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EXECUTIVE SUMMARY



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Throughout California, communities are addressing weather changes and its potential impacts by developing Climate Action Plans (CAPs). Each jurisdiction has unique conditions and characteristics to consider as they develop implementation strategies to address these conditions. The County of San Diego's (County's) CAP is a multi-objective plan that balances environmental, economic, and community interests; implements the County's General Plan; and aligns with multiple County initiatives. It identifies strategies and measures to meet the State's 2020 and 2030 greenhouse gas (GHG) reductions targets, and to demonstrate progress towards the 2050 GHG reduction goal. The County is committed to strategies that will help meet the targets based on its rural character and the opportunities this brings. The County's CAP will continuously evolve and be regularly monitored and refined.

County Context

The unincorporated portion of the county is located in the southwestern corner of California and encompasses approximately 2.3 million acres or 3,570 square miles with a 2014 population of 454,599. Large federal, state, and regional parklands cover much of the eastern portion of the county. Tribal lands comprise 5.7 percent of the land area. Only 35% or about 807,000 acres of the unincorporated county is privately owned.

The San Diego region is recognized as one of the most biologically important areas in the U.S., and one of the most biologically diverse areas in the world. Unincorporated lands are comprised of natural features that include lagoons, foothills, mountain ranges, and deserts. This diversity is part of the San Diego region's unique natural heritage and a legacy to be protected for future generations.

The county is consistently ranked among the top 12

agricultural counties in California. Agriculture is the fifth largest component of the county's economy and provides an array of economic, environmental, and social benefits that contribute to the quality of life in the region.

The unincorporated area is home to 26 distinct communities that vary from suburban densities and scales in locations adjacent to neighboring incorporated cities, to lower density rural communities surrounded by hillsides, deserts, and agricultural lands. The most developed communities are located along the unincorporated territory's westernmost boundaries and have access to water, sewer, roads, schools, and other public facilities. The development nature of these communities is directly related to how emissions are generated in the county and what opportunities exist for GHG reductions.

Background

State Initiatives

California has taken a prominent role within the U.S. in taking action to reduce GHG emissions and improve preparedness related to sea-level rise, wildfires, water supply, and other risks. Starting more than a decade ago with a 2005 Executive Order that was later codified in the Global Warming Solutions Acts of 2006 (Assembly Bill 32) and 2016 (Senate Bill 32), the State has continued to expand its climate-related legislative framework with complementary legislation that addresses specific sectors such as land use, transportation, energy and water, as well as environmental justice and public health issues. California's commitment to reduce GHG emissions and improve resiliency extends responsibilities to local governments, opens new markets, and establishes climate planning as a core consideration for business practices.

Regional Programs and Coordination

The San Diego region has been actively engaged in climate planning at the regional and local level. The San



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The CAP will help achieve the Live Well San Diego vision for a region that is building better health, living safely and thriving.

Diego Association of Governments (SANDAG), as the region's transportation planning agency and conduit for federal and State transportation funding, plays a key role in planning and implementing mobility facilities and services, and achieving vehicle miles traveled-related GHG emissions.

The County, together with other local governments and public agencies, is working collaboratively with local nonprofits, universities, and businesses to prepare plans and implement programs that complement State efforts.

The General Plan - Planning for Growth, Conservation, and Sustainability

The County's General Plan celebrates the region's spectacular natural setting, and balances goals for growth, conservation, and sustainability. The General Plan is based

on guiding principles designed to support a reasonable share of projected regional population growth, protect the county's natural resources, and maintain the character of its communities. The General Plan, updated in 2011, shifts growth capacity from the eastern backcountry areas to western communities. It includes specific goals and policies aimed at reducing GHG emissions including growing in a compact and efficient manner, using energy more efficiently, harnessing renewable energy to power buildings, improving waste recycling, and improving access to sustainable transportation. Because of the county's size and complexity, the General Plan calls for community plans to address the critical issues that are unique to each community, and to provide focus for desired land use, densities, and character.

The CAP updates and implements General Plan Goal COS-20 and Policy COS-20.1; and mitigation measures CC-1.2, CC-1.7, and CC-1.8 of the General Plan Update Final Program Environmental Impact Report.

County Sustainability Plans and Programs

Over the last decade, the County has taken several steps to address sustainability and reductions in GHG emissions. In addition to the General Plan, notable efforts include the:

- *Live Well San Diego* Vision;
- *Live Well San Diego* Food System Initiative;
- Purchase of Agriculture Conservation Easement Program;
- Multiple Species Conservation Program;
- Strategic Plan to Reduce Waste; and
- County Strategic Energy Plan.

This CAP aligns with and builds upon these past efforts through complementary implementation-focused actions.



Residents and visitors enjoy open spaces and recreational opportunities with over 55 miles of county trails, including the Helix Flume Trail (pictured).

The key components of the CAP are briefly summarized in the following sections.

Chapter 1 Introduction

Chapter 1 introduces the CAP and provides background information. The CAP's strategies and measures are designed to reduce GHG emissions and achieve multiple secondary benefits. Measures are feasible, effective, balanced, and intended to be implemented through a flexible management framework. The CAP will serve as a "Qualified GHG Reduction Plan" for purposes of tiering under the California Environmental Quality Act.

Chapter 2 GHG Inventory, Projections, and Reduction Targets

This chapter summarizes the County's 2014 GHG baseline emissions inventory, future emission projections, and

future reduction targets. The inventory is an estimate of GHG emissions that can be readily estimated, monitored, and reduced by County measures, and are within local jurisdictional control. The inventory importantly identifies and quantifies major sources of emissions, provides the baseline to project future emission trends and develop reduction targets, informs the development of strategies and measures, and tracks and reports progress. Major findings of the baseline GHG emissions inventory include:

- 3,211,505 metric tons of carbon dioxide equivalent were emitted by activities in the unincorporated county in 2014;
- The largest source of emissions was the On-Road Transportation sector (i.e., gasoline and diesel consumption in on-road transportation), which accounted for 45% of the inventory;
- The Electricity sector accounted for approximately



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24% of the inventory; and

- Without any future actions (i.e., “business-as-usual” conditions), GHG emissions are expected to increase.

Greenhouse gas emissions reduction targets for the CAP were established consistent with the most recent guidance provided by the California Air Resources Board (CARB) to achieve:

- two percent below 2014 levels by 2020;
- 40% below 2014 levels by 2030; and
- 77% below 2014 levels by 2050.

The top five emitting sectors in 2014 were:

1. On-Road Transportation (45%)
2. Electricity (24%)
3. Solid Waste (11%)
4. Natural Gas (9%)
5. Agriculture (5%)

Chapter 3 GHG Reduction Strategies and Measures

Local GHG emissions reduction strategies and measures were identified to help the County achieve its 2020 and 2030 GHG reduction targets, and 2050 goal. Strategies describe the overall approach and expected results to be achieved, and are linked to General Plan policies as detailed in Appendix F. Measures are specific, locally based programs and actions that the County will carry out to achieve its climate action strategies. Supporting efforts are additional actions that help reduce GHGs, that are not currently quantifiable due to data limitations or lack of

an available method to measure results. However, over time, implementation of supporting efforts may result in efficiencies that could be captured in future inventory updates.

The CAP contains 11 strategies, 26 GHG reduction measures, and supporting efforts organized under five GHG emissions categories:

1. Built Environment and Transportation;
2. Energy;
3. Solid Waste;
4. Water and Wastewater; and
5. Agriculture and Conservation.

Given that the largest source of emissions in the unincorporated county is the On-Road Transportation sector, the CAP proposes several measures under the “Built Environment and Transportation” category to reduce the number and length of vehicle trips. These measures include a proposal to update 15 community plans by 2030 to facilitate village development, and another to acquire open space lands, together supporting implementation of General Plan recommendations for targeted growth and conservation. Despite the magnitude of these and other measures, the County has limited options under its control for implementing transportation-based strategies. Consequently, the measures rely heavily on energy-based solutions to meet the County’s commitments.

The top five measures in the CAP that will achieve the most local GHG emissions reductions include:

1. Install Solar Photovoltaics in Existing Homes;
2. Increase Renewable Electricity;
3. Increase Solid Waste Diversion;
4. Use Alternatively-powered Water Heaters in



Residential Development; and

5. Update Community Plans.

Climate Action Plan measures have implementation costs that affect businesses, residents, government operations, and the public-at-large. In an effort to provide a broader range of options, the CAP includes an innovative strategy to allow direct investments in local projects to offset carbon emissions. This adaptive management tool provides an option for flexible and cost-effective solutions that would be instituted through a Local Direct Investment Program. While the primary purpose of CAP measures is to reduce GHG emissions, attention was also given to the degree to which measures will also result in secondary, or indirect environmental, economic, or community “co-benefits.”

Chapter 4 Climate Change Vulnerability, Resiliency, and Adaptation

As part of the CAP process, a climate change vulnerability assessment was conducted for the unincorporated county (Appendix D). This assessment identified a range of direct and indirect impacts that could have adverse effects, including:

1. Increases in average temperatures, the frequency of heat waves, and extreme heat events;
2. Exacerbation of the urban heat island effect;
3. Decreased water supply security associated with reduced snow pack in the Sierra Nevada and Rocky Mountain Ranges;
4. Increased wildfire risk due to increased heat and potentially drier conditions; and
5. Increased risk of flash flood events related to more intense precipitation.



Renewable energy generation can help offset emissions from electricity use.



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Potential adaptation strategies are included to address these effects. Many of the strategies are based on the County and other partnering agencies addressing climate-related risks as part of existing planning processes. The County can also develop programs to incentivize individuals to take action.

Chapter 5 Implementation and Monitoring

This chapter outlines how the County will implement the CAP and monitor progress towards achieving the 2020 and 2030 GHG emission reduction targets and long-term 2050 goal. Measures must be regularly assessed and continuously monitored to ensure:

1. All measures include clearly defined steps necessary for implementation;
2. Individual measures are contributing to the overall GHG reduction target;
3. The CAP is on track to achieve its overall GHG reduction targets; and
4. Beneficial community outcomes are attained.

“Local government efforts to reduce emissions within their jurisdiction are critical to achieving the State’s long-term GHG goals, and can also provide important co-benefits, such as improved air quality, local economic benefits, more sustainable communities, and an improved quality of life.”
(California’s 2017 Climate Change Scoping Plan)

The County will monitor CAP progress through:

- Preparation of an annual monitoring report assessing the CAP’s implementation;
- Updates to the GHG emissions inventory every two years; and

- Preparation of CAP updates every five years based on findings from the annual monitoring reports and inventory updates.

Chapter 6 Public Outreach and Engagement

Public outreach and stakeholder engagement are essential components in the preparation and successful implementation of a CAP. In recognition of the importance of public participation in the planning process, the County developed a Public Outreach and Engagement Plan to establish specific opportunities for the public to collaborate with County staff on key strategies to achieve GHG reduction targets and reduce the effects of a changing climate in their local communities.

The County team participated in over 100 different community events across the county to raise awareness about the CAP process and gather input from members of the public unable to attend formal meetings or who were unaware of the project.

To engage the various County departments, an “Internal Working Group” was convened to bring resources together during development of the CAP. In February 2017, the San Diego County Board of Supervisors transitioned this Internal Working Group into a Sustainability Task Force to implement energy efficiency, renewable energy, and sustainability plans, policies, and programs. Upon adoption of the CAP, the Sustainability Task Force will oversee implementation of the CAP.

Successful implementation will require long-term commitment and ongoing collaboration with private and public sector partners, as well as the community-at-large.

Through diligent monitoring, flexible management, and periodic updates, the CAP will remain an effective tool to reduce emissions and help implement the County’s vision for the future.