

AGENDA



3:00 P.M.

CITY COUNCIL SPECIAL MEETING

WEDNESDAY, MAY 12, 2021

NOTES:

- Meeting room is wheelchair accessible. American Disabilities Act (ADA) accommodations are available upon request. Please phone 928-282-3113 at least two (2) business days in advance.
- City Council Meeting Agenda Packets are available on the City's website at:

www.SedonaAZ.gov

GUIDELINES FOR PUBLIC COMMENT

PURPOSE:

- To allow the public to provide input to the City Council on a particular subject scheduled on the agenda.
- This is not a question/answer session.
- The decision to receive Public Comment during Work Sessions/Special City Council meetings is at the discretion of the Mayor.

PROCEDURES:

- **It is strongly encouraged that public input on agenda items be submitted by sending an email to the City Clerk at sirvine@sedonaaz.gov in advance of the 3:00 p.m. Call To Order.**
- Fill out a "Comment Card" and deliver it to the City Clerk.
- When recognized, use the podium/microphone.
- State your:
 1. Name and
 2. City of Residence
- Limit comments to **3 MINUTES.**
- Submit written comments to the City Clerk.

DUE TO CONTINUED PRECAUTIONS RELATED TO COVID-19, SEATING FOR THE PUBLIC WITHIN THE COUNCIL CHAMBERS IS VERY LIMITED. THOSE WISHING TO COMMENT ON SCHEDULED AGENDA ITEMS MAY BE ASKED TO WAIT OUTDOORS OR IN AN ALTERNATE LOCATION IF THERE IS NOT ADEQUATE SEATING IN COUNCIL CHAMBERS. **COMMENTS IN ADVANCE OF THE 3:00 P.M. CALL TO ORDER ARE STRONGLY ENCOURAGED BY SENDING AN EMAIL TO [SIRVINE@SEDONAAZ.GOV](mailto:sirvine@sedonaaz.gov) AND WILL BE MADE PART OF THE OFFICIAL MEETING RECORD.** THE MEETING CAN BE VIEWED LIVE ON THE CITY'S WEBSITE AT WWW.SEDONAAZ.GOV OR ON CABLE CHANNEL 4.

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE

2. ROLL CALL

3. SPECIAL BUSINESS

LINK TO DOCUMENT =

- AB 2598 **Discussion/possible direction** regarding review of the Sedona Climate Action Plan (CAP) draft.
- Discussion/possible action** regarding future meetings/agenda items.

4. EXECUTIVE SESSION

If an Executive Session is necessary, it will be held in the Vultee Conference Room at 106 Roadrunner Drive. Upon a public majority vote of the members constituting a quorum, the Council may hold an Executive Session that is not open to the public for the following purposes:

- To consult with legal counsel for advice regarding matters listed on this agenda per A.R.S. § 38-431.03(A)(3).
- Return to open session. Discussion/possible action regarding executive session items.

5. ADJOURNMENT

Posted: 05/06/2021

By: DJ

Susan L. Irvine, CMC
City Clerk

Note: Pursuant to A.R.S. § 38-431.02(B) notice is hereby given to the members of the City Council and to the general public that the Council will hold the above open meeting. Members of the City Council will attend either in person or by telephone, video, or internet communications. The Council may vote to go into executive session on any agenda item, pursuant to A.R.S. § 38-431.03(A)(3) and (4) for discussion and consultation for legal advice with the City Attorney. Because various other commissions, committees and/or boards may speak at Council meetings, notice is also given that four or more members of these other City commissions, boards, or committees may be in attendance.

A copy of the packet with material relating to the agenda items is typically available for review by the public in the Clerk's office after 1:00 p.m. the Thursday prior to the Council meeting and on the City's website at www.SedonaAZ.gov. The Council Chambers is accessible to people with disabilities, in compliance with the Federal 504 and ADA laws. Those with needs for special typeface print, may request these at the Clerk's Office. All requests should be made **forty-eight hours** prior to the meeting.

CITY COUNCIL CHAMBERS
102 ROADRUNNER DRIVE, SEDONA, AZ

The mission of the City of Sedona government is to provide exemplary municipal services that are consistent with our values, history, culture and unique beauty.



**CITY COUNCIL
AGENDA BILL**

**AB 2598
May 12, 2021
Special Business**

Agenda Item: 3a
Proposed Action & Subject: Discussion/possible direction regarding review of the Sedona Climate Action Plan (CAP) draft.

Department	City Manager's Office
Time to Present	30 minutes
Total Time for Item	2 hours
Other Council Meetings	September 9, 2020, January 13, 2021, February 9, 2021
Exhibits	A. Draft Climate Action Plan

City Attorney Approval	Reviewed 5-3-21 KWC	Expenditure Required	
		\$	0
City Manager's Recommendation	For discussion and direction only.	Amount Budgeted	
		\$	0
		Account No. (Description)	N/A
		Finance Approval	<input checked="" type="checkbox"/>

SUMMARY STATEMENT

Background: To better prepare for predicted climate changes in Sedona and support the City Council's priority of environmental sustainability, City staff has created a planning process for the development of Sedona's first community Climate Action Plan (CAP). Climate Action Plans are comprehensive road maps that outline the specific activities that a community will take to reduce greenhouse gas pollution and adapt to climate change. The CAP considers the projected climate changes in the Verde Valley, Sedona's greenhouse gas emissions, community vulnerabilities, and the priorities, ideas, and concerns of Sedona residents. The CAP recommends the actions that achieve the greatest emission reductions or improve community resiliency. The purpose of this item is to update Council on the process for developing a Climate Action Plan and discuss the first draft of the Plan.

The CAP covers five main topic areas including resilience; buildings and energy; transportation and land use; water and natural systems; and waste and consumption. An example of a potential resiliency action is developing a volunteer program to assist community members in implementing FireWise recommendations at their homes. The CAP will build on the work already being done by the City and identify additional opportunities.

During the meeting, staff will provide an overview of the draft Climate Action Plan.

Our climate is changing. Temperatures are increasing globally and locally in the Verde Valley. Addressing the climate crisis is an urgent issue for cities. An analysis by the Climate Assessment for the Southwest (CLIMAS) indicates warming temperatures, poorer air quality, changing precipitation patterns, and increased flood and wildfire risk are local examples of the impacts Sedona is facing as a result of climate change. Unexpected expenditures from drought, wildfire, flooding, and extreme heat can cause major disruptions in city budgets and operations. Climate change is a threat to community wellbeing and fiscal health.

The CAP will be centered on mitigation strategies to reduce greenhouse gas emissions, adaptation strategies to address community vulnerabilities, and a prioritized list of actions.

Specifically, the CAP will:

- Establish a target to reduce Sedona's community greenhouse gas (GHG) emissions.
- Identify the specific steps that our community will need to take to reduce GHG emissions.
- Identify actions to prepare for and adapt to climate changes.
- Focus on implementation, return on investment, and synergy with other City efforts.
- Build partnerships with community organizations and institutions.

Timeline: City Council approved a decision package for \$40,000 for the development of a community-wide CAP in the FY2020 budget.

August – December 2019: Collected data for community-wide greenhouse gas inventory, which created a baseline and identified high impact sectors.

December 2019: Contracted with Cascadia Consulting to assist with CAP development.

January – March 2020: The Climate Assessment for the Southwest developed a regional climate profile for the Verde Valley.

March 2020: Convened workshop of City staff to identify vulnerabilities and potential actions.

April 2020: Convened an Advisory Committee to assist in the development of the CAP.

May 2020: Launched a community-wide survey to assess community support for climate action.

June 2020: Hosted three virtual Open Houses. Convened Advisory Committee.

August 2020: Launched a second CAP survey focused on strategies and actions.

September 2020: Conducted two virtual open houses for community members to discuss specific actions and strategies in the CAP. Presented update on process to City Council. Convened Advisory Committee.

October – December 2020: Integrated community and stakeholder input into development of initial action list.

January 2021: Presented update on initial action list to City Council and identified a community emissions reduction target.

March - April 2021: Launched a community engagement platform to collect public comment on the draft Plan. Integrated public comment into the draft Plan.

May 2021: Convene Advisory Committee to finalize the implementation matrix. Work with Cascadia Consulting to finalize Plan graphics.

June 2021: Finalize Climate Action Plan.

Key Considerations: There is a strong consensus that residents are concerned about climate change and that they want the City to take action to reduce emissions and improve community resiliency. In the Climate Action Plan survey conducted in June 2020, 68.9% of respondents said that they are quite or very worried about climate change; 68.4% of respondents said that it is quite or very important that the City take action on climate change and 72.4% of respondents felt that the City should be very invested or moderately invested in taking climate action. The full survey results can be found at sedonaaz.gov/climate.

Many external factors affect the process of achieving carbon neutrality including utility-scale efforts to develop a clean grid mix, statewide transportation electrification policies, and federal policies related to emissions standards and transportation electrification.

Community Plan Consistent: Yes - No - Not Applicable

According to the Community Plan, "Protection of the environment is the community's top priority, and sustainability is a fundamental goal of the Plan." The Environment Chapter of the Community Plan Section 5 cites goals including preserving and protecting the natural environment and developing an action plan that focuses on reducing harmful emissions and improving energy conservation. The Environment Chapter also focuses on expanding renewable energy and reducing the use of single-occupancy vehicles.

Board/Commission Recommendation: Applicable - Not Applicable

Alternative(s):

MOTION

I move to: for discussion and possible direction only.



SEDONA CLIMATE ACTION PLAN

DRAFT

CITY OF SEDONA | MAY 2021



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Acronyms

BAU	Business as usual is a scenario that assumes that current activities do not significantly change relative to current normal conditions and circumstances.
EVs	Electric vehicles are vehicles that derive all or part of their power from electricity.
GHG	Greenhouse gas, heat-trapping gases that warm the atmosphere such as carbon dioxide, methane, and nitrous oxide.
KPI	Key performance indicators is a value used to monitor and measure the trends and effectiveness of overall climate action performance.
MTCO_{2e}	Metric tons of carbon dioxide equivalent is a common unit of measurement for greenhouse gases that includes consideration of major greenhouse gases, including carbon dioxide (CO ₂), methane (CH ₄), and nitrous oxide (N ₂ O).
SOV	Single-occupancy vehicles are vehicles designed to accommodate one or more people but are being used by only one person (the driver).
VMT	Vehicle miles traveled is a metric used in transportation planning to measure the cumulative miles traveled by all vehicles in a geographic region over a given time period.

Why a Climate Action Plan?

Sedona's striking landscape, mild climate, diverse ecosystems, and small-town charm provides a welcoming home to residents, businesses, and nature lovers from across the globe. Nestled between stunning red rocks and the mouth of Oak Creek, Sedona is known for its scenery, recreation, and high-quality of life.

The future of Sedona, however, is at risk. The people and businesses of Sedona are already experiencing the threats of climate change firsthand. Recent events such as the 2016 monsoon flash flood and the 2020 wildfire season – which burned more acres of land than 2018 and 2019 combined – exemplify the risks the city faces from a changing climate. As temperatures continue to rise globally, climate change is expected to introduce even more disruption to our daily lives and to Sedona's natural landscapes and ecosystems. As a small, isolated community surrounded by National Forest land and working landscapes, it is imperative that the Sedona community build resilience to these threats and do its part to reduce climate-changing greenhouse gas emissions.

Although our community faces a momentous challenge, we also have the opportunity to facilitate clean, efficient, and effective solutions that reduce our exposure to the impacts of climate change. At the same time, these solutions can also bolster our local economy, protect the health of our neighbors, and ensure that Sedona continues to be a beautiful place to live, work, and play. Through proper action, future generations of residents and visitors will be able to enjoy Sedona's natural beauty.

The City of Sedona is committed to protecting the environment, public health, and the safety of its residents. As such, access to clean air, clean water, and a livable environment are of top priority. The Sedona Climate Action Plan (CAP) presents a coordinated strategy to holistically respond to our changing climate through a two-pronged approach. The CAP prepares Sedona for the impacts of climate change—such as wildfires, droughts, and flooding—while also reducing the community's emissions of damaging climate pollutants. The CAP lays out a plan of action that is informed by Verde Valley climate science data, an inventory of Sedona's greenhouse gas emissions sources, and input from local businesses and residents. These actions have been carefully tailored and evaluated to bring tangible and measurable benefits to the Sedona community and to ensure a safe, healthy, and prosperous future for all.

Our Vision & Goals

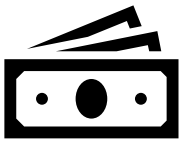

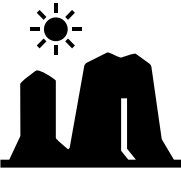

Sedona is a community that nurtures connections between people, encourages healthy and active lifestyles, and supports a diverse and prosperous economy, with priority given to the protection of the environment.

To realize this vision, this plan sets a goal to cut Sedona's greenhouse gas emissions by 50% by 2030. Reaching this target—which aligns with the international scientific recommendation for preventing the worst climate change impacts—will require involvement and commitment from the entire city. Local government, residents, businesses, and community leaders must work together to bring forth innovative and impactful solutions that work for Sedona.

BENEFITS OF CLIMATE ACTION

Taking action on climate change does not have to be a sacrifice. While lowering thermostats, taking shorter showers, and riding your bike are all helpful in lowering our collective environmental footprint, this plan also emphasizes new technologies and innovative approaches that can enhance our quality of life.

Climate actions can:

	Benefit	Example Action	Did you know?
	<p>Boost our local economy.</p> <p>Investments in the construction, clean technology, green infrastructure, and natural resource management sectors provide businesses with opportunities for growth and create skilled, well-paying ‘green’ jobs for the community.</p>	<p>Improved bike and pedestrian access can generate more visibility for local shops and outlets—enhancing the viability and financial sustainability of small businesses.</p>	<p>Replacing on-street parking spaces with bike lanes in Seattle, resulted in up to a 400% increase in sales at nearby stores and shops.</p>
	<p>Make us healthier.</p> <p>Actions to mitigate climate change can benefit post-pandemic life by prioritizing health and well-being, cleaning our air, improving healthy food access, and increasing safety.</p>	<p>Transitioning to electric vehicles reduces exposure and health impacts from local air pollutants.</p>	<p>A San Francisco study found that increasing biking and walking from 4 to 24 minutes per day would reduce heart disease and diabetes risk by 14%.</p>
	<p>Keep our skies clear and landscapes beautiful.</p> <p>Climate actions can enhance parks, green spaces, and public amenities while providing other services like carbon sequestration, shade, and wildlife habitat.</p>	<p>Prioritizing native plants in parks and other public properties can sequester carbon, minimize water use, and enhance habitat for native species.</p>	<p>By replacing lawns with native plants, one neighborhood in Colorado saved 15 million gallons of water annually, reducing utility costs in the process.</p>
	<p>Save us money.</p> <p>Many climate actions reduce ongoing maintenance and utility costs, providing long-term cost savings and a positive return on investment.</p>	<p>Switching to efficient equipment like electric heat pumps reduce energy use and costs.</p>	<p>In Arizona, driving an electric vehicle can save you \$600 per year in operating costs.</p>

How it came together

Crafting a Climate Action Plan that truly reflects Sedona’s unique community and priorities required help and input from across the community. This plan reflects the culmination of a year-long process that included technical assessments, consultation with local experts and key stakeholders, and engagement and discussion with the broader community.

<p>Technical Advisory Committee A group of 13 volunteer stakeholders convened at multiple points in the process to identify, refine, and evaluate strategies for the plan.</p>	<p>Public Workshops The City hosted 5 public workshops to present on the CAP and engage in discussions around priorities, concerns, and ideas.</p>	<p>Public Surveys The City hosted 3 online public surveys as a venue for hearing the community’s thoughts, gathering feedback, and improving our approaches.</p>	<p>Internal City Engagement The City hosted 1 staff workshop and conducted ongoing engagement with City staff across all City departments.</p>
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What we heard

We heard you! Some of the themes we heard from our engagement activities are summarized below.

<p>Transportation Improvements There is a desire for transportation related actions—including bike/pedestrian infrastructure, better transit, low-carbon transportation, and reduced congestion.</p>	<p>Heat & Wildfire Risk Many residents are concerned about increased warming and fire risk in Sedona, highlighting public health and safety concerns.</p>	<p>Renewable Energy There is support for renewable energy actions to both reduce climate pollution and build a more resilient power grid.</p>	<p>Waste Management Locals want more community education and outreach related to waste management, and desire expanded recycling and composting services throughout the city.</p>
<p>Water Resources & Flooding Some residents support actions that protect personal and recreational water resources—and concern about future water quality and flooding.</p>	<p>Tourism & Eco-Tourism There is support for actions that address tourism impacts and tourism-related vehicle emissions.</p>	<p>City Leadership Constituents want to see the City lead by example with a green fleet and visible renewable energy projects.</p>	<p>Cost of Living There is concern about how CAP actions could increase the cost of living in Sedona and there is a desire for rebates to make the transition more affordable.</p>

Climate Change in Sedona

Climate change is a global problem, but the impacts are felt locally. Sedona is seeing increased flooding, more frequent and severe wildfires and smoke, and rising temperatures that strain water resources. As global greenhouse gas emissions continue to rise, these changes will increase over time and continue to threaten our safety, natural resources, and economy.

A Two-Pronged Approach

Responding to climate is like staying healthy as we age.

- **Climate mitigation** is preventative and the equivalent of regularly visiting the doctor, eating healthily, and exercising regularly. Just as those actions help us stay healthy and prevent injury, climate mitigation reduces GHG emissions to limit additional warming.
- **Climate adaptation** is responsive and the equivalent of getting surgery or taking medicine for an illness. Just as those actions help us deal with current medical conditions, climate adaptation prepares for and builds resilience to climate change impacts.

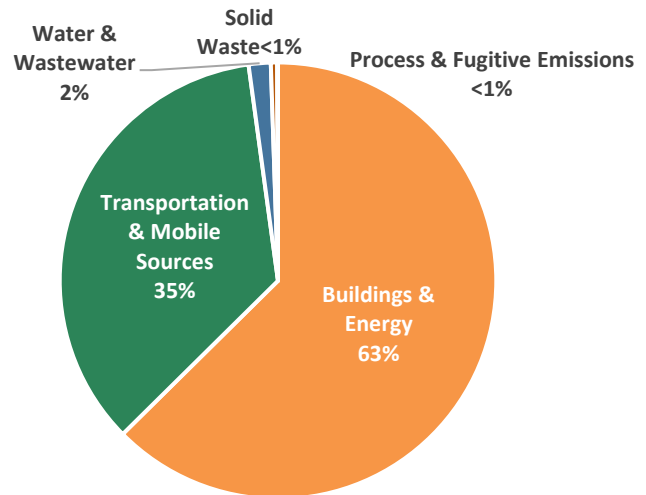
Together, they help us stay healthy.

Sedona and the Verde Valley are already experiencing climate changes, and many of these changes are projected to worsen in the future. Key changes include:		
Hotter temperatures. Warming brings more summer heat waves, wildfires, and drought.	More extreme heat. On average, the Verde Valley experiences 8 days a year above 100°F. By 2100, that number may rise to 75 days per year.	Larger & faster spreading fires. Future wildfire frequency is anticipated to increase 25% in the Southwest – leading to increased health impacts from smoke and poor air quality.
Heavier & more frequent storms. Extreme weather can lead to more flooding and high wind events.	Increased health impacts. Poor air quality, extreme heat, and dust storms can create serious health problems.	Changing streamflows. Rising summer temperatures and increase seasonal demands will strain water availability.
Agricultural impacts. Excessive heat, reduced water resources, and wildfires may negatively affect the most common crops grown in the Verde Valley.	Reduced tourism. More wildfire, smoke, or extreme heat may temporarily reduce recreation and tourism in summer, spring, and fall.	Increased risk vector-borne diseases. Warmer temperatures will create a more welcoming environment for vectors like mosquitos that carry West Nile Virus.

Greenhouse Gas Emissions

Emissions Sources

In 2018, we estimate that Sedona’s residents, businesses, employees, and visitors produced over **210,000 metric tons of carbon dioxide equivalent (MTCO₂e)**. Energy sources used to power and heat our buildings (largely electricity and natural gas) make up more than half (60%) of the emissions. Residential energy use alone comprised over one-third of all emissions—nearly equal to all emissions produced from the transportation sector. Energy used to power and move our vehicles accounts for the bulk of the remaining emissions in the city (35%).



What about consumption-based emissions?

The emissions estimate above reflects many of the primary and direct sources of GHG emissions in the community. However, it does not account for GHG emissions that we indirectly produce through the purchase of goods, services, or food produced in other areas and transported to Sedona. While these sources are much more difficult to estimate at the local level, the City recognizes the significant and important role these “consumption-based” emissions play in our overall carbon footprint. This plan includes strategies and actions for lowering emissions from our consumption, including implementation of a municipal sustainable procurement policy.

What about tourism-related emissions?

While our inventory captures the emission-related impacts of tourists once they arrive in Sedona, it does not address emissions associated with travel to Sedona. A local analysis estimates that tourism travel to Sedona accounts for four times the emissions produced within Sedona’s boundaries.

Reaching Our Goals

To ensure that our community does its part to reduce carbon pollution and curb rising temperatures, the City of Sedona has set a target of reducing community emissions **50% below 2018 levels by 2030**. This target is science-based and consistent with the goals of the federal government and cities across the country. This plan identifies strategies and actions that set us on a path toward reaching this target.




We Cannot Act Alone: Broader Policy and Technology Context



Addressing the enormity of the climate challenge will require action at all levels of government. Sedona sits within the context of **broader regional, state, and federal policy** that influence our community's activities and GHG emissions. While many climate actions are within the purview of local government—such as those related to land use, local transportation systems, and building construction—others must be addressed at the state or federal level. Federal fuel economy standards and state renewable energy portfolio standards are examples of broader policies that affect local activities and emissions. Sedona must prioritize actions within its purview while also advocating for and responding to relevant policy beyond its borders.

In addition to a changing policy landscape, Sedona's future emissions will also be subject to **changing technologies and innovations**. As low-carbon technologies improve, emissions may be reduced in ways that are currently unforeseeable, allowing us to reach more ambitious climate goals. This plan aims to leverage both existing and emerging technologies to achieve deep, long-lasting climate and societal benefits.

How We Get There

This plan is organized into the following sectors—each of which presents our strategies and actions for reducing climate pollution and fostering climate resilience in Sedona.

 <p><u>Buildings & Energy</u> Ensure long-term access to clean energy while reducing the fiscal and environmental impacts of consumption</p>	 <p><u>Transportation & Land Use</u> Reduce transportation emissions and enhance community mobility</p>	 <p><u>Materials & Consumption</u> Increase the diversion of waste from the landfill and reduce GHG emissions associated with material consumption</p>
<p>Strategies:</p> <ul style="list-style-type: none"> ▶ Reduce building energy demand ▶ Shift to electric heating and power in buildings ▶ Maximize renewable energy generation and storage capacity 	<p>Strategies:</p> <ul style="list-style-type: none"> ▶ Develop and maintain a safe, convenient, and effective system for walking, biking, and other active forms of transportation ▶ Improve and increase transit ridership ▶ Increase fuel efficiency, clean fuel use, and shared-use mobility services to reduce emissions and passenger vehicle miles traveled 	<p>Strategies:</p> <ul style="list-style-type: none"> ▶ Enhance sustainable production and consumption to minimize greenhouse gas emissions ▶ Increase waste diversion

 <p><u>Water & Natural Systems</u> Conserve community water resources by maximizing water efficiency technologies while ensuring a secure and sustainable water supply in the face of climate change impacts. Manage, restore, and foster resilient ecosystems, landscapes, and resources</p>	 <p><u>Climate Resilience & Cross-Cutting Solutions</u> Ensure Sedona and its residents, businesses, visitors, facilities, and services are prepared for climate impacts, especially those at the highest risk</p>
<p>Strategies:</p> <ul style="list-style-type: none"> ▶ Expand and improve green spaces, including increased ecosystem quality, connectivity, and accessibility ▶ Expand water reuse and improve water Infrastructure 	<p>Strategies:</p> <ul style="list-style-type: none"> ▶ Institutionalize the consideration of climate change across City activities and decision-making ▶ Increase community capacity and awareness of climate change risks and impacts ▶ Adequately fund services for disaster preparedness ▶ Identify and target support for at-risk populations

Buildings and Energy

Goal: Ensure long-term access to clean energy while reducing the fiscal and environmental impacts of consumption

Summary

Greenhouse gases are released during the combustion of fossil fuels—such as coal, oil, and natural gas—to heat and power buildings. The generation, transmission, and distribution of electricity and natural gas is the single largest contributor to Sedona’s carbon footprint. State and local action will be needed to transition to cleaner energy sources.

The strategies and actions included in this section will focus on an equitable transition to clean, reliable, and affordable energy. Shifting our building energy sources from fossil fuels to clean electricity sources like wind and solar will be critical in meeting our long-term goals. Making this shift will require that we continue to reduce building energy demand, introduce incentives for building electrification, and expand renewable energy and battery storage infrastructure.

Strategies and Actions

Strategy: Reduce building energy demand

Community building incentives. Educate and incentivize businesses and residents to reduce energy and water use. Provide resources to help households and businesses conduct energy retrofits and upgrades.

Energy triggers for large buildings. Incentivize large commercial and multifamily buildings to perform energy upgrades achieving deep energy savings by a certain date or at certain trigger events (e.g. time of sale, change of occupancy).

Strategy: Shift to electric heating and power in buildings

Electrical panels. Incentivize electrical panel updates (e.g. funding for subsidizing hardware or local electricians to provide reduced cost installations).

Greenhouse gas emissions (2018)

- ▶ 131,828 MTCO₂e
- ▶ 62% of total emissions

Key performance indicators

- ▶ GHG emissions (MTCO₂e)
- ▶ Electricity consumption (kWh)
- ▶ Natural gas consumption (Therms)

Co-benefits:

- ▶ **Health:** When done carefully, transitioning to electric sources reduces indoor air pollution and health risks.
- ▶ **Workforce development:** Transitioning to electric power creates new jobs and training opportunities for contractors and local renewable energy industries.
- ▶ **Cost savings:** Reducing energy consumption saves on energy bills. Solar is now less expensive than other energy sources such as natural gas.

What can you do?

- ▶ Visit Sedonaaz.gov/solar to learn about the process for installing solar.
- ▶ Install **energy-efficient lights and appliances**, such as those with the ENERGY STAR® label.
- ▶ **Participate in APS’s Green Choice program**, where you can purchase renewable energy directly from your utility.

Sedona highlights

- ▶ Sedona was designated as a SolSmart Bronze community for its efforts to make it faster and easier to switch to solar energy.
- ▶ In 2020, the City of Sedona installed 150 kW solar carports at City Hall through the APS Solar Communities Program.
- ▶ In 2021, the City participated in the Northern Arizona Solar Co-op, which allowed 41 Sedona residents to install solar at a discounted price.

Home electrification. Work with Arizona Public Service (APS) to expand programs that incentivize residents to electrify water and space heating.

Contractor training. Develop a contractor training and rebate program for solar water heaters, electric heat-pumps, and converting gas appliances to electric.

New development. Incentivize building electrification in new development and remodels.

Strategy: Maximize renewable energy generation and storage capacity

Clean energy financing. Explore funding and capital opportunities – such as 0% interest loans – for frontline community organizations and individuals working to own clean energy assets.

Renewable energy storage. Utilize available state, federal, and private grant funds to promote the expansion of renewable energy storage technologies.

Solar incentives. Ensure rebates or other funding support opportunities – such as solar grants for neighborhoods and cooperative buying – are available for installation of solar on existing buildings.

Community choice solar. Advocate for state-level legislation that enables community choice aggregation for community solar.

Solar permitting. Waive solar project permitting fees.

Solar requirements for new construction. Require installation of solar panels on new construction over a certain size threshold.

Transportation and Land Use

Goal: Reduce transportation emissions and enhance community mobility

Summary

The second largest source of greenhouse gas emissions in Sedona is from the combustion of fossil fuels in vehicles and equipment. Within the transportation sector, the use of gasoline and diesel passenger vehicles by residents and visitors contribute the most to transportation emissions. Strategies for these emissions focus on transitioning to electric and other low-carbon fuels and transitioning to alternative modes of travel such as carpooling, public transit, biking, and walking.

Strategies and Actions

Strategy: Develop and maintain a safe, convenient, and effective system for walking, bicyclists, and other active forms of transportation

Bike/pedestrian infrastructure. Accelerate the development of the Sedona Trails and Pathways system so that residents and visitors have a safe and healthy alternative to driving. Implement the GO! Sedona Pathways Plan.

Mixed-use development. Prioritize and incentivize transit-oriented and mixed-use development to encourage a walkable community.

Strategy: Improve and increase transit ridership

Public transit investments. Develop a comprehensive, city-wide transit and shuttle system that serves residents, visitors, and employees.

Greenhouse gas emissions (2018)

- ▶ 74,222 MTCO₂e
- ▶ 35% of total emissions

Key performance indicators

- ▶ GHG emissions (MTCO₂e)
- ▶ Vehicle miles traveled (VMT)
- ▶ Vehicle fuel economy (mpg)
- ▶ Number of electric vehicles (#)

Co-benefits:

- ▶ **Equity:** Expanding affordable transportation choices can increase mobility and access for low-income households.
- ▶ **Health:** Actions that encourage active transportation can also reduce costs associated with public health services and improve long-term mental health.
- ▶ **Cost savings:** Walking, biking, taking public transit, or carpooling just one day a week for a year can save you over \$500 in driving costs.

What can you do?

- ▶ If you drive to work, consider **biking or taking the bus** one or more days per week, or telecommuting if possible.
- ▶ Invite friends and colleagues to split commute costs and reduce your carbon footprint **by carpooling**.
- ▶ When looking for your next car purchase, **try electric!** You will save money in the long-term, and significantly reduce your carbon footprint.

Sedona highlights

- ▶ The City installed 6 public EV charging spots and purchased its first all-electric fleet vehicle.

Strategy: Increase fuel efficiency, clean fuel use, and shared-use mobility services to reduce emissions and passenger vehicle miles traveled

EV infrastructure plan. Develop and implement an EV infrastructure plan to promote and expand the construction of charging infrastructure and electric-powered mobility.

Electric vehicle advocacy. Advocate for the expansion of existing incentives and introduce new local incentives to accelerate the adoption of electric vehicles.

City fleet electrification. Develop a municipal green fleet policy to right size the City fleet, maximize efficiency, and accelerate the transition to electric vehicles.

EV-ready code. Require EV-ready parking spaces in new commercial and multifamily developments.

Materials and Consumption

Goal: Increase the diversion of waste from the landfill and reduce GHG emissions associated with material consumption

Summary

While the transport and disposal of solid waste only contribute a small portion of Sedona’s carbon footprint, the emissions associated with the manufacture, transport, and use of those disposed materials can be significant. Every phase of a product’s life cycle—from origin, to production and manufacturing, to transportation and distribution, and ultimately to disposal—releases climate pollution.

Strategies to reduce emissions from the consumption of goods and services focus on diverting waste from the landfill and encouraging sustainable, climate-friendly consumption.

Strategies and Actions

Strategy: Enhance sustainable production and consumption to minimize greenhouse gas emissions

Municipal Sustainable Procurement Policy. Ensure implementation of a sustainable procurement policy. Prioritize the purchasing decisions that yield the highest emissions reduction impact within each department. Explore climate-friendly food catering, alternative vehicle and fuel purchases, and low-carbon concrete.

Food waste education. Launch an outreach campaign that educates the community about preventing wasted food and sustainable consumption.

Strategy: Increase waste diversion

Food recovery program. Establish a robust food recovery program to support community members and protect against disruptions, including working with food rescue organizations, schools, and commercial kitchens.

<p>Greenhouse gas emissions (2018)</p> <ul style="list-style-type: none"> ▶ 127 MTCO₂e ▶ <1% of total emissions
<p>Key performance indicators</p> <ul style="list-style-type: none"> ▶ GHG emissions (MTCO₂e) ▶ Waste generation (tons) ▶ Diversion rate (%)
<p>Co-benefits:</p> <ul style="list-style-type: none"> ▶ Green economy: Expanding composting services supports job growth and the local economy. ▶ Equity: Avoiding waste and increasing efforts to redistribute key resources (e.g., food) can help those in need. ▶ Ecosystem health: A city-wide composting program can improve soil health and sequester carbon.
<p>What can you do?</p> <ul style="list-style-type: none"> ▶ Eat more climate-friendly foods, such as fruits, grains, and vegetables. ▶ Help avoid significant food waste by planning meals, right sizing your grocery and restaurant purchases, and bringing reusable containers for your leftovers when eating out. ▶ Buy less and buy smarter. Whether it’s clothing, electronics, or household goods, prioritize items that are high-quality, repairable, and long-lasting.
<p>Sedona highlights</p> <ul style="list-style-type: none"> ▶ In 2019, the City’s first Fix-it Clinic repaired over 200 lbs of household items – fixing more than 80% of items brought in.

Community organics diversion. Implement a city-wide community organics waste program to compost food waste and yard waste.

Refrigerant disposal. Identify strategies to improve recovery and reuse of refrigerant chemicals.

Water and Natural Systems

Goal: Conserve community water resources by maximizing water efficiency technologies while ensuring a secure and sustainable water supply in the face of climate change impacts. Manage, restore, and foster resilient ecosystems, landscapes, and resources

Summary

Climate change paired with increased tourism threaten the ability of Sedona’s natural ecosystems to provide continued water, flooding protection, wildfire resistance, and carbon sequestration services. Although natural systems are not formally captured in our greenhouse gas inventory, proper management of these systems can capture carbon while also enriching recreational opportunities and improving habitat health. Sustainable land management practices like composting, climate-adaptive landscaping, and intentional forest management have been shown to increase the rate of carbon stored in plants and soil.

Along with preserving natural systems, actions in this section include tactics for expanding water reuse and conservation. Although water management only contributes a small portion of our carbon footprint, actions taken to minimize water use, optimize treatment, and improve overall water quality will ensure continued provision of this important resource for future generations.

Strategies and Actions

Strategy: Expand and improve green spaces, including increased ecosystem quality, connectivity, and accessibility

Native planting in municipal projects. Prioritize native plantings with deep roots on public properties to maximize carbon sequestration and resilience. This includes the grounds of municipal buildings, parks, and schools.

Greenhouse gas emissions (2018)

- ▶ 3,435 MTCO₂e
- ▶ 2% of total emissions

Key performance indicators

- ▶ GHG emissions (MTCO₂e)
- ▶ Water consumption (gallons)
- ▶ Acres conserved (acres)

Co-benefits:

- ▶ **Cost-savings:** Native plants are already adapted to local conditions, requiring less water, time, and money.
- ▶ **Health:** Healthy habitats and green spaces support people’s physical, mental, and social wellbeing.
- ▶ **Resilience:** Green infrastructure and restoration can provide protection from climate impacts such as flooding and wildfires.

What Can You Do?

- ▶ **Participate in local clean ups.** Keep Sedona Beautiful, Oak Creek Watershed Council, and the Forest Service all offer clean up events.
- ▶ **Create a native and drought-tolerant backyard.** Sedona offers annual Native Plant Workshops to help learn about how to add native plants into your landscape.
- ▶ **Try switching to a low-flow shower head.** They are easy to install and can save a family 2,700 gallons of water per year.

Sedona Highlights

- ▶ In 2019, the City transitioned to organic herbicides in maintenance operations.
- ▶ The City of Sedona participates on the Sustaining Flows Council to partner with the Yavapai-Apache Nation and other Verde Valley stakeholders to ensure long-term water sustainability.

Prepare recreation services for climate change. Maintain cooperation with Arizona State Parks and U.S. Forest Service recreation programs to plan for and respond to increased visitation and use of recreational services and open spaces.

Green infrastructure codes for commercial buildings. Adopt a low impact development and green infrastructure code that applies to new construction projects and the remodeling of commercial buildings.

Climate adaptive landscaping. Require native and climate appropriate plants in the landscaping of public and private projects.

Creek restoration. Expand restoration and maintenance efforts for Oak Creek to accommodate increased rain events.

Forest health. Identify opportunities for the City to support National Forest health improvements. Reduce wildfire risk and protect other ecosystem services such as water quality, wildlife habitat, and soil health.

Low-impact business development. Focus business development efforts on businesses that have lower impacts on natural resources and improve resident quality of life.

Carbon sequestration. Research and develop regional opportunities to improve the natural sequestration of carbon in plants and soils.

Strategy: Expand and improve green spaces, including increased ecosystem quality, connectivity, and accessibility

Water retrofits. Update and advertise incentives and direct install programs that retrofit inefficient water fixtures and support low water landscaping.

Water harvesting ordinance. Adopt a rainwater harvesting ordinance for new development.

Water Resource Management Plan. Create an integrated water resource management plan that ensures a long-term sustainable supply of water when faced with climate-related hazards.

Climate Resilience and Cross-Cutting Solutions

Goal: Ensure Sedona and its residents, businesses, visitors, facilities, and services are prepared for climate impacts, especially those at the highest risk

Summary

Making progress on climate change will require leadership and commitment from city government and the community. In addition to the sector-specific strategies presented in this plan, broader efforts to incorporate climate change considerations across City and community activities will be needed.

To ensure that climate action strategies meet the needs of the community, this section includes actions that integrate climate action throughout Sedona. This includes considering climate change in City processes and ensuring climate-related investments target those in need. These actions support education, capacity building, emissions monitoring, and the reporting of climate actions.

Strategies and Actions

Strategy: Institutionalize the consideration of climate change across City activities and decision-making

Emergency management capacity. Grow capacity to address risks exacerbated by climate change through new training and equipment.

Coordinate with local public health agencies to ensure that information about preparing for extreme weather events is available to the community prior to and during such events.

Sustainable tourism outreach. Engage visitors on climate change initiatives and ensure visitors are aware of climate-related policies or actions. This includes Sedona recycling policies and Sustainable Tourism Plan objectives.

Greenhouse gas emissions (2018)

- ▶ 210,595 MTCO₂e
(Total Sedona GHG emissions)

Key performance indicators

- ▶ Total GHG emissions (MTCO₂e)

Co-benefits:

- ▶ **Economic recovery:** Climate action supports local economic prosperity through strategic investments, new incentives, and expanded employment opportunities.
- ▶ **Enhanced resilience:** Incorporating climate considerations in City projects can avoid the need for costly retrofitting and reduce the risk of the infrastructure becoming prematurely outdated.
- ▶ **Equity:** Collaborative governance can address historical injustices to foster a more inclusive community.

What can you do?

- ▶ **Calculate your greenhouse gases and offset them.** The EPA has a simple GHG calculator. Once you've estimated your footprint, you can buy carbon offsets to reduce your impact.
- ▶ **Host a community discussion group.** Talk with family, friends, and neighbors about climate concerns, priorities, and needs.
- ▶ **Stay informed about recent climate science updates.** For example, learn more about how climate change is impacting the Verde Valley in Sedona's Climate Profile.

Sedona highlights

- ▶ In addition to the CAP, the City finalized its first **Municipal Sustainability Plan**, which outlines clear steps to addressing sustainability and resilience in City operations.

City budget alignment. Evaluate mitigation, resilience, and equity implications of City budget proposals and project development.

Business certification. Expand partnership with the Sustainability Alliance on business sustainability certification efforts.

Development review. Evaluate and prioritize mitigation, resilience, and equity in development review.

City staff training. Invest in training and education for City staff on topics such as green infrastructure and decarbonization of the building and transportation sectors.

Strategy: Increase community capacity and awareness of climate change risks and impacts

Community resources. Hire community-based organizations and businesses whenever possible. Potential resources include stipends for participating in community groups and altering meeting times to increase accessibility. Additionally, offering food, translation, and childcare can allow more community members to engage in climate action and municipal processes.

Collaborative governance. Build the capacity for collaboration and break down existing barriers to equitable participation and engagement in Climate Action Plan implementation.

Strategy: Adequately fund services for disaster preparedness

Wildland Urban Interface code. Adopt the 2018 Wildland Urban Interface (WUI) building code to mitigate the risks from wildfire to life and property.

Wildfire/flood emergency preparedness. Adopt, practice, and regularly evaluate formal recovery plans for wildfire and flood emergency preparedness, response, and evacuation.

Resilience hubs. Design and invest in community Resilience Hubs. Resilience Hubs are community-serving facilities that have been enhanced to support residents, coordinate communication, distribute resources, and reduce carbon pollution while enhancing quality of life.

FireWise volunteer program. Develop volunteer program to assist homeowners with FireWise implementation on their properties.

Wildfire prevention partnerships. Partner with federal, state, regional, and local agencies to expand existing wildfire prevention outreach efforts.

Community cooling centers. Expand community facilities for cooling. Increase park hours and access, ensure consistency in operations and communication to the public.

Strategy: Identify and target support for at-risk populations

Climate risk outreach. Utilize city-wide marketing campaigns to communicate climate impacts and risk, especially towards frontline communities.

Reduce heat-island effects. Explore opportunities to reduce heat island effects in the city by requiring light-colored paving material, parking lot shade trees, and outdoor shading infrastructure.

Implementation

A plan is only as good as its implementation. Achieving our climate goals will require dedication, time, and resources from city government and the broader Sedona community. Successful plan implementation will require ongoing creativity and adaptivity. It is essential that climate actions respond to changes in technologies, state and federal policies, community priorities, budgets, grants, and other funding opportunities. We must be strategic in how we sequence, execute, and fund climate action to meet our targets in a manner that brings the whole community along and maintains our vision for a sustainable, prosperous future.

Phasing

Near-term	Mid-term	Long-term
Near-term implementation will focus on establishing a foundation for meeting both near-term and long-term goals. This initial phase will involve key policy priorities, education and outreach campaigns, and voluntary incentive measures that address top emission sources and climate risks.	Mid-term solutions address measures needed to shorten the distance to meeting our reduction target. This includes broader regulatory requirements, expanded infrastructure for long-term energy transitions, and actions focused on lower priority emission sources and climate risks.	Long-term strategies are more comprehensive solutions that require long-term investment, careful planning, and broad coordination.

Funding

The City will utilize existing City resources, grants, and other external funding sources to the extent possible in implementing this plan. However, we acknowledge that full implementation of the plan will likely require new and creative funding sources. Over the long term, it will be important to identify funds that are guaranteed rather than dependent on uncertain potential funding sources. Potential funding sources include the following:

- City general fund
- Bonds
- Taxes, fees, and utility revenues
- Federal and state grants
- Private grants/investment and public-private partnerships
- Revolving loan funds
- Local carbon offset funds

Many climate expenditures will not only reduce greenhouse gas emissions, but will also bring valuable environmental, social, and economic benefits that can provide a positive net return on investment.

Equity

Considering equity during plan implementation goes beyond merely distributing resources equally. Ensuring that participation in climate action is accessible to the entire Sedona community will require considering equity in policy, outreach, and infrastructure development. City staff will work to involve diverse community voices in all stages of new initiatives and will track progress toward advancing equity.

Accountability & Collaboration

Successful implementation will mean that all parties—both within and outside City government—have a clear role in addressing climate change through their work. It will also require careful and ongoing progress tracking, reporting, and adaptive management. Key accountability and collaboration approaches for implementation of the Sedona CAP are summarized below.

<p>Progress Reporting</p> <p>Plan progress reports will be developed and reviewed annually. GHG inventories will be updated every year. Investing in data collection and consistent reporting is a key aspect of implementation and increases transparency.</p>	<p>Implementation Team</p> <p>Achievement of our climate goals will require that staff throughout the City of Sedona, community members, business leaders, students, and institutions all take action. City staff will work to support community members in taking climate action and involve residents in implementation decisions.</p>	<p>Partnerships</p> <p>In addition to existing partnerships with community organizations, City staff will work to build partnerships with frontline communities, grow capacity for climate leadership across the community, and involve diverse community voices from the start in all programs.</p>
<p>Public Participation</p> <p>The City will continue to engage the public through social media, news articles, monthly newsletters, and community meetings.</p>	<p>Lead by Example</p> <p>The success of this Plan is contingent on the Sedona City Council continuing to demonstrate leadership on climate change. The Sedona City Council will have the responsibility of oversight for the plan. They will receive annual updates on CAP progress and make policy decisions, budgetary appropriations, and workplan approvals that will facilitate implementation.</p>	<p>Plan Updates</p> <p>The City will work with community partners to update the Plan every three years. This three-year update schedule will ensure that the plan can respond to changing circumstances, market factors, implementation challenges, and successes. This process will include updating Plan goals, adjusting indicators, and reprioritizing actions based on local circumstances and new technology.</p>



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