Ashland Climate and Energy Action Plan: Implementation Plan

This implementation plan sets forth a proposed structure and schedule for implementation of the Climate and Energy Action Plan (CEAP). It contains the following sections:

- **Year 1 Implementation Summary** – A summary of key tasks to be accomplished in Year 1 of CEAP implementation, described in more detail in the following sections.
- **Oversight** – An ongoing structure for ongoing citizen oversight of the CEAP.
- **Accountability and Enforcement** – Potential policy mechanisms for ensuring that the CEAP is implemented to its full potential.
- **City Coordination** – A structure for ongoing City coordination and implementation of the CEAP.
- **Funding** – Potential funding mechanisms for financing CEAP actions.
- **Monitoring and Evaluation** – A mechanism and set of metrics for monitoring and evaluating CEAP progress and updating the plan as necessary.
- **Equity** – Guidance for ensuring that equity is considered in CEAP implementation.
- **Near-term Actions** – CEAP actions to be implemented by 2020.
- **Implementation Schedule** – Implementation detail for each priority CEAP action, including relative measures of action cost and effectiveness; accompanying co-benefits; timeframes for implementation; and responsible departments.

Year 1 Implementation Summary

Assuming adoption by the Council in February, the focus in 2017 will be on establishing the institutional foundation for plan implementation and taking initial steps on key priority actions. Table 1 provides a schedule and key milestones for Year 1. Key activities to undertake are:

- Form and convene a **citizen advisory committee** to provide guidance and oversight of plan implementation.
- **Formalize the city's commitment** to CEAP actions and goals (e.g., ordinance or resolution).
- Designate a **CEAP Coordinator** position and constitute an internal City **Climate Action Team**.
- Designate **funding sources** and identify additional **funding needs**.
- Establish **CEAP progress indicators** and corresponding baselines and targets (including **equity** indicators).
- Determine and formalize Ashland's approach to incorporating **equity considerations** into plan implementation.
- Commence **priority near-term CEAP actions**.

Table 1. Schedule and key milestone for Year 1 CEAP implementation (this section under development).

Item	Q1	Q2	Q3	Q4
Citizen Advisory Committee				
Resolution/Ordinance				
CEAP Coordinator				
Internal Climate Action Team				
Funding				
Progress Indicators				
Equity Considerations				
Priority Near-Term Actions				

Oversight

A **citizen advisory committee** is recommended to oversee implementation of the CEAP. The advisory committee will be composed of stakeholders who represent Ashland residents, have interest, experience or expertise on climate-relevant topics or related policy work, and/or represent key community or civic organizations that may play a role in implementation.

Roles of the advisory committee could include:

- Monitoring and tracking progress towards meeting CEAP goals.
- Providing recommendations to the Climate and Energy Coordinator regarding CEAP progress and implementation.
- Ensuring that the CEAP stays up-to-date over time, with a focus on the three-year plan update cycle
- Reviewing and making recommendations as part of the three-year greenhouse gas (GHG) inventory update process

It is expected that the advisory committee will meet at least **quarterly**.

Accountability and Enforcement

Adoption of this Climate and Energy Action Plan will demonstrate the City of Ashland's commitment to addressing the challenge of climate change in the Ashland community. Establishing a more formal City commitment to CEAP goals, such as through a resolution or ordinance, would be seen by many as reinforcing the importance of this plan and could help ensure implementation of CEAP actions and measurable progress toward meeting CEAP goals over time.

City Coordination

The plan calls for a **designated City Climate and Energy Coordinator position** to be created to coordinate and shepherd implementation of the CEAP. Job responsibilities of the position include the following:

- Working with City departments to facilitate and track strategy and action implementation.
- Working with external stakeholders, including public, to encourage taking and/or contributing to actions identified in the CEAP.
- Briefing the advisory team on progress updates and relaying advisory team recommendations to relevant implementing parties.

- Leading development of annual CEAP progress reports, as well as plan updates.
- Communicating CEAP progress to internal and external stakeholders.
- Developing and implementing a system to systematically review, adjust, and update plan strategies and actions as needed.
- Maintaining a dashboard or other interactive platform for tracking and communicating progress.

The Climate and Energy Coordinator will ideally have the following qualifications:

- Familiarity with both climate mitigation and adaptation, including greenhouse gas accounting methodologies and climate change projections and anticipated impacts.
- Experience managing climate-related programs that involve both internal and external stakeholders.

It is anticipated that an internal Climate Action Team will be formed within the City to coordinate and implement CEAP actions. The following departments should be represented as part of the Climate Action Team:

- Community Development (including Building Division and Planning Division)
- Ashland Municipal Utility (Electric)
- Administration
- Parks and Recreation
- Conservation
- Public Works
- Fire

Funding

Funding for near-term actions of the CEAP will come from a variety of sources within the City budget depending on the type of action, the responsible department, and the legal and operational limitations of the particular funding source. Additionally, some of the actions recommended in the plan are expansion of existing City programs or efforts and therefore already have funding sources. However, incremental funding increases may be needed to meet the higher level of action called for in the plan.

Current and potential funding sources include:

- City general fund
- Electric Utility revenues (energy related actions)
- Storm Water Utility revenues (flood/riparian related actions)
- Water Utility revenues (water conservation, water quality related actions)
- Bonneville Power Administration
- Federal and state grants
- Revolving loan funds

As the implementation commences in earnest, City staff and the proposed CEAP advisory committee should pay particular attention to additional funding sources. This examination should include exploration of specific grant opportunities targeted at individual plan actions, potential new local revenue streams such as from a carbon/fuel tax, and multi-jurisdiction or public/private partnerships to provide the resources needed for City and community goal achievement.

Monitoring and Evaluation

Progress toward meeting CEAP targets and goals will be evaluated and tracked on an action-by-action basis with an overall progress report for all actions and activities provided on at least an **annual** basis. If possible, qualitative updates will be provided to the advisory team on a **quarterly** basis.

The plan will be evaluated and updated on a **three-year cycle** to ensure that plan strategies and actions reflect the latest knowledge and best practices around climate mitigation and adaptation. The plan will also be reevaluated to assess whether actions are sufficient to meet emission reduction goals and, if not, to add new or expanded actions to the plan. To facilitate the three-year update, the Ashland community and City greenhouse gas inventories will also be updated on recurring cycle, one year in advance of the plan update process. This cycle will provide City staff and the proposed commission with concrete measurement results to inform plan evaluation and updates.

At a minimum, the following indicators will be tracked and reported on at least an annual basis. Due to data availability limitations, some of these indicators will require establishment of baseline and target values for meeting CEAP goals—to be developed in Year 1 of implementation. Additionally, we expect that some methodologies for measuring some indicators, such as consumption-based greenhouse gas emissions, will evolve and improve over time.

Offsets

Every time Ashland completes its greenhouse gas inventory, the City and community can evaluate the need to purchase carbon offsets to help meet emission reduction goals. Offsets provide a pathway for achieving emission reductions beyond what can be achieved internally.

Purchasing offsets means counting emission reductions achieved by another party and often in another geographic area. For example, Ashland could purchase offsets from Bonneville Environmental Foundation, which offers emissions reduction credits from regional and global renewable energy projects, forest enhancement projects, and waste methane and heat capture projects.

When an entity sells their carbon offsets, those emission reductions cannot be counted by anyone except the party that purchased the offsets, thereby minimizing the risk of double counting.

Further development and build-out of the monitoring and evaluation indicators likely form a significant opportunity for the proposed new commission to work on as an early oversight activity.

Equity indicators will also be monitored, as available (see “Equity” section below).

Table 2. Potential CEAP progress indicators

CEAP Goal	Primary Goal	Indicator	Target	2015 Baseline
Overarching Goal 1: Reduce GHG Emissions				
	Mi	Community GHG emissions ($mtCO_2e$)	8% reduction per year	342,480
	Mi	City GHG emissions ($mtCO_2e$)	0 by 2030	10,757
	Mi	Fossil fuel consumption (MMBTU)	50% reduction by 2030; 100% reduction by 2050	Unknown
Overarching Goal 2: Prepare for Climate Impacts				
	Ad	N/A (see individual focus areas)	N/A	N/A
Buildings and Energy				
Reduce building GHG emissions.	Mi	Building GHG emissions ($mtCO_2e$)	8% reduction per year	82,426
Increase energy and water efficiency in City and private buildings.	Mi	Energy & water use per square foot (MMBTU/sf & CCF/sf)	TBD	Unknown
Protect Ashland's building stock and energy supply from climate impacts.	Ad	Proportion of buildings that use heat-resistant materials, passive heating/cooling, and/or white roofs (%) Local renewable energy production (%)	TBD	Unknown
Urban Form, Land Use & Transportation				
Reduce transportation GHG emissions.	Mi	Transportation GHG emissions ($mtCO_2e$)	8% reduction per year	79,000
Reduce community & City employee vehicle miles traveled.	Mi	Vehicle miles traveled (miles)	TBD	Unknown
Improve vehicle efficiency and expand low-carbon transport, including within City's fleet	Mi	Emissions per mile traveled ($mtCO_2e$/mile) Transit ridership (passenger miles) and bicycling	TBD	Unknown
Support local and regional sustainable growth.	Mi/Ad	Average city "Walk Score"	TBD	53[i]
Protect transportation infrastructure from climate impacts.	Ad	TBD	TBD	TBD
Consumption & Materials Management				
Reduce solid waste & wastewater GHG emissions.	Mi	Solid waste & wastewater GHG emissions ($mtCO_2e$)	8% reduction per year	6,923
Increase waste diversion through waste prevention, recycling, and composting.	Mi	Waste diverted from landfill to recycling and composting (%)	TBD	Unknown
Reduce consumption of climate-intensive food, products, and services.	Mi	Consumption-related emissions ($mtCO_2e$)	8% reduction per year	166,731
Support locally-produced products.	Mi/Ad	Community gardens (#) Farmers markets (#)	TBD	4 gardens; 1 farmers market
Natural Systems				

[i] Source: https://www.walkscore.com/OR/

CEAP Goal	Primary Goal	Indicator	Target	2015 Baseline
Enhance ecosystem health and resilience.		Water quality (EPA score out of 100) Acres of forest maintained Acres of protected and restored habitat	TBD	Water quality = 60/100[ii] Over 2,000 acres of forests maintained[iii]
Ensure sustained access to clean air and drinking water.		Water consumption (avg MGD)	TBD	4.5 MGD[iv]
Public Health, Safety & Security				
Protect public health from air pollution and climate impacts.		Air quality (EPA score out of 100) Cooling center capacity (# people) Tree canopy cover (%)	TBD	Air quality = 70/100[ii]
Improve community capacity to understand, prepare for, and respond to climate change security risks.		# homes in the wildland urban interface (WUI)	TBD	1,400 homes[v]
Cross-Cutting Strategies				
Increase awareness of city climate goals and needs.		Public and staff knowledge and understanding of climate change issues and actions (e.g., # students engaged in AFR project)	TBD	(e.g., over 2,000 students[vi])
Integrate climate considerations into City operations, planning, and decision-making.		Number of other City plans or activities that incorporate climate change considerations	TBD	2 (Water Master Plan Update; 2016 Ashland Forest Plan)

[ii] Source: http://www.bestplaces.net/health/city/oregon/ashland
[iii] Source: http://www.ashland.or.us/Files/Fall_2016Flyer_Updated_9272016_Final%20Draft.pdf
[iv] Source: http://www.ashland.or.us/Page.asp?NavID=17045
[v] Source: http://www.ashland.or.us/Page.asp?NavID=13511
[vi] Engaged in AFR project from 2010 to 2014 (Source: 2016 Ashland Forest Plan)

Equity

Each action of the CEAP should be implemented in an equitable manner that addresses Ashland's unique equity issues and concerns. The sections below provide suggestions for ensuring equitable implementation of the CEAP. It is expected that specific criteria and indicators will be determined and formalized in Year 1 of CEAP implementation.

Equity Considerations

When planning for implementation, the City should consider equity impacts and potential benefits. For example, the City of Portland put forth the following equity considerations in implementation of their Climate Action Plan:[7]

Equity Considerations	
Disproportionate impacts	Does the proposed action generate burdens (including costs), either directly or indirectly, to communities of color or low-income populations? If yes, are there opportunities to mitigate these impacts?
Shared benefits	Can the benefits of the proposed action be targeted in progressive ways to reduce historical or current disparities?
Accessibility	Are the benefits of the proposed action broadly accessible to households and businesses throughout the community — particularly communities of color, low-income populations, and minority, women and emerging small businesses?
Engagement	Does the proposed action engage and empower communities of color and low-income populations in a meaningful, authentic and culturally appropriate manner?
Capacity building	Does the proposed action help build community capacity through funding, an expanded knowledge base or other resources?
Alignment and partnership	Does the proposed action align with and support existing communities of color and low-income population priorities, creating an opportunity to leverage resources and build collaborative partnerships?
Relationship building	Does the proposed action help foster the building of effective, long-term relationships and trust between diverse communities and local government?
Economic opportunity and staff diversity	Does the proposed action support communities of color and low income populations through workforce development, contracting opportunities or the increased diversity of city and county staff?
Accountability	Does the proposed action have appropriate accountability mechanisms to ensure that communities of color, low-income populations, or other vulnerable communities will equitably benefit and not be disproportionately harmed?

In addition, these equity considerations can be explicitly integrated into the cross-cutting strategy CC-3-1 "Consider climate change in all City Council policy, budgetary, or legislative decisions. Incorporate climate action considerations/relationship as part of the Council Communication (staff report) document template." The inclusion of equity considerations as part of the standard formal communication template for City Council deliberation and decision making ensures that equity related impacts of City Council decisions are by default considered in the deliberation and able to be understood and commented on by the public.

[7] Source: https://www.portlandoregon.gov/bps/article/583501

Equity Indicators

Progress toward advancing equity through implementation of the CEAP will also be assessed as part of the monitoring and evaluation process. Identification and baseline assessment of relevant indicators will be an important part of Year 1 implementation. Potential process and outcome indicators related to climate resilience implementation identified by the National Association for the Advancement of Colored People (NAACP), for example, including the following:[8]

Example Climate Resilience Process/Outcome Indicators	
Infrastructure	Solar and wind installation – community level, home, commercial/business (mapping/distribution)
Economic Development and Jobs	New, local jobs created Businesses temporarily or permanently closed (net new businesses) Community Workforce Agreements for redevelopment projects
Food Security	Households identified as food insecure
Housing	Property values increased or reduced
Healthcare Services	Health care and mental health facilities
Emergency Management	Emergency shelter availability, capacity, and access
Planning and Decision Making	Inclusive stakeholder engagement in community planning Equity-based resource allocation

[8] Source: http://action.naacp.org/page/-/Climate/Equity_in_Resilience_Building_Climate_Adaptation_Indicators_FINAL.pdf

Near-Term Actions

The following twenty actions were identified as near-term priority actions to be implemented by 2021. Actions were identified as near-term that meet one or more of the following criteria:

- **Easy, early wins** – relatively straightforward actions that demonstrate climate action and help the City hit the ground running on making progress toward climate goals.
- **Foundational steps** – actions that set the stage or guide direction for other actions.
- **Complex, but important initiatives** – actions that will make a big difference but may be challenging or resource-intensive to implement, so getting started as early as possible will be important.
- **Windows of opportunity** – actions align with or could synergize with other City plans, projects, or initiatives, and so should be implemented concurrently.
- **Too good to wait** – actions that will be very effective in meeting climate action goals or carry significant co-benefits, and so should be implemented immediately.

	Scope	Type	Criterion
Buildings and Energy			
BE-1-1. Develop a comprehensive plan for the Municipal Electric Utility. Initiate planning process in 2017.	C	Mi	Foundational step
BE-1-2. Facilitate and encourage solar energy production. Begin exploring increased local solar energy production as part of the 10-by-20 ordinance implementation.	C	Mi/Ad	Window of opportunity
BE-1-3. Enhance production of on-site solar energy from City facilities. Prioritize and development implementation plan and funding for recently completed City facility solar audit.	M	Mi/Ad	Window of opportunity
BE-2-1. Increase outreach efforts to expand participation in energy efficiency programs and promote climate-friendly building and construction. Update the land use code for conservation housing density bonus, expand participation in City's Smartbuild program, and expand zero-interest loan program opportunities.	C	Mi	Easy, early win
Urban Form, Land Use & Transportation			
ULT-1-2. Work with the RVTD to implement climate-friendly transit. Begin conversations with RVTD to begin transitioning to lower emission buses and exploring ways to expand access and ridership.	C	Mi	Too good to wait
ULT-2-1. Implement bicycle-friendly Transportation System Plan (TSP) actions. Begin implementing capital improvement plans as part of TSP implementation.	C	Mi	Window of opportuntiy
ULT-2-2. Explore additional opportunities to convert to shared streets where appropriate to provide multimodal connectivity. Pursue East Main St super-sharrow concept through Transportation Commission.	M	Mi	Window of opportunity
ULT-3-2. Revise land use codes to require EV charging infrastructure at multifamily and commercial developments. Draft revised code.	C	Mi	Complex, but important
ULT-3-3. Provide information about electric and hybrid vehicles and rebates on the City's website.	C	Mi	Easy, early win
ULT-4-1. Consider regulating further construction or expansion in the Wildland Urban Interface (WUI) part of the urban growth boundary (UGB). Explore available policy instruments or incentives for limiting development in this area.	C	Ad	Complex, but important
Consumption and Materials Management			
CM-2-1. Partner with nonprofit organizations to promote the purchase of climate-friendly produce and products. Implement as part of Economic Development Strategy 1.3: local import substitution.	C	Mi	Easy, early win
CM-2-2. Expand community gardening and urban agriculture at community gardens, schools, parks, and rooftops. Offer additional trainings, programs, and gardening areas.	C	Mi/Ad	Too good to wait

	Scope	Type	Criterion
Natural Systems			
NS-1-1. Manage forests to retain biodiversity, resilience, and ecosystem function and services in the face of climate change. Use best available science to inform fire management and planning. Continue efforts as part of the Ashland Forest Resiliency Project, and implement actions in the 2016 Ashland Forest Plan.	C	Ad	Too good to wait
NS-1-3. Undertake restoration efforts to retain and restore native fish and riparian species. Identify and create new restoration sites, and continue maintaining existing sites.	C	Ad	Easy, early win
NS-2-2. Explore water-efficient technologies on irrigation systems and consider requiring them during permitting.	C	Mi/Ad	Complex, but important
Public Health, Safety, and Security			
PHSS-2-1. Engage leading employers in a dialogue on climate action. Convene ongoing, organized meetings in partnership with the Chamber of Commerce.	C	Mi/Ad	Foundational step
PHSS-3-1. Identify and work with vulnerable neighborhoods to create site-specific adaptation strategies that address public health.	C	Ad	Fondational step
Cross-Cutting Strategies			
CC-1-2. Create a formal public outreach and education plan to inform the community about climate actions.	C	Mi/Ad	Foundational step
CC-2-1. Ensure all City departments educate their staff members about the Climate and Energy Action Plan. City CEAP Coordinator can engage with each department.	M	Mi/Ad	Foundational step
CC-4-1. Engage with other governments and organizations around climate policy and action. Join a formal organization such as ICLEI to explore best practices and establish relationships with peer communities.	M	Mi/Ad	Foundational step

Mid-Term Actions

The following forty actions were identified as mid-term priority actions to be implemented by 2025. Priority actions that were not identified as near-term were assigned as mid-term.

	Scope	Type
Buildings and Energy		
Strategy BE-2. Encourage increased building energy efficiency.		
BE-2-2. Require building energy audits to identify and incentivize cost-effective energy efficiency improvements.	C	Mi/Ad
BE-2-3. Identify and adopt strategies to reduce energy efficiency barriers in rent/lease properties.	C	Mi/Ad
BE-2-4. Establish minimum energy efficiency standards for the affordable housing program.	C	Mi/Ad
Strategy BE-3. Maximize efficiency of City facilities, equipment & operations.		
BE-3-1. Use results from City Facilities Energy Audit to prioritize City Facilities Capital Improvement Plans (CIPs) and maintenance improvements.	M	Mi
Strategy BE-4. Improve demand management.		
BE-4-1. Expand the current net meter resolution to include and incorporate virtual net metering.	C	Mi
BE-4-2. Implement utility-level smart grid technologies to facilitate efficiency and distributed energy solutions.	C	Mi
Strategy BE-5. Prepare and adapt buildings for a changing climate.		
BE-5-1. Encourage heat-tolerant building approaches such as cool roofs and passive cooling.	C	Ad
Urban Form, Land Use & Transportation		
Strategy ULT-1. Support better public transit and ridesharing.		
ULT-1-1. Coordinate with neighboring local governments to promote use of transit, carpooling, and car-sharing.	C	Mi
ULT-1-3. Establish policies to support development near transit hubs without displacing disadvantaged populations.	C	Mi
ULT-1-4. Evaluate feasibility of locally-owned and operated transit.	M	Mi
Strategy ULT-3. Support more-efficient vehicles.		
ULT-3-1. Implement a local fuel-related tax.	C	Mi
Strategy ULT-4. Support more climate-ready development and land use.		
ULT-4-2. Further revise community development plans to favor walkable neighborhoods and infill density.	C	Mi
ULT-4-3. Modify the WUI code to include construction techniques appropriate for wildfire-prone areas.	C	Ad
Strategy ULT-5. Increase the efficiency of City fleet vehicles and employee commuting.		
ULT-5-1. Provide carpool and vanpool parking, charging stations, and preferred parking for EVs for City employees.	M	Mi
ULT-5-2. Conduct a city fleet audit and use it to set policy and targets.	M	Mi
ULT-5-3. Develop policy to require the purchase of verified carbon offsets to offset City staff travel.	M	Mi
Consumption and Materials Management		
Strategy CM-1. Reduce consumption of carbon-intensive goods and services.		
CM-1-1. Implement an education campaign for waste and consumption reduction strategies.	C	Mi
CM-1-2. Support “collaborative consumption” community projects.	C	Mi
Strategy CM-3. Expand community recycling and composting.		
CM-3-1. Improve recycling programs to make them easier to use and implement new education and outreach to increase recycling in all sectors; expand public space recycling.	C	Mi
CM-3-2. Strengthen the Demolition Debris and Diversion ordinance to enhance enforcement and increase diversion and reuse.	C	Mi
Strategy CM-4. Reduce food waste.		
CM-4-1. Support edible food donation.	C	Mi/Ad
CM-4-2. Provide a kitchen best practices guide to help households and businesses reduce food waste and consumption.	C	Mi/Ad
CM-4-3. Facilitate recycling of commercial food waste.	C	Mi/Ad
Strategy CM-5. Improve sustainability of City operations and purchases.		

	Scope	Type
CM-5-1. Introduce City environmentally preferable purchasing (EPP) guidelines for City procurement.	M	Mi
CM-5-2. Assess the feasibility of co-digesting food waste and biosolids to generate electricity at the wastewater treatment facility.	M	Mi
Natural Systems		
Strategy NS-1. Promote ecosystem resilience.		
NS-1-2. Expand use of green infrastructure such as bioswales, permeable pavement, other pervious surfaces to reduce flood risk and minimize sediment entry into creeks from trails and roads.	C	Ad
NS-1-4. Map and protect areas that provide ecosystem services.	C	Ad
Strategy NS-2. Manage and conserve community water resources.		
NS-2-1. Evaluate the value and potential for incentives for practices that reduce use of potable water for nonpotable purposes and recharge ground water.	C	Mi/Ad
NS-2-3. Expand water conservation outreach and incentive programs for residents and businesses.	C	Mi/Ad
Strategy NS-3. Conserve water use within City operations.		
NS-3-1. Evaluate the potential for installation of rainwater collection systems at City facilities for graywater uses, and investigate opportunities for graywater reuse at existing and new City facilities and properties.	M	Mi/Ad
NS-3-2. Implement efficiency recommendations from the City facilities water audit.	M	Mi/Ad
Public Health, Safety, and Security		
Strategy PHSS-1. Manage ecosystems and landscapes to minimize climate-related health impacts.		
PHSS-1-1. Promote the expansion of tree canopy in urban heat islands or areas that need air conditioning such as schools.	C	Ad
Strategy PHSS-2. Promote a sustainable local economy that minimizes emissions and vulnerability.		
PHSS-2-2. Support organizations, such as SOU, in evaluating risks to local food sources under climate change.	C	Ad
Strategy PHSS-3. Optimize City services to minimize public health impacts.		
PHSS-3-2. Identify and minimize potential urban heat impacts, such as by designating cooling centers through the city, improving cooling systems in schools and senior centers, and incentivizing cooling strategies such as cool roofs/pavements and expanded tree canopy.	C	Ad
PHSS-3-3. Develop or enhance heat-warning systems for employees and the public.	C	Ad
Strategy PHSS-4. Optimize City services to minimize public safety impacts.		
PHSS-4-1. Update the City's emergency response plan and ensure that preparation and updates recognize and address likely climate change impacts.	C	Ad
PHSS-4-1. Identify and address essential City services that are within the 100-year flood zone.	C	Ad
Cross-Cutting Strategies		
Strategy CC-1. Educate and empower the public.		
CC-1-1. Support capacity of neighborhood and community groups to implement climate mitigation and adaptation initiatives.	C	Mi/Ad
Strategy CC-3. Mainstream and integrate climate considerations.		
CC-3-1. Consider climate change in all City Council policy, budgetary, or legislative. Incorporate climate action considerations/relationship as part of the Council Communication document template.	M	Mi/Ad
CC-3-2. Consider CEAP goals in future updates of city plans.	M	Mi/Ad

Implementation Schedule

The table starting on the following page details when, why, and by whom timeframes by which all priority actions in the CEAP will be implemented. The list includes additional information on each action, including co-benefits and relative, qualitative estimates of implementation costs and effectiveness in meeting CEAP goals. The CEAP also includes additional actions that were not listed as "priority"—these actions will be implemented on an opportunistic and as-needed basis.

Timeframes:
Timeframes for CEAP priority actions are designated by budget biennials and represent dates by which actions must be commenced (not completed per se, as some actions will be ongoing). All actions are slated for near- or mid-term commencement; it is expected that longer-term actions will be identified during the three-year plan update process:

- Near-term: 2017-2021
- Mid-term: 2021-2025

Departments:
Actions are labeled by the primary department responsible for implementation. It is expected that many of these primary departments will need to work with other supporting departments and/or external stakeholders to fully and successfully implement the action:

- Community Development (including Building Division and Planning Division)
- Ashland Municipal Utility (Electric)
- Administration
- Parks and Recreation
- Conservation Division
- Public Works
- Police / Fire

Co-benefits:

 Benefits low-income or disadvantaged communities

 Benefits local habitats, recreation, or natural aesthetic

 Benefits households, local economy, City operations budget, or jobs

 Benefits public health (e.g., by enhancing local air quality)

Relative rankings:

$	Lower relative implementation cost
$$	Moderate relative implementation cost
$$$	Higher relative implementation cost

 Effective in meeting CEAP goals

More effective in meeting CEAP goals

Most effective in meeting CEAP goals

Table 3. CEAP Action Implementation Schedule

	Scope	Type	Cost	Effectiveness	Co-benefits	Timeframe for Implementation	Responsible Department
Buildings and Energy							
Strategy BE-1. Support cleaner energy sources.							
BE-1-1. Develop a comprehensive plan for the Municipal Electric Utility.	C	Mi	$	ϟϟϟ		Near-term	Electric / Conservation
BE-1-2. Facilitate and encourage solar energy production.	C	Mi/Ad	$ $	ϟϟ		Near-term	Electric / Conservation
BE-1-3. Enhance production of on-site solar energy from City facilities.	C	Mi/Ad	$ $	ϟ		Near-term	Public Works
Strategy BE-2. Encourage increased building energy efficiency.							
BE-2-1. Increase outreach efforts to expand participation in energy efficiency programs and promote climate-friendly building and construction.	C	Mi	$ $	ϟϟ	⚖	Near-term	Conservation
BE-2-2. Require building energy audits to identify and incentivize cost-effective energy efficiency improvements.	C	Mi/Ad	$ $	ϟϟ		Mid-term	Community Development
BE-2-3. Identify and adopt strategies to reduce energy efficiency barriers in rent/lease properties.	C	Mi/Ad	$	ϟϟϟ	⚖	Mid-term	Conservation
BE-2-4. Establish minimum energy efficiency standards for the affordable housing program.	C	Mi/Ad	$	ϟ	⚖	Mid-term	Community Development
Strategy BE-3. Maximize efficiency of City facilities, equipment & operations.							
BE-3-1. Use results from City Facilities Energy Audit to prioritize City Facilities Capital Improvement Plans (CIPs) and maintenance improvements.	M	Mi	$	ϟ		Mid-term	Public Works
Strategy BE-4. Improve demand management.							
BE-4-1. Expand the current net meter resolution to include and incorporate virtual net metering.	C	Mi	$ $	ϟϟ		Mid-term	Electric
BE-4-2. Implement utility-level smart grid technologies to facilitate efficiency and distributed energy solutions.	C	Mi	$ $ $	ϟϟϟ	$	Mid-term	Electric
Strategy BE-5. Prepare and adapt buildings for a changing climate.							
BE-5-1. Encourage heat-tolerant building approaches such as cool roofs and passive cooling.	C	Ad	$	ϟϟ	$	Mid-term	Community Development
Urban Form, Land Use & Transportation							
Strategy ULT-1. Support better public transit and ridesharing.							
ULT-1-1. Coordinate with neighboring local governments to promote use of transit, carpooling, and car-sharing.	C	Mi	$	ϟϟ		Mid-term	Public Works

	Scope	Type	Cost	Effectiveness	Co-benefits	Timeframe for Implementation	Responsible Department
ULT-1-2. Work with the RVTD to implement climate-friendly transit.	C	Mi	$	⚡⚡		Near-term	Public Works
ULT-1-3. Establish policies to support development near transit hubs without displacing disadvantaged populations.	C	Mi	$	⚡⚡		Mid-term	Community Development
ULT-1-4. Evaluate feasibility of locally-owned and operated transit.	M	Mi	$ $ $	⚡⚡		Mid-term	Public Works
Strategy ULT-2. Make Ashland more bike- and pedestrian-friendly.							
ULT-2-1. Implement bicycle-friendly Transportation System Plan actions.	C	Mi	$	⚡⚡⚡		Near-term	Public Works
ULT-2-2. Explore opportunities to convert to shared streets where appropriate to provide multimodal connectivity.	M	Mi	$ $	⚡⚡⚡		Near-term	Public Works
Strategy ULT-3. Support more-efficient vehicles.							
ULT-3-1. Implement a local fuel-related tax.	C	Mi	$	⚡⚡⚡		Mid-term	?
ULT-3-2. Revise land use codes to require EV charging infrastructure at multifamily and commercial developments.	C	Mi	$	⚡⚡⚡		Near-term	Community Development
ULT-3-3. Provide information about electric and hybrid vehicles and rebates on the City's website.	C	Mi	$	⚡⚡		Near-term	Conservation
Strategy ULT-4. Support more climate-ready development and land use.							
ULT-4-1. Consider regulating further construction or expansion in the Wildland Urban Interface (WUI) part of the urban growth boundary (UGB).	C	Ad	$	⚡⚡⚡		Near-term	Community Development/Fire
ULT-4-2. Further revise community development plans to favor walkable neighborhoods and infill density.	C	Mi	$	⚡⚡⚡		Mid-term	Community Development
ULT-4-3. Modify the WUI code to include construction techniques appropriate for wildfire-prone areas.	C	Ad	$	⚡⚡		Mid-term	Community Development
Strategy ULT-5. Increase the efficiency of City fleet vehicles and employee commuting.							
ULT-5-1. Provide carpool and vanpool parking, charging stations, and preferred parking for EVs for City employees.	M	Mi	$ $	⚡		Mid-term	Public Works
ULT-5-2. Conduct a city fleet audit and use it to set policy and targets.	M	Mi	$	⚡		Mid-term	Public Works
ULT-5-3. Develop policy to require the purchase of verified carbon offsets to offset City staff travel.	M	Mi	$	⚡		Mid-term	Administration
Consumption and Materials Management							
Strategy CM-1. Reduce consumption of carbon-intensive goods and services.							

	Scope	Type	Cost	Effectiveness	Co-benefits	Timeframe for Implementation	Responsible Department
CM-1-1. Implement an education campaign for waste and consumption reduction strategies.	C	Mi	$	⚡⚡		Mid-term	Administration
CM-1-2. Support "collaborative consumption" community projects.	C	Mi	$	⚡⚡		Mid-term	Administration
Strategy CM-2. Support sustainable and accessible local production and consumption.							
CM-2-1. Partner with nonprofit organizations to promote the purchase of climate-friendly produce and products.	C	Mi	$	⚡⚡		Near-term	Administration
CM-2-2. Expand community gardening and urban agriculture opportunities at community gardens, schools, parks, and rooftops.	C	Mi/Ad	$ $	⚡⚡		Near-term	Administration/Parks
Strategy CM-3. Expand community recycling and composting.							
CM-3-1. Improve recycling programs to make them easier to use and implement new education and outreach to increase recycling in all sectors; expand public space recycling.	C	Mi	$ $	⚡		Mid-term	Conservation
CM-3-2. Strengthen the Demolition Debris and Diversion ordinance to enhance enforcement and increase diversion and reuse.	C	Mi	$ $	⚡⚡		Mid-term	Conservation
Strategy CM-4. Reduce food waste.							
CM-4-1. Support edible food donation.	C	Mi/Ad	$	⚡		Mid-term	Conservation
CM-4-2. Provide a kitchen best practices guide to help households and businesses reduce food waste and consumption.	C	Mi/Ad	$	⚡⚡		Mid-term	Conservation
CM-4-3. Facilitate recycling of commercial food waste.	C	Mi/Ad	$ $	⚡⚡		Mid-term	Conservation
Strategy CM-5. Improve sustainability of City operations and purchases.							
CM-5-1. Introduce City environmentally preferable purchasing (EPP) guidelines for City procurement.	M	Mi	$	⚡		Mid-term	Administrative Services
CM-5-2. Assess the feasibility of co-digesting food waste and biosolids to generate electricity at the wastewater treatment facility.	M	Mi	$ $ $	⚡⚡		Mid-term	Public Works
Natural Systems							
Strategy NS-1. Promote ecosystem resilience.							
NS-1-1. Manage forests to retain biodiversity, resilience, and ecosystem function and services in the face of climate change. Use best available science to inform fire management and planning to manage ecosystem health, community safety, and carbon storage.	C	Ad	$	⚡⚡⚡		Near-term	Fire

	Scope	Type	Cost	Effectiveness	Co-benefits	Timeframe for Implementation	Responsible Department
NS-1-2. Expand use of green infrastructure such as bioswales, permeable pavement, other pervious surfaces to reduce flood risk and minimize sediment entry into creeks from trails and roads.	C	Ad	$	⚡⚡		Mid-term	Community Dev
NS-1-3. Undertake restoration efforts to retain and restore native fish and riparian species.	C	Ad	$ $	⚡⚡		Near-term	Parks & Recreation
NS-1-4. Map and protect areas that provide ecosystem services.	C	Ad	$ $	⚡⚡		Mid-term	Parks & Recreation
Strategy NS-2. Manage and conserve community water resources.							
NS-2-1. Evaluate the value and potential for incentives for practices that reduce use of potable water for nonpotable purposes and recharge ground water.	C	Mi/Ad	$ $	⚡⚡⚡		Mid-term	Conservation
NS-2-2. Explore water-efficient technologies on irrigation systems and consider requiring them during the permitting process.	C	Mi/Ad	$ $	⚡⚡⚡		Near-term	Conservation
NS-2-3. Expand water conservation outreach and incentive programs for residents and businesses.	C	Mi/Ad	$ $	⚡		Mid-term	Conservation
Strategy NS-3. Conserve water use within City operations.							
NS-3-1. Evaluate the potential for installation of rainwater collection systems at City facilities for graywater uses, and investigate opportunities for graywater reuse at existing and new City facilities and properties.	M	Mi/Ad	$ $	⚡		Mid-term	Public Works
NS-3-2. Implement efficiency recommendations from the City facilities water audit.	M	Mi/Ad	$ $	⚡		Mid-term	Public Works
Public Health, Safety, and Security							
Strategy PHSS-1. Manage ecosystems and landscapes to minimize climate-related health impacts.							
PHSS-1-1. Promote the expansion of tree canopy in urban heat islands or areas that need air conditioning such as schools.	C	Ad	$	⚡⚡		Mid-term	Parks & Recreation/Comm Dev
Strategy PHSS-2. Promote a sustainable local economy that minimizes emissions and vulnerability.							
PHSS-2-1. Engage leading employers in a dialogue on climate action, for example, by organizing and facilitating roundtables.	C	Mi/Ad	$	⚡⚡		Near-term	Conservation
PHSS-2-2. Support organizations, such as SOU, in evaluating risks to local food sources under climate change.	C	Ad	$	⚡		Mid-term	Administration
Strategy PHSS-3. Optimize City services to minimize public health impacts.							

	Scope	Type	Cost	Effectiveness	Co-benefits	Timeframe for Implementation	Responsible Department
PHSS-3-1. Work with vulnerable neighborhoods to create site-specific adaptation strategies to address public health risks.	C	Ad	$	⚡⚡		Near-term	Administration/Fire
PHSS-3-2. Identify and minimize potential urban heat impacts, such as by designating cooling centers through the city, improving cooling systems in schools and senior centers, and incentivizing cooling strategies such as cool roofs/pavements and expanded tree canopy.	C	Ad	$ $	⚡		Mid-term	Parks & Recreation/Fire
PHSS-3-3. Develop or enhance heat-warning systems for employees and the public.	C	Ad	$	⚡		Mid-term	Fire
Strategy PHSS-4. Optimize City services to minimize public safety impacts.							
PHSS-4-1. Update the City's emergency response plan and ensure that preparation and updates recognize and address likely climate change impacts.	C	Ad	$	⚡⚡⚡		Mid-term	Fire
PHSS-4-1. Identify and address essential City services that are within the 100-year flood zone.	C	Ad	$ $	⚡⚡		Mid-term	Public Works
Cross-Cutting Strategies							
Strategy CC-1. Educate and empower the public.							
CC-1-1. Support capacity of neighborhood and community groups to implement climate mitigation and adaptation initiatives.	C	Mi/Ad	$	⚡⚡		Mid-term	Administration
CC-1-2. Create a formal public outreach and education plan to inform the community about climate actions and progress.	C	Mi/Ad	$	⚡⚡		Near-term	Administration
Strategy CC-2. Educate and empower City staff.							
CC-2-1. Ensure all City departments educate their staff members about the Climate and Energy Action Plan.	M	Mi/Ad	$	⚡		Near-term	Administration
Strategy CC-3. Mainstream and integrate climate considerations.							
CC-3-1. Consider climate change in all City Council policy, budgetary, or legislative. Incorporate climate action considerations/relationship as part of the Council Communication document template.	M	Mi/Ad	$	⚡⚡⚡		Mid-term	Administration
CC-3-2. Consider CEAP goals in future updates of city plans.	M	Mi/Ad	$	⚡⚡⚡		Mid-term	Administration
Strategy CC-4. Engage with other governments and organizations around regional, statewide, national, and international climate policy and action.							
CC-4-1. Engage with other governments and organizations around regional, statewide, national, and international climate policy and action.	M	Mi/Ad	$	⚡		Near-term	Administration