohibition to allow requirements for energy efficiency improvements at the time of sale. Consider benefits and address burdens to low-income populations and communities of color in any future requirements.

#### **OBJECTIVE 2: ACHIEVE ZERO NET CARBON EMISSIONS IN ALL NEW BUILDINGS AND HOMES.**

- **2A** Oregon Building Code Continue participating actively in the process to revise the Oregon building code to incorporate performance that targets net-zero energy by 2030.
- **2B** Minimum Performance Establish minimum energy performance targets for new construction and major renovations.
- **2C** Net-Zero Energy Projects Build market demand for net-zero energy buildings through incentives, education, demonstration projects, partnerships and recognition.
- 2D System Development Charges As part of upcoming renewal of systems development charge methodologies, evaluate options that could promote housing affordability, reduce environmental impacts and fund capital projects that meet climate action objectives.

#### OBJECTIVE 3: SUPPLY 50 PERCENT OF ALL ENERGY USED IN BUILDINGS FROM RENEWABLE RE-SOURCES, WITH 10 PERCENT PRODUCED WITHIN MULTNOMAH COUNTY FROM ONSITE RENEWA-BLE SOURCES, SUCH AS SOLAR.

Electricity Supply — Overall

3Aa) Collaborate with Portland General Electric, Pacific Power, customers and stakeholders to reduce the carbon content in Portland's electricity mix by 3 percent per year.

**3A** 3Ab) Communicate with utilities and the Oregon Public Utility Commission on the critical importance the City and County place on reducing the carbon content of electricity delivered to the City, County and other customers.

3Ac) Mitigate potential cost burdens to low-income households principally through efficiency measures that reduce energy use and cost.

3B

Installed Solar and Solar Access — Add another 15 megawatts of installed solar photovoltaic capacity. Motivate and assist households and businesses throughout the community to install solar. Revisit City solar access policy and regulations, recognizing changing conditions due to the proliferation of residential rooftop solar energy systems.

**3C** Community Solar — Support the development of community solar projects that benefit all residents, particularly communities of color and low-income populations.

## STATUS

#### ACTIONS TO BE COMPLETED BY 2020

Renewable Energy Policy — Participate in statewide policy discussions to expand the market in Oregon for renewable energy, including solar, wind, geothermal, biogas and biomass, and remove barriers to widespread participation in renewable energy programs like community solar.

Biogas — Continue to support development of local and regional biogas resources, including 3E anaerobic digestion of food scraps, while minimizing disproportionate impacts on low-income populations and communities of color.

District Systems - Continue to support development and expansion of low-carbon district 3F heating and cooling systems.

Fossil Fuel Exports — Establish a fossil fuel export policy that considers lifecycle emissions, **3G** safety, economics, neighborhood livability and the environment; at the state level, oppose exports of coal and oil through Oregon.

## urban form and transportation

Growth Boundary:

#### **OBJECTIVE 4: CREATE VIBRANT NEIGHBORHOODS WHERE 80 PERCENT OF PORTLAND AND** MULTNOMAH COUNTY RESIDENTS CAN EASILY WALK OR BICYCLE TO MEET ALL BASIC DAILY, NON-WORK NEEDS AND HAVE SAFE PEDESTRIAN OR BICYCLE ACCESS TO TRANSIT. REDUCE DAILY PER CAPITA VEHICLE MILES TRAVELED BY 30 PERCENT FROM 2008 LEVELS.

A	Multimodal Transportation Funding — Support a new state multimodal transportation fun- ding source for transit, bicycle and pedestrian services and facilities. Advocate for including provisions that prioritize transit and multimodal designs for facilities.
B	State Transportation Funding — Support adoption of a road usage and fuel efficiency charge as a long-term replacement for declining gas tax revenue.
C	City Transportation Funding — Establish a stable funding source adequate to maintain the existing transportation system and to invest in transportation capital projects and programs that reduce carbon emissions and improve equity.
D	Youth Transit Pass — Seek to provide transit passes to all youth, including securing funding for youth transit passes.
E	Urban Growth Boundary — Continue to advocate for growth within the existing Urban



**3D** 

4F

**4G** 

4Ea) Prioritize elements of the Climate Smart Communities scenarios that have the greatest potential for reducing carbon emissions.

4Eb) Give priority to state and local goals for carbon emissions reduction and climate change preparation in the Urban Growth Report and Metro's growth management decisions.

4Ec) Maximize benefits and consider impacts to communities of color and low-income populations when making Urban Growth Boundary decisions.

4Ed) Protect natural resources and increase access to nature and open space within the Urban Growth Boundary.

Orphan Highways — Work with the Oregon Department of Transportation, legislators and other stakeholders to identify appropriate strategies for orphan highways (e.g., Powell, 82nd Ave., Barbur Blvd., Lombard), including changes in operations, design, management and ownership.

2018 Regional Transportation Plan (RTP) — Prior to the 2018 RTP, work with Metro and other local governments to:

4Ga) Establish a method for projecting the lifecycle carbon emissions of land use and transportation investments. Include consideration of embodied energy, operations and maintenance.

4Gb) Align regional mode share targets with carbon reduction targets and encourage the development of mode share targets specific to the varying community needs and transit in-frastructure around the region.

Regional Transportation Demand Model — Work with Metro to refine the regional travel demand model to improve projections of vehicle demand and non-auto mode share. Utilize forecasting tools and methodologies that identify investments that minimize carbon emissions.

TriMet Service Enhancement Planning — Participate in TriMet's Service Enhancement planning project by providing technical assistance and detailed knowledge of local community development conditions and needs.

Decision Making — Develop and use a transparent and inclusive decision-making framework designed to achieve climate, equity, safety, health and prosperity goals when making major infrastructure, transportation, land use, community development and project development plan and investment decisions. Consider existing systems, like STARS and MOSAIC, as models.

East County Transportation System Plans — The County will advocate and provide technical
 support for including carbon emission reduction, health and equity criteria in local government Transportation System Plans.

#### COMPLETED ON TRACK FACING OBSTACLES

#### **ACTIONS TO BE COMPLETED BY 2020**

Portland Transportation System Plan — In the update of Portland's Transportation System Plan, incorporate:

4La) Transportation-related carbon reduction and vehicle-miles-traveled reduction targets.

4L 4Lb) A policy that supports criteria on climate, equity, economic benefit, health, safety and cost effectiveness for project evaluation, development and funding decisions and for performance monitoring.

4Lc) Improved City and regional level of service standards to reflect bicycle, pedestrian and transit needs and urban congestion thresholds.

Citywide Mode Share Targets — Adopt mode share targets that are consistent across City bureaus and plans and that respond to differing community needs and conditions in Portland's different areas.

Planning Scenario Evaluations — Include estimates of carbon emissions in evaluations of major planning scenarios, Comprehensive Plan and Transportation System Plan decisions. Partner with Metro and regional jurisdictions to develop modeling tools for evaluating emissions impacts of land use and transportation decisions and monitoring carbon emissions.

Healthy Connected Neighborhoods — Continue to support the development of neighborhoods with walkable and bikeable access and connections to services, nature, transit and destinations, locally and across the city, by:

4Oa) Implementing the Portland Plan's Healthy Connected City strategy.

4Ob) Completing a Comprehensive Plan with supportive maps, goals, policies and projects.

**4P** Neighborhood Schools — Work with school districts to increase the number of students who can attend schools within safe walking or bicycling distance of their homes.

Affordable Housing Access to Transit — Use regulatory and voluntary tools to promote affordable and accessible housing development along existing and planned high capacity transit lines, frequent transit routes and in opportunity areas identified by the Portland Housing Bureau.

4Q 4Qa) Identify additional affordable housing opportunities as part of the SW Corridor and Powell-Division high capacity planning projects.

4Ab) Evaluate needs for safe, direct bicycle and pedestrian access to transit in areas near affordable housing.

4Qc) Support legislation to repeal the State preemption on inclusionary zoning.

4R Better Multifamily Buildings — Improve design and development standards for multifamily buildings and driveways in East Portland to create more pedestrian-friendly environments. This could include landscaping and open space standards, building design and minimum lot size.

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#### **STATUS**

Active Transportation — Continue sidewalk and bikeway construction and education pro-**4S** jects that promote active transportation. Bike Sharing — Implement a large-scale public bike sharing program to support continued **4**T population and employment growth and mobility in the central city and adjacent neighborhoods. Explore opportunities to support bike sharing of cargo bikes. Bike Facilities — Invest in a network of protected bike facilities in the central city to support **4U** growing bicycle mode share and provide access to key destinations. Separated Bike Facilities — Explore establishing separated bikeway facilities, particularly on **4V** high-traffic streets without the potential for bicycle facilities on parallel streets. Neighborhood Greenways — Seek funding to continue building 15 miles per year of neigh-**4W** borhood greenways across Portland. Transit Coverage and Efficiency — Explore joint projects with TriMet to improve transit effi-**4X** ciency, reliability and service, including frequent service transit to the city's many employment centers, and to prioritize benefits to transit-dependent residents. Improved Street Connections — Identify impediments to street and sidewalk connections through private development citywide. Explore options for City-initiated development of **4**Y connections. Build on research conducted by organizations like the Oregon Public Health Institute. Safe Routes to School — Continue to support Safe Routes to Schools programs. The County will support the expansion of the Safe Routes to Schools Program in East County school dis-4Z tricts by working closely with schools to update and develop action plans and by considering action plan needs when prioritizing capital project lists. Street Design — Adopt context sensitive street design standards for residential streets that make street construction less expensive and more practical, and biking and walking safer, **4**AA especially in East and SW Portland. Transportation Demand Management — Develop and implement comprehensive, culturally appropriate, transportation demand management (TDM) programs and best practices for new transportation capital investments, new development, schools, current and new residents, and employees. **4BB** 4BBa) Integrate TDM standards into Comprehensive Plan code changes for institutional and commercial development. 4BBb) Encourage major employers, or groups of employers, with non-office work shifts and that are hard to serve by transit to develop shared van services for employees.

STATUS

#### ACTIONS TO BE COMPLETED BY 2020

4BBc) Promote alternatives to personal vehicle parking, such as car sharing, bike sharing and financial incentives to reduce car ownership.

4BBd) Make data available to improve real-time information about transportation options.

Portland Parking Strategy — Link parking requirements to mode share targets. Develop par king management policies and programs, including shared parking, that reduce vehicle miles traveled and promote successful density within centers and along corridors.

County Bridges — Identify opportunities for expanding pedestrian, bicycle and other multimodal transportation options on Willamette River bridges:

**4DD** 4DDa) Complete Greenroads certification for the Sellwood Bridge project and engage the community and industry peers on sustainability innovations and achievements on the project.

4DDb) Implement a strategy for reducing unnecessary idling during Willamette River bridge lifts.

- 4EE Car Sharing Partner with car sharing companies to increase access to vehicles, including electric vehicles, to all communities. Consider programs to expand use of car sharing among low-income households.
- **4FF** Brownfield Remediation Increase public investment and establish approaches to overcome financial gaps of brownfield redevelopment and strive for cleanup and redevelopment on 60 percent or more of brownfield acreage in Portland by 2035. Use health and equity criteria to inform site prioritization. Support community-led brownfield redevelopment proposals.

Regional Rail — Work with regional partners to continue to advocate for high speed rail, andcollaborate and participate in alignment planning to improve regional connections to Seattle and Vancouver B.C. to the north and to Salem and Eugene to the south.

# **OBJECTIVE 5: IMPROVE THE EFFICIENCY OF FREIGHT MOVEMENT WITHIN AND THROUGH THE PORTLAND METROPOLITAN AREA.**

Freight Facilities — Protect existing intermodal freight facilities (rail, port, airport connections, etc.). Support centrally located and regionally significant industrial areas that may provide for future intermodal facilities and also enable efficient local deliveries.

Freight Movement — Identify ways to improve freight movement, including:

**5B** 5Ba) Provide systems that inform drivers of existing conditions and route alternatives.

5Bb) Collect and share truck trip routing data to identify where operational or infrastructure inefficiencies exist.

#### **STATUS**

5Bc) Develop strategies for reducing community impacts from freight and look for ways to balance truck movement needs with those of other transportation modes.

5Bd) Improve Portland's transportation system to better meet increased freight and goods movement demand, and recognize the role of goods delivery in supporting healthy, vibrant industrial districts, mixed-use centers and main streets.

5Be) Improve safety for and reduce disproportionate impacts on low-income populations and communities of color.

- **5C** Sustainable Freight Implement Portland's Central City Sustainable Freight Strategy, including actions related to truck loading and parking, street design and zoning.
- **5D** Traffic Signals Implement truck priority and smart pedestrian crossing technologies at traflic signals on key routes to improve the efficiency and safety of freight movement.

#### OBJECTIVE 6: INCREASE THE FUEL EFFICIENCY OF PASSENGER VEHICLES TO 40 MILES PER GALLON AND MANAGE THE ROAD SYSTEM TO MINIMIZE EMISSIONS.

- Federal Fuel Standards Support implementation of the federal fuel efficiency standards to achieve 54.5 miles per gallon by 2025 and strengthen standards for medium- and heavy-duty vehicles.
- **6B** Intelligent Transportation Systems and Freeway Management Explore options for managing freeways at optimum speeds and traffic flows.

Mobile Transportation Services — Support and share information needed to create mobile
 and desktop applications to compare commute times by mode and route based on real-time traffic data. Encourage opportunities to advertise and alert people to transit options.

#### **OBJECTIVE 7: REDUCE LIFECYCLE CARBON EMISSIONS OF TRANSPORTATION FUELS BY 20 PERCENT.**

Electric Vehicles — Update the City's Electric Vehicle Strategy, with the initial goal of adding 8,000 electric vehicles and plug-in hybrids, and evaluate opportunities to: increase the number of public access fast chargers, address barriers to charging for garage-free homes, install charging infrastructure integrated into streetlights, increase use of electric vehicles in car sharing programs, and support use of electric bikes and buses.

Expand Electric Car Charging Stations — Support electric car charging stations in publicly
 accessible locations. Work with developers, building owners and managers and parking managers to add charging stations and consider electric-vehicle-ready guidelines and codes.

- **7C** Low-Carbon Fuel Standards Advocate for the adoption and implementation of low-carbon fuel standards at the federal and state levels.
- **7D** Tar Sands Encourage petroleum refineries to provide products that are not sourced from tar sands.
- **7E** Low-Carbon Fueling Infrastructure Support the development of low-carbon transportation fueling infrastructure for fleets and the general public.

7F Black Carbon — Pursue strategies at the local and state level to reduce the climate forcing and air quality impacts from black carbon sources such as diesel engines and wood stoves. Prioritize reducing diesel particulate matter on projects near sensitive populations and that advance environmental justice such as brownfields and Superfund remediation.

### consumption and solid waste

#### OBJECTIVE 8: REDUCE CONSUMPTION-RELATED EMISSIONS BY ENCOURAGING SUSTAINABLE CONSUMPTION AND SUPPORTING PORTLAND BUSINESSES IN MINIMIZING THE CARBON INTEN-SITY OF THEIR SUPPLY CHAINS.

Sustainable Consumption and Production — Develop a sustainable consumption strategy to
 prioritize local government activities to support a shift to lower-carbon consumption patterns.

Be Resourceful Campaign — Use the Be Resourceful campaign to connect residents to information and resources to get the things they need. Key strategies include: Buy smart (plan before purchasing, buy local, give gifts of experience, purchase durable goods); Reuse; Borrow, share and rent items; Fix and maintain.

Be Resourceful Campaign — Use the Be Resourceful campaign to connect residents to information and resources to get the things they need. Key strategies include: Buy smart (plan before purchasing, buy local, give gifts of experience, purchase durable goods); Reuse; Borrow, share and rent items; Fix and maintain.

- Materials Management Continue to work in partnership with public agencies including
   Metro and the Oregon Department of Environmental Quality to implement the Materials Management in Oregon: 2050 Vision and Framework for Action.
- Rehabilitation and Adaptive Reuse Promote rehabilitation, adaptive reuse and energy and seismic upgrades of buildings to conserve natural and historic resources, reduce waste and improve public safety.

**8B** 

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#### **STATUS**

Space-Efficient Housing — Continue to work with regional and state partners to promote
 space-efficient housing options such as Accessory Dwelling Units (ADUs). Review possible
 barriers and disincentives and identify any needed changes.

Performance Metrics — Overall

8Ga) Partner with the Oregon Department of Environmental Quality to identify metrics to analyze and track the carbon intensity of the goods and materials produced in Multnomah County.

**8G** 8Gb) Explore tools, strategies and performance measures to quantify economic, equity and environmental benefits of services that displace the need for new goods through reuse, repair and sharing.

8Gc) Continue to work with the Oregon Department of Environmental Quality on inventorying consumption-based carbon emissions for Multnomah County.

#### **OBJECTIVE 9: REDUCE FOOD SCRAPS SENT TO LANDFILLS BY 90 PERCENT.**

Food Waste — Prevent food waste:

9Aa) Encourage strategies that reduce the volume of food waste generated such as proper9A9A food storage and meal planning.

9Ab) Support gleaning and donation of unused and excess food to organizations that feed hungry people.

Composting — Expand participation in Portland's composting program:

9Ba) Continue to encourage Portland residents to "Include the Food" in their green Portland Composts roll carts.

**9B** 9Bb) Increase voluntary participation in commercial food scrap collection by identifying businesses that face barriers to participation and providing direct outreach and assistance.

9Bc) Implement mandatory commercial and voluntary multifamily food scrap collection.

9Bd) Ensure low-income populations and communities of color are not disproportionately burdened by localized impacts such as odor or truck trips.

#### **OBJECTIVE 10: REDUCE PER CAPITA SOLID WASTE BY 33 PERCENT.**

Waste Prevention — Increase awareness of and participation in targeted waste-prevention
 practices, and research and encourage strategies for reducing use of paper, plastics and other materials.

Deconstruction and Salvage — Promote alternatives to traditional building demolition such as relocation, deconstruction and salvage, including identifying and removing barriers and disincentives.

#### **OBJECTIVE 11: RECOVER 90 PERCENT OF ALL WASTE GENERATED.**

Technical Assistance — Through the Sustainability at Work program, provide technical assistance and resources to at least 500 businesses per year to improve waste prevention and toxics reduction practices and to meet the requirement to recycle paper, metal and glass. Prioritize and customize technical assistance to benefit under-served and under-represented business owners.

Construction and Demolition Debris — Provide technical assistance and resources to con tractors to meet Portland's construction and demolition debris requirements, giving priority to salvage and reuse activities.

Portland Recycles Plan — Review and update the Portland Recycles Plan, incorporating a focus on reducing the upstream impacts of the materials and goods produced and consumed
locally. When developing recovery programs, consider the full lifecycle to identify the best end-of-life options for materials, particularly those with high impacts. Identify options to reduce waste and increase recovery from residential, multifamily and commercial sectors.

Be Cart Smart — Promote recycling and composting through the Be Cart Smart campaign.
 Customize communications and engagement strategies for audiences including large families, residents with limited English proficiency, renters and landlords to ensure that they have equitable access to information and services.

Commercial Recycling — Work with Metro to identify commercial garbage loads with a high
 level of recyclable materials and work with haulers and businesses to strengthen recovery programs.

Multifamily — Provide technical assistance and resident waste reduction resources to multifamily property owners, managers, maintenance workers and on-site staff to reach 50 percent of multifamily households annually. Prioritize and customize outreach efforts to engage under-represented and under-served populations. Evaluate on-site multifamily recycling collection setups and identify ways to increase program performance. Continue to ensure compliance with garbage and recycling and tenant education requirements.

Local Recovery Infrastructure — Support efforts to maintain and develop local markets and to improve the recovery rate at material recovery facilities. Explore options for ensuring Portland's discards are sent to facilities that have taken action to improve social equity and achieve fair labor conditions.

**11A** 

11F

## food and agriculture

#### **ACTIONS TO BE COMPLETED BY 2020**

# **OBJECTIVE 12: REDUCE THE CONSUMPTION OF CARBON-INTENSIVE FOODS AND SUPPORT A COMMUNITY-BASED FOOD SYSTEM.**

Outreach and Education — Include healthy, low-carbon food choices and food waste in public
 and business outreach efforts. Work with partners to support efforts to encourage plant-based diets, including Meatless Monday campaigns.

Partnerships and Engagement — Create collaborative partnerships with community-based organizations and affinity groups, including low-income populations and communities of color, to: Promote healthier, low-carbon diets. Encourage local food production. Support affor-

- 12B lor, to: Promote healthier, low-carbon diets. Encourage local food production. Support affordability and access to healthier foods through neighborhood food buying clubs and co-ops. Reduce food waste.
- 12C Planning and Metrics Integrate sustainable food system issues that affect climate into landuse planning processes and, where practical, incorporate quantitative goals and metrics.

Policies and Programs — Develop policy and equitably provide programmatic resources to:

12Da) Increase the production and consumption of home-grown and locally sourced food by supporting farmers markets and community supported agriculture.

12Db) Create policies and practices to encourage the purchase of healthy, low-carbon and minimally processed foods for public meetings, events and facilities.

12D 12Dc) Expand opportunities for food production and neighborhood-scale distribution including community gardens, especially for low-income populations and communities of color.

12Dd) Increase the use of public and private land and roof-tops for growing food.

12De) Increase the planting of fruit and nut trees in appropriate locations.

12Df) Leverage the purchasing power of public and private institutions to source low-carbon and local foods including County jails.

Skills Development — Equitably promote educational opportunities for residents to gain
 skills in organic gardening, fruit production, food preservation and cooking and affordable, healthy eating.

# urban forests, natural systems and carbon sequestration

#### ACTIONS TO BE COMPLETED BY 2020

**STATUS** 

OBJECTIVE 13: SEQUESTER CARBON THROUGH INCREASED GREEN INFRASTRUCTURE (TREES, PLANTS, SOIL) AND NATURAL AREAS. REDUCE EFFECTIVE IMPERVIOUS AREAS BY 600 ACRES. EXPAND THE URBAN FOREST CANOPY TO COVER AT LEAST ONE-THIRD OF THE CITY, WITH A MINIMUM CANOPY COVER OF 25 PERCENT OF EACH RESIDENTIAL NEIGHBORHOOD AND 15 PER-CENT OF THE CENTRAL CITY, COMMERCIAL AND INDUSTRIAL AREAS.

Tree Programs — Continue tree planting and expand tree preservation and maintenance programs and incentives.

13Aa) Focus on low-canopy neighborhoods and neighborhoods with populations at higher risk of adverse outcomes of urban heat island effects.

13Ab) Explore options for public and private partnerships to help reduce or share the cost of tree planting and maintenance.

Canopy Targets — Revisit urban forest canopy targets:

13Ba) Take into consideration goals for carbon sequestration, resiliency to climate change impacts, and equitable distribution of tree-related benefits across the city.

13Bb) Address tree age, species diversity and tree distribution, in addition to expanding overall canopy coverage.

Tree Code — Fund and implement the new Tree Code (Title 11, Trees) and other code and customer service improvements adopted through the Citywide Tree Project to emphasize the preservation of healthy trees, sustain the urban forest over time, encourage native and climate resilient trees and increase canopy in tree-deficient areas. Monitor tree canopy changes due to development, including in infill areas, and determine if policy and rule changes are needed.

Natural and Green Infrastructure — Protect and enhance local natural resources that provide multiple benefits including: carbon capture; reduce flood, landslide, stormwater and heat is-land impacts; cool and purify water and air; and improve public health and biodiversity. These include water bodies, flood plains, healthy soils, natural areas, vegetated areas and corridors, as well as green elements of the built environment, ecoroofs and green streets.

Natural and Green Infrastructure Funding — Evaluate and pursue stable, innovative funding
 sources, financing strategies and incentives to accelerate and sustain green infrastructure implementation and maintenance (e.g., capital dollars, carbon credits).

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**STATUS** 

13F Designing with Nature — Promote and require urban design and redevelopment approaches that incorporate natural systems and green infrastructure into site improvements, rights of way, green corridors and other infrastructure facilities. Consider adopting ecoroof targets in land use plans.

Comprehensive Plan — Update Portland's Comprehensive Plan to recognize the importance of natural systems and the urban forest in sequestering carbon and improving resiliency, and to call for preservation and enhancement of these resources and their functions in future land use plans, regulatory updates and infrastructure and watershed restoration investments.

Public-Private Partnerships — Explore and develop innovative, participatory outreach strategies and partnerships with public utilities, businesses and diverse community organizations to protect and enhance natural systems and green infrastructure, reduce impervious area and provide information on the human health and ecological well-being benefits of such actions.

Ecosystem Services — Research, evaluate and integrate the economic, social and ecological benefits (ecosystem services) of natural resources and green infrastructure in land use and infrastructure planning, programs and projects. Prioritize areas with historical and current underinvestment.

### climate change preparation

#### **OBJECTIVE 14: REDUCE RISKS AND IMPACTS FROM HEAT, DROUGHT AND WILDFIRE BY PREPA-RING FOR HOTTER, DRIER SUMMERS WITH INCREASED INCIDENCE OF EXTREME HEAT DAYS.**

14A Decrease Urban Heat Islands — Decrease the urban heat island effect, especially in areas with populations most vulnerable to heat, through strategies such as revegetation, tree preservation planting and maintenance, depaving and porous pavement, green infrastructure like bioswales and ecoroofs and site development performance standards.

Urban Heat Island Maps — Utilize current science, best practices and updated maps of urban
 heat islands and populations most vulnerable to heat to help inform decisions and priorities about projects and programs that help to cool the urban environment.

Resilient Infrastructure — In infrastructure project design, consider plantings and infrastructure specifications and materials that will be resilient to heat-related climate change impacts and be cost-effective over the lifetime of the asset.

Health Impacts of Extreme Heat — Minimize health issues caused by extreme heat days and associated poor air quality, especially for populations most vulnerable to these impacts by improving the preparation for and response to heat by health, community service, public safety and emergency response staff and services.

Cooling Centers — Coordinate operations of readily accessible and culturally appropriate cooling centers, and develop early warning and response plans and systems that alert community members, especially those most vulnerable to heat, when projected heat conditions or poor air quality days pose a health risk.

Detention Facilities — Ensure detention facilities are capable of adequate cooling during ex treme heat events and that public safety staff are properly trained to recognize and respond to physical and behavioral signs of heat-related illness.

Water Supply — Increase the resilience of Portland's water supply to drier summers by expanding the capacity of the groundwater systems and ensuring water is used efficiently by homes, businesses and in public facilities.

14HBull Run Watershed — Continue to assess the potential impacts of climate change on the Bull<br/>Run watershed.

Natural Systems and Increased Temperatures — Increase the resilience of natural systems to respond to increased temperatures, drought conditions and shifts in seasonal precipitation by:

14Ia) Keeping natural resource areas, especially urban streams, cooler by increasing the width of vegetated areas along streams and wetlands and maintaining upland tree canopy.

**14I** 14Ib) Ensuring existing and new rules support healthy riparian zones, wetlands and surface water temperature needs.

14Ic) Increasing the ability of plantings (natural areas, restoration sites, street and park trees, green streets, ecoroofs, etc.) to withstand drought conditions. Research and experiment with different plant palettes as appropriate.

Streamflow Temperature — Evaluate the cumulative effect of actions to protect and maintain
existing cool streams and demonstrate progress toward meeting temperature requirements by 2030 in at least 50 percent of rivers and streams that do not meet water quality standards.

Invasive Species — Implement invasive species control programs including Integrated Pest
 Management, Protect the Best, Early Detection and Rapid Response and public and private invasive species control.

14L Habitat Connectivity — Protect and connect floodplains and other diverse habitats that support biodiversity, including birds and other wildlife species needing to alter their range.

Urban-Wildland Interface Fires — Manage the risk of wildfires as a result of drier summers, especially in areas where homes and businesses are next to natural and forested areas by:

**14M** 14Ma) Reviewing the feasibility of adopting nationally recognized codes to strengthen building standards in wildfire risk areas.

14E

14Mb) Completing an assessment to characterize high-priority wildfire risk areas and developing recommendations to reduce risks in and around these areas.

14Mc) Implementing the 2011 Multnomah County Community Wildfire Protection Plan.

14Md) Increasing and improving the quality of vegetated corridors and buffer areas around wildfire-prone areas.

14Me) Prepare public health agencies and health care providers to address health impacts of wildfire smoke.

Bull Run Wildfire — In a co-management role with partner agencies (Oregon Department of Forestry, U.S. Forest Service, local fire departments), respond to fires in and near Bull Run watershed.

# **OBJECTIVE 15: REDUCE RISKS AND IMPACTS FROM FLOODING AND LANDSLIDES BY PREPARING FOR WARMER WINTERS WITH THE POTENTIAL FOR MORE INTENSE RAIN EVENTS.**

Floodplains — Increase community and ecological resilience by working with local, state and federal partners to update floodplain data, maps, policies and programs to reflect climate change projections and variability and improve floodplain function.

Managing Stormwater Naturally — Protect and restore streams, wetlands and floodplains,
 reduce paved surfaces, utilize green infrastructure, update stormwater plans, manuals and drainage rules and prepare to manage increased stormwater runoff.

Private Property — Encourage or require private property owners and developers to implement climate change preparation measures, including limiting or reducing impervious area at site-specific and district or area scales.

15D Disease Risk — Manage the increased risk of disease from vector populations like mosquitoes by managing their habitat and by working with the community to reduce health risks. Strengthen education and outreach efforts in culturally appropriate and accessible ways to help the public understand, prevent and respond to vector-borne diseases.

Vector Control Coordination — Enhance the coordination between local natural resource
 agencies and vector control programs to ensure vector populations are managed in a way that protects human health and ensures ecological integrity and vitality.

**STATUS** 

Landslide Risk — Manage the increased risk of landslides due to increased winter rainfall by:

15Fa) Incorporating landslide and hazard risk reduction polices into the updated Comprehensive Plan.

**15Fb**) Identifying, mapping and monitoring landslide hazard areas with agency partners.

15Fc) Incorporating landslide hazard reduction approaches into infrastructure planning projects, land use policies and city codes.

15Fd) Providing outreach and education on reducing landslide risks to private property owners.

# **OBJECTIVE 16: BUILD CITY AND COUNTY STAFF AND COMMUNITY CAPACITY TO PREPARE FOR AND RESPOND TO THE IMPACTS OF CLIMATE CHANGE.**

Emergency Management — Strengthen emergency management capacity to prepare for and respond to heat, floods, landslides and other emergencies in culturally appropriate ways. Develop response plans that minimize impacts on populations most vulnerable to weather-related emergencies. Increase the capabilities of volunteer and service organizations and safety net providers to help respond.

Community Resilience — Improve community capacity, especially populations most vulne rable to climate change impacts, to understand, prepare for and respond to flooding, extreme heat, respiratory-related illnesses and mental health impacts.

**16C** Vulnerable Populations — Ensure the participation of and benefits to populations most vulnerable to priority climate change impacts such as extreme heat, floods, landslides and wildfire.

Adaptive Building Techniques — Support an adaptive building demonstration project thatconsiders affordability, comfort, safety and strategies to achieve net-zero energy, water and waste.

**16E** Asset Management — Recognize climate variables as a risk in how the City and County manage infrastructure, including conventional facilities and green infrastructure.

Monitoring and Data Collection — Improve monitoring and data collection to track climate change-related trends in streamflows, temperature, natural resource condition, storms, ri-

**16F** ver levels, landslides, condition of infrastructure, heat-related illness, air quality, recreation trends, migration and population shifts, etc. Use results in updating plans and programs as appropriate.

Climate Migrants — Monitor migration trends and research the potential for accelerated regional population growth beyond current projections due to national or global changes in the climate.

Improving Understanding of Local Impacts —

16Ha) Support monitoring programs and climate research to improve the understanding of local climate change impacts and support climate change preparation efforts.

16Hb) Encourage and support new research around climate-related diseases, air quality and allergens, population shifts, food systems, economic impacts, energy systems, etc.

Mainstreaming Climate Preparation — Institutionalize climate preparation planning and best
 practices in City and County operations, land use programs and decision-making, and monitor effectiveness of climate change preparation actions.

# community engagement, outreach and education

#### OBJECTIVE 17: ENGAGE COMMUNITIES, ESPECIALLY IMPACTED UNDER-REPRESENTED AND UN-DER-SERVED POPULATIONS, IN THE DEVELOPMENT AND IMPLEMENTATION OF CLIMATE CHAN-GE-RELATED POLICIES AND PROGRAMS.

- Alignment with Community Efforts Identify and seek resources to support community-based initiatives, especially from low-income areas and communities of color, that align with climate change preparation priorities, carbon emission reduction efforts and low-carbon lifestyles.
- **17B**Healthy, Connected Communities Build partnerships to support community projects, campaigns and events that engage residents around healthy, connected low-carbon communities.

Expand and Deepen Engagement — Broaden and diversify community engagement, particularly in East Multnomah County and with public school families and students, by partnering with community organizations and leveraging community based programs such as libraries

**17C** with community organizations and leveraging community-based programs such as libraries, SUN schools, and health clinics.

**18F** 

#### **ACTIONS TO BE COMPLETED BY 2020**

# **OBJECTIVE 18: MOTIVATE ALL MULTNOMAH COUNTY RESIDENTS AND BUSINESSES TO CHANGE THEIR BEHAVIOR IN WAYS THAT REDUCE CARBON EMISSIONS.**

- Portland CAN! (Climate Action Now) Expand climate-related community engagement by providing individuals and community networks with quality information and how-to resources using interactive approaches that may include competition, feedback and recognition.
- **18B** Community Events Revise the Portland CAN! campaign to create a culturally relevant presence at community events and leverage the Master Recycler volunteer corp.

Fix-it Fairs — Conduct three Fix-it Fairs annually to engage under-served residents in carbon-reduction activities in the four areas of home, stuff, food and transportation choices.
 Provide materials and resources in commonly spoken languages of those neighborhoods and include a track of Spanish-language workshops at one of the fairs each year.

Your Sustainable City — Continue to convene sustainability programs from multiple City
bureaus under the "Your Sustainable City" umbrella campaign to inform and engage diverse residents in sustainable choices.

Business Technical Assistance — Increase the adoption of sustainable practices by Portland businesses:

18Ea) Provide free technical assistance and resources to 1,000 Portland businesses annually.

**18E** 18Eb) Prioritize and customize technical assistance to minority-owned businesses and their property managers.

18Ec) Provide recognition for business achievements through Sustainability at Work certification.

Neighborhood Metrics — Establish climate action metrics by neighborhood, including measures such as household energy use, vehicle miles traveled, walkability and bicycle commute rates that also reflect community priorities such as safety and accessibility. Publicize metrics in culturally appropriate ways.

## local government operations

#### **ACTIONS TO BE COMPLETED BY 2020**

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#### **STATUS**

#### **OBJECTIVE 19: REDUCE CARBON EMISSIONS FROM CITY AND COUNTY OPERATIONS BY 53 PER-**CENT FROM FY 2006–07 LEVELS. Financing Energy Efficiency — Identify internal and external funding sources to finance ener-**19A** gy-efficiency upgrades in City and County facilities. Explore "climate bonds" as one funding mechanism. Efficiency Projects — Improve energy efficiency of City and County operations: 19Ba) Implement all cost-effective (simple payback of ten years or less) resource-efficiency **19B** projects in City-owned buildings and facilities. 19Bb) Reduce energy use from City and County operations by 2 percent each year through capital projects and operational improvements. Equipment Upgrades — Continue converting water pumps, water treatment and other ener-**19C** gy-intensive operations to more efficient technologies and change operational practices to improve efficiency. Resource Management — Develop and implement utility performance tracking for all City-**19D** and County-owned buildings and facilities. Develop and implement a countywide strategic energy management plan. Lighting Upgrades — Implement energy-efficient outdoor lighting, including light emitting diodes (LED) and dimming technologies when appropriate. Complete the conversion of all **19E** streetlights to LEDs. Use Dark Skies best practices when possible to reduce light pollution and minimize bird strike hazards. Renewable Energy — Purchase or generate 100 percent of all electricity required for City operations from renewable sources, with at least 15 percent of all electricity for City operations from on-site or district renewable energy sources such as solar, biogas, in-pipe microhydro and biomass. **19F** 19Fa) Expand recovery and use of biogas at the City's wastewater treatment plant. 19Fb) Investigate third-party ownership and alternate financing models to expand the number of solar electric systems at City-owned facilities.

<b>ACTIONS TO BE COMPLETED BY 20</b>	)20
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	Waste Prevention and Recovery —
G	19Ga) Reduce total waste from City and County operations 12.5 percent below FY 09–10 levels.
-	19Gb) Recover 76 percent of all waste generated by City operations.
	19Gc) Increase material salvage for City-owned full and partial building demolitions.
I	Green Building — Target net-zero energy use by implementing the City and County's green building policies for new buildings and major retrofits. Support this work with dedicated staff time, and consider project location and contracting practices where the benefits are shared by low-income populations and communities of color.
	Energy Performance Tracking — All City and County-owned buildings greater than 20,000 square feet will annually calculate energy-use intensity (kBtu per gross square foot) and eli- gible City and County-owned buildings will calculate an Energy Star score using the U.S Environmental Protection Agency's Portfolio Manager.
I	Low-Carbon Fuels — Prioritize low-carbon fuels for fleet vehicles, including biodiesel, compressed natural gas, liquid natural gas, propane and electricity where appropriate.
	Fleet Fuel Efficiency — Reduce carbon emissions from City and County fleet vehicles and equipment.
(	19Ka) Ensure that the average age of the City's fleet is less than 10 years old.
	19Kb) Develop a County fleet strategy that incorporates carbon emission reduction, electric vehicle and low-carbon transportation fuel goals.
	Electric and Hybrid Vehicles — Purchase electric, plug-in hybrid and hybrid vehicles whenever they meet the user's needs. Include installation of electric charging stations where appropriate.
Λ	Low-Carabon Purchasing — Conduct a carbon emissions inventory of City and County pur chases. Based on the results, prioritize efforts to reduce carbon emissions associated with procurement decisions. Make the findings publicly available.
	Sustainable Procurement — Advance the practice of including the sustainable practices o prospective vendors, contractors and service providers as evaluation criteria in procuremen decisions.

### STATUS

19P	Sustainable Wood — Support the use of regional, sustainably sourced wood products for Ci- ty-owned building and landscape projects, including training design contractors.
19Q	Teleconferencing — Establish video and/or web conferencing capability in all major City and County facilities and train staff to leverage these tools to reduce travel.
19R	Sustainable Jails Project — The County will continue to implement the Sustainable Jails Project to maximize energy and resource efficiencies.
19S	Telecommuting — Update the City's telecommuting policy to foster increased utilization of this commute option whenever it meets City business needs.
19T	Divestment — The City will establish policies to hold no financial stake in fossil fuel compa- nies with monies directly invested by the City, and will encourage the State of Oregon to do the same. The County will continue the practice of doing the same.
<b>19U</b>	Sustainable Stormwater — Make progress on managing 50 percent of stormwater from Ci- ty-controlled impervious surfaces with sustainable stormwater strategies by 2030.

### implementation

#### OBJECTIVE 20: BUILD CITY AND COUNTY STAFF AND COMMUNITY CAPACITY TO ENSURE EFFEC-TIVE IMPLEMENTATION AND EQUITABLE OUTCOMES OF CLIMATE ACTION EFFORTS.

Community Capacity — Foster ongoing and deep community engagement, with additional emphasis on communities of color and low-income populations, to advise on equitable policy development, program design and implementation of climate-related actions.
Collaboration — Facilitate cross-agency and cross-disciplinary collaboration, engagement, information exchange and peer-to-peer learning related to climate action efforts.
Staff Capacity — Support the development of data, tools, best practices and training for innovative, effective and equitable implementation of climate-related policies and projects.
Workforce Development — Create cross-bureau initiatives to support workforce development that build upon existing social equity contracting programs, policies, and resources to strengthen the capacity of firms owned by people of color and nonprofits serving under-represented and under-served adults and youth to help implement Climate Action Plan actions.

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20E	Career Development — Maximize career development opportunities, especially for low-in- come populations, communities of color and youth, in the fields of energy, green building, transportation, brownfield and Superfund remediation and redevelopment, planning and na- tural resources.
20F	Budget Performance Measure — Explore options for a climate action performance measure to be incorporated into the City's annual budgeting process where appropriate.
20G	Community Benefits — Support use of tools and strategies to engage impacted communities, minimize harms and hazards and ensure economic, social and environmental benefits are shared by low-income populations and communities of color.
20H	Government Partnerships — Partner with other local, regional and tribal governments to inform local, state and federal climate policy activities.
	Regional Partnerships — Encourage Metro to:
201	20Ia) Update and maintain a regional carbon emission inventory.
	20Ib) Include a focus on climate change preparation in its climate-related planning, policy and program work.
20J	Academic Partnerships — Partner with Portland State University and other universities and local colleges to apply emerging research and innovative approaches to preparing for climate change and reducing carbon emissions.
20K	Nonprofit Partnerships — Partner with nonprofit organizations, such as the Intertwine Allian- ce, to advance the Regional Conservation Strategy.
20L	Metrics — Develop comprehensive qualitative and quantitative climate action metrics to me- asure progress in the areas of consumption, food and agriculture, climate change preparation and others that incorporate an evaluation of benefits and burdens to low-income populations and communities of color.
20M	Progress Reports — Provide annual progress reports on the implementation of the Climate Action Plan, including an updated emissions inventory and progress toward broader environmental, health and equity goals.



# We welcome your feedback, questions and ideas.

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