Item 3 - Draft Climate Emergency Response Plan

The Climate Emergency Mobilization Task Force (CEMTF) was created, in part, to "oversee the development and implementation of a climate emergency response plan" (CERP). Over the past two years, the CEMTF has been gathering feedback from the community and developing recommendations to the Board of Supervisors on actions that the County can take to mitigate the emission of greenhouse gasses and adapt to a changing climate. These recommendations are collected here in the form of a draft of the CERP to be voted upon by the CEMTF.

If approved by the CEMTF in the August 2024 meeting, this document will become the first, but not the last, draft of the CERP. The CEMTF views the CERP as a living document, one that is edited, complemented, and updated based on changing circumstances and the most up-to-date scientific consensus. The intent of bringing the CERP to a vote is to document the progress made so far, and to serve as a springboard for the CEMTF as it moves into its third year.

Whether this draft CERP is approved or not, several paths forward exist for the CEMTF:

- First is that the CEMTF heard from almost a dozen community organizations in the July CEMTF meeting, and each of these organizations brought forth novel and thoughtful recommendations. In future meetings, the CEMTF can consider whether to approve these recommendations to become part of the CERP.
- Second, the CERP can be adjusted based on the recently published 2024 Climate Action Plan (CAP). The CERP was written to be reciprocal to the previous version of the CAP; where the CAP left off, the CERP picks up and forges forward. Because the 2024 CAP contains changes from the previous version of the CAP, the CEMTF's recommendations - and thus the CERP - can be updated to reflect these changes.
- Finally, the draft CERP being considered in the August meeting remains a draft. Improvements can be made to all aspects of the CERP, additional details can be added into the body or technical appendices, and the messages can be tightened in the hope of convincing key decision-makers, the foremost of which are the County Board of Supervisors.

Despite these open paths forward, the CERP Drafting Technical Advisory Panel believes there is merit in approving the draft CERP in August. It will serve as a signpost for those wishing to understand the CEMTF's progress. It can also be used to communicate to the Board of Supervisors and other interested parties as to where the CEMTF recommends measures that go beyond the County's CAP.

The CERP Drafting TAP looks forward to hearing feedback from our fellow CEMTF colleagues and from the general public.

Best regards, Kevin Head Chair, Climate Emergency Mobilization Task Force

Part 1 - Executive Summary

In April 2016 world leaders recognized the urgent need to combat climate change by signing the Paris Agreement, agreeing to keep global warming "well below 2C above pre-industrial levels" and to "pursue efforts to limit the temperature increase to 1.5C". The United Nations November 2019 Emissions Gap Report finds that countries have collectively failed to stop the growth in emissions, meaning that deeper and faster emissions cuts are now required. In order to stay on track to meeting the Paris Agreement goals, the UN calls for immediate and aggressive action to achieve carbon cuts by 2030. The County of Sacramento recognizes that devastating effects of extreme heat and weather events caused by rising atmospheric greenhouse gasses resulting in climate change contribute to health impacts, utility and transportation service interruptions, economic disruption, property loss, dislocation, housing shortages, food insecurity, gaps in education, impacts on agricultural production, and other adverse effects.

The County's Climate Emergency Declaration¹ identifies the County's efforts to mobilize and contribute towards a safe climate. The resolution committed the county to establishing, within 60 days of approval, a permanent Climate Emergency Mobilization Task Force (CEMTF) composed of climate experts to oversee the development and implementation of a Climate Emergency Response Plan (CERP) utilized by all departments within the County of Sacramento.

The Office of the County Executive has appointed experts from various fields, community leaders, and representatives from local government agencies. The Task Force is composed of technical expertise members encompassing the following topics: air quality, agriculture, built environment, economics, energy, and transit/transportation; and 7 environmental justice members.

The CEMTF is spearheading efforts to establish strategies to reduce greenhouse gas emissions, prepare residents for current and future climate impacts, and build community resilience to climate risks. The CEMTF will work collaboratively to identify priorities, set ambitious targets, and mobilize resources to address the climate crisis head-on. Through innovative initiatives, public engagement, and strategic partnerships, the Sacramento County CEMTF aims to lead the county towards a sustainable, equitable, and resilient future. This summary encapsulates our vision, goals, and actionable strategies aimed at achieving a sustainable and resilient future for the county of Sacramento.

The Yale Center on Climate Change Communications survey of Sacramento County residents found that 80% believe that climate change is happening, 75% are worried climate change will

¹ Resolution of the Board of Supervisors of the County of Sacramento, Declaring a Climate Emergency. <u>https://www.saccounty.gov/news/latest-news/Documents/RES_-_Resolution_Declaring_A_Climate_Emergency.docx%20(1).pdf</u>. Accessed July 31, 2024.

harm future generations, and 51% are worried climate change will harm them personally.² Of Sacramento residents surveyed, 59% think that their local officials should do more to address climate.

While initial investments in mitigations and adaptation measures may seem daunting, the long-term costs of inaction far outweigh them. Delaying action only escalates costs, exacerbating the severity of climate-related disasters and their economic, social, and environmental consequences. By taking bold steps now to reduce greenhouse gas emissions, transition to renewable energy sources, and implement resilience measures, we not only mitigate future damages but also unlock opportunities for innovation, job creations, and sustainable growth.

Vision and Goals

California has long been a national and international leader on energy conservation and environmental stewardship efforts, including the areas of air quality protections, energy efficiency requirements, renewable energy standards, natural resource conservation, and greenhouse gas emission standards for passenger vehicles. The following Assembly Bills set a precedence for our goal to reduce Sacramento County's greenhouse gas emissions and move towards carbon neutrality.

Assembly Bill (AB) 32 (2006) designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gasses. The state board is required to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to ensure that statewide greenhouse gas emissions are reduced to at least 40% below the 1990 level by 2030. The act requires the state board to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions and to update the scoping plan at least once every 5 years.

Assembly Bill (AB) 1279 (2022) AB 1279, also known as the California Climate Crisis Act, the policy of the state both to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, and achieve and maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 levels. The bill would require the state board to work with relevant state agencies to ensure that updates to the scoping plan identify and recommend measures to achieve these policy goals and to identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies in California, as specified.

² Jefferson M., Rivas A, Marlon J., et al. (2024) Climate Change Fact Sheets. <u>https://climatecommunication.yale.edu/visualizations-data/factsheets/</u>. Accessed July 20, 2024.

We recognize the challenges ahead and understand that achieving the targeted greenhouse gas reduction may not be feasible. However, this plan provides a clear roadmap for significant progress and outlines what is necessary to get as close to this goal as possible in closer alignment with the 2022 Scoping Plan. Investing in climate action today is an essential strategy to safeguarding our communities, economies, and ecosystems for generations to come.

Impacts of Climate Change

The impacts of climate change in Sacramento County is multifaceted and requires comprehensive, coordinated responses to mitigate risks and build resilience. Climate change affects various aspects of the region's environment, economy, and public health. Here are some key impacts:

Temperature Increases:

Heatwaves: The frequency and intensity of heatwaves are expected to increase. Increasing the risk of heart-related illnesses and deaths, particularly among vulnerable populations such as the elderly, children, and those with preexisting health conditions.

Wildfires: Higher Temperatures and prolonged dry conditions elevate the risk of wildfires, which can cause property damage, air quality deterioration, and displacement of residents.

Water Resources:

Drought: Prolonged drought periods strain water supplies for agriculture, urban use, and natural ecosystems. This impacts yields, increases water costs, and reduces the availability of water residential use.

Snowpack Decline: Reduced snowpack in the Sierra Nevada mountains, which feeds rivers and reservoirs in Sacramento County, diminishes the natural water storage capacity and affects water availability during the dry summer months.

Agriculture:

Crop Yields: Changes in temperature, precipitation patterns, and increased frquency of extreme weather events can reduce crop yields and affect the types of crops that can be grown. This impacts the agricultural economy, which is significant in the county. Pests and diseases: Warmer temperatures can lead to an increase in agricultural pests and plant diseases, further challenging crop production.

Public Health:

Air quality: Higher temperatures can worsen air quality by increasing the formation of ground-level ozone. Wildfires also contribute to air pollution, which can exacerbate respiratory and cardiovascular diseases.

Vector-borne diseases: Challenges in climate can expand the range of vectors such as mosquitoes, increasing the risk of vector-borne illnesses.

Flooding and Sea Level Rise

Increased flood risk: More intense rainfall events and reduced snowpack can lead to increased risk of flooding, particularly in areas near rivers and streams. Flooding can cause property damage, disrupt transportation, and pose risks to public safety including contaminated waters and infrastructure damage.

Sea Level Rise: While Sacramento County is inland, rising sea levels can affect the Sacramento-San Joaquin Delta, leading to increased risk of levee failure and saltwater intrusion, which can impact freshwater supplies and agriculture.

Ecosystems and Biodiversity

Habitat Loss: Changes in temperature and precipitation can alter habitats, affecting local wildlife and plant species. Some species may migrate to more suitable habitats, while others may face increased risk of extinction.

Wetlands and Waterways: Changes in water availability and quality can impact wetlands and aquatic ecosystems, affecting biodiversity and the services these ecosystems, and the services these ecosystems provide, such as water filtration and flood control.

Economic Impacts

Agricultural Losses: Reduced crop yields, increased costs and scarcity of water, and pest management can impact the agricultural sector

Infrastructure damage: Increased frequency of extreme weather events can damage infrastructure such as roads, bridges, and buildings, leading to higher repair and maintenance costs.

Social and Community Impacts

Displacement: Extreme weather events like wildfire and floods can lead to temporary or permanent displacement of residents, creating social and economic challenges for communities, particularly EJ communities.

Equity Issues: Vulnerable populations, including low-income communities and communities of color may experience disproportionate impacts from climate change due to limited resources and adaptive capacity.

Figure 01: Impacts of the Climate Crisis³





Key Recommendations and Strategies

Greenhouse Gas Reduction Strategies

Part 2 of the CERP contains the recommendations of the CEMTF intended to reduce greenhouse gas (GHG) emissions in the County. The CEMTF approved these strategies because they are scientifically rigorous, cost-effective, and reflective of community input. While the primary goal of these measures is GHG reduction, the CEMTF approved these recommendations with the intention that they have other co-benefits to the County's citizens. These co-benefits include:

- Helping County citizens save money on their utility bills by making their homes more energy efficient
- Improving public health through reducing air pollution and encouraging active transportation
- Enhancing quality of life by keeping our streets shaded and less full of traffic

³ Denver Climate Action 2020 Recommendations,

Report<u>https://denver.prelive.opencities.com/files/assets/public/v/1/climate-action/documents/climate-action/n-task-force/climateactionexecutivesummary.pdf</u>. Accessed July 20, 2024.

The CEMTF acknowledges that, despite these benefits, some of the recommendations may not be widely popular among the County's citizens. When drafting the recommendations, the CEMTF did take public opinion into account by filtering out recommendations that would clearly not be accepted by the public. Indeed, the CEMTF is well aware that achieving meaningful emissions reductions depends on keeping the County's citizens engaged in the transition to a zero-carbon future.

With that understanding in mind, the CEMTF erred on the side of approving a recommendation that may be politically unpopular with a subset of the public, deferring political considerations to the County's elected officials. While the CEMTF views its responsibility to provide expert advice to the Board of Supervisors on scientific and economic considerations, we are not ignorant of popular opinion. That is why we include recommendations on outreach and education strategies to increase awareness of the benefits of the GHG reduction measures. Additionally, we include the rationale behind each of our recommendations so the Board of Supervisors are aware of the "why" behind each recommendation. We are also open to feedback on strategies to make our recommendations more decision-useful.

Part 2 is organized by sector (Energy, Transportation, etc.) with emissions reductions recommendations in black and the rationale for the recommendation in blue. Some sectors are further broken down by issue area which describe more general strategies of emissions reductions. Where possible, the CEMTF cites scientific or economic literature to further bolster the recommendation.

Climate Adaptation Strategies

Part 3 provides recommendations to help the County adapt to a changing climate. While mitigating the effects of climate change by decreasing emissions is the CEMTF's preferred approach, the CEMTF recognizes that the climate is already changing and global mitigation efforts are not proceeding at a pace sufficient to avoid further changes. Accordingly, climate adaptation is an integral part of the CEMTF's recommendations. The climate adaptation strategies that the CEMTF recommends cover the following topics:

- Temperature Management: Develop urban greening projects, improve building insulation, and increase the use of reflective materials.
- Fire Management: Enhance forest management, create defensible spaces, and improve fire response infrastructure.
- Flood Management: Upgrade stormwater systems, restore wetlands, and enforce floodplain regulations.
- Sea Level Rise: Protect coastal areas through managed retreat, build sea walls, and enhance coastal ecosystems.

Existing County Actions

Sacramento County has already achieved significant milestones in its journey toward sustainability. These accomplishments include the implementation of solar energy projects, the expansion of electric vehicle charging infrastructure, and the creation of community gardens. These initiatives provide a strong foundation upon which this plan elaborates on.

Several cities in Sacramento County have effectively taken the first critical step of establishing a Greenhouse Gas emissions inventory. This foundational step enables effective monitoring and assessment of the progress and efficacy of climate actions taken to meet the targets set for 2030 and 2045.



Figure 2: GHG Baselines of Jurisdictions Within Sacramento County⁴

Stakeholder Engagement

The success of this plan hinges on the active participation of all stakeholders, including government agencies, businesses, community organizations, and residents. Special emphasis is placed on involving young people and historically marginalized communities in the planning and implementation process.

The incorporation of Environmental Justice in the CERP underscores our commitment to ensuring that the benefits of climate action are equitably distributed and that vulnerable and marginalized communities are not disproportionately affected by environmental impacts or left behind when funding new technologies. The County of Sacramento's Climate Action Plan has designated specific Environmental Justice (EJ) Communities, recognizing them as priority areas

⁴ Data collected by CEMTF from individual cities and Sacramento County Climate Action Plan (August 2022).

https://planning.saccounty.gov/PlansandProjectsIn-Progress/Documents/Climate%20Action%20Plan/Fina 1%20Climate%20Action%20Plan.pdf. Accessed July 30, 2024

for targeted climate action and support. These communities include North Highlands/Foothill Farms, North Vineyard, South Sacramento, and West Arden-Arcade.

The CEMTF provides a commitment to advance climate justice through integration of key principles including: building greater racial and social equity and inclusion, increasing community engagement and resilience, transparency and accountability, and resource accessibility.

The CEMTF has encouraged community-based and grassroots organizations and inclusive economic development partners to participate and vocalize their needs and insights during monthly meetings to facilitate active participation of marginalized communities. Organizations that have engaged include: SMUD, SacRT, TAPs, County staff/officials, SMAQMD, House Sacramento, Sacramento Area Bicycle Advocates, Iu Mien Community Services, 350 Sacramento, Sacramento Public Bank, Sacramento Climate Coalition, SacAct, CleanStart Sacramento, La Familia.

Financial Implications

The transition to a low-carbon economy requires substantial investment. This plan outlines potential funding sources, including federal and state grants, private investments, and public-private partnerships. Innovative financing mechanisms, such as green bonds and climate impact funds, are also explored.

Monitoring and Reporting

A robust monitoring and reporting framework is essential to track progress and make necessary adjustments. The Sustainability Dashboard will be used to provide real-time data on key metrics, ensuring transparency and accountability.

Part 2 - Greenhouse Gas Reduction Strategies

Part 2.1 - Energy Sector Recommendations

Introduction to Energy Sector Recommendations

Energy-related greenhouse gas emissions comprise 36% of the total emissions of unincorporated Sacramento County (hereafter, the County)⁵. These emissions primarily come from the generation of electricity using fossil fuels and from the combustion of natural gas in homes and businesses in water and space heating. Energy is the foundation of the unincorporated County's economy and having warm air and hot water in our homes and businesses is crucial for public health. While the means to obtaining these comforts is generally achieved by burning greenhouse gas-emitting fuels, cost-effective zero carbon alternatives exist. This section discusses the CEMTF's policy recommendations to reduce or eliminate energy-related emissions in the county.

To achieve a net zero county, the Board of Supervisors should have three primary objectives in relation to energy resources:

- 1) Decarbonize homes and businesses of the unincorporated county by changing out inefficient and gas-powered heating ventilation and air conditioning (HVAC) systems and water heaters with newer more efficient and electric systems;
- 2) Increase the energy efficiency of homes and businesses in the unincorporated county; and;
- 3) Encourage the generation and storage of renewable energy in the unincorporated county.

These three primary objectives can be achieved by the Board of Supervisors approving additions or amendments to the County Code. The first and most important priority is to approve the existing energy-related community GHG reduction measures outlined in the County's Climate Action Plan⁶. The most impactful of these measures is GHG-06, which requires that fossil-fuel appliances be replaced with electric equivalents when these appliances reach the end of their useful lives.

The Board of Supervisors can also help the county's citizens save money on their utility bills by making their homes and businesses more energy efficient by:

• implementing a Home Energy Score program to provide a "miles-per-gallon"-like measure of their home's efficiency

⁵ See page 6 of the 2021 Sacramento County Greenhouse Gas Inventory: <u>https://green.saccounty.net/Documents/2021_GHG_Inventory.pdf</u> ⁶ See 2022 Final Climate Action Plan:

https://planning.saccounty.gov/PlansandProjectsIn-Progress/Documents/Climate%20Action%20Plan/Final%20Climate%20Action%20Plan.pdf

- distributing inexpensive energy efficiency materials,
- decreasing the urban heat island effect, and
- performing and supporting education and outreach about efficiency strategies.

The final pillar is to decarbonize the supply of electricity by supporting the development of renewable energy and allow for it to be stored for when it's needed the most. Paired with SMUD's Clean Energy Vision 2030, strategies like converting county-owned or county-affiliated properties into solar and battery storage-powered resilience centers, the county can run on 100% carbon-free electricity.

We recommend that the Board of Supervisors increase the impact, cost-effectiveness, and timeliness of these primary objectives by creating a robust workforce development program, increasing permit compliance rates, and partnering with the Sacramento Municipal Utility District (SMUD) to amplify their efforts. The vision of these supportive policies is to have well-trained contractors perform heat pump HVAC and water heater installations on behalf of energy-savvy customers and that they can obtain permits for this work through a smooth permit process.

We acknowledge that the county cannot achieve complete decarbonization on its own, so it should develop a sensible platform of recommendations for state and federal regulatory and legislative bodies.

Zero Emission Vision

For each sector, the CEMTF provides a vision of what a zero emission Sacramento County will look like. Having this end state envisioned would help the Board of Supervisors and the public understand that emissions reductions and quality of life are not in opposition; rather, they support each other.

A zero emission Sacramento County in 2030 starts with a clean electricity supply. Citizens in the County won't need to worry about the clean air impacts of living down the road from a power plant. They won't need to stress about whether they'll have power on the dog days of summer, because their electricity supply will be more reliable than ever. This increased reliability comes from its variety of sources (solar, wind, hydroelectric, geothermal, and imported from our neighbors) and its variety of scales (utility-scale, community-scale, and owned by individuals); the system's diversity creates its resilience. Also, for the first time ever, the energy system will not be shackled by the need to generate exactly as much electricity is consumed because of the mass deployment of energy storage and demand response.

This clean electricity will be put to good use in heating our homes and powering the County's economy. During the more frequent winter storms or summer heatwaves, most citizens will be comfortable in their homes kept warm or cool by highly efficient heat pumps and sealed tight from the weather outside. They can also cook a tasty meal free from the worry about indoor air pollution from burning fossil gas. They'll rest easily knowing that these modern amenities were paid for with the help of generous rebates, as well as their own well-informed energy-saving strategies. Local businesses will be able to weather these events with ease, keeping their doors open to the public.

For those less fortunate citizens (or merely interested in catching up with their neighbors on the gossip about Taylor Swift and Travis Kelce's child's first day of school), they can head to their local resilience center located at a nearby library or school. These resilience centers will be electrified and kept at a comfortable temperature by their rooftop solar and battery systems. For many, they'll be only a short-walk away on shaded streets. For those further away, they can take a free ride on all-electric public transportation to the transit hub located right next to the resilience center.

Description

Decarbonize homes and businesses

ID

Context: Recommendations E1 and E2 focus on shifting the fuels used to heat homes from fossil fuels to electricity.

E1 was recommended as most HVAC replacements occur when the equipment breaks, forcing consumers to make quick decisions about how to replace the equipment. This often results in simply replacing the equipment with a similar and possibly GHG-emitting equipment. By providing a temporary backup system, the County can encourage citizens to purchase more efficient and zero carbon alternatives while also directing them to rebates offered by SMUD and financing options such as the GoGreen program. Once citizens become familiar with the equipment, they may end up preferring it to a larger system and wish to purchase it. The County could facilitate that transaction and serve as a pseudo-financing entity by adding this to property tax payments allowing the payment to be deferred. This would also help the County reinvigorate its stock of appliances over time as equipment is sold off and the funds are used to purchase new equipment.

E2 was recommended as the CAP and written with the intention of being approved prior to Jan. 1, 2023. As the Board of Supervisors

have yet to approve the CAP, the dates should be shifted backwards. HVAC and water heating equipment represent over 90% of residential gas usage and emissions, so the focus of staffing should be directed towards those appliances	
E1	 The County should purchase and maintain a stockpile of replacement equipment of portable heat pump HVAC systems. This stockpile should be available to citizens in the unincorporated County to use on-loan as a bridge until new appliances can be installed. The County should develop the necessary business processes and designate facilities that could be used for warehousing and distribution. At pickup, the County can provide a voucher for a free permit for the permanent appliance replacement alongside educational materials.
E2	 The County should approve all energy-related Climate Action Plan (CAP) measures (GHG-04 through GHG-07). The implementation dates should be shifted backwards one year (e.g. for a Jan 1, 2023 implementation date, this should be changed to Jan 1, 2024). When developing staffing, inspection, and enforcement plans, the County should focus on HVAC and water heating equipment rather than other gas appliances like dryers and cooking equipment). When developing public documentation and trainings, the County should emphasize that inspections of HVAC and water heater equipment will focus only on those appliances and not unrelated matters, unless those matters pose a danger to public health.
Encouraç	ge renewable energy
Context: energy co Vision, in heavy liftin on complet sense, su installing s	Recommendations E3-6 discuss strategies that the County can use to generate more carbon-free energy and to match insumption patterns with the generation patterns of renewables. The recommendations rely on SMUD's 2030 Clean Energy which SMUD seeks to reach zero carbon emissions in their energy supply by 2030. Because SMUD is doing much of the ng in terms of investments in new clean sources of energy for all County residents, the CEMTF's recommendations focus ementing these efforts by encouraging the storage of energy and shifting the consumption of energy. Where it makes ch as on County-owned or County-affiliated properties, the CEMTF also recommends renewable energy generation by solar panels.
E3	• The County should encourage residential solar and battery installations by waiving any associated permit fees and offering property tax incentives for low-income home owners or landlords.

E4	 The County should enroll qualifying County facilities in SMUD's PowerDirect automated demand response program and encourage related governing bodies (e.g. Sacramento Public Library Authority, local school districts) to do the same.
E5	• The County should support and expedite medium-scale (100kW or more) community-owned solar arrays, especially in environmental justice communities, particularly on infill development / brownfields sites.
E6	 The County should encourage the installation of solar panels and backup batteries in public facilities. The County should develop a list of County-owned or County-affiliated properties that can be used as resiliency centers during heat, storm, and other extreme weather events and are well-suited for such installations. The County should prioritize these efforts starting with facilities in or near EJ communities; once identified, County staff should make formal recommendations to the relevant governing bodies (e.g. Sacramento Public Library Authority) to install solar and battery installations, with potential funding through state and federal grants.
Impact, c <u>Context</u> : such as ei	ost-effectiveness, and timeliness Recommendations E7-10 are intended to amplify the effects of the other recommendations and address related issues nsuring a workforce is ready for the transition to a carbon-free County.
Recomme and water recommer mailing of	ndation E8, for example, is intended to kick-start the switching to more efficient and lower emission technologies for space heating. SMUD and, in the near future, the State of California offer generous rebates for the purchase of heat pumps. By nding a free permit for the installation of these systems, accompanied by an outreach and education strategy driven by the free vouchers, E8 would drive more citizens to take advantage of these rebates.

Recommendation E7 was made to ensure that a workforce of well-trained individuals from across the County are able to benefit of the burst of activity that will accompany the transition to more energy-efficient homes and to cleaner technologies. To minimize the implementation lift, E7 leverages existing skills training programs.

	The County should develop a robust workforce development program for clean energy jobs and work with existing
	programs by:
	 Developing training programs for electricians, Home Energy Score assessors, and other essential skill trades, taraeting EJ communities for training hubs;
	 Strengthening relationships with the Sacramento Power Academy; local school districts, vocational school,
	community colleges and universities; and the Sacramento Regional Builders Exchange;
E7	Sharing information on the County website about SMUD and PG&E HVAC and energy efficiency training
	opportunities.
	 Training should also focus on how to effectively sell electrification technologies, including responses to common consumer concerns and objections, and how to sell financing, if needed.
	 PG&E offers no-cost residential decarbonization training opportunities through its Energy Efficiency
	Workforce Education & Training program. Additionally, County staff can receive code compliance training
	ITOM EnergyCodeAce.com.
	The County should work to increase permit compliance by sending out nee permit vouchers for heat pump HVAC and
	• All residents should be sent free vouchers that are redeemable for a no-cost permit for the installation of a heat
	pump HVAC system and a HPHW system redeemable for a limited period (e.g. up to 3 years from the date of
	distribution).
	Residents may provide these vouchers to their contractors when they are ready to pull permits for the retrofit.
E8	Other educational information should be included with the permit voucher mail regarding:
	 SMUD's rebate program and any federal IRA rebates, if available.
	• Reminders to check the age of their HVAC and water heater systems and provide ages at which such
	systems are typically replaced
	 Tips for finding a certified contractor and link to SMUD's contractor portal
	 Materials regarding PG&E's Induction Cooktop Loaner Program
	(https://pge-induction.myturn.com/library/?embed=false)

E9	 The County should continue and strengthen their partnership with SMUD by: Reviewing all County databases for data that could be used by SMUD to increase the effectiveness of their rebates policies by targeting EJ communities and/or communities with lower-than average income levels, subject to the appropriate data privacy guidelines Recommending the renewal of the grant funding for insulation that previously existed in partnership with Rebuilding Together Sacramento, SMUD, and the California Air Resources Board.
E10	The County should review the above recommendations and consider the impact they would have on their code enforcement and permitting workforce. If the recommendations would require additional employees to meet the increased workload, the County should factor these into the budget process.
Increase <u>Context</u> : efficiency comfortab distribute with educa making th programs We also re target Cou used by lo seeks to r businesse on other e	energy efficiency Recommendations E11-17 seek to make the homes and businesses in the County more energy efficiency. Energy is a win-win for the County's citizens and for the climate: the citizens save money on their utility bills and live more ly in their homes while decreasing GHGs. We recommend a few strategies to increase energy efficiency. First is to inexpensive materials at County windows that can be installed easily but pay off big in terms of efficiency and can be paired ational materials (E14). Second is deploy trees to provide more shade, thus requiring less air conditioning for homes and e County a more pleasant place to live (E15, E17). Finally, we recommend that the county explore pay-as-you- save which use savings from energy efficiency measures to finance the upfront investment of the measures (E16). ecommend that County deploy strategies to learn more about the energy efficiency of nomes and businesses to better unty programs. E13 would increase the County's understanding of the energy efficiency of rented housing which is typically ower income individuals and for which there is less of an incentive to invest in energy efficiency by the tenant. E12 pursues nake more stringent an existing program at the California Energy Commission for energy efficiency disclosures of us. This information can be a valuable tool for the County to use in targeting rebates and performing outreach and education nerror efficiency measures.
E11	The County should approve all government building energy-related Climate Action Plan (CAP) measures (GOV-BE-01 through GOV-BE-04).

	The County should require energy benchmarking disclosure for buildings greater than 20,000 sq ft. to the California Energy Commission (CEC).
E12	 The same requirements and exemptions for the CEC's Building Energy Benchmarking Program (see reference) should apply; the only difference is the square footage requirement would be 20,000 sq ft. instead of the current requirement of 50,000 sq. ft.
= 10	The County should implement a Home Energy Score (HES) reporting requirement for all rental residential rental properties.
E13	Owners of rental properties should report this information at least once every three years as part of the County's Rental Housing Inspection Program.
E14	 The County should purchase and distribute energy efficiency materials at County facilities at no cost. These should be relatively inexpensive energy efficiency materials such as window films, caulking, weather stripping, and blackout blinds. These materials should be available for pickup at all County and County-adjacent public interfaces (e.g. cashier windows, Kiefer landfill entrance, library service desks) alongside information materials about energy efficiency measures and incentives.
	The County should draft measures that decrease urban heat island (UHI) effect, especially targeting EJ communities, such as:
	Tree cover requirements for existing and new public spaces and roadways
E15	Property tax incentives for tree canopy on residential and business properties
	• Parking lot requirements
	• Green space requirements
	o Cool pavement requirements

E16	 The County should identify Environmental Justice communities that are well-suited for pay-as-you-save pilot programs with County, SMUD, or public-private partnerships as administrator. Criteria for selection of Environmental Justice neighborhoods should include: Environmental quality indicators (e.g. PM2.5) Socioeconomic indicators (e.g. income, racial status) Proximity to the end of gas distribution networks and/or portions of the gas distribution networks that are aged/near the time of replacement
E17	The County should offer all County employees an optional half-day off for volunteering with Sacramento Tree Foundation for shade tree planting in EJ communities or similar GHG-reducing volunteer opportunities.
Regulation County man citizens. V and receiv Board (CS jurisdiction while man are willing to level the	Recommendations E18-21 specifically apply to the County's legislative and regulatory platform. To the extent that the akes recommendation to other levels of government, we suggest specific strategies that would benefit the County's Vhile E18 and E19 are relatively straightforward, E20 and E21 deserve special attention. E20 attempts to make applying for ving grant funding easier for County staff that already have full schedules. E21 focuses on the Contractors State License SLB) which licenses the workforce that will be doing much of the heavy lifting of the energy transition and has enforcement in for unlicensed contractors. A common concern the Task Force heard when speaking to contractors in this space is that, by try to do the right thing by obtaining the appropriate license and permits for jobs, they can be undercut by contractors that to skip these steps. The County should push the CSLB to step up to make unlicensed work much more difficult to perform enduring field, thus making career paths in this space more lucrative.
E18	The County should recommend to the California Public Utility Commission that they clarify guidance on and increase scrutiny of the cost-effectiveness of installation of any new or replacement of aged gas distribution infrastructure.
E19	The County should recommend to the California Energy Commission that they issue guidance for how local governments and electric utilities can receive Inflation Reduction Act rebates and incentives as soon as possible.
E20	The County should recommend to the state and federal governments that they issue any grant funding for energy efficiency measures and heat pump installations based on objective metrics (e.g. population, percentage of population with lower income), rather than requiring complex grant applications and requirements.

	The County should recommend to the Contractors State License Board that they:
	a. Encourage dual certification (plumbing and electricians)
E21	b. Increase enforcement of unlicensed contractors performing unpermitted work on HVAC and water heaters. Where
	available, the CSLB should share information with other state agencies (e.g. the CEC) regarding compliance rates
	and enforcement actions taken.
	 c. Require refresher trainings and/or continuing education for every energy efficiency/HVAC-related license renewal d. HVAC contractors should also be required to be certified for insulation and weatherization licenses.

Home Energy Score

Context: Recommendations E22-25 create a pathway to increase the energy efficiency of the homes in the County in a flexible, cost-effective, and equitable way. It sets an overall goal of a county-wide average Home Energy Score (HES) of 7 by 2036 and 9 or above by 2045.

<u>HES background</u>: The key to achieving this goal is the Home Energy Score metric. The Home Energy Score, or HES, is a "miles-per-gallon" metric of a home's energy efficiency. It rates the home's efficiency from 1 to 10 with 10 being the most efficient. It is a standardized assessment, developed by the US Department of Energy, that measures objective aspects of a home such as the thickness of insulation, the efficiency rating of major appliances, and whether doors and windows are adequately sealed to come up with a single score. Each assessment costs on average \$200-500 and takes 1-3 hours to perform. These assessments are performed by certified assessors and quality assurance mechanisms exist to ensure the consistency and accuracy of the resulting scores. Each assessment also comes with a list of customized recommendations to improve the home's energy efficiency.

<u>Structure</u>: The recommendations use the HES as follows. It requires that each newly sold home should have an HES report submitted to the County within 6 months of the title transfer date. If the HES is a 7 or above, the home is deemed sufficiently energy efficient and there are no further actions needed. If not, the homeowner has an additional requirement to come back to the County in a year's time to show that they have made energy efficiency improvements until they reach that target of 7. Due to State building requirements, most new homes meet or exceed this target.

<u>Flexibility</u>: A key benefit of this approach is that it provides flexibility to the homeowner to make the improvements that make the most sense to them. For example, they can increase their home's energy efficiency by increasing their insulation if that is identified as a driving factor for a low score. If instead they wish to replace their inefficient gas water heater with a more efficient heat pump water

heater, that can also improve their score. Given this flexibility, homeowners can target the lowest cost actions, thus making this approach more cost effective than one that requires specific actions.

Equitability: The recommendations also have a number of elements to ensure that it is equitable, especially to lower income homeowners. For example, for lower income homeowners, it extends the timeline to report the HES and waives fines for the first missed HES report. It also creates tenant protections intended to decrease the impact on tenants in properties that are undergoing energy efficiency upgrades.

<u>County-wide assessment</u>: The recommendations also provide useful information to the County for understanding the energy efficiency of the homes in its jurisdiction. This has a few benefits:

- By having homeowners report their score to the County, County staff can perform more informed analysis, thus allowing them to create more targeted policies.
- Also, having this information available provides the County with the information of whether its current policies are having the desired impact of greater energy efficiency. We've structured the recommendations to have a second stage which would be triggered if the requirement to improve the HES is not working quickly enough. If so, this second stage would automatically trigger and require homeowners to replace their gas appliances with more efficient electric versions nearer to the title transfer date.

Implementability: These recommendations are also readily implementable by the County. Several counties in the Bay Area have implemented a similar program. StopWaste, a joint powers agency in Alameda County, has recently received approval to implement HES programs across the State starting in 2026, meaning they are a readily available partner for Sacramento County. StopWaste is also administering a pilot program in the City of Davis and Yolo County.

Home Energy Score assessment:

E22

The County should have a goal of an average Home Energy Score (HES) of 7 by 2036 and 8 or above by 2045. The aim of the HES requirement is to assess current home energy efficiency and allow the County to develop targeted programs to decrease energy use of residential units. To help provide the appropriate information to achieve this goal, the County should implement a requirement for an HES assessment around the point-of-sale

Requirement around point-of-sale: Owners of real residential property whose acquisition is on or after January 1, 2026 must have a HES assessment performed for their home and submit this assessment to the County within 6 months of the sale of the property.

	A This assessment can be performed as early as 6 months prior to the sale and no later than 6 months after
	the sale. The new owner is responsible for providing the HES report to the County
	the sale. The new owner is responsible for providing the $\Pi \square S$ report to the County.
	B. Failure to provide the HES report will result in fines, except when the homeowner meets one of the
	conditions described in the caveats section.
	C. This requirement is intended to work in coordination with the existing rebates available from utilities and
	state and federal government SMUD as well as financing opportunities such as the GoGreen Financing
	program.
	1. The County shall provide technical assistance to lower-income owners to help apply for rebates.
	2. The County shall provide financial assistance in the form of permit fee waivers to lower-income
	owners.
	3. The County shall pursue the development of energy efficiency rebate and incentive programs to
	supplement other rebate and incentive programs
	II Background on Home Energy Score: The Home Energy Score is a measure of a home's energy efficiency
E22	calculated using a simple and standardized methodology that was launched in 2012 by the US Department of
(cont.)	Energy The benefit of using the HES is that it accesses overall onergy efficiency by considering a variety of
	indicators such as insulation, environment as a section, and efficiency of UVAC and water besting equipment. To improve
	indicators such as insulation, envelope sealing, and eniciency of HVAC and water heating equipment. To improve
	their score, homeowners can approach improvements flexibly, rather than being required to take a specific action.
	More information can be found here:
	https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Home_Energy_Score_Methodology_
	Paper.pdf
	III. <u>Enforcement mechanism</u> :
	A. Beginning on the sale date, new homeowners will have 6 months to submit their HES report to the County.
	This report should reflect the HES of the newly acquired home no earlier than 6 months before the sale
	date.
	B. If the new owner does not submit their HES report, fines will be levied from property owners and the County
	will set a new date for the next HES submission.

	I. <u>Caveats</u> :
	A. Lower income households: For households with reported income that would be considered low income
	according to the California Department of Housing and Community Development's State Income Limits:
F22	 The initial 6-month requirement to submit HES to the County will be extended.
(cont)	2. Fines will be waived for the first failure to submit Home Energy Score label/report. The County will
(00111.)	then set a new date for required HES submission.
	B. The County should also consider exemptions for buildings of particular sizes, mobile homes, ADUs,
	triplexes, and transactions that are exempt from transfer tax under sections 11911-11930 of the County's
	Revenue and Taxation (R&T) Code, etc.
	Post-HES Assessment Upgrades:
	I. <u>Ongoing requirements after sale</u> : Depending on the score shown in the HES report (as established in
	recommendation 3), the homeowner will have the following obligations:
	A. If the score is 7 or above, the owner has met the goal and no further actions are needed and future owners
	are not required to conduct or submit an HES unless significant renovations are made to the unit.
	B. If the score is less than 7, the homeowner will need to take the necessary actions (e.g. improve insulation
	and window/duct sealing, install more efficient appliances) to improve the unit's efficiency and the overall
	score. The homeowner will have one year to provide the County an updated HES report showing a
E23	graduated improvement or a score of at least 7, whichever is lower. Failure to provide the HES report will
	result in fines except when the homeowner meets one of the conditions described in the caveats section.
	C. If the score in the subsequent reports is below 7, the homeowner will provide the County with an annual
	HES report showing a graduated improvement or a score of a minimum of 7. This process will repeat until
	such a time that the HES report shows a score of 7 or higher.
	II. <u>Caveats/waivers</u> :
	A. Lower income households: For households with reported income that would be considered low income
	according to the California Department of Housing and Community Development's State income Limits:
	1. The initial 6-month requirement to submit HES to the County will be extended to a longer period of
	time as determined by County staff.

E23 (cont.)	 2. Fines will be waived for the first failure to submit Home Energy Score label/report. The County will then set a new date for required HES submission. B. Historic Properties: A home listed on a federal, state, county or city register of Historical Properties may be exempted from this requirement if improvements required to increase the homes' HES would affect the historical integrity of the home. C. County staff should also consider exemptions for buildings of particular size, mobile homes, ADUs, triplexes, and transactions that are exempt from transfer tax under sections 11911-11930 of the County's R&T Code, etc. D. A homeowner can request a waiver for this requirement if they believe that reaching a goal of 7 or above is infeasible due to cost or engineering constraints. In this case, the homeowner can work with County staff to set a lower threshold score. This waiver should be tailored to apply to less than 5% of homes in the County and staff should have discretion to customize the waiver conditions (e.g. based on the age of the home, estimated cost of breaker upgrades, based on the ratio of the costs of the required upgrades to the replacement cost of the home) to meet that threshold. E. A homeowner can also request a waiver for this requirement if, after making substantial good-faith efforts to improve their home's HES such as installing more efficient appliances or investing in envelope sealing, they are unable to improve the score. This waiver should also be granted judiciously, with County staff using discretion to tailor it accordingly.
E23 (cont.)	 II. <u>Tenant protections</u>: This County should take measures to protect rental tenants if the newly acquired home is to be used as a rental property such as: A. The new owner cannot raise rents to recover any costs of energy efficiency upgrades used to increase the HES. B. If the energy efficiency upgrades will require construction that would disrupt the peaceful enjoyment of the property, the homeowner should seek to keep the work to 30 days or less. If that is not feasible, the new owner should relocate tenants to comparable housing within a two-mile radius for the period of construction. C. Energy efficiency upgrades cannot be used as an excuse to evict a tenant that is otherwise complying with the terms of the lease.

	Annual Review of Average HES:
	I. Commencing January 1, 2027, the County will calculate the average county-wide HES based on the individual HES
	assessments submitted to the county over the previous year. After three years of implementation (e.g. on January
	1, 2029 if implemented in 2026), the County will determine whether the average HES has improved commensurate
	with the aim of meeting the County-wide goal stated in recommendation #3.
	A. If it has not improved, Stage 2 (see recommendation #24) will automatically trigger.
E24	B. If it has improved, the County will assess once every two years to determine whether the home energy has
C2 4	improved commensurate with the County-wide goal. If it has not improved, Stage 2 will automatically trigger.
	C. Regardless of whether Stage 2 is triggered, the requirements of Stage 1 will remain in effect and the County
	will reassess the average reported score to determine whether progress is being made towards the
	County-wide goal.
	D. The County shall develop a list of energy efficiency measures and technologies that will allow for an HES of
	no less than 7 and supply the list to those units with a score of less than 7. The County shall provide the
	methodology of HES to those units with a score of less than 7.
Stage 2 - Replacement of HVAC and HPWH systems:	
	I. <u>Requirement near point-of-sale</u> : If Stage 2 is triggered as explained above, owners of real property that have gas
	HVAC systems and water heaters must have energy efficient electrical HVAC and HPWH (or equivalent) within a
	year of sale, with the caveats explained below. This will have the effect of decreasing residential emissions and
	thus improving the County's average HES.
	II. <u>Enforcement mechanism</u> :
E25	A. At the time that a sale is reported to the County, the County will schedule inspections one year from sale
	date.
	B. Inspections will check whether HVAC and water heaters are electric. If not, fines will be levied from property
	owners and another inspection will be scheduled on a date no later than one year after initial inspection.
	III. <u>Caveats</u> :
	A. For households who reported income that would be considered low income according to the California
	Department of Housing and Community Development's State Income Limits or, homes that would require a
	panel upgrade in order to install a suitable heat pump HVAC and HPWH given the home's characteristics:
	1. The one year inspection timeline will be extended to allow for the homeowner more time to perform
	the replacement.

		Fines will be waived for first failed inspection.
		B. Historic Properties: Historic properties may be exempted from this requirement provided the improvements
		required would affect the historical integrity of the home.
		C. For properties that are used as a rental property and for which the landlord owns fewer than 5 homes, the
		requirement to replace the equipment should be relaxed from one year to two years.
	IV.	Tenant protections: This County should take measures to protect rental tenants if the newly required home is to be
		used as a rental property such as:
		A. The new owner cannot raise rents to recover any costs of energy efficiency upgrades used to increase the
		HES.
		A. If the energy efficiency upgrades will require construction that would disrupt the peaceful enjoyment of the
		property, the homeowner should seek to keep the work to 30 days or less. If that is not feasible, the new
		owner should relocate tenants to comparable housing within a two-mile radius for the period of construction.
		B. Energy efficiency upgrades cannot be used as an excuse to evict a tenant that is complying with the terms
		of the lease.
E25	II.	Supporting mechanisms for both stages:
(cont)		A. County Code Enforcement staffing should be increased to handle increased workload
(cont.)		B. Required information systems upgrades should be developed and implemented to link sale dates to
		required HES submission dates
		C. County should coordinate with nearby jurisdictions (e.g. City of Sacramento, Yolo County) to implement
		similar requirements so that the unincorporated County is not disproportionately impacted.
		D. County should seek out grant funding to be used for rebates to homeowners for energy efficiency
		measures. These would augment the rebates offered from SMUD.

Part 2.2 - Agriculture, Solid Waste, and Water Sector Recommendations

Introduction to Agriculture, Solid Waste, and Water Sector Recommendations

Agriculture sector greenhouse gas emissions in Sacramento County were nearly 254,900 metric tons of carbon dioxide equivalents (MT CO₂e) a year in the baseline year of 2015 and are forecasted to be approximately 251,100 MT CO₂e a year in 2030⁷. Of the quantifiable greenhouse gas reductions measures in the agriculture sector identified in the Sacramento County Climate Action Plan, carbon farming (GHG-01) will be the best way to reduce emissions. Unlike most emission reduction recommendations, instead of simply reducing the amount of emissions released, carbon farming sequesters emissions, a powerful tool to balance our carbon budget. Carbon farming focuses on opportunities for increasing the capacity of the farm system to "receive, store and release" energy with different practices identified by the United States Department of Agriculture's Natural Resource Conservation Service (USDA NRCS). In addition to offsetting emissions, carbon farming practices have the added benefits of restoring degraded soils, enhancing crop production, and reducing pollution by minimizing erosion and nutrient runoff, purifying surface and groundwater, and increasing microbial activity and soil biodiversity

In addition to carbon farming there are a variety of programs in and around Sacramento County that can be leveraged to reduce on-farm emissions. Promoting and enhancing programs like the USDA NRCS Environmental Quality Incentive Program (EQIP) and the Sacramento Metropolitan Air Quality Management District have proven track records providing incentives to upgrade equipment and implement conservation practices.

Furthermore, bridging the gap from farm to fork would reduce food system related emissions and enhance the viability of the county's agricultural economy. Much of the food that is grown in the county is not consumed within the county; it is instead exported to other regions, states, and countries, including where value is added through processing, packaging, and distribution (Coordinated Rural Opportunities Plan Sacramento County Profile). While the County's Agricultural Element promotes sustainable agriculture and aims to protect agricultural resources, emphasizing the importance of preserving farmland and open space to maintain the county's agricultural heritage and protect natural resources, a disconnect between agriculture and the public still exists.

⁷ See Table 1 of 2022 Final Climate Action Plan:

https://planning.saccounty.gov/PlansandProjectsIn-Progress/Documents/Climate%20Action%20Plan/Final%20Climate%20Action%20Plan.pdf

To achieve a net zero county, the Board of Supervisors should have three primary objectives in relation to the agricultural sector:

- 1) Technical and Financial Assistance for Farmers and Ranchers
- 2) Encourage Production and Use of Recovered Organic Waste
- 3) Advance Climate Mitigation and Greenhouse Gas Mitigation Projects

Zero Emission Vision

In 2030, Sacramento County will stand as a beacon of agricultural sustainability, resilience, and community prosperity. Our vision for a "True Zero" future is one where the agricultural landscape thrives in harmony with nature, serving as a critical solution to the climate emergency while supporting local farmers and ranchers as they adapt to evolving environmental challenges.

Central to this vision is the widespread adoption of carbon farming practices across Sacramento County. By harnessing the regenerative power of our soils and vegetation, we will not only sequester carbon from the atmosphere but also enhance soil health, increase water retention, and bolster biodiversity. Carbon farming will become a cornerstone of agricultural innovation, offering a pathway for farmers to mitigate climate change while ensuring the long-term viability of their operations.

As stewards of the land, Sacramento County's farmers and ranchers will receive unwavering support in navigating the challenges posed by a changing climate. We will prioritize initiatives that provide resources, education, and financial incentives to empower agricultural communities to adopt sustainable practices, diversify their crops, and implement resilient water management strategies. By investing in the success of our local food producers, we not only safeguard our agricultural heritage but also strengthen our food security and economic resilience.

By 2030, Sacramento County will boast a vibrant agricultural ecosystem where carbon-neutral farming practices flourish alongside thriving rural communities. Our commitment to sustainability will extend beyond the farm gate, fostering robust local food systems, equitable access to fresh, nutritious produce, and vibrant farmers' markets that celebrate the rich diversity of our region. Through collaborative partnerships, innovative research, and community engagement, we will cultivate a legacy of agricultural stewardship that ensures a prosperous future for generations to come.

In partnership with local educational institutions and non-governmental organizations, we will implement robust programs that engage students in immersive learning experiences centered on agriculture, food production, and natural resource management. From

elementary school to university-level curriculum, environmental literacy will be woven into the fabric of education, empowering students to become informed advocates for sustainable agriculture.

SOLID WASTE AND WATER

ID

Solid waste sector greenhouse gas emissions in Sacramento County were 352,909 metric tons of carbon dioxide equivalents (MT CO_2e) a year in the baseline year of 2015 and are forecasted to be approximately 280,694 MT CO_2e a year in 2030⁸.

Water and wastewater sector community greenhouse gas emissions in Sacramento County were 15,222 and 27,253 metric tons of carbon dioxide equivalents (MT CO_2e) a year respectively in the baseline year of 2015 and are forecasted to be 2,526 and 19,248 MT CO_2e a year in 2030. Additionally, Sacramento County government operations emitted 4,665 and 565 MT CO_2e from water and wastewater related activities in 2015 and are forecasted to create 3,498 and 597 MT CO_2e a year from these activities in 2023.⁹

Description

Technical and Financial Assistance for Farmers and Ranchers

Context: To effectively mitigate the impact of climate change, it is crucial to implement robust greenhouse gas (GHG) emission reduction measures, particularly within the agricultural sector. Farmers and ranchers, who play a pivotal role in our local economy and food system, face unique challenges to implementing these mitigation measures while also adapting to changes in temperature and precipitation. Their ability to successfully reduce emissions while maintaining productivity is critical not only for environmental sustainability but also for the economic stability of our region. Therefore, providing targeted technical and financial assistance to these farmers is essential. By offering support in the form of training, resources, and financial incentives, we can help them adopt innovative practices and technologies that lower emissions without compromising their livelihoods.

In this set of recommendations, we outline strategic approaches to support local farmers and ranchers in their efforts to reduce GHG emissions. These recommendations emphasize the importance of building capacity through educational programs, enhancing access to cutting-edge technologies, and creating financial support mechanisms that reduce the economic burden of transitioning to

⁸ See Table 1 of 2022 Final Climate Action Plan:

https://planning.saccounty.gov/PlansandProjectsIn-Progress/Documents/Climate%20Action%20Plan/Final%20Climate%20Action%20Plan.pdf ⁹ See Table 1 of 2022 Final Climate Action Plan:

https://planning.saccounty.gov/PlansandProjectsIn-Progress/Documents/Climate%20Action%20Plan/Final%20Climate%20Action%20Plan.pdf

more sustainable practices. By fostering a supportive environment, we can ensure that our agricultural community thrives while contributing to broader climate goals. Through collaborative efforts, we can make significant strides toward a more sustainable future, benefiting both the environment and the local economy.

	A1	Develop peer-to-peer demonstration projects to show local farmers and ranchers how a carbon farming project to sequester carbon could look implemented in their operations. Projects should be in partnership with local universities/extension offices, community organizations, and conservation agencies to pursue grant opportunities.
	A2	Develop sustainable funding sources for local agencies and organizations to implement climate mitigation and resiliency projects that provide cost effective greenhouse gas emission reductions or climate risk prevention and adaptation practices."
I		Support the establishment of a Resource Conservation District (RCD) in areas where there are not currently an RCD (e.g.

- A3 Support the establishment of a Resource Conservation District (RCD) in areas where there are not currently an RCD (e.g. North County) or the expansion of an established RCD to service areas currently not covered."
- A4 Explore/support the development of an equipment loan program with tools needed to implement carbon sequestration/carbon use reduction projects and to respond to better respond to natural disasters.

Encourage Production and Use of Recovered Organic Waste

Context: To address the multifaceted challenges of reducing greenhouse gas (GHG) emissions, it is imperative to focus on the effective recovery, processing, and utilization of organic waste. The organic waste supply chain faces several obstacles that hinder its potential to significantly cut emissions. Limited facilities for processing organic waste, a lack of widespread adoption of compost application by farmers and ranchers due to financial constraints, and unfamiliarity with its benefits, as well as the difficulties in quantifying the benefits of composting, all contribute to the underutilization of this valuable resource. Therefore, it is essential to develop comprehensive recommendations that tackle these issues holistically.

In this set of recommendations, we propose strategies to enhance the entire organic waste supply chain, from recovery to application. These strategies include expanding the capacity and accessibility of organic waste processing facilities, providing financial incentives and educational programs to encourage farmers and ranchers to adopt composting practices, and developing robust methodologies for quantifying the environmental and economic benefits of organic waste utilization. By addressing these challenges, we aim to create a sustainable system that not only reduces GHG emissions but also enriches soil health, improves crop yields, and supports the agricultural community. Through concerted efforts and targeted support, we can unlock the full potential of

organic waste as a critical component of our efforts to reduce GHGs.			
A5	Develop local partnerships and pursue grant opportunities to conduct carbon farming studies to assess carbon		
	sequestration benefit potential in the County.		
46	The County should explore local cost-effective composting, biochar, and other related facilities that can process organic		
AU	waste and distribute it for carbon sequestration and soil health efforts.		
A7	The County should develop a financial assistance pilot program to agricultural operations to apply compost. This could be		
	through technical assistance support, direct payments, discounted compost rates, or by paying for transportation costs		
Advo	Advance Climate Mitigation and Creanbourge Cap Mitigation Projects		

Advance Climate Mitigation and Greenhouse Gas Mitigation Projects <u>Context</u>:

To effectively combat climate change, it is essential to advance climate mitigation and greenhouse gas (GHG) emission reduction projects within our agricultural and natural landscapes. These areas offer immense potential for carbon sequestration and emission reductions, while simultaneously providing numerous additional benefits. Projects with more immediate co-benefits are particularly valuable as they not only address climate goals but also enhance biodiversity, improve water quality, support soil health, and bolster the resilience of ecosystems and communities. By integrating various environmental and socio-economic benefits into climate mitigation efforts, we can create more robust and sustainable solutions that serve a wide array of stakeholders.

The following set of recommendations emphasizes the importance of implementing multibeneficial projects in agricultural and natural landscapes. These recommendations advocate for practices such as agroforestry, conservation tillage, wetland restoration, and reforestation, which collectively contribute to GHG emission reductions while also providing critical ecosystem services. By promoting and supporting these types of projects, we can achieve significant progress in our climate objectives, ensuring a healthier environment, more resilient agricultural systems, and stronger communities. These initiatives exemplify how holistic approaches to climate action can lead to more comprehensive and enduring outcomes, benefitting both the environment and society.

A8	Develop climate mitigation projects that naturally sequester 6% of total county emissions greenhouse gas emissions.
	Increase county-wide urban forest at a more ambitious rate than proposed in GHG-02 of the CAP. The County should
	require a tree canopy target of no less than 30% of the total impervious surface area within the county. Currently,
٨٥	impervious surfaces cover more than 88 square miles while tree canopy covers only 16 square miles within the county.
A9	When deciding which types of trees should be planted, the County should focus on native varieties that have a high
	potential for carbon sequestration, such as native varieties of oaks. The County should partner with organizations like the
	Sacramento Tree Foundation and the Center for Land Based Learning to leverage existing programs. Environmental

justice communities and areas where health impacts due to heat are likely to occur should be given preference when considering where to plant the trees. To create brand recognition and community excitement for this program, the County should develop a public facing outreach program for this program such as "Sacramento County Oaks From Acorns."

Part 2.3 - Transportation Sector Recommendations

Introduction to Transportation Sector Recommendations

The transportation sector is a significant contributor to greenhouse gas (GHG) emissions in Sacramento County, accounting for approximately 40% of the County's total emissions.¹⁰ These emissions primarily stem from the use of fossil fuels in on-road vehicles, which contribute substantially to air pollution and climate change. Transportation is essential for the county's economy and the mobility of its residents. However, the current dependency on gasoline and diesel-powered vehicles presents a major challenge to achieving carbon neutrality. The Climate Emergency Mobilization Task Force (CEMTF) has outlined a comprehensive set of policy recommendations to transform the transportation sector in Sacramento County with an aim to provide actionable and impactful recommendations to progress towards carbon neutrality by 2030. These measures aim to reduce the transportation sector's carbon footprint while enhancing public health, economic vitality, and quality of life in Sacramento County. Achieving carbon neutrality by 2030 requires a comprehensive and strategic approach to transform the current transportation system into one that prioritizes sustainability, equity, and resilience; Enhancing transportation infrastructure to prioritize the needs of Environmental Justice (EJ) communities and ensure equitable access to sustainable transportation options.

This section of the Climate Emergency Response Plan focuses on the transportation sector and outlines a comprehensive strategy to reduce GHG emissions through system-level improvements, transportation mode shifts, and transitioning to zero-emission vehicles (ZEV) and cleaner fuels. To achieve a net zero carbon footprint in the transportation sector by 2030, the CEMTF recommends focusing on three primary objectives:

- 1. **System-Level Strategies**: Implementing measures that reduce overall demand for transportation trips and increase the efficiency of the transportation system.
- 2. **Transportation Mode Shift**: Encouraging a shift from single-occupancy vehicles to alternative, greener modes of transportation.
- 3. Transitioning to ZEV and Cleaner Fuels: Promoting the adoption of zero-emission vehicles and the use of cleaner fuels.

These recommendations are designed to address the unique needs of Environmental Justice (EJ) communities, which often bear the brunt of transportation-related pollution and lack access to sustainable transportation options. By prioritizing investments in these communities, the County aims to improve air quality, reduce GHG emissions, and enhance the overall quality of life for all residents.

¹⁰ See Table 1 of 2022 Final Climate Action Plan: <u>https://planning.saccounty.gov/PlansandProjectsIn-Progress/Documents/Climate%20Action%20Plan/Final%20Climate%20Action%20Plan.pdf</u>

We recognize that achieving complete decarbonization in transportation requires collaboration with regional partners and continuous advocacy at the state and federal levels. The County should develop a sensible platform of recommendations to support broader legislative and regulatory changes necessary to facilitate this transition.

The following transportation sector recommendations are structured to support the County's overarching goals of reducing emissions, promoting equity, and fostering a sustainable and resilient transportation system. These measures include expanding multimodal transit hubs, enhancing bicycle infrastructure, implementing door-to-door transit services, and pursuing innovative strategies to encourage the adoption of ZEVs and alternative transportation modes. By implementing these recommendations, Sacramento County can lead the way in creating a transportation system that not only meets the needs of its residents but also contributes significantly to the global effort to combat climate change.

In summary, the transportation sector recommendations presented by the CEMTF aim to create a sustainable, equitable, and resilient transportation system that significantly reduces GHG emissions, improves air quality, and enhances the quality of life for all residents of Sacramento County.

Zero Emission Vision

Our vision for a zero-emission Sacramento County involves a future where clean, efficient, and accessible transportation options are available to all residents. Achieving a zero-emission transportation sector by 2030 involves a holistic approach that integrates technological advancements, infrastructure development, policy measures, and community engagement. This vision includes a robust network of multi-modal transit hubs, extensive active transportation infrastructure, and widespread adoption of ZEVs. A sustainable transportation system will reduce greenhouse gas emissions, improve air quality, and promote healthier lifestyles. By prioritizing public and active transportation, we can create a community where environmental sustainability and social equity are integral to daily life. By implementing these recommendations, Sacramento County can lead the way in creating a sustainable and resilient transportation system that supports the health and well-being of its residents while significantly reducing its carbon footprint.

ID	Description		
Mode Shift <u>Context</u> : Th	Mode Shift Context: This strategy will broadly focus on taking actions to shift the transportation mode choice from single occupancy vehicles to		
of transporta GHG emiss multi-modal	ation. Promoting a shift from single-occupancy vehicle use to greener transportation modes is essential for reducing ons. Our strategies include enhancing public transit, developing active transportation infrastructure, and encouraging transportation options. These objectives can be achieved through a series of targeted actions and policies.		
Public Tran expanding s	sit Enhancement: Improving the efficiency, safety, and coverage of the public transit system is crucial. This includes ervices, modernizing the fleet with zero-emission buses, and integrating advanced transit technologies.		
Active Tran bike lanes, e	sportation Infrastructure: Investing in bicycle and pedestrian infrastructure is vital. This includes creating protected expanding sidewalks, and ensuring safe crossings, particularly in Environmental Justice (EJ) communities.		
Multi-moda	I Transit Hubs: Establishing hubs that integrate various transportation modes, including public transit, cycling, walking,		
and shared facilities suc	mobility services, will encourage residents to use greener transportation options. These hubs will be equipped with h as bike racks, EV charging stations, and end-of-trip amenities.		
	The County establishes with each EJ community, ideally co-located with existing community facilities (libraries, parks, or highly trafficked commercial areas), at least one multi-modal transit hub per every 5,000 residents (or fraction thereof), each of which offers free-at-point-of-use micro-mobility services, including, but not limited to:		
T1	 Electric scooter and electric bicycle rentals Zero Emission Vehicle (ZEV) rentals Bicycle end-of-trin facilities 		
	Additionally, each multi-modal transit hub provides free-at-point-of-use Electric Vehicle (EV) chargers, including at least the below items, prioritized in the specified order:		
	1. 30 "Level 1" or "Trickle" chargers that provide approximately 1-2 kW per hour of charging, and operating off a		

	standard 120v / 15amp circuit	
	2. 15 "Level 2" chargers that provide at least 6kW per hour of charging, c	operating off a standard 240v / 40amp
T1 (cont)	circuit	
	3. 5 "Level 3" or "DC Fast" chargers that provide at least 50 kW per hour	of charging
	The County vastly expands bicycle-specific active transportation infrastructure	e, prioritizing EJ communities, and
	expediting achievement of at least the below items, prioritized in the specified	order:
	 Ensuring at least 100 short term parking bicycle racks are located at e grocery store 	ach parking lot that is adjacent to a
	 Ensuring at least 50 short term parking bicycle racks are located at ea and community centerEnsuring at least 10 bicycle locker slots are located 	ch public library, public park, post office, ated at each public library
	3. Ensuring at least 1 on-street bicycle corral per 1,000 residents is prese	ent in each EJ community
	4. Doubling the current mileage of Class II and Class III bike lanes in eac	ch EJ communities
	5. Establishing at least one mixed Class I-and-II bike lane system that int	terconnects each EJ community and the
	incorporated city nearest to the centroid of that EJ community	
	 For South Sacramento, at least one system should connect the Sacramento to the City of Sacramento, and at least one system 	e northern areas of unincorporated South n should connect the southern areas of
T2	unincorporated South Sacramento to the City of Elk Grove	
	 Doubling the current mileage of Class I bike lanes in the Unincorporate miles 	ed Region, from ~61 miles to at least 120
	 Tripling the current mileage of Class II bike lanes in the Unincorporate miles 	d Region, from ~210 miles to at least 420
	8. Increasing by at least one order of magnitude the current mileage of C	class III bike lanes / bike routes in the
	Unincorporated Region, from ~11 miles to at least 110 miles	
	 Incentivizing basic bicycle parking infrastructure upgrades in all other areas in each EJ community. 	major commercial and MFH residential
	• The County comprehensively reviews bicycle infrastructure to identify and enhancements in the network.	gaps and opportunities for improvements
	• The County promotes a comprehensive plan to implement protected b	icycle lanes for all new bicycle
	infrastructure, and upgrades current bicycle infrastructure to protected	bicycle lanes, where possible.

	 The County increases community outreach efforts to promote active transportation; to educate the public on incentives and opportunities currently available; and to develop new incentives, (such as free e-bikes for school children) to help promote adoption of bicycle use and alternative modes of transportation.
Т3	 The County establishes a free-at-time-of-use door-to-door transit service for any resident of an EJ community, focusing on any trip that originates within an EJ community and ends anywhere in Sacramento County, or which originates anywhere in Sacramento County and ends anywhere in an EJ community. Vehicles used for such door-to-door services should be Zero Emission Vehicles (ZEVs).
T4	 The County should develop and implement a plan towards key infrastructure and operational improvements to promote the safety and perception of transit system as a safe mode of transportation choice. Public outreach efforts should be made to highlight the safety of transit system. The County should implement overall transit system improvements through infrastructure improvements, fleet modernization, service expansion, frequency, and travel times to compete with auto-based mobility for commuting and other trip needs in the County. The County should explore options and expansion of micro-transit and on-demand transit services to address the changing demands and nature of trip characteristics post-pandemic. The County should take steps to address the "first-mile/last-mile" issue through the use of innovative solutions such as bicycles at transit stations/hubs, e-bikes, and e-scooters etc. Incentives should be developed to attract businesses offering such services in the County. The County should explore the option of making public transportation free for various segments of the County population such as school going children, County employees, residents of EJ communities, etc.

_		
		Working together with business communities and other stakeholders, the County should identify locations for prioritizing
		and implementing complete street projects that can promote the use of alternative modes of transportation and increase
		"foot traffic" benefiting businesses and retail.
		• The County should explore options for establishing temporary and permanent car-free zones and assess the
	T5	feasibility of creating permanent car-free areas countywide.
		 Such areas can be temporarily established for pop-up community and commercial activity, and other uses that address community needs.
		• Such areas should be developed together with community members to ensure that community needs and equity
		impacts are adequately addressed.

System-Level Strategies

Context: System-level strategies will broadly focus on reducing the overall demand for transportation trips in the County and increasing the overall efficiency of the transportation system to reduce GHG emissions. Reducing overall transportation demand and increasing system efficiency are key components of our strategy. Additionally, the County should explore the implementation of system-level strategies, such as the development of high-occupancy vehicle (HOV) and high-occupancy toll (HOT) lanes, and the introduction of vehicle use fees to fund further transportation improvements. These measures aim to incentivize carpooling, reduce congestion, and generate revenue for sustainable transportation projects. These measures focus on optimizing transportation systems and promoting sustainable land use.

High-Occupancy Vehicle (HOV) and High-Occupancy Toll (HOT) Lanes: Implementing express lanes to manage congestion and incentivize carpooling will reduce emissions and improve traffic flow. Dynamic pricing in HOT lanes can further discourage single-occupancy vehicle use during peak times.

Vehicle Use Fees: Introducing modest fees for vehicle use can generate revenue for active transportation and EV infrastructure improvements. These fees can also encourage shifts to alternative modes of transportation.

Land Use Planning: Promoting transit-oriented development (TOD) and higher-density, mixed-use developments near transit hubs will reduce vehicle miles traveled (VMT). Integrating land use and transportation planning ensures that growth is sustainable and supports low-emission transportation options.

	In partnership with CalTrans, CTC, SACOG, STA, and SAQMD, the County develops a revenue-generating Express
	Lane, High Occupancy Vehicle (HOV), and/or High Occupancy Toll (HOT) lane system across the Sacramento region,
	focusing on the highest congestion and highest Vehicle Miles Traveled (VMT) locations across I-80, I-5, US Highway 50,
	and CA State Route 99.
	These HOV / HOT / Express lanes should utilize dynamic time-of-day pricing that disincentivizes Single Occupancy
	Vehicle (SOV) use in general, and incentivizes carpooling, especially during "rush hour" times of day.
	Zero Emission Vehicles (ZEVs) should receive a fee waiver from these lanes/tolls, in accordance with the existing state
T7	decal program.
	Any additional revenue generated through these lanes that does not fund operations and maintenance of such
	infrastructure is reallocated 100% for equitable emissions-cutting capital improvements, prioritizing the below items in
	the specified order:
	1. SacRT service into / out of EJ communities
	2. Active transportation infrastructure into / out of EJ communities
	Active transportation connections between pre-existing bicycle networks
	4. ZEV charging infrastructure within or immediately adjacent to EJ communities
	The County pursues the establishment of an equitable and modest vehicle use fee, such as a cents-per-mile annual
	vehicle registration renewal fee, from which all generated revenue is allocated 100% to capital improvements and
Т8	operations and maintenance, prioritizing the below items in the specified order:
	1. Electric Vehicle (EV) charging infrastructure in EJ communities
	2. Active transportation network infrastructure in and adjacent to EJ communities
	Before any other sidewalk capital improvements elsewhere in the County, the County prioritizes closing at least 90% of
	all pedestrian sidewalk gaps within EJ communities, as identified in the Active Transportation Plan (ATP) Appendix,
	Figure C-1.
	Provision of basic sidewalks within EJ communities should be further prioritized by the below items, drawing upon data
Т9	provided in ATP Figure 17: Recommended Pedestrian Improvements; ATP Figure A-10: Pedestrian Collisions Heatmap;
	and ATP Figure A-11: Bicycle Collisions Heatmap:
	1. Any intersection immediately adjacent to grocery stories
	2. Any intersection within a quarter mile of a school
	3. Major intersections with high EPDO values

	4.	Medium intersections with high EPDO values
	1.	The County should align land use, planning, and transportation strategies to establish a vision and goals for
		Transit Oriented Developments (TOD). Land use regulations should be amended to allow for and encourage
		denser, mixed-use, and active transportation oriented development, especially in areas close to transit.
	2.	In order to promote infill development, the County should implement community outreach efforts to inform and
		educate the developers on infill development projects opportunities, incentives, benefits, requirements, etc.
		 Infill developments should not result in displacements; should not focus only on options for affluent public; and should include options for first-time homeowners.
	3.	The County should develop a plan and incentives to promote mixed-used developments and convert low density
		commercial areas into mix-used developments to increase density, supporting additional transit services.
	4.	The County should target new developments to require infrastructure/measures for alternative modes of
		transportation.
T10		a. Focusing on an integrated regional incentive program and coordination to reduce discrepancies in
		requirements and incentives and ensure developers are implementing all required measures to promote
	_	alternative modes of transportation. (E.g., working closely with incorporated cities and adjacent counties)
	5.	County zoning ordinances should be updated to reduce parking needs requirements.
		a. Measures to reduce excessive parking availability tied with increase and enhancements to transit access and services.
		b. Provision and improvements to bicycle facilities and infrastructure to offset impacts of reduced parking
		and promote growth of bicycle use.
	6.	The County should coordinate with and encourage Sacramento Housing and Redevelopment Agency (SHRA) to:
		a. Address barriers surrounding affordable housing and CEQA support to help create opportunities for more
		efficient transit operations in such areas and other diverse (non-auto) mobility options.
		 Focus on enhancing successful initiatives to reduce VMT and GHG from transportation while ensuring equity and access to mobility.

T11	 The County should develop strategies to change the social behavior towards more sustainable transportation options and elevate sustainable options within the changing transportation system, through education, outreach, new incentive programs. The County should work with employers to promote telecommuting options for relevant workforce. The County should particularly focus on the younger population demographic, such as school children etc. to promote the use of alternative transportation models and sustainable transportation options and ensure availability of safe options for such demographics. The County should develop and expand efforts to promote and incentivize the use of alternative modes of transportation through activities such as bike to work, bike to school days, etc. working together with relevant advocacy groups. 	
T12	The County should revise new gas station permit requirements to include the availability of clean fuels and EV related charging infrastructure at new gas stations in the County.	
T13	The County should develop a Vehicle Miles Traveled (VMT) mitigation banking structure for new developments to fund Transportation Demand Management (TDM) strategies.	
Transitioni	ng to ZEV and Cleaner Fuels	
Context: Th	is strategy will broadly focus on replacing fossil-fuel vehicles with ZEV and promote the use of greener fuels. The	
transition to zero-emission vehicles and cleaner fuels is crucial for achieving carbon neutrality. Our strategies include expanding EV		
infrastructure, setting ambitious ZEV procurement targets, and advocating for funding. To support the transition to zero-emission		
vehicles, the County must advocate for increased funding from state and federal sources, and develop a robust network of EV		
charging infrastructure, including in multi-family residential areas and along major corridors. The County should also set ambitious		

targets for the procurement of ZEVs for its fleet and support the adoption of heavy-duty EVs for public transit and other essential services. The vision for these transportation policies is to create a system where sustainable transportation options are accessible, affordable, and integrated into the daily lives of Sacramento County residents. By focusing on equity and prioritizing the needs of EJ communities, the County can ensure that the benefits of a low-carbon transportation system are shared by all.

EV Infrastructure Expansion: Developing a comprehensive plan to expand and maintain EV charging infrastructure, including for medium and heavy-duty vehicles, is essential. This plan will address the capacity, standards, and strategic placement of chargers to meet growing demand.

ZEV Procurement Targets: Setting ambitious targets for transitioning the county's fleet to ZEVs, especially for heavy-duty vehicles, will significantly reduce emissions. This includes creating incentives and support for residents and businesses to adopt ZEVs.

Funding Advocacy: Securing increased federal and state funding for active transportation and EV infrastructure, particularly in disadvantaged communities, is vital. This includes advocating for changes in funding formulas to lower local cost-share requirements and prioritizing investments in EJ communities.

T14	 The County's government relations team advocates aggressively for increased federal and state dollars granted to local governments specifically for active transportation and ZEV / EV capital improvements within disadvantaged and/or EJ communities. The County advocates for substantial changes to current funding formulas that require matching dollars / cost share, pursuing a shift to requiring no local cost share for active transportation or ZEV / EV capital improvements within disadvantaged and/or EJ communities.
T15	 The County should develop an integrated approach (between County, businesses, consumers) towards increase the availability and maintenance of EV charging infrastructure, addressing details related to the four main issues surrounding EV infrastructure. The plan must also consider and address the needs of medium and heavy-duty electric vehicles. Capacity Standards: Efforts should be made to standardize EV charging infrastructure and equipment to promote growth and usage. Ownership Cost Location The County should also explore options and opportunities for developing shared electric charging infrastructure at apartment complexes and other multi-family residential facilities, and streamline the permitting process for all new developments to enable them to implement fast chargers and other infrastructure supporting electric vehicles.

T16	The County should set an ambitious target year before 2030 to procure only ZEV beyond that date for its fleet, busses, etc. where possible.
	 The County should increase the use of heavy-duty EVs, such as public transit buses, school buses, and refuse collection trucks through infrastructure planning at central yards and support for state and federal incentive applications.
	• The County should implement strategies to encourage EV adoption through outreach, financial incentives, shared fleets, and convenience perks like reserved parking spaces for ZEVs; while addressing equity concerns and prioritizing investment in EJ communities.

Part 2.4 - Built Environment Sector Recommendations

Introduction to Built Environment Sector Recommendations

The built environment - the infrastructure and layout of the physical objects that comprise the County - has a profound impact on how the County's residents live their lives, and thus it also impacts the County's emissions. The County's strategies towards residential and commercial development shape how the County maintains and adds to the built environment. Emission reductions can be achieved through the built environment by making trips in gasoline-powered vehicles shorter and less frequent, and by designing the physical environment cooler in temperature.

The Task Force's recommendations for the built environment focus on adjusting the County's development approach to make it a more walkable, enjoyable, and local place to live. The Task Force acknowledges that the recommendations approved so far are just a starting point, and more work is needed to develop a holistic set of built environment recommendations.

Design the Built Environment to Encourage Emissions Reductions	
B1	Sacramento County should develop infill measures within the General Plan that incentivize and prioritize existing and new commercial retail centers to develop multi-family housing within the commercial property and reduce impact fee and permit requirements to incentivize development by 2030.
B2	Sacramento County should identify development potential within unincorporated communities and change land-use zoning to incentivize and prioritize development of mid and high-density mixed-use development by 2028.

B3 B4 B5	Sacramento County should adopt guidelines for residential master plans that have a mix of affordable housing options for
	lower-, middle-, and upper-class residents within the same development by 2028.
	Sacramento County should allow reduced parking requirements for residential developments if significant multi-modal
	transportation options are built into the design and have appropriate agreements to supply transportation options (e.g.
	SacRT stops, short-term car rentals) by 2026.
	Sacramento County should work with the Greater Sacramento Economic Council to encourage companies focused on
	climate solutions to locate operations within the county and collaborate with companies within the county to pilot test
	climate products and services by 2026.

Part 2.5 - Other Recommendations

Introduction to Other Recommendations

This section covers recommendations that don't fit neatly into sectors, but are critical to achieving the emissions reductions necessary to address the climate emergency. These include actions related to financing the actions recommended above, communicating to and receiving communications from the public, and addressing smaller emissions sources that have outsized impacts on air pollution.

Improve Air Quality While Decrease GHG Emissions

Context: In 2020, residential fireplaces and wood stoves accounted for 43% of Sacramento County's PM2.5 emissions. This is 26% more than PM2.5 from Construction/Demolition, Farm Equipment and Operation, Light/Medium/Heavy Duty Buses/Trucks/Cars, and Paved Road Dust combined. Additionally, wood as fuel is not climate friendly at all. A 2018 published study by the National Resources Defense Council states that the immediate impact of substituting wood for coal is an increase in atmospheric CO2 relative to coal.¹¹ The payback time for this carbon debt ranges from 44–104 years after clearcut, depending on forest type—assuming the land remains forest. Finally, a wood burning ban is not likely to affect low-income residents. Sacramento County 2007 Wood Burning Survey received 499 responses, with 139 classified as low-income residents based on federal guidelines. No respondents indicated wood burning as their sole source of heat. Ownership of at least one wood burning appliance was lower

¹¹ NRDC, <u>https://www.nrdc.org/stories/no-burning-wood-fuels-not-climate-friendly</u>

among low-income residents (34%) than among the overall population (54%). Sac Metro Air Quality Management District estimates there are 320,000 fireplaces and wood stoves in the County homes.¹² Transitioning wood burning fireplaces and stoves to electric counterparts will have an overwhelmingly greater air quality benefit than transitioning existing gas furnaces and stoves to electric appliances.

The County should expedite a transition of all indoor wood-burning and wood pellet-burning residential appliances to all-electric appliances.

Fund Climate Measures

Context:

02

01

The CEMTF recommends two main ways to fund climate-related measures, including the recommendations in this document: 1) allocate existing budget and, 2) seek funding from outside sources. Recommendation O2 sets budget targets for climate measures, as well as suggests reporting so the County's residents can see how their money is being spent on climate. Recommendation O3 identifies the opportunity that many outside funding sources exist through grants, and suggests increases in County staff to seek these grants out. These grant writers could identify funding sources, work with County subject matter experts, and partner with other jurisdictions or interested parties. The CEMTF believes that these new staff could easily pay for themselves by bringing in new funding.

Beginning with the FY26 Budget, the County establishes an internal budget goal for each Department in the County
wherein each Department commits at least a certain percentage of their overall budget to GHG-cutting or
climate-adapting activities, and publicly reports out:
a the total percent of their hudget committed to such activities

- a. the total percent of their budget committed to such activities
- b. the total dollars of their budget committed to such activities
 - c. what activities they conducted in the prior FY with this funding

Beginning with the FY30 Budget, the percentage of each Department's budget committed to such activities is no less than 1% of that Department's total budget for each FY.

¹² SMAQMD, <u>https://www.airquality.org/residents/fireplaces-wood-stoves</u>

O3	The County establishes at least five cross-functional Full Time Equivalent (FTE) positions within Cabinet-level Departments (or Executive Offices within those Departments) focused on grants and climate policy. These FTEs should be comprised of one position focused on general sustainability/climate, plus one position supporting each Assistant/Deputy County Executive (Administrative Services, Public Safety and Justice, Community Services, and Social Services).
Provide Sc	ientifically-Accurate Information to the Public
Context:	
The County	already plays an important role in public outreach and education in areas such as public health and disaster
preparedne	ss. The CEMTF recommends increasing efforts in this space to give residents the information they need to make
making their	r homes more operate officient, avoid activities such as exercising outdoors on high air pollution days, and he propared
for climate-	related natural disasters such as floods and heatwayes
	The County establishes a single set of publicly viewable climate bazards man layers, in coordination with pre-existing
	public datasets experts and authorities (Reclamation Districts Water Districts farmers ranchers and other relevant
	businesses). The purpose of this set of map layers is to more accurately document and prepare for local impacts of a
	changing climate, including, but not limited to:
O6	a. increased temperatures and the Urban Heat Island Effect
	b. increased risks of drought and groundwater sustainability
	c. increased risks of flooding beyond existing FEMA criteria and standards
	d. granular data on per-capita emissions
	e. granular data on average "fine material" Particulate Matter (PM) 2.5 and PM 10 levels of air pollution
	The County establishes a regular and recurring system of targeted outreach, both in-person and online, to residents of
	unincorporated Sacramento County's four EJ communities, with a focus on:
07	a. analyzing ongoing input from residents on the equity and efficiency of the County's climate actions
	b. the science and risks of climate change
	c. how to finance retrofits and adaptation

O8	The County creates a new, standalone, dedicated website using easy-to understand plain language and hyperlinks to
	any relevant climate resources, consolidating in one place:
	a. what the County is doing to prepare for climate change, including measures of progress in implementing all
	CERP Recommendations
	b. easy steps any individual resident of the county can do to
	1. cut GHGs
	2. adapt to a warming climate
	3. otherwise decarbonize their lifestyle, property, and/or transportation
	c. an easy-to-understand list of achievable property improvements and their incentives (rebates, credits, SMUD
	HPP, CA TECH, GoGreen, IRA 25C, etc)
	d. education on contractor selection, retrofit expectations, retrofits that do not require panel upgrades, and
	inexpensive energy efficiency options.

Part 3 - Climate Adaptation Strategies

Climate adaptation is a strategy employed by government, industry, and individuals to reduce the likelihood of loss of life or property due to natural disasters exacerbated by local and regional changes to precipitation and temperature. While significant changes in temperature and precipitation may not have noticeable short-term impacts, over the long-term those changes can affect the way we farm, water supplies, the quality of our forests, grasslands, public health, and livability in Sacramento County. The recommendations outlined in this plan are first steps to prepare for natural disasters leading to a loss of life and property much like Paradise, California after the Camp Fire or New Orleans after Hurricane Katrina, which devastated those communities' culture and economy for years.

Projected changes to temperature and precipitation for this century are based on global climate models (GCM) that have been calibrated based on historical climate data and scenarios of how well we are mitigating greenhouse gas emissions. Over the past decade, GCMs have been downscaling projections to increase model accuracy to make climate data usable to local and regional governments. In California, LOCA and LOCA2 are the models used for North America and have a 3.7-mile resolution, meaning that we can now know what changes may occur in a ~16 square mile area. While uncertainty remains in regards to exact changes that may occur in California, to date, GCMs have underestimated the rate of change to precipitation and temperature worldwide.

Cal-Adapt, an online decision support tool developed by UC Berkeley and funded by the California Energy Commission, projects that Sacramento will have 20-50 days with temperatures exceeding 102.5 degrees by the end of the century. In contrast, the average number of heat events between 1950 and 2000 in Sacramento County was less than 10 days. This indicates that Sacramento will experience extreme heat events more often, putting residents' public health and property at risk.

In Sacramento, the historical number of consecutive dry days is 113. By the end of the century, we may experience between 120 and 127 consecutive dry days. While rainfall is not likely to decrease, there will be an increase in the number of extreme weather events, meaning that when storms occur they will bring more rainfall in a shorter period of time, impacting our flood control system and our ability to store water for irrigation and drinking water supplies.

Sea level rise is projected to impact the Bay-Delta region. Sea level rise is due to the melting of polar ice caps, glaciers, and permafrost in the tundra and thermal expansion because of increases in ocean temperature. While sea level rise is not likely to significantly impact highly populated areas of Sacramento, it will impact farming in the Delta region and county roads in the southern portions of the County. In addition to physical inundation, because of higher water elevations in the Delta, there is risk that floodways in the county may not be able to convey floodwaters through the Delta during rain events as has historically happened. Higher water

levels in the Delta may impede flood water through the Carquinez Strait, impacting flood management infrastructure and combined sewer-stormwater systems in the County resulting in stormwater backing up into residential streets. This will not only impact homes and businesses, but also the transportation of goods and people through the Sacramento region.

An adaptation strategy can either prepare for expected climate impacts by reducing residents' vulnerability to climate impacts or build community resilience to changes after climate impacts occur. Preparing for climate impacts, like an increase in extreme weather events, will reduce the likelihood of loss of life or property. Preparing for change will also reduce costs associated with an extreme weather event through emergency services and loss of business activity. Investing in climate risk reduction activities will prepare our community and our children's future.

However, there is always uncertainty if those preparations are enough to protect life and property. To handle that uncertainty communities should also invest in building resilience at the household and community level to rebound after there is a loss of life or property. Building resilience means investing in our communities to build personal resilience through economic development and educational attainment, but also investing in building trust with local institutions and social networks within the county that could be mobilized during times of crisis. Building resilience is difficult and its benefits are not always tangible, making it difficult to justify investment of resources. However, there are co-benefits to building resilience- stronger, more trusting relationships between local governments, non-governmental organizations, and residents that can more efficiently mobilize public services.

Due to the projected changes to temperature and precipitation and the impacts those changes will have on all aspects of our lives, the Sacramento County CEMTF recommends the adoption of all adaptation strategies listed below.

Description

Develop Institutional Capacity

ID

<u>Context</u>: Implementing climate resilience and emergency management practices will require collaboration with established and sustainable community-based organizations (CBO) who have trusted relationships with residents who may need assistance to adapt to climate impacts.

To prepare for the impacts of climate change, an assessment of current and projected impacts on physical infrastructure, public services, and human health should be integrated into all County services and regulatory oversight.

CA1	 In collaboration with community-based organizations (CBO), the county should develop climate resilience centers to coordinate the implementation of County climate solutions.
CA2	 County departments should use Climate Resilience Centers located in low-income and environmental justice communities to provide public assistance programs around public health, food insecurity, housing insecurity, and home energy and water conservation practices.
CA3	• The County should negotiate with CBOs to grant access to climate resilience centers during emergency events.
CA4	 The County should identify current county facilities to become resource hubs to store, distribute, and provide provisions during emergency events. All facilities leased by the County should include provisions in the lease agreement that facilities may be used as a resource hub during emergency events.
CA5	• Focus county leadership training to develop and implement climate change mitigation and adaptation strategies.
CA6	 Develop an administrative unit within the Department of Public Health to address the public health impacts of climate change.
CA7	 County staff should align departmental climate strategies with the California Climate Adaptation Strategy written by the State Natural Resources Agency.
CA8	 Develop partnerships and collaborative projects with CBOs, businesses, and local universities to pursue funding opportunities that will address climate impacts and develop information to assess climate vulnerabilities.
CA9	• Integrate climate vulnerability and resilience assessment into all general plan and emergency planning processes.
CA10	 Develop a transportation vulnerability assessment to identify current and future roadway vulnerabilities to flood events and sea-level rise.
CA11	 Develop a county administrative policy that the best available climate science be used in planning and permitting of all infrastructure projects and citing of businesses and homes.
Invest in C	Climate Risk Reduction
Context:	leat, fire, drought, and flooding events present significant risks to Sacramento County residents and economy. While risks
can never	be 100% mitigated, the magnitude and duration of those risks can be reduced through thoughtful programs and practices
when an e	vent occurs.
CA12	• Reduce the urban heat island effect by increasing greenspace within the county 10% of 2024 levels by 2040.

CA13	 Increase the acreage of permeable surfaces on public and private property by 30% by 2040.
CA14	Build shade structures at 80% of alternative transportation stops and hubs by 2045.
CA15	 Create a test pilot for reducing ambient temperatures along major roadways, sidewalks, and bike lanes during summer months.
CA16	Increase occupational heat surveillance during extreme heat events.
CA17	 Allow outside workers (e.g. landscapers, home builders) the ability to work earlier and later in the day to avoid higher midday temperatures if electric equipment is used.
CA18	 Develop a database of hazardous industrial materials locations for emergency management purposes. Encourage citing of hazardous materials and operations outside of areas at risk of floods and wildfires.
CA19	 Require homes and businesses to post signage for EV and home battery locations to protect first responders during fires and other emergencies.
CA20	 In collaboration with the Fire Safe Councils, increase controlled burns and biomass mastication by 25% of 2024 levels by 2030 to reduce fuel load along county roadways and in natural and recreational areas.
CA21	Increase levels of protection from flood and drought events through integrated watershed management.
CA22	• Identify and protect 30% of groundwater recharge areas including unused gravel pits and paleochannels by 2045.
CA23	 In collaboration with the California Department of Water Resources Flood Mitigated Aquifer Recharge program and water districts, develop infrastructure on public and private property to recharge 50,000 acre feet of groundwater in winter and spring months by 2045.
CA24	 Work with local water and sanitation districts to increase use of treated wastewater for industrial and domestic use in the Sacramento region. Use of 100,000 acre feet of treated water per year by 2045 for industrial or domestic use.
CA25	 Increase the number of business, industrial, agricultural, or residential properties with stormwater retention basins or rain barrels by 200% of 2024 levels by 2045.

CA26	 Increase low impact development by 50% of 2024 levels by 2045.
CA27	 Develop public-private partnerships to implement climate solutions within the County.
CA28	Reduce nutrient load and water temperature of County water bodies to reduce harmful algal blooms.
CA29	 The County should provide funding to Fire Safe Councils within the County to perform outreach activities and to cover essential operational expenses related to operating these community organizations.
CA30	 The County should continue to fund a Fire Safe Council Coordinator position to support local agencies implementing fire safe programs and to provide consistency throughout the various efforts in the County.
CA31	 The County should support local special districts implementing agricultural water use efficiency programs. This support could include providing office/meeting space, outreach support, GIS/mapping support, or other support already built into county operations, as well as direct financial support to augment funds acquired through state and federal grants.
CA32	 The County, in partnership with local Resource Conservation District, the USDA Natural Resource Conservation Service, the California Alliance of Family Farms, the Sacramento County Farm Bureau, and other relevant organizations, should host an annual agricultural operator workshop/training highlighting locally relevant conservation and regenerative practices that will reduce emissions and improve resilience to extreme weather events (including, but not limited to, increased temperatures, increased risk of drought, and increased risk of flooding).