SAN MATEO COUNTY

GENERAL PLAN

CHAPTER 17

CLIMATE ELEMENT

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PURPOSE

The Climate Element (Element) outlines priority actions to reduce greenhouse gas (GHG) emissions to meet or exceed State mandates, while also improving the quality of life and long-term viability of the County's unincorporated communities. While State law requires local jurisdictions to reduce emissions, this element is an optional component of the General Plan and is not mandated by the State of California (it is authorized by Section 65303 of the Government Code). To bring its emissions in line with, and exceed, State targets, the County will need to significantly reduce energy consumption in unincorporated communities in buildings and vehicles, and transition away from fossil fuels like gasoline, diesel, and methane gas to renewable sources like solar and wind.

This element and the associated Community Climate Action Plan (CCAP) set a path to exceed State targets as well as reduce energy and transportation costs, improve access to livable wage career opportunities, improve public health, improve neighborhood resilience to power shutoffs and natural disasters, increase access to parks and essential services, and support a vibrant and economically sustainable agricultural community. Taking steps to reduce climate pollution strategically and systematically in the County is one important aspect of protecting and investing in the health and wellbeing of our community for current and future generations.

REGULATORY CONTEXT & OVERVIEW OF THE COMMUNITY CLIMATE ACTION PLAN

Fossil fuels form the basis of the modern economy, and the consumption of these fuels are pervasive in all the critical systems that society relies upon. While global emissions sources such as international shipping, oil production, and natural gas extraction are substantial contributors of GHG emissions, the element and the CCAP focus on emissions coming directly from unincorporated communities and land.

The element and the CCAP identify the County's key opportunities to achieve consistency with statewide guidance related to GHG emissions. Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, requires local jurisdictions to reach 1990 GHG emissions levels by 2020, and Senate Bill (SB) 32, adopted in 2016, expanded the Global Warming Solutions Act to require local jurisdictions to reduce emissions to 40% below 1990 levels by 2030. More supportive and aggressive State legislation is anticipated in the coming months and years.

The CCAP will function as an implementation tool of the element, working as a shorter-term plan that will be updated on a more regular basis. The CCAP contains the most up-to-date references to State law, goals, targets, the inventory and forecast, and provides technical analysis to demonstrate the impact of the County's policies and programs on GHG emissions and quality of life. Maintaining

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the CCAP separately from the General Plan provides flexibility to the County to assess and revisit the effectiveness of CCAP measures and actions consistent with this element's overall goals and policies. As a stand-alone plan, the CCAP also has the flexibility to integrate near-term opportunities, new technologies, and research. To maintain relevance, the County anticipates updating the CCAP approximately every two years, and this Element will be updated on an "as-needed" basis.

Together, the element and CCAP function as part of the County's toolkit to reduce GHG emissions and pave the way for more resilient and equitable communities.

GUIDANCE FROM THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT AND THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

The Climate Change Element and the CCAP are part of the framework for developing a GHG emissions reduction strategy in compliance with regional and statewide requirements. This includes Section 15183.5(b) of the California Environmental Quality Act (CEQA) Guidelines and the Bay Area Air Quality Management District's (BAAQMD) criteria for a Qualified GHG Reduction Strategy as defined in the BAAQMD's CEQA Air Quality Guidelines. The purpose of the BAAQMD CEQA Air Quality Guidelines is to assist lead agencies in evaluating the significance of air quality impacts of projects and plans proposed in the San Francisco Bay Area Air Basin. The BAAQMD guidelines establish thresholds of significance for impacts related to GHG emissions consistent with the requirements of CEQA Guidelines Section 15183.5(b).

The County's CCAP complies with both the State CEQA Guidelines (Section 15183.5(b)) and the BAAQMD Guidelines by incorporating the standard elements of a Qualified GHG Reduction Strategy into the CCAP. The standard process to prepare a Qualified GHG Reduction Strategy include the following steps:

1. Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;

2. Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;

3. Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;

4. Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;

5. Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;

6. Adopt the CCAP in a public process following environmental review. The County has developed the CCAP to satisfy all the criteria outlined in Section 15183.5(b) of the CEQA Guidelines at the time of its adoption.

CLIMATE CHANGE ADAPTATION

Climate change adaptation refers to the process of preparing for the effects of climate change. Even with considerable efforts to reduce GHG emissions, the County will continue to experience the increasing effects of climate in the coming years. By 2050, average temperatures will increase by 4.4°F and, by 2100, by an additional 1.2 °F. The County is currently on the path to see up to 2 feet of sea level rise by 2050 and more than 6 feet by 2100 unless global emissions are reduced dramatically and quickly.[1] Precipitation in San Mateo County will continue to display annual variability; wetter years can become even wetter while drier years become even drier, creating more extreme conditions. This can result in both short and long-term impacts to facilities, homes, and people. The most up-to-date information about the forecasted effects of climate change, including changes in temperature, precipitation, wildfire risk, and sea level rise, and the actions to address these impacts are located in the County's 2021 Multi-Jurisdictional Local Hazard Mitigation Plan.

Communities with pre-existing social vulnerabilities have limited ability to absorb and adapt to major stresses like climate change. Social vulnerabilities include poverty, unemployment, and lack of education, among others, which can lead to disparities in health outcomes and inequities in living conditions. Additional socially vulnerable populations include people of color, elderly and youth, the LGBTQ+ community, people with disabilities, people experiencing homelessness, people with limited English proficiency, migrants and outdoor workers exposed to extreme heat and wildfire smoke, households without reliable access to a vehicle, and renters without flood and fire insurance or with limited capacity to retrofit or rebuild their homes. Climate change already is and will continue to exacerbate these social vulnerabilities.

This element and the CCAP are designed to chart a course towards emissions reduction to meet or exceed State goals; they are not a plan for how the County will adapt to the effects of climate change.

[1] State of California. "California's Fourth Climate Change Assessment: San Francisco Bay Area Region Report." California Climate Assessment, 2019. https://climateassessment.ca.gov/regions/.

SAN MATEO COUNTY
CLIMATE CHANGE ELEMENT

GREENHOUSE GAS REDUCTION STRATEGIES AND POLICIES

This section provides the County's policy framework to minimize its contribution to climate change by reducing GHG emissions. The County will accomplish this reduction by decreasing GHG emissions through the built environment, transportation, and waste reduction practices. While reducing GHG emissions, the goals, policies, and programs presented here stand to improve the quality of life in San Mateo County for residents, and conserve natural resources.

DEFINITIONS

The following definitions are provided for terms contained in this Element:

- **Climate change** refers to a change in global and regional climatic patterns, observable beginning in the mid-twentieth century and onwards, attributed to the marked increased levels of greenhouse gases from fuel combustion. The future rate and scale of climate change, and the cascading ecological changes it may bring, may unfold in a manner and pace that makes conditions hostile for life as we know it.

- **Distributed energy resources** are small, modular energy generation and storage technologies that provide electric capacity or energy located on-site or close to where it is needed, whether connected to the local electric power grid or isolated in stand-alone applications. These systems generally produce less than 10 megawatts of power and include wind turbines, photovoltaics, fuel cells, microturbines, and energy storage systems.

- **Greenhouse gas emissions** are gases that cause heat to be trapped in the atmosphere, warming the earth. Greenhouse gases include all of the following: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The majority of greenhouse gases come from natural sources, but human activity and reliance on carbon-based fuels is the driving force behind climate change.

- **Renewable energy** is energy from sources that regenerate, are not depleted when used, and are less damaging to the environment than nonrenewable energy sources, such as solar, wind, biomass geothermal, and tidal energy.

CLIMATE ELEMENT POLICIES AND ACTIONS

BUILDING ENERGY POLICIES

POLICY B-1: TRANSITION TO ALL-ELECTRIC NEW CONSTRUCTION

B-1.1: Implement existing reach code and ensure that the cost of permitting for all-electric projects does not exceed natural gas alternatives.

B-1.2: Develop a pilot for deploying heat pump water heaters in new single-family and multi-family construction or major remodel or addition projects.

B-1.3: Create heat pump water heater incentives and/or bulk purchasing of heat pump appliance technology.

B-1.4: Install storage technology in tandem with renewable energy infrastructure.

B-1.5: Minimize electricity rate increases.

B-1.6: Improve energy efficiency in new construction through enhancements in the building envelope by adopting a more aggressive climate zone in the building code.

B-1.7: Support industry and workforce development opportunities related to building electrification.

POLICY B-2: ELECTRIFY EXISTING CONSTRUCTION

B-2.1: Coordinate with Pacific Gas & Electric (PG&E) and Peninsula Clean Energy (PCE) to eliminate natural gas as an energy source in residential and commercial buildings throughout unincorporated areas by 2040.

B-2.2: Investigate regulatory pathways for converting existing buildings to all-electric.

B-2.3: Develop a pilot for deploying heat pump appliance technology along with electric panel upgrades in large-scale retrofit opportunities, multi-family buildings, and other large buildings.

B-2.4: Perform an electrification opportunities assessment to identify priority buildings and neighborhoods for targeted electrification incentives.

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B-2.5: Accelerate uptake of energy efficiency programs by landlords and renters of both multi- and single-family households.

B-2.6: Partner with PG&E and/or PCE to set up on-bill or easy financing solutions for electrifying buildings and/or local renewable installations.

B-2.7: Evaluate feasibility and equity-related concerns with a utility user fee increase that could fund electrification projects.

B-2.8: Facilitate electrification of appliances by expanding and improving targeted outreach for existing electrification programs and incentives.

B-2.9: Incentivize building owners and real estate and property management representatives to address split-incentive issues.[2]

B-2.10: Improve energy efficiency in large additions (400 square feet or larger) by adopting a more aggressive climate zone in the building code that more accurately reflects anticipated climatic shifts.

B-2.11: Expand Green Business program to support small businesses in unincorporated areas.

POLICY B-3: USE MICROGRIDS TO GENERATE LOCAL RENEWABLE ENERGY AND IMPROVE RESILIENCY

B-3.1: Use utility distribution system capacity maps to investigate the feasibility of siting and maintaining microgrid, solar or wind combined with storage, and other distributed energy resource project opportunities.

B-3.2: Establish microgrid pilot projects and distributed energy resources at critical facilities across San Mateo County.

B-3.3: Support and enhance PCE's existing battery storage incentive program.

POLICY B-4: PURSUE INTEGRATED OPPORTUNITIES TO ADDRESS CLIMATE ADAPTATION AND MITIGATION

B-4.1: Develop and adopt regulations or modify existing adopted regulations to require all new and reroofing projects to meet or exceed the

[2] "Split incentive" refers to a condition where the benefits and costs of capital improvements are unequally distributed. An appliance upgrade, for example, might produce savings or benefits for one party (the renter) while the costs are born by the other party (the property owner).

most current cool roof efficiency standards as determined by the California Energy Commission for Climate Zone 11 (or whichever zone deemed best).

B-4.2: Explore electrification opportunities when developing adaptation strategies for housing and community facilities. Provide technical assistance and support to public schools and communities to plan for electrification of housing and community facilities vulnerable to climate risks.

TRANSPORTATION POLICIES

POLICY T-1: INCREASE ELECTRIC VEHICLE ADOPTION

T-1.1: Evaluate the energy and green building standards at each California Building Standards code cycle to ensure that building electrification and EV charging station requirements are sufficient to meet community needs and climate goals. Adopt local ordinances when the State's code does not keep pace with climate action in San Mateo County.

T-1.2: Install public EV charging stations, with an emphasis on daytime charging. Investigate options for shared EV charging, paired with solar and storage capacity.

T-1.3: Prepare an EV readiness plan to identify suitable, equitable, and cost-feasible opportunities for installation and maintenance of EV charging station locations throughout the County.

T-1.4: Collaborate with key partners such as PCE to conduct alternative fuel outreach, focusing on electric vehicles and lawn equipment.

T-1.5: Facilitate transition of private vehicles to zero emission vehicles at end of life.

T-1.6: Assess opportunities for a program to support the transition to electric leaf blowers.

POLICY T-2: ENCOURAGE URBAN DENSITY AND THE REVISION OF PARKING STANDARDS, AND SUPPORT BICYCLE AND PEDESTRIAN-FRIENDLY PLANNING

T-2.1: Update the General Plan and Local Coastal Plan with neighborhood mixed use, commercial mixed use, industrial mixed use, and multi-family residential designations to enable mixed-used development where feasible.

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T-2.2: Continue interdepartmental coordination and collaboration to update policies according to Housing Element updates to enable and promote affordable housing near transportation.

T-2.3: Pursue bicycle and pedestrian-friendly design by maximizing opportunities to implement traffic calming and complete streets measures into infrastructure projects. Identify opportunities to incorporate green infrastructure and pavement-to-parks concepts.[3]

T-2.4: Update the County's Transportation Systems Management Ordinance to reflect updated regional policies, including but not limited to the San Mateo County Congestion Management Plan Transportation Demand Management Policy.

T-2.5: Conduct interdepartmental coordination to develop and adopt local guidelines, policies, and tools to implement changes to the California Environmental Quality Act's transportation significance metric and criteria (SB 743).

T-2.6: Support the implementation of the Active Transportation Plan by implementing priority pedestrian and bikeway projects.

T-2.7: Collaborate with local and regional partners to study existing parking policies, practices, programs, and demand, and opportunities to support increased multimodal travel.

T-2.8: Review and revise existing bike parking requirements if they are inadequate for current and future demand. In districts without current bike parking requirements, evaluate opportunities for developing them.

POLICY T-3: IMPLEMENT PROGRAMS FOR SHARED TRANSIT THAT REDUCE VMT

T-3.1: Work with partners to implement policies, programs and pilot projects that support access to transit.

T-3.2: Support the transition of public and private buses and shuttles to zero emission vehicles.

[3] Pavement-to-parks refers to the creative utilization of unpaved areas or underutilized paved areas in neighborhoods with less access to green space to create new pedestrian and pocket-park spaces. This facilitates traffic calming as well as pedestrian-friendly street environments.

T-3.3: Develop model policies for micro-mobility and shared transportation options that facilitate equitable access to mobility services and region-wide transit (first mile-last mile).

T-3.4: Facilitate transportation equity through targeted provision of programs and infrastructure that encourage low-income, disabled, senior, and racial or ethnic minority populations to take transit, walk, bike, and use ride- or car-share.

T-3.5: Explore opportunities for applying a tax on all transit network company trips (rides provided by commercial ride-hail companies and private transit services) that originate in San Mateo County.

WASTE AND CONSUMPTION POLICIES

POLICY W-1: REDUCE CONSTRUCTION MATERIALS AND WASTE

W-1.1: Update the building regulations to require deconstruction surveys for single family home demolitions that allow 10 days for salvage and require waste management plans for renovations over $50,000.

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POLICY W-2: REDUCE ORGANICS IN THE WASTE STREAM

W-2.1: Work with franchised haulers and waste authorities to ensure the goals of SB 1383, the Short-lived Climate Pollutant Reduction law, are met by 2025.

W-2.2: Implement an Edible Food Recovery Program for unincorporated areas as required under SB 1383.

W-2.3: Enhance recycling and composting outreach and technical assistance and investigate offering incentives to commercial and agricultural entities in unincorporated areas of San Mateo County.

W-2.4: Reduce the amount of organics in the landfill by pursuing additional opportunities to repurpose organic materials.

W-2.5: Develop a home carbon sequestration and soil health education campaign for residents and training opportunities for landscape professionals and local government parks and recreation staff.

W-2.6: Develop a local garden program to facilitate the creation of compost and promote the use of compost at community and school gardens.

W-2.7: Partner with producers and businesses to reduce and divert waste generated in the agriculture sector, including farms, ranches, and equestrian facilities through composting and biodigestion.

POLICY W-3: REDUCE INORGANIC WASTE SENT TO LANDFILLS

W-3.1: Conduct outreach and engagement to inform businesses of applicable laws for reducing/regulating single-use product and shipping packaging and/or promoting reuse, such as food service ware, home meal delivery services, and other packaging.

W-3.2: Expand opportunities to provide funding and technical assistance to non-profit organizations, schools, and other entities to implement projects relating to reuse, source reduction, recycling, and composting.

W-3.3: Ensure that all County contracts and event permits require all third-party vendors to provide and utilize compostable and/or reusable food service items to serve 50 or more people and provide recycling and composting infrastructure.

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W-3.4: Partner with public institutions and private businesses and non-profits to develop and implement programs that encourage waste reduction and reuse.

W-3.5: Require extended producer responsibility (EPR) in all County contracts when an option to advance greater EPR exists.

W-3.6: Continue to collaborate with other local governments to implement a regional outreach and marketing campaign.

W-3.7: Expand educational offerings and resources for improving community resource conservation through existing and new offerings.

W-3.8: Provide and promote accessible local workforce development opportunities related to solid waste programs.

WORKING LANDS POLICIES

POLICY L-1: IDENTIFY NEW FINANCING TO SCALE CARBON FARMING

L-1.1: Implement a County funding program for farmers and ranchers to implement and maintain climate beneficial practices.

L-1.2: Access external funding programs for carbon farming to leverage multiple funding sources to support climate beneficial practices.

L-1.3: Where feasible, County-procured compost through SB 1383 compliance should be made available to farmers and ranchers at a reduced cost or for free.

L-1.4: Explore cost saving methods such as bulk purchasing.

L-1.5: Assess potential of a communication or labeling program to raise awareness of climate beneficial agricultural practices of San Mateo County producers.

L-1.6: Assess and report the estimated public benefits and cost savings provided by climate beneficial agricultural practices to the agricultural and larger San Mateo County communities.

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POLICY L-2: SUPPORT TECHNICAL ASSISTANCE, EDUCATION, AND DATA COLLECTION EFFORTS TO SCALE CLIMATE BENEFICIAL AGRICULTURE

L-2.1: Support land partners in providing technical assistance to agricultural producers to scale carbon farming and GHG reducing practices. Support adequate staffing for technical assistance providers to undertake outreach, planning, implementation, monitoring, and maintenance.

L-2.2: Support trials, research and monitoring by agricultural producers, land partners, and higher education institutions to refine local data on carbon sequestration and GHG reduction occurring from existing and new climate beneficial practices

L-2.3: Support land partners in providing educational opportunities to assist producers in evaluating and adopting climate beneficial agricultural practices, including trainings and peer-to-peer learning opportunities.

POLICY L-3: SECURE ACCESS TO KEY IMPLEMENTATION INFRASTRUCTURE TO ADVANCE CLIMATE BENEFICIAL AGRICULTURE

L-3.1: Secure access to key implementation infrastructure for carbon farming.

- Support development of key infrastructure, such as a bulk purchasing program for cost savings for carbon farming.
- Investigate feasibility of equipment share or low-cost rental program to increase access to essential equipment to facilitate carbon farming practices, such as a compost spreader.
- Improve and increase the availability of high quality and affordable local agricultural compost.

L-3.2: Support climate beneficial practices that reduce GHG emissions.

- Support work to improve irrigation efficiency and increase use of on-farm GHG reducing equipment and alternative energy, such as solar.
- Fund chipping program to reduce annual burning of pruning waste.
- Assist in the development of infrastructure that supports the local agricultural economy while reducing travel, such as development of agricultural services or markets in San Mateo County.

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- Support efforts that assist producers with agricultural waste reduction, reuse, and recycling.

- Ensure that woody material removed for fuel load reduction projects be recycled into a beneficial use, such as compost or biochar. Investigate feasibility of procuring a mobile pyrolysis facility and establish shared funding mechanism for ongoing costs of repair and maintenance.

- Partner with PG&E and PCE to assess the feasibility of establishing an incentive program that would help producers plan for and install solar panels and battery storage for on-farm operations.

- Partner with PG&E and PCE to provide producers with on-farm energy audits to identify energy efficiency opportunities and connect them to existing county and statewide energy upgrade programs, including incentives, rebates, and financing.

L-3.3: Develop a platform for tracking and reporting progress on climate goals and on-farm benefits of climate beneficial agricultural projects.

POLICY L-4: ADDRESS PERMITTING BARRIERS TO IMPLEMENTING CLIMATE BENEFICIAL AGRICULTURAL PRACTICES.

L-4.1: Identify and minimize local permitting barriers

- Assess local permitting and ordinances to identify barriers to efficient and effective planning and implementation of climate beneficial agricultural practices.

- Participate in statewide Cutting Green Tape initiative.

- Engage in efforts to reduce regulatory barriers to efficient and effective climate beneficial agricultural practices.

- Align local regulations to statewide streamlining permitting efforts for on-farm composting and climate beneficial agricultural practices.

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POLICY L-5: ENSURE AGRICULTURAL LANDS ARE PRESERVED FOR AGRICULTURAL PRODUCTION.

L-5.1: Support efforts to improve access, tenure, and ownership for next generation and new and beginning farmers and ranchers.

POLICY L-6: SUPPORT CARBON SEQUESTRATION ON NATURAL LANDS AND URBAN GREEN SPACES.

L-6.1: Support stewardship and ecological restoration on natural lands.

- Explore opportunities to encourage and support ecological restoration efforts where feasible.

- Explore opportunities to provide tribal access to land for indigenous agriculture and other cultural activities and events that are dedicated to tribal citizens as well as shared opportunities for public education.

L-6.2: Develop strategies to support carbon sequestration on natural lands and urban green spaces.

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