Board of Supervisors
August 27, 2024
Attachment F

2030 Climate Action Plan

Final Environmental Impact Report
State Clearinghouse No. 2022110453

prepared by
County of Santa Barbara
Sustainability Division, Community Services Department
123 East Anapamu Street
Santa Barbara, California 93101
Contact: Garrett Wong, Climate Program Manager

prepared with the assistance of
Rincon Consultants, Inc.
319 East Carrillo Street, Suite 105
Santa Barbara, California 93101

May 2024

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Appendices

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1 Introduction

1.1 Final EIR Contents

This Final Environmental Impact Report (Final EIR) has been prepared by the County of Santa Barbara, Community Services Department, Sustainability Division (County) to evaluate the potential environmental impacts of the proposed 2030 Climate Action Plan Project (2030 CAP or "project").

As prescribed by the California Environmental Quality Act (CEQA) *Guidelines* Sections 15088 and 15132, the lead agency, the County, is required to evaluate comments on environmental issues received from persons who have reviewed the Draft EIR and to prepare written responses to those comments.

Section 2 of this Final EIR includes individual responses to each letter received during the public review period for the Draft EIR. In accordance with CEQA *Guidelines* Section 15088(c), the written responses describe the disposition of environmental issues raised and the County has provided a good faith effort to respond to all significant environmental issues raised by the comments. This document, together with the Draft EIR (Appendix A), comprise the Final EIR for this project.

1.2 Draft EIR Public Review Process

The Draft EIR is attached as Appendix A of this Final EIR. The County filed a notice of completion (NOC) with the Governor's Office of Planning and Research to begin the 45-day public review period (Public Resources Code [PRC] Section 21161), which began on June 12, 2023 and ended on July 27, 2023. The Draft EIR was made available on the County's website (http://www.countyofsb.org/oneclimate). A notice of availability (NOA) of the Draft EIR was published on June 12, 2023. As a result of these notification efforts, written comments on the content of the Draft EIR were received from one local agency, one organization, and one individual. Section 2, *Responses to Comments on the Draft EIR,* identifies these commenting parties, their respective comments, and responses to these comments. None of the comments received, or the responses provided, constitute "significant new information" by CEQA standards (State CEQA Guidelines CCR Section 15088.5).

1.2.1 Notice of Preparation and Project Scoping

The County circulated a Notice of Preparation to affected agencies and the public for the required 30-day period from November 18, 2022 to December 19, 2022. Along with the NOP, the County held a Draft EIR scoping meeting on November 22, 2022. NOP and NOP comments/letters are discussed in Section 1.1, *Program EIR Background*, of the Draft EIR, and are included in Appendix B of the Draft EIR.

The Environmental Scoping Document/Initial Study prepared for the 2030 CAP and included as part of the NOP functions as an Initial Study for the 2030 CAP, pursuant to *CEQA Guidelines* Section 15128. For the complete analysis of the environmental issue areas analyzed in the Environmental Scoping Document, refer to Appendix A of the Draft EIR.

1.3 EIR Certification Process and Project Approval

Before adopting the proposed project, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency.

Upon certification of an EIR, the lead agency makes a decision on the project analyzed in the EIR. A lead agency may: (a) disapprove a project because of its significant environmental effects; (b) require changes to a project to reduce or avoid significant environmental effects; or (c) approve a project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (State CEQA Guidelines Sections 15042 and 15043).

No significant impacts were identified in the Draft EIR (refer to Appendix A); therefore, no mitigation measures are required. Accordingly, the County is not required to prepare a mitigation monitoring and reporting plan or statement of overriding considerations.

1.4 Draft EIR Recirculation Not Required

CEQA Guidelines Section 15088.5 requires Draft EIR recirculation when comments on the Draft EIR or responses thereto identify "significant new information." Significant new information is defined as including:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
4. The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The comments, responses, and Draft EIR amendments presented in this document do not constitute such "significant new information;" instead, they clarify, amplify, or make insignificant modifications to the Draft EIR. For example, none of the comments, responses, and Draft EIR amendments disclose new or substantially more severe significant environmental effects of the project or new feasible alternatives considerably different than those analyzed in the Draft EIR that would clearly lessen the project's environmental impacts.

2 Responses to Comments on the Draft EIR

This section includes comments received during public circulation of the Draft Environmental Impact Report (EIR) prepared for the Santa Barbara County 2030 Climate Action Plan (2030 CAP; proposed Project). The Draft EIR was circulated for a 45-day public review period that began on June 12, 2023 and ended on July 27, 2023. As a result, two letters were received on the content of the Draft EIR, one from a local agency and one from an organization, and a list of comments were received from one individual. This section provides specific responses to the two letters and comments related to the Draft EIR. The commenters and the page number for the comments appear are listed below.

The comments and responses follow. The comments are numbered sequentially and each separate issue raised by the commenter, has been assigned a number. The responses to each comment identify first the number of the comment, and then the number assigned to each issue (Response 1.1, for example, indicates that the response is for the first issue raised in Comment Letter 1).

Letter 1

apcd air pollution control district
SANTA BARBARA COUNTY

July 26, 2023

Garrett Wong
County of Santa Barbara
Sustainability Division, Community Services Department
123 East Anapamu Street
Santa Barbara, CA 93101

Sent Via Email: gwong@countyofsb.org

Re: Santa Barbara County Air Pollution Control District Comments on the 2030 Climate Action Plan Draft Environmental Impact Report

Dear Garrett Wong:

The Santa Barbara County Air Pollution Control District (District) has reviewed the Draft Environmental Impact Report (EIR) for the 2030 Climate Action Plan (CAP). The CAP updates the County's 2015 Energy and Climate Action Plan and provides a roadmap for unincorporated areas in the County to reduce greenhouse gas emissions (GHGs) to 50% below 2018 levels by 2030. The CAP establishes goals and measurable actions in six focus areas including Housing & Transportation; Clean Energy; Waste, Water, and Wastewater; Nature-based Solutions; Low-Carbon Economy; and Municipal Operations. An inventory of current GHG emissions and a forecast of future emissions in the unincorporated county is provided. Although the measures included in this Public Review Draft CAP do not succeed in meeting the goal of a 50% reduction in GHG emissions, it is our understanding that the measures included in a final draft will meet this target. The CAP was developed collaboratively with stakeholders throughout the County over a 26-month period. It is designed to be a Qualified Greenhouse Gas Emissions Reduction Plan under the California Environmental Quality Act (CEQA), giving the ability for future development projects to streamline their environmental analysis of GHG emissions.

The District has the following comment on the Draft EIR:

1. **Qualified Greenhouse Gas Emissions Reduction Plan**: To meet the requirements of a Qualified Greenhouse Gas Emissions Reduction Plan under CEQA, the CAP states that it should "*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*." To facilitate GHG reductions from land use developments, the District recommends that the County develop a checklist with project-specific measures and design/performance standards that different types of land use development projects must meet to be considered consistent with the CAP. Many of the measures identified in the CAP call for action by the County and other implementing agencies and it is unclear what action would be required of land use developers on a project-specific basis. 1.1

If you have any questions regarding these comments, please feel free to contact me at (805) 979-8334 or via email at WaddingtonE@sbcapcd.org.

Sincerely,

Emily Waddington,
Air Quality Specialist
Planning Division

cc: Planning Chron File

Letter 1

COMMENTER: Santa Barbara County Air Pollution Control District;
Emily Waddington - Air Quality Specialist

DATE: July 26, 2023

Response 1.1

The commenter states that to meet the requirements of a Qualified Greenhouse Gas Emissions Reduction Plan under CEQA, the CAP should "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." The commenter recommends the County develop a checklist with project-specific measures and design/performance standards that different types of land use development projects must meet to be considered consistent with the CAP.

The County is currently in process of preparing a Draft Thresholds and Guidance Report, which will include project-specific measures and performance standards that are designed to achieve the CAP emission reduction goal. The Draft Thresholds and Guidance Report is anticipated to be completed in January 2024 and would meet the commenter's recommendation.

LEAGUE OF UNITED LATIN AMERICAN CITIZENS
Council 3252
Santa Maria CA

Letter 2

June 27th, 2023

To: The Santa Barbara County Board of Supervisors
From: Council 3252 of the League United of Latin American Citizens, Santa Maria, California

RE: Impacts to Affordable Housing and Transportation by the Climate Action Plan

My name is Ramon Elias. My wife and I are homeowners in Santa Maria and we are Santa Barbara County landowners. I am a mechanical engineer with 51 years of industrial experience mainly in the oil and natural gas production business. I'm also a principal and executive officer with Pacific AgriTec, LLC. We are in the business of carbon capture using proprietary technology that we've developed in-house. I'm also a member of the Santa Barbara County Regional Climate Collaborative Equity Advisory and Outreach EAOC) Committee and I instigated formation of the Affordability Subcommittee.

I am speaking on behalf of local Council number 3252 of the League of United Latin American Citizens also known as LULAC. I've been associated with LULAC since 2013. With me today is Mary Jacka, our Council President.

The LULAC mission is to advance the economic condition, educational attainment, political influence, housing, health, and civil rights of the U.S. Hispanic population. We are backed by a national organization founded in 1929 that consists of about 132,000 members and supporters. Our local Council is an award-winning organization and a consistent champion of Hispanics and other marginalized groups and communities living in and around the Central Coast.

Today, the proposed Climate Action Plan and draft EIR is before the Board of Supervisors and the public for direction from the Board. It goes without saying but I'll say it anyway, it's the duty of our elected officials and government employees to consider all impacts that regulatory and policy decisions will have on our community and to keep the people they serve informed. The concerns and questions we have pertain to the impacts this Plan will have on housing and transportation costs. Neither the proposed Plan nor the draft EIR address these matters. We submit that the nature of our concerns and its due process is prescribed under CEQA Article 2, Section 15021, paragraphs (b) and (d)[1] and if not, it clearly deserves overriding consideration due to the socioeconomic impacts it could have on our low-income, marginalized, disadvantaged, persons of color, and other community members.

Our own analysis shows that Climate Action Plan policies will exacerbate the everyday struggles and already high costs of living for these people. Related direct and indirect costs will be significant. Thus, further scrutiny and analyses are needed to quantify those incremental costs so adequate as well as proper preparation and planning within these communities can proceed. Here are some reasons why.

Three low-income categories are used by the State of California to help assess needs.[2] Each are evaluated relative to an area's median income (or AMI):

- A household is considered low-income when between 50 and 80% of the AMI is earned,
- A very low-income household earns 30 to 50% of the AMI, and
- An extremely low-income household earns less than 30% of the AMI.

Using this criteria and U.S. Census figures, we see that 58% of County households fall within one of these low-income categories. Of these households, 66% reside in North County and 34% in South County.

The median household income for Santa Barbara County in 2021 was approximately $96,250.[3] This amount is approximately 36% higher than the 2021 National median of $70,784.[4] The U.S Department of Housing and Urban Development (HUD) and the State of California both say affordable housing for low-income households exists when 30% or less of their income affords monthly rent and utilities. Given the accepted low-income categories we have outlined, the monthly allowance for housing expenses express as monthly totals using the 2021 Santa Barbara County AMI. Those ranges are as follows:

- $1,203 to $1,925 for low-income citizens,
- $722 to $1,203 for very low-income citizens, and
- Less than $722 for extremely low-income citizens.

We probably can all agree that local housing costs are typically higher that what these amounts will afford. In fact, the National Low Income Housing Coalition (NLIHC) in 2021 said that the Fair Market Rent (FMR) for a two-bedroom apartment in California was $2,030.[2] Assuming this amount applies locally, then a single household must earn $6,767 per month or $81,200 per year to make ends meet. That's 16% more than what average of low-income household makes in North County, which is about $68,225. In the aggregate, this comparison shows that a countywide household income shortfall of about $874 million already exists for low-income households and is expected to grow. However, the Climate Action Plan does not consider these facts. Furthermore, there are approximately 62,025 non-citizen workers and migrants who live in the County. Most of them reside in North County, work in unincorporated County areas, with housing and transportation needs not addressed by the Climate Action Plan.

2.1 Cont.

In contrast, households earning above the low-income thresholds only accounts for 42% of the County total. Obviously, this is less than ½ the total number of households for whom the Plan mostly addresses. We view this as a clear example of equity disparity. The Climate Action Plan's Equity Guardrail #4 advocates to "Promote Housing Affordability and Avoid Displacement." We don't see this being honored. The socioeconomic challenges to our low-income, disadvantaged, and marginalized community members needs to be addressed better than this by the Climate Action Plan.

Some would argue that undefined government subsidies will become available to take care of the low-income shortfalls that could easily top $1 billion annually in Santa Barbara County within the next couple of years. It's unlikely that amount will become available and it would be fundamentally irresponsible to rely on such undefined expectations. Instead, more Plan refinement is needed to formulate equitable solutions for all. In that spirit we offer the following questions and comments. Our desire is for Planning and Development to conduct additional analyses, continue to promote transparent discussion, and offer the best available solutions within the proposed Climate Action Plan and draft EIR for the good of all Santa Barbara County residents.

Question/Comment Set #1: Has a new housing cost analysis of the pre- and post- Climate Action Plan recommendations been performed? If so, it is not discussed in the proposed Climate Action Plan nor is it addressed in the draft EIR? Additionally, have these considerations been contemplated and incorporated into the Housing Element of the County's Comprehensive Plan? If not, why are separate

2.2

Housing Element and Climate Action Plan draft EIR's are being prepared? We view this as piecemealing since there is a clear connection between the two matters.

Question/Comment Set #2: What would be the percent increase in new housing costs broken down by housing types and sizes as a result of the County's proposed Climate Action Plan? What compounding impacts would result from inflation?

Question/Comment Set # 3: The proposed County GHG reduction goals reach beyond the GHG reduction goals established by the State. Do the proposed reach goals further reduce housing affordability for low-income households? Since the Climate Action Plan would be adding significant cost burdens to all County citizens and disproportionately towards low-income households, reasonable justification should be provided as to why the County GHG reduction goals reach beyond the State goals. Justification for the reach goal is not given in the Climate Action Plan nor the draft EIR.

2.2 Cont.

Question/Comment Set # 4: A State mandate exists for banning the sale of gasoline powered vehicles and only allowing the sale of EV's sales by 2035. The Climate Action Plan assumes 25% EV ownership by 2025 and 90% by 2045. We believe these Climate Plan assumptions actually invalidate the need to preferentially locate new housing in South County to lower travel distances when growing numbers of non-GHG emitting EVs will be in use. Conversely, there is an immediate and greater need for affordable housing within North County. There is clearly a nexus between the County's Climate Action and Housing Element Plans and these should be evaluated together. This is another example of low-income housing equity disparity and a not in accord with the Climate Action Plan, Equity Guardrail #4 when 66% of low-income households live and work in North County.

Question/Comment Set # 5: Unless we are missing something, two of the alternatives identified in the Climate Action Plan draft EIR include natural gas bans. The 9th U.S. Circuit Court on April 17th, 2023 found the natural gas ban for new buildings to be in violation of the Energy Policy and Conservation Act of 1975 and cannot be enforced. Why is this not addressed in the Climate Action Plan draft EIR?

2.3

Thank you.

1. https://www.califaep.org/docs/CEQA_Handbook_2023_final.pdf (Accessed 6/26/2023)
2. https://www.housingca.org/policy/focus/housing-affordability/#:~:text=The%20U.S%20Department%20of%20Housing,its%20income%20on%20housing%20costs. (Accessed 6/26/2023)
3. https://www.point2homes.com/US/Neighborhood/CA/Santa-Barbara-County-Demographics.html#:~:text=The%20average%20annual%20household%20income,a%20median%20wage%20of%20%24117%2C188. (Accessed 6/26/2023)
4. https://www.census.gov/library/visualizations/2022/comm/median-household-income.html (Accessed 6/26/2023)

Letter 2

COMMENTER: Ramon Elias, League of United Latin American Citizens

DATE: June 27, 2023

Response 2.1

The commenter expresses a concern that the project would affect housing and transportation costs and states that neither the 2030 CAP nor the Draft EIR address these matters. The commenter states that approval of the project requires overriding consideration due to the socioeconomic impacts the 2030 CAP could have on low-income, marginalized, and disadvantaged people; persons of color; and other community members.

Pursuant to *CEQA Guidelines* Section 15131, economic or social effects of a project shall not be treated as a significant effect on the environment. The County has incorporated policies and actions into its General Plan that address socioeconomic issues, such as affordability of housing and equity. As a result, no modification to the Draft EIR is necessary.

Response 2.2

The commenter questions whether a housing cost analysis has been performed for the 2030 CAP and Draft EIR, and if the analysis is included in the County's Housing Element. The commenter questions why separate EIRs are being prepared for the County's Housing Element and the 2030 CAP, and states that the two projects are connected, such that separating their environmental analysis is "piecemealing". The commenter also expresses concern that the project will effect housing affordability and have disproportionate effects for low-income households.

A formal analysis of economic or social impacts is not required and has not been conducted. Please refer to Response 2.1 regarding housing affordability and socioeconomic impacts. The 2030 Climate Action Plan and the County of Santa Barbara General Plan Housing Element are separate actions with discrete regulatory requirements under State law. The EIRs for each of these actions assess the environmental impacts on a Countywide scale, evaluating the physical direct, indirect, and cumulative impacts of the proposed components. The Draft EIR for 2030 CAP takes into consideration the cumulative growth forecast anticipated in the County's General Plan and Housing Element. This comment will be forwarded to County decision makers for their review and consideration.

Response 2.3

The commenter states that two of the alternatives identified in the Draft EIR include natural gas bans and that recent Federal ruling determined natural gas ban for new buildings cannot be enforced.

Section 6.0, *Alternatives*, of the Draft EIR includes descriptions and analyses of three alternatives determined to constitute a "reasonable range" of project alternatives, consistent with CEQA requirements. The court in *California Restaurants Association v. City of Berkeley* held that Federal law prevents Berkeley and other Cities "from banning new-building owners from 'extending' fuel gas piping within their buildings "from the point of delivery at the gas meter", the court refused to touch on "whether the city has any obligation to maintain or expand the availability of a utility's delivery of gas to meters". (California Restaurant Association v. City of Berkeley (9th Cir. 2023) 65

F.4th 1045, 1055). The matter is far from settled at this point as the case was remanded to the Trial court for further action and a coalition of States and Cities has filed a petition for an *en banc* hearing on the matter by the 9th Circuit Court of Appeals. If the decision ultimately stands, while the County would not then be able to directly ban the use of natural gas appliances or new hook ups from existing meters, it could encourage applicants for new construction to limit the use of such hook ups through incentive programs, compliance with emissions standards, and other means, thereby achieving similar results as anticipated in the alternatives. This comment will be forwarded to County decision makers for their review and consideration.

Letter 3

Date posted	Name	Comment	
07/27/2023	Jeanne Hollingsworth	Alternative number one, no project is the best alternative for Santa Barbara County. We do not have the density of population that the 3 percent of California that is occupied by 96 percent of the population, the Bay Area, Sacramento area and LA	3.1
07/27/2023	Jeanne Hollingsworth	Alternative number two, carbon credit, may slow the development of business in Santa Barbara County, but it has the advantage of adding income to the county.	3.2
07/27/2023	Jeanne Hollingsworth	Alternative number three is flawed as you consider the future. There is a great risk of adversaries to the United States of America. Consider an EMP attack ir the next ten years. We should not count on electricity.	3.3
07/27/2023	Jeanne Hollingsworth	To reduce food waste, is the most viable way to reduce carbon emissions in the Santa Ynez valley. Would it be possible to make this waste available to use as animal feed two pigs and chickens? Remember, the food source for human beings is a very important consideration	3.4
07/27/2023	Jeanne Hollingsworth	Speaking for the Santa Ynez Valley, the transportation system is rarely used by tourists or residents. It seems in itself to be a waste of emissions and funds	3.5
07/27/2023	Jeanne Hollingsworth	With the inclusion of the Los Padres National Forest in the Santa Barbara County area map, I wonder how our greenhouse gases impact the environment when the populated area is only half of the total. Have those who are involved in promoting this program compared the need for Santa Barbara County to reduce greenhouse gases as compared to more populated areas?	3.6

Letter/Comments 3

COMMENTER: Jeanne Hollingsworth

DATE: July 27, 2023

Response 3.1

The commenter states that the No Project Alternative (Alternative 1) is the best alternative for the County, since the County does not have the density of population of the Bay Area, Sacramento area or Los Angeles.

This comment will be forwarded to County decision makers for their review and consideration.

Response 3.2

The commenter states that the Carbon Credit Alternative (Alternative 2) may slow the development of business in Santa Barbara County, but has the advantage of adding income to the County.

This comment will be forwarded to County decision makers for their review and consideration.

Response 3.3

The commenter states that the Building Electrification Alternative (Alternative 3) is flawed, since the County should not rely on electricity due to considerations of future electromagnetic pulse attacks from adversaries of the United States.

The purpose of the Alternative 3, as well as the 2030 CAP, is to reduce greenhouse gas emissions in the County. The risk of a foreign attack on the United States is not an environmental effect subject to analysis under CEQA. Since this comment does not pertain to the adequacy of the environmental impact analysis presented in the Draft EIR, no modification to the Draft EIR is warranted. This comment will be forwarded to County decision makers for their review and consideration.

Response 3.4

The commenter states that reducing food waste is the most viable way to reduce carbon emissions in the Santa Ynez Valley. The commenter questions whether it would be possible to make food waste available for use as animal feed for pigs and chickens. The commenter states that the food source for human beings is a very important consideration.

This comment does not pertain to the adequacy of the environmental impact analysis presented in the Draft EIR, and as a result, no modification to the Draft EIR is warranted. However, this comment will be forwarded to County decision makers for their review and consideration.

Response 3.5

The commenter states the Santa Ynez Valley public transportation system is rarely used by tourists or residents and opines the system is a waste of emissions and funds.

This comment will be forwarded to County decision makers for their review and consideration. Since this comment does not pertain to the adequacy of the environmental impact analysis presented in the Draft EIR, no modification to the Draft EIR is warranted.

Response 3.6

The commenter questions how greenhouse gases impact the environment, stating that only half of the County is populated and the other half contains the Los Padres National Forest. The commenter questions whether the County has compared the need to reduce greenhouse gases on the basis of where the population is located.

Page 4.3-1 in Section 4.3, *Greenhouse Gas Emissions*, of the Draft EIR, describes how greenhouse gases impact the environment. This comment will be forwarded to County decision makers for their review and consideration.

Appendix A

Draft Environmental Impact Report

2030 Climate Action Plan

Draft Environmental Impact Report
State Clearinghouse Number: 2022110453

prepared by

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Appendices

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Executive Summary

This document is an Environmental Impact Report (EIR) analyzing the environmental effects of the proposed 2030 Climate Action Plan (2030 CAP; Proposed 2030 CAP). This section summarizes the characteristics of the 2030 CAP, alternatives to the 2030 CAP, and the environmental impacts and mitigation measures associated with the 2030 CAP.

2030 CAP Synopsis

Lead Agency Contact Person

County of Santa Barbara
Sustainability Division, Community Services Department
123 East Anapamu Street
Santa Barbara, California 93101

Contact: Garrett Wong, Climate Program Manager
(805) 390-2983

2030 CAP Description

This EIR has been prepared to examine the potential environmental effects of the 2030 CAP. The following is a summary of the full project description, which can be found in Section 2, *Project Description*.

2030 CAP Location

The 2030 CAP would update the County of Santa Barbara's (County) 2015 Energy and Climate Action Plan which is implemented across unincorporated Santa Barbara County, excluding lands under the jurisdiction of incorporated cities, the federal government (Los Padres National Forest and Vandenberg Space Force Base), and the University of California.

2030 CAP Overview

In 2018, the County of Santa Barbara adopted a goal of 50 percent net reduction from 2018 emissions levels by 2030, and carbon neutrality by 2045. To reach this goal, the County is proposing to update the 2015 Energy and Climate Action Plan. The 2030 CAP would include a community-wide greenhouse gas (GHG) emissions inventory and create climate action strategies to address issues related to improving building efficiency; decreasing transportation emissions; decreasing emissions related to water, wastewater, and solid waste; increasing carbon sequestration, creating food system improvements; and encouraging a low carbon economy. Climate action strategies within the 2030 CAP would be fulfilled through implementation of 2030 CAP Measures and Actions. A Measure is a long-range policy developed to achieve specific GHG reductions. An Action is a specific program or step that supports GHG reduction Measures. Adoption of the 2030 CAP would require accompanying amendments to the Energy Element and amendments to other components of the Santa Barbara County Comprehensive Plan as needed for consistency with 2030 CAP Measures and Actions.

Qualified Greenhouse Gas Emissions Reduction Plan

California Environmental Quality Act (CEQA) Guidelines Section 15183.5(b) stipulates that project-specific environmental documents can find that project-level GHG emissions would not be cumulatively considerable if the project complies with the requirements of a qualified GHG emissions reduction plan. The project-specific environmental document must identify those requirements in the GHG emissions reduction plan that applies to the project, and if they are not otherwise enforceable, must incorporate those requirements as project-specific mitigation measures. To meet the requirements of CEQA Guidelines Section 15183.5(b), a qualified GHG emissions reduction plan must do the following:

a. Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
b. 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;
c. Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
d. 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;
e. 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; and
f. Be adopted in a public process following environmental review.

The 2030 CAP would fulfill the requirements of a qualified greenhouse gas emissions reduction plan. The 2030 CAP includes a GHG emissions inventory, GHG emissions forecasts, and GHG emissions targets. The 2030 CAP provides specific GHG emission reduction Measures that collectively achieve the County's emissions targets and requires the County to conduct annual progress reporting for 2030 CAP implementation status. The 2030 CAP is a discretionary project which must undergo environmental review pursuant to CEQA, and is therefore subject to public review.

Programs, Policies, and New Development

The 2030 CAP does not identify individual site-specific projects that may result from implementing actions included in the 2030 CAP. However, the types of supportive programs, policies, financial pathways, and other commitments identified in the Actions included in the 2030 CAP are considered during review of the 2030 CAP. Such programs, policies, or potential new development would be aligned with the 2030 CAP Measures, included in Table ES-1.

Table ES-1 Santa Barbara County 2030 CAP GHG Emissions Reduction Measures List

Measure	Description
Building Energy Measures	
BE-1	Increase energy resilience in new and existing buildings
Transportation Measures	
TR-1	Increase the use of zero-emission vehicles
TR-2	Enhance transportation policy infrastructure planning
TR-3	Increase affordable housing and reduce number of commuter car trips
TR-4	Increase reliability and accessibility of transit services
TR-5	Reduce the need for commuting by encouraging work at home, walk to work and locating jobs near transit
TR-6	Decarbonize offroad emissions
Waste Measures	
W-1	Reduce food waste and increase use of organic recycled materials
W-2	Reduce use of non-recyclable and non-compostable single use items
Water and Wastewater Measures	
WW-1	Increase energy and carbon efficiency of water production treatment conveyance and use
Carbon Sequestration Measures	
CS-1	Facilitate carbon reduction through conservation and restoration of natural habitats and ecosystems and sequestration technologies
Food System Measures	
FS-1	Increase community food access equity and resilience
FS-2	Reduce energy- and carbon-intensity of the food system
Low Carbon Economy Measures	
LCE-1	Limit the increase of fossil-fuel extraction and develop a sunset strategy
LCE-2	Support local business in becoming more sustainable
Government Operations Measures	
GO-1	Increase sustainability and resilience of County-operated facilities

Source: 2030 CAP

Each of the 2030 CAP Measures are fulfilled through 2030 CAP Actions. 2030 CAP Actions identify the supportive programs, policies, financial pathways, and other commitments that assist in accomplishing these Measures. The types of infrastructure, improvements, and other new development facilitated by the 2030 CAP Actions includes, but is not limited to, the installation of electric vehicle charging stations; new bicycle or pedestrian facilities; upgrading existing infrastructure including electrical panels and branch circuits; the increase of sustainable agricultural practices such as expanding solar development on agricultural lands, increasing the use of compost, mulching, cover crops, and hedgerow planting; the restoration of natural habitats and ecosystems; and the development of new building policies to increase wildfire resilience. The 2030 CAP Actions promote programs or developments aligned with the 2030 CAP Measures which could introduce physical changes associated with construction and could alter pedestrian and vehicular traffic patterns. A full list of 2030 CAP Actions can be found within Table 2 of the 2030 CAP document.

Once adopted, the 2030 CAP would represent Santa Barbara County's approved emissions reduction program for all new development within unincorporated Santa Barbara. Future development projects in Santa Barbara County requiring discretionary approval would have the opportunity to

demonstrate consistency with the 2030 CAP if they are consistent with the 2030 CAP's GHG emissions reduction measures. Any project that is consistent with a qualified GHG emissions reduction plan, and that conforms to specific performance standards applicable to new development identified in the plan, would not require additional GHG emissions analysis or mitigation in accordance with CEQA Guidelines Section 15183.5(b). In addition, a project's incremental contribution to a cumulative impact may not be cumulatively considerable if the project would comply with the requirements in a previously approved plan or mitigation program (including plans or regulations for the reduction of GHG emissions) that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area in which the project is proposed. Future discretionary development projects found by the County to be consistent with the 2030 CAP could streamline GHG analysis in accordance with CEQA Guidelines Section 15183.5.

Infrastructure, improvements, and other new development facilitated by the 2030 CAP Actions requiring discretionary approval would be subject to environmental review in accordance with CEQA and individual impact analyses would identify required plan- or project-specific mitigation measures where applicable. However, 2030 CAP-related projects implemented to promote 2030 CAP Measures and Actions would have the opportunity to rely on the programmatic environmental review contained in the certified Program EIR for the 2030 CAP for project-level analysis.

Project Objectives

The objectives of the 2030 CAP are as follows:

- Quantify GHG emissions in Santa Barbara County in a GHG inventory.
- Provide a road map to achieve GHG reductions that meet the State's SB 32 reduction target of 40 percent below baseline emissions by 2030, with an aspirational goal to meet the County's GHG emissions reduction target goal of 50 percent below baseline emissions by 2030.
- Demonstrate a level of GHG emissions below which future projects covered by the 2030 CAP would not have a cumulatively considerable contribution to GHG impacts.
- Serve as a Qualified Greenhouse Gas Emissions Reduction Plan to provide CEQA streamlining for future development projects.

Alternatives

As required by the California Environmental Quality Act (CEQA), this EIR examines alternatives to the 2030 CAP. Studied alternatives are summarized below. Based on the alternatives analysis, Alternative 3 was determined to be the environmentally superior alternative.

- Alternative 1: No Project
- Alternative 2: Carbon Credit
- Alternative 3: Building Electrification

Alternative 1 (No Project) examines a scenario in which the County would not approve the 2030 CAP. Under such a scenario, none of the emissions reductions Measures or Actions outlined in the 2030 CAP would be implemented, and none of the benefits of the 2030 CAP would be realized. The County would continue to rely on implementation of GHG emissions reductions strategies within the 2015 Energy and Climate Action Plan, which would not achieve the State's goal of a 40 percent reduction in emissions from 1990 levels by 2030. The anticipated GHG emissions that would occur in

accordance with the No Project Alternative are generally described in the 2030 CAP's State-Adjusted forecast, which accounts for future growth in accordance with business-as-usual conditions, adjusting for implementation of existing State laws and programs that were implemented prior to the development of the 2030 CAP[1]. This alternative would not provide a clear pathway for the County to meet the State's emissions reduction goal.

Alternative 2 (Carbon Credit). Under this alternative, in lieu of adopting the 2030 CAP, the County would purchase carbon offsets to reduce GHG emissions. Carbon offset projects could increase or protect carbon sequestration, invest in solar or wind projects, improve water or energy efficiency, capture methane at animal farms or landfills, replace high-global warming-potential gas use with a gas that has a lower global warming potential, or implement other types of measures. To achieve the greatest environmental benefits to Santa Barbara County, priority would be given, from highest to lowest, to offsets purchased locally (within the County), regionally (within the Central Coast of California), within California, outside of California but within the Pacific Southwest (within Arizona, Hawaii, Utah, or Nevada), and elsewhere in the United States.

Alternative 3 (Building Electrification). The 2030 CAP includes Action CE-1.1 and Action CE-1.2 which requires the County to restrict natural gas infrastructure for new development and major remodels and complete an existing building electrification plan to identify the policies and programs needed to achieve the 2030 CAP goal to electrify 14 percent of existing buildings by 2030, respectively. The Building Electrification Alternative would revise these Actions to require the County to adopt a building electrification ordinance concurrently with adoption of the 2030 CAP which requires 100 percent building electrification by 2030. This would result in the complete and immediate restriction of all natural gas infrastructure rather than a restriction for only new development and major remodels. The Building Electrification Alternative would result in the complete electrification of buildings in Santa Barbara County within the timeframe of the 2030 CAP, substantially reducing GHG emissions resulting from the use of natural gas.

Refer to Section 6, *Alternatives*, for the complete alternatives analysis.

Areas of Known Controversy

The EIR scoping process did not identify any areas of known controversy for the 2030 CAP. Responses to the Notice of Preparation of a Draft EIR and input received at the EIR scoping meeting held by the County are summarized in Section 1, *Introduction*.

Issues to be Resolved

The County of Santa Barbara Board of Supervisors will need to adopt any CAP-related Comprehensive Plan amendments (e.g., amendments to the Energy Element) to be consistent with, and ensure the successful implementation of, certain features of the CAP. In addition to the actions set forth above, the Coastal Commission must certify any amendments to the Local Coastal Program (LCP) – including Article II, as the implementing ordinance of the LCP.

[1] The "business-as-usual" forecast assumes no action is taken to reduce GHG emissions in the County. 2018 emissions are projected forward using growth indicators such as population, housing, and employment.

Issues Not Studied in Detail in the Program EIR

Pursuant to *CEQA Guidelines* Section 15128, an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Section 15128 notes such a statement may be contained in an attached copy of an Initial Study. The Environmental Scoping Document/Initial Study (Appendix A) prepared for the 2030 CAP and included as part of the NOP functions as an Initial Study for the 2030 CAP, pursuant to *CEQA Guidelines* Section 15128. The Environmental Scoping Document/Initial Study concludes there is no substantial evidence the 2030 CAP would have significant impacts on Aesthetics/Visual Resources, Agricultural Resources, Biological Resources, Cultural Resources, Fire Protection, Geologic Processes, Hazardous Materials/Risk of Upset, Land Use, Noise, Public Facilities, Recreation, or Water Resources/Flooding. For the complete analysis of these environmental issue areas, refer to Appendix A.

Summary of Impacts

Table ES-2 summarizes the environmental impacts of the 2030 CAP. Impacts are based on the following classifications:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the CEQA Guidelines.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under §15091 of the CEQA Guidelines.
- **Less than Significant.** An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact:** The 2030 CAP would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Table ES-2 Summary of Environmental Impacts

Impact	Mitigation Measure (s)	Residual Impact
Air Quality		
Impact AQ-1. The 2030 CAP would not directly result in regional population growth or an increase in regional employment and would be consistent with the County's regional growth forecast, which is the basis for the 2022 Ozone Plan. This impact would be less than significant.	No mitigation measures are required.	Less than significant.
Impact AQ-2. Construction of 2030 CAP-related projects would comply with applicable SBCAPCD rules, which are designed to minimize construction emissions in the County. The 2030 CAP would implement Actions which would reduce long-term regional pollutant emissions associated with vehicle use, building use, and landfill operations. This impact would be less than significant.	No mitigation measures are required.	Less than significant.
Impact AQ-3. 2030 CAP-related projects could would result in small-scale construction activities, which may occur in proximity to sensitive receptors. Existing State regulations, SBCAPCD regulations, and project-specific environmental review would minimize the potential for sensitive receptors to be exposed to substantial pollutant concentrations. Implementation of the 2030 CAP would reduce long-term regional pollutant emissions and reduce the potential for existing sensitive receptors to be exposed to TAC concentrations. This impact would be less than significant.	No mitigation measures are required.	Less than significant.
Impact AQ-4. 2030 CAP-related projects would be subject to SBCAPCD regulations which would minimize the creation of odors during construction. The 2030 CAP would not result in or promote projects identified by SBCAPCD as having the potential to result in substantial odors. This impact would be less than significant.	No mitigation measures are required.	Less than significant.

Impact	Mitigation Measure (s)	Residual Impact
Energy		
Impact E-1. The 2030 CAP includes Measures and Actions that would promote energy efficiency in Santa Barbara County, consistent with existing energy policies. 2030 CAP-related projects requiring construction activities would consume energy resources; however, consumption of electricity and petroleum during construction would be temporary, and would be subject to applicable State regulations, which would minimize wasteful energy use. Therefore, this impact would be less than significant	No mitigation measures are required.	Less than significant.
Greenhouse Gas Emissions		
Impact GHG-1. Implementation of the 2030 CAP would result in substantial GHG reductions compared to the Business-As-Usual scenario and the scenario implementing only State GHG reduction laws. The 2030 CAP would reduce overall GHG emissions in the County, consistent with Statewide legislation (SB 32). This impact would be less than significant.	No mitigation measures are required.	Less than significant.
Impact GHG-2. The 2030 CAP would not conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of GHGs, as the 2030 CAP is a policy driven document intended to reduce GHGs. The 2030 CAP would achieve GHG reduction targets established by Senate Bill 32 and would include Measures and Actions promoting the goals of applicable plans, policies, and regulations, such as SBCAG's Connected 2050, Senate Bill 100, Innovative Clean Transit Regulations, the California Model Water Efficient Landscape Ordinance, Title 24 of the California Code of Regulations, and the County's Energy Element. Therefore, there would be no impact	No mitigation measures are required.	Less than significant.

Impact	Mitigation Measure (s)	Residual Impact
Transportation		
Impact TRA-1. The 2030 CAP would not conflict with the Santa Barbara County Association of Government's Connected 2050 RTP/SCS, the County's Circulation Element, or any other applicable program, plan, ordinance, or policy relevant to the transportation system. This impact would be less than significant.	No mitigation measures are required.	Less than significant.
Impact TRA-2. The 2030 CAP would implement specific Actions which would reduce VMT for residential, commercial, and industrial sectors throughout the County. The 2030 CAP would result in a reduction of countywide VMT. Therefore, the 2030 CAP would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). This impact would be less than significant.	No mitigation measures are required.	Less than significant.
Impact TRA-3. 2030 CAP-related projects would be required to adhere to applicable regulations to ensure emergency access is maintained, such as the California Department of Transportation's Manual of Uniform Traffic Control Devices, the County Code, and the access requirements of the applicable Fire Department. With adherence to applicable regulations, this impact would be less than significant.	No mitigation measures are required.	Less than significant.

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1 Introduction

This document is a Programmatic Environmental Impact Report (Program EIR) that identifies and describes potential environmental impacts associated with the 2030 Climate Action Plan (2030 CAP; Proposed 2030 CAP) proposed by the County of Santa Barbara (County). The 2030 CAP is an update of the 2015 Energy and Climate Action Plan, which was adopted by the County in May 2015.

This section discusses (1) the legal basis for preparing a Program EIR; (2) the lead, responsible, and trustee agencies; (3) the Program EIR background; (4) issue areas found not to be significant by the Environmental Scoping Document/Initial Study; (5) the content and format of the Program EIR; and (6) the environmental review process required under the California Environmental Quality Act (CEQA). The 2030 CAP is described in detail in Section 2, *Project Description*.

1.1 Purpose and Legal Authority

Section 21000 of the California Public Resources Code, commonly referred to as CEQA, requires the evaluation of environmental impacts associated with all planning programs or development projects proposed. As such, this Program EIR is an informational document for use by the County, other agencies, and the general public in their consideration and evaluation of the environmental consequences of implementing the 2030 CAP.

This document is a Program EIR. Section 15168(a) of the CEQA Guidelines states that:

> "A Program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) geographically; (2) as logical parts in a chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria, to govern the conduct of a continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways."

Section 15151 of the CEQA Guidelines provides the following standards related to the adequacy of an Environmental Impact Report:

> "An Environmental Impact Report should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have looked not for perfection; but for adequacy, completeness, and a good faith effort at full disclosure. "

Once a Program EIR has been prepared, subsequent activities under the program must be evaluated to determine what, if any, additional CEQA documentation needs to be prepared. If the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be in the Program EIR scope and additional environmental documents may not be required (CEQA Guidelines § 15168(c)). When a Program EIR is relied upon for a subsequent activity, the Lead Agency must incorporate feasible mitigation measures and

alternatives developed in the Program EIR into the subsequent activities (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects not addressed in the Program EIR, the Lead Agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or project-level EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis.

1.2 Lead, Responsible, and Trustee Agencies

The *CEQA Guidelines* require the identification of "lead," "responsible," and "trustee" agencies. The County is the "lead agency" for the 2030 CAP because it has the principal responsibility for approving the 2030 CAP.

A "responsible agency" is a public agency other than the "lead agency" that has discretionary approval authority over certain components of a project (the *CEQA Guidelines* define a public agency as a State or local agency, but specifically exclude federal agencies from the definition). A "trustee agency" refers to a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California (for example, the California Department of Fish and Wildlife).

1.3 Program EIR Background

In compliance with the *CEQA Guidelines* (Sections 15063 and 15082), the County of Santa Barbara, as the Lead Agency responsible for the 2030 CAP, solicited preliminary public agency comments on the project through distribution of a Notice of Preparation (NOP) and receipt of public comments during the 2030 Climate Action Plan EIR Scoping Meeting held virtually on November 22, 2022. As part of the NOP, an Environmental Scoping Document/Initial Study was published which provides an evaluation of environmental issue areas which are not discussed further in this Program EIR (refer to Section 1.4). A copy of the Environmental Scoping Document/Initial Study is provided as Appendix A of this Program EIR.

The NOP was distributed to affected agencies and the public for the required 30-day period from November 18, 2022 to December 19, 2022. Table 1-1 summarizes the issues relevant to the Program EIR that were identified in the NOP comments received (one agency/four individuals) and the Program EIR sections where the issues are addressed. The NOP and NOP comments/letters received are included in Appendix B of this Program EIR.

Table 1-1 NOP Comments and Program EIR Response

Commenter	Comment/Request	How and Where It Was Addressed
Agency Comments		
Native American Heritage Commission	Assembly Bill (AB) 52 applies to any project to which as notice of preparation is filed on or after July 1, 2015. AB 52 has consultation requirements which must be met by the lead agency.	Comments are addressed in the Environmental Scoping Document for the 2030 Climate Action Plan, included as Appendix A of this Program EIR
Public Comments		
Michael Chiacos	State targets are 68% of new vehicle sales being ZEVs by 2030. However, the fleet takes more than a decade to turn over so the impact will be more modest than in 2040 and later when more fleet turnover has occurred.	Comments are addressed in Section 4.4, *Transportation and Traffic*.
Krista Pleiser, Santa Barbara Association of Realtors	Use of natural gas	Comments are addressed in Section 4.2, *Energy*
Summer Broeke-Smith, Geosyntec	How will CAP account for state legislation (e.g., electrification/NG phaseout)	Comments are addressed in Section 4.2, *Energy*
Nancy Emerson	Will this be a Program EIR? And will the Housing Element Update be considered in the EIR?	Comments are addressed in Subsection 1.1, *Purpose and Legal Authority*, in Section 1.0, *Introduction*

1.4 Issues Not Studied in Detail in the Program EIR

Pursuant to *CEQA Guidelines* Section 15128, an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Section 15128 notes such a statement may be contained in an attached copy of an Initial Study. The Environmental Scoping Document/Initial Study (Appendix A) prepared for the 2030 CAP and included as part of the NOP functions as an Initial Study for the 2030 CAP, pursuant to *CEQA Guidelines* Section 15128. The Environmental Scoping Document/Initial Study concludes there is no substantial evidence the 2030 CAP would have significant impacts on Aesthetics/Visual Resources, Agricultural Resources, Biological Resources, Cultural Resources, Fire Protection, Geologic Processes, Hazardous Materials/Risk of Upset, Land Use, Noise, Public Facilities, Recreation, or Water Resources/Flooding. For the complete analysis of these environmental issue areas, refer to Appendix A.

1.5 Content and Format

This Program EIR has been organized into seven sections, which include:

1. **Introduction.** Provides the statement of purpose, project background, and information about the Program EIR content and format.
2. **Project Description.** Identifies the project proponent, presents and discusses the project objectives, project locations and specific project characteristics.
3. **Environmental Setting.** Provides a description of the existing physical setting of the County, an overview of the progress in implementing the 2030 CAP, and discusses the Program EIR baseline and approach to direct and cumulative analyses.

4. **Analysis of Environmental Issues.** Describes existing conditions found in the 2030 CAP area and assesses potential environmental impacts that may be generated by implementing the 2030 CAP and cumulative development in Santa Barbara County. These potential project impacts are compared to "thresholds of significance" in order to determine the nature and severity of the direct and indirect impacts. Mitigation measures, intended to reduce adverse, significant impacts below threshold levels, are proposed where feasible. Impacts that cannot be eliminated or mitigated to less-than-significant levels are also identified.
5. **Other CEQA-Required Discussions.** Identifies the spatial, economic, or population growth impacts that may result from implementation of the proposed project, as well as long-term effects of the 2030 CAP and significant irreversible environmental changes.
6. **Alternatives.** Presents and assesses the potential environmental impacts of three alternatives (including one no project) analyzed in addition to implementation of the 2030 CAP.
7. **References/Preparers.** Lists all published materials, federal, State, and local agencies, and other organizations and individuals consulted during the preparation of this Program EIR. It also lists the Program EIR preparers.

1.6 Environmental Review Process

The environmental impact review process, as required under CEQA, is summarized below. The steps are presented in sequential order.

1. **Notice of Preparation (NOP) and Environmental Scoping Document/Initial Study**. After deciding that an EIR is required, the lead agency (County of Santa Barbara) must file a NOP soliciting input on the EIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (*CEQA Guidelines* Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days. The NOP may be accompanied by an Environmental Scoping Document/Initial Study that identifies the issue areas for which the project could create significant environmental impacts.
2. **Draft EIR Prepared.** The Draft EIR must contain a) table of contents or index, b) summary, c) project description, d) environmental setting, e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts), f) a discussion of alternatives, g) mitigation measures, and h) discussion of irreversible changes.
3. **Notice of Completion (NOC).** The lead agency must file a NOC with the State Clearinghouse when it completes a Draft EIR and prepare a Public Notice of Availability of a Draft EIR. The lead agency must place the NOC in the County Clerk's office for 30 days (Public Resources Code Section 21092) and send a copy of the NOC to anyone requesting it (*CEQA Guidelines* Section 15087). Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the project site; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must solicit input from other agencies and the public and respond in writing to all comments received (Public Resources Code Sections 21104 and 21253). The minimum public review period for a Draft EIR is 30 days. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days unless the State Clearinghouse approves a shorter period (Public Resources Code 21091).
4. **Final EIR.** A Final EIR must include a) the Draft EIR, b) copies of comments received during public review, c) list of persons and entities commenting, and d) responses to comments.

5. **Certification of Final EIR.** Prior to making a decision on a proposed project, the lead agency must certify that a) the Final EIR has been completed in compliance with CEQA, b) the Final EIR was presented to the decision-making body of the lead agency, and c) the decision-making body reviewed and considered the information in the Final EIR prior to approving a project (*CEQA Guidelines* Section 15090).
6. **Lead Agency Project Decision.** The lead agency may a) disapprove the project because of its significant environmental effects, b) require changes to the project to reduce or avoid significant environmental effects, or c) approve the project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Sections 15042 and 15043).
7. **Findings/Statement of Overriding Considerations**. For each significant impact of the project identified in the EIR, the lead agency must find, based on substantial evidence, that either a) the project has been changed to avoid or substantially reduce the magnitude of the impact, b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted, or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (*CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.
8. **Mitigation Monitoring Reporting Program.** When the lead agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
9. **Notice of Determination (NOD).** The lead agency must file a NOD after deciding to approve a project for which an EIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the NOD with the County Clerk. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30-day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

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2 Project Description

This section describes the proposed 2030 Climate Action Plan (2030 CAP), plan location, objectives, and discretionary actions needed for approval. The County of Santa Barbara is both the project applicant/proponent and the Lead Agency for the 2030 CAP.

2.1 Lead Agency Contact

County of Santa Barbara
Sustainability Division, Community Services Department
123 East Anapamu Street
Santa Barbara, California 93101

Contact: Garrett Wong, Climate Program Manager
(805) 390-2983

2.2 Plan Location

The 2030 CAP would update the County's 2015 Energy and Climate Action Plan, which is implemented across unincorporated Santa Barbara County, excluding lands under the jurisdiction of incorporated cities, the federal government (Los Padres National Forest and Vandenberg Space Force Base), and the University of California. Santa Barbara County is shown in Figure 2-1. Section 3.0, *Environmental Setting*, provides a general overview of the environmental setting for the 2030 CAP.

2.3 2030 CAP Overview

In 2018, the County of Santa Barbara adopted a goal of 50 percent net reduction from 2018 emissions levels by 2030, and carbon neutrality by 2045. The 2030 CAP would include a community-wide greenhouse gas (GHG) emissions inventory and create climate action strategies to address issues related to improving building efficiency; decreasing transportation emissions; decreasing emissions related to water, wastewater, and solid waste; increasing carbon sequestration, creating food system improvements; and encouraging a low carbon economy. Climate action strategies within the 2030 CAP would be fulfilled through implementation of 2030 CAP Measures and Actions. A Measure is a long-range policy developed to achieve specific GHG reductions. An Action is a specific program or step that supports GHG reduction Measures. Adoption of the 2030 CAP would require accompanying amendments to the Energy Element and amendments to other components of the Santa Barbara County Comprehensive Plan as needed for consistency with 2030 CAP Measures and Actions.

Figure 2-1 Regional Location

2.3.1 Qualified Greenhouse Gas Emissions Reduction Plan

California Environmental Quality Act (CEQA) Guidelines Section 15183.5(b) stipulates that project-specific environmental documents can find that project-level GHG emissions would not be cumulatively considerable if the project complies with the requirements of a qualified GHG emissions reduction plan. The project-specific environmental document must identify those requirements in the GHG emissions reduction plan that applies to the project, and if they are not otherwise enforceable, must incorporate those requirements as project-specific mitigation measures. To meet the requirements of *CEQA Guidelines* Section 15183.5(b), a qualified GHG emissions reduction plan must do the following:

a. Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
b. 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;
c. Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
d. 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;
e. 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; and
f. Be adopted in a public process following environmental review.

The 2030 CAP would fulfill the requirements of a qualified greenhouse gas emissions reduction plan. The 2030 CAP includes a GHG emissions inventory, GHG emissions forecasts, and GHG emissions targets. The 2030 CAP provides specific GHG emission reduction Measures that collectively achieve the County's emissions targets and requires the County to conduct annual progress reporting for 2030 CAP implementation status. The 2030 CAP is a discretionary project which must undergo environmental review pursuant to CEQA, and is therefore subject to public review.

2.3.2 Programs, Policies, and New Development

The 2030 CAP does not identify individual site-specific projects that may result from implementing actions included in the 2030 CAP. However, the types of supportive programs, policies, financial pathways, and other commitments identified in the Actions included in the 2030 CAP are considered during review of the 2030 CAP. Such programs, policies, or potential new development would be aligned with the 2030 CAP Measures, included in Table 2-1.

Table 2-1 Santa Barbara County 2030 CAP GHG Emissions Reduction Measures List

Measure	Description
Building Energy Measures	
BE-1	Increase energy resilience in new and existing buildings
Transportation Measures	
TR-1	Increase the use of zero-emission vehicles
TR-2	Enhance transportation policy infrastructure planning
TR-3	Increase affordable housing and reduce number of commuter car trips
TR-4	Increase reliability and accessibility of transit services
TR-5	Reduce the need for commuting by encouraging work at home, walk to work and locating jobs near transit
TR-6	Decarbonize offroad emissions
Waste Measures	
W-1	Reduce food waste and increase use of organic recycled materials
W-2	Reduce use of non-recyclable and non-compostable single use items
Water and Wastewater Measures	
WW-1	Increase energy and carbon efficiency of water production treatment conveyance and use
Carbon Sequestration Measures	
CS-1	Facilitate carbon reduction through conservation and restoration of natural habitats and ecosystems and sequestration technologies
Food System Measures	
FS-1	Increase community food access equity and resilience
FS-2	Reduce energy- and carbon-intensity of the food system
Low Carbon Economy Measures	
LCE-1	Limit the increase of fossil-fuel extraction and develop a sunset strategy
LCE-2	Support local business in becoming more sustainable
Government Operations Measures	
GO-1	Increase sustainability and resilience of County-operated facilities

Source: 2030 CAP

Each of the 2030 CAP Measures are fulfilled through 2030 CAP Actions. 2030 CAP Actions identify the supportive programs, policies, financial pathways, and other commitments that assist in accomplishing these Measures. The types of infrastructure, improvements, and other new development facilitated by the 2030 CAP Actions includes, but is not limited to, the installation of electric vehicle charging stations; new bicycle or pedestrian facilities; upgrading existing infrastructure including electrical panels and branch circuits; the increase of sustainable agricultural practices such as expanding solar development on agricultural lands, increasing the use of compost, mulching, cover crops, and hedgerow planting; the restoration of natural habitats and ecosystems; and the development of new building policies to increase wildfire resilience. The 2030 CAP Actions promote programs or developments aligned with the 2030 CAP Measures which could introduce physical changes associated with construction and could alter pedestrian and vehicular traffic patterns. The potential environmental impacts of physical improvements and changes that could occur from implementation of 2030 CAP Measures and Actions are evaluated throughout this Program EIR. A full list of 2030 CAP Actions can be found within Table 2 of the 2030 CAP document.

Once adopted, the 2030 CAP would represent Santa Barbara County's approved emissions reduction program for all new development within unincorporated Santa Barbara. Future development projects in Santa Barbara County requiring discretionary approval would have the opportunity to demonstrate consistency with the 2030 CAP if they are consistent with the 2030 CAP's GHG emissions reduction measures. As discussed in Section 2.3.1, *Qualified Greenhouse Gas Emissions Reduction Plan*, any project that is consistent with a qualified GHG emissions reduction plan, and that conforms to specific performance standards applicable to new development identified in the plan, would not require additional GHG emissions analysis or mitigation in accordance with *CEQA Guidelines* Section 15183.5(b). In addition, a project's incremental contribution to a cumulative impact may not be cumulatively considerable if the project would comply with the requirements in a previously approved plan or mitigation program (including plans or regulations for the reduction of GHG emissions) that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area in which the project is proposed. Future discretionary development projects found by the County to be consistent with the 2030 CAP could streamline GHG analysis in accordance with *CEQA Guidelines* Section 15183.5.

Infrastructure, improvements, and other new development facilitated by the 2030 CAP Actions requiring discretionary approval would be subject to environmental review in accordance with CEQA and individual impact analyses would identify required plan- or project-specific mitigation measures where applicable. However, 2030 CAP-related projects implemented to promote 2030 CAP Measures and Actions would have the opportunity to rely on the programmatic environmental review contained in the certified Program EIR for the 2030 CAP for project-level analysis.

2.4 2030 CAP Objectives

The objectives of the 2030 CAP are as follows:

- Quantify GHG emissions in Santa Barbara County in a GHG inventory.
- Provide a road map to achieve GHG reductions that meet the State's SB 32 reduction target of 40 percent below baseline emissions by 2030, with an aspirational goal to meet the County's GHG emissions reduction target goal of 50 percent below baseline emissions by 2030.
- Demonstrate a level of GHG emissions below which future projects covered by the 2030 CAP would not have a cumulatively considerable contribution to GHG impacts.
- Serve as a Qualified Greenhouse Gas Emissions Reduction Plan to provide CEQA streamlining for future development projects.

2.5 Required Approvals for Adoption and Implementation

The County of Santa Barbara is both the project applicant/proponent and the Lead Agency for the 2030 CAP. The County of Santa Barbara Board of Supervisors will need to adopt any CAP-related Comprehensive Plan amendments (e.g., amendments to the Energy Element) to be consistent with, and ensure the successful implementation of, certain features of the CAP. In addition to the actions set forth above, the Coastal Commission must certify any amendments to the Local Coastal Program (LCP) – including Article II, as the implementing ordinance of the LCP.

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3 Environmental Setting and Impact Analysis Approach

This section provides a general overview of the environmental setting for the 2030 CAP. This section also outlines the Program EIR baseline and approach to both direct and cumulative impact analyses. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4, *Environmental Impact Analysis*.

3.1 Regional Setting

Santa Barbara County is located in the central coastal area of California and is bounded by San Luis Obispo County to the north, Ventura County to the east, Kern County to the northeast, and the Pacific Ocean to the south and the west. The geographic center of the County is about 300 miles south of San Francisco and 115 miles from Downtown Los Angeles.

Santa Barbara County is primarily linked north/south by U.S. 101 or State Route 1. Approximately half of the undeveloped land in the County lies in the Los Padres National Forest (encompassing approximately 983 square miles) and Vandenberg Space Force Base (approximately 154 square miles).

The 2030 CAP would update the County's 2015 Energy and Climate Action Plan (ECAP) which is implemented across unincorporated Santa Barbara County, excluding lands under the jurisdiction of incorporated cities, the federal government (Los Padres National Forest and Vandenberg Space Force Base), and the University of California.

3.2 Program EIR Baseline, Approach for Direct and Cumulative Analyses

3.2.1 Program EIR Baseline

Section 15125 of the CEQA Guidelines states that an EIR "must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation [NOP] is published." Section 15125 states that this approach "normally constitute[s] the baseline physical conditions by which a lead agency determines whether an impact is significant."

This Program EIR evaluates impacts against existing conditions which are generally conditions existing at the time of the release of the NOP (November 2022). It was determined that a comparison to current, existing baseline conditions would provide the most relevant information for the public and decision-makers. The extent of the environmental setting evaluated at the baseline differs among resource areas, depending on the extent to which impacts would be expected. For example, air quality impacts are assessed relative to the South Coast Air Basin and Santa Barbara County, while transportation impacts are assessed relative to Santa Barbara County. All impact determinations are based on a comparison to existing 2022 baseline conditions.

Interim Timeframes

2030 is the horizon year of the Proposed 2030 CAP. While the 2030 CAP would be implemented gradually over the planning period, this Program EIR does not analyze interim time frames because the implementation timing of specific Actions included in the 2030 CAP is currently speculative. The one exception to this approach is in Section 4.3, *Greenhouse Gas Emissions*, which discusses years 2030 as well as a comparative baseline of 2018. The comparative baseline of 2018 is used because the County's emissions inventory provided in the 2030 CAP utilizes data from 2018 which represents the most readily available data to forecast future emissions. A summary of the scenarios considered in the GHG analysis is provided in Section 4.3, *Greenhouse Gas Emissions.*

3.2.2 Approach for Direct Impact Analysis

The programmatic nature of the 2030 CAP necessitates a general approach to the evaluation of existing conditions and impacts associated with the 2030 CAP. As a programmatic document, this Program EIR presents a regionwide assessment of impacts associated with implementation of the 2030 CAP, including programs, policies, and financial pathways. As discussed in Section 2.0, *Project Description*, the types of infrastructure, improvements, and other new development facilitated by the 2030 CAP Actions includes, but is not limited to, the installation of electric vehicle charging stations; new bicycle or pedestrian facilities; upgrading existing infrastructure including electrical panels and branch circuits; the increase of sustainable agricultural practices such as expanding solar development on agricultural lands, increasing the use of compost, mulching, cover crops, and hedgerow planting; the restoration of natural habitats and ecosystems; and the development of new building policies to increase wildfire resilience.

Because the Program EIR is a long-term document intended to guide actions seven years into the future, program-level and qualitative evaluation is involved. Quantitative analyses are provided where applicable with available information. During future stages in planning and implementation of specific elements of the 2030 CAP, including new development resulting from the 2030 CAP, project specific CEQA documents could be prepared by the appropriate project implementation agency.

For analytical purposes, the baseline year examined throughout this Program EIR is 2022, except where specifically noted, as described in Section 3.2.1, *Program EIR* Baseline, above.

3.2.3 Approach for Cumulative Analysis

CEQA defines cumulative impacts as "two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the CEQA Guidelines requires that an EIR evaluate environmental impacts that are individually limited but cumulatively considerable. These impacts can result from the 2030 CAP alone, or together with other projects/plans. The CEQA Guidelines state: "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable probable future projects" (CEQA Guidelines, Section 15355). A cumulative impact of concern under CEQA occurs when the net result of combined individual impacts compounds or increases other overall environmental impacts (CEQA Guidelines, Section 15355). In other words, cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. CEQA does not require an analysis of incremental effects that are not cumulatively considerable nor

is there a requirement to discuss impacts which do not result in part from the project evaluated in the EIR.

Cumulative Impact Methodology

Chapter 4 includes an analysis of both program specific and cumulative impacts of the 2030 CAP, as required by CEQA. As described in Section 1, *Introduction*, the Environmental Scoping Document/Initial Study prepared for the 2030 CAP determined there is no substantial evidence that significant impacts to Aesthetics/Visual Resources, Agricultural Resources, Biological Resources, Cultural Resources, Fire Protection, Geologic Processes, Hazardous Materials/Risk of Upset, Land Use, Noise, Public Facilities, Recreation, or Water Resources/Flooding would occur (refer to Appendix A). Accordingly, Chapter 4 of this Program EIR evaluates the 2030 CAP's potential impacts to air quality, energy, greenhouse gas emissions, and transportation. The *CEQA Guidelines* require the analysis of the cumulative effects of a project in combination with other probable future projects. Section 15130 of the *CEQA Guidelines* prescribes two methods for analyzing cumulative impacts: (1) use of a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts; or (2) use of a summary of projections contained in an adopted general plan or related planning document.

This document is a Program EIR that analyzes the effects of cumulative buildout of the 2030 CAP. The 2030 CAP covers a seven-year period from 2023 to 2030 and is an update of the 2015 Energy and Climate Action Plan. The County does not propose any land use changes in the 2030 CAP, but rather develops Measures and Actions consistent with the Comprehensive Plan's land use designations. The 2030 CAP considers probable future greenhouse gas reduction projects and includes a range of projects designed to meet the 2030 CAP goals, consistent with method one above. This Program EIR analyzes the cumulative impacts of these projects. The 2030 CAP also includes the cumulative scenario described in method two, as projections of cumulative greenhouse gas emissions which are compared to a business-as-usual scenario. Therefore, the cumulative effects of all probable future greenhouse gas reduction projects in the region are included in the analysis of the 2030 CAP impacts. Thus, in the environmental impact analysis for specific environmental issue areas, when impacts are evaluated to be significant, they also by definition are considered "cumulatively considerable" incremental contributions to significant cumulative impacts (*CEQA Guidelines* Section 15130[a]). 2030 CAP impacts assessed in this document represent the cumulative impact of all potential greenhouse gas reduction projects in the County.

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4 Environmental Impact Analysis

This section discusses the possible environmental effects of the 2030 CAP for the specific issue areas that were identified through the scoping process as having the potential to experience significant effects. A "significant effect" as defined by the *CEQA Guidelines* Section 15382:

> means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the County and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable**. An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per Section 15093 of the *CEQA Guidelines*.
- **Less than Significant with Mitigation Incorporated**. An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under Section 15091 of the *CEQA Guidelines*.
- **Less than Significant**. An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The 2030 CAP would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a list of mitigation measures (if required) and the residual effects or level of significance remaining after implementation of the measure(s). In cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. Cumulative methodology is discussed in detail in Section 3, *Environmental Setting*.

The Executive Summary of this Program EIR summarizes all impacts and mitigation measures that apply to the 2030 CAP.

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4.1 Air Quality

This section analyzes the potential effects of the 2030 CAP on air quality, including the 2030 CAP's potential to conflict with an applicable air quality plan, result in an increase of a criteria pollutant, expose sensitive receptors to substantial pollutant concentrations, or result in other emissions, such as those leading to odors.

4.1.1 Setting

a. Climate and Meteorology

Santa Barbara County is located in the South Central Coast Air Basin (SCCAB), which includes San Luis Obispo, Santa Barbara, and Ventura counties. The Santa Barbara County portion of the SCCAB is under the jurisdiction of the Santa Barbara County Air Pollution Control District (SBCAPCD). Geographic features that influence Santa Barbara's air quality include the Santa Barbara Channel (Pacific Ocean) to the south, and the east-west trending Santa Ynez Mountains to the north, with elevations up to 4,707 feet. The regional climate in the SCCAB is Mediterranean and is characterized by warm summers and mild winters with relatively dry weather. The annual precipitation is approximately 16 inches on average, with most (95 percent) occurring during the rainy season, which generally spans October through April (County of Santa Barbara 2023a; County of Santa Barbara 2023b).

An additional meteorological feature that influences Santa Barbara's climate is the semi-permanent subtropical high-pressure cell off the Pacific Coast. This cell creates the typical warm, dry summers and wet winters. Fog is frequently experienced along the County coastline due to the humid marine air coming into contact with the warmer air over land. Fog typically occurs in the early morning or evening, particularly during late spring and early summer. Inversions, or the trapping of a stable layer of cool air below warmer air can negatively affect air quality, due to reduced vertical mixing. An inversion essentially creates a cap, reducing the dispersion of pollutants into the upper atmosphere (vertically) or across air basins (horizontally). Surface and upper-level wind flows vary seasonally and geographically, and lack of wind and the right meteorological conditions can lead to an inversion. Surface temperature inversions occur between 0 and 500 feet above the ground surface, and are most common during the winter. Subsidence inversions (1,000 to 2,000 feet above ground surface) are most common during the summer.

The South Coast Air Basin experiences the Santa Ana northeasterly winds, primarily during the fall and winter, and sometimes in the spring. These winds bring warm dry winds from the high inland desert of California and Nevada at speeds of 15 to 20 miles per hour (mph) or more, which in turn blow pollutants emitted from coastal cities over the Pacific Ocean. When the wind direction shifts, the pollutants can return to coastal cities, causing a "post-Santa condition".

b. Sources of Air Pollution

Air pollutant emissions in the SCCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.

- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

- On-road sources consist of legally operated vehicles on roadways and highways.
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles or when wildfires generate smoke containing particulate matter.

c. Air Pollutants of Primary Concern

The federal and State Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants. Under these laws, the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide, reactive organic compounds (ROC)/reactive organic gases (ROG),[1] nitrogen oxides (NO_X), particulate matter with diameters of up to ten microns (PM_{10}) and up to 2.5 microns ($PM_{2.5}$), sulfur dioxide (SO_2), and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROC and NO_X. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog). The characteristics, sources and effects of criteria pollutants are discussed in the following subsections. The following subsections describe the characteristics, sources, and health and atmospheric effects of air pollutants of primary concern.

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between NO_X and ROC/ROG are composed of non-methane hydrocarbons (with some specific exclusions), and NO_X is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide and nitrogen dioxide. NO_X are formed during the combustion of fuels, while ROC are formed during combustion and evaporation of organic solvents. As a highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high ROC and NO_X levels along with abundant sunshine are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional rather than local scale, ozone is considered a regional pollutant. In addition, because ozone requires sunlight to form, it mostly occurs in concentrations considered serious between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans, including changes in breathing patterns, reduction of breathing capacity, increased susceptibility to infections, inflammation of lung tissue, and some immunological

[1] CARB defines ROC and ROG similarly as, "any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate," with the exception that ROC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and ROC are considered comparable in terms of mass emissions, and the term ROC is used in this Program EIR.

changes (USEPA 2022a). Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

Carbon monoxide is a localized pollutant that is found in high concentrations only near its source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is the incomplete combustion of petroleum fuels by automobile traffic. Therefore, elevated concentrations are usually found only near areas of high traffic volumes. Other sources of carbon monoxide include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood stoves and fireplaces during the winter. The health effects of carbon monoxide are related to its affinity for hemoglobin in the blood. Carbon monoxide causes a number of health problems, including aggravation of some heart diseases (e.g., angina), reduced tolerance for exercise, impaired mental function, and impaired fetal development. At high levels of exposure, carbon monoxide reduces the amount of oxygen in the blood, leading to mortality (USEPA 2022b). Carbon monoxide tends to dissipate rapidly into the atmosphere; consequently, violations of the NAAQS and/or CAAQS for carbon monoxide are generally associated with localized carbon monoxide "hotspots" that can occur at major roadway intersections during heavy peak-hour traffic conditions.

Nitrogen Dioxide

Nitrogen dioxide is a by-product of fuel combustion; the primary sources are motor vehicles and industrial boilers and furnaces. The principal form of NO_X produced by combustion is nitric oxide, but nitric oxide reacts rapidly with the oxygen in the air to form nitrogen dioxide, creating the mixture of nitric oxide and nitrogen dioxide commonly called NO_X. Nitrogen dioxide is an acute irritant that can aggravate respiratory illnesses and symptoms, particularly in sensitive groups (SCAQMD 1993 and 2005). A relationship between nitrogen dioxide and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility (USEPA 2022c). It can also contribute to the formation of PM_{10} and acid rain.

Sulfur Dioxide

Sulfur dioxide is included in a group of highly reactive gases known as "oxides of sulfur." The largest sources of sulfur dioxide emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of sulfur dioxide emissions include industrial processes such as extracting metal from ore and the burning of fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Sulfur dioxide is linked to a number of adverse effects on the respiratory system, including aggravation of respiratory diseases, such as asthma and emphysema, and reduced lung function (USEPA 2023).

Particulate Matter

Suspended atmospheric PM_{10} and $PM_{2.5}$ is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. Both PM_{10} and $PM_{2.5}$ are directly emitted into the atmosphere as by-products of fuel combustion and wind erosion of soil and unpaved roads. Particulate matter is also created in the atmosphere through chemical reactions. The characteristics, sources, and potential health effects associated with PM_{10} and $PM_{2.5}$ can be very different. PM_{10} is generally associated with dust mobilized by wind and vehicles while $PM_{2.5}$ is generally associated

with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. Due to its small size, $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of $PM_{2.5}$ that is inhaled into the lungs remains there. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance. Suspended particulates can also reduce lung function, aggravate respiratory and cardiovascular diseases, increase mortality rates, and reduce lung function growth in children (CARB 2023a).

Lead

Lead is a metal found naturally in the environment, as well as in manufacturing products. The major sources of lead emissions historically have been mobile and industrial sources. However, as a result of the USEPA's regulatory efforts to remove lead from gasoline, atmospheric lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior to 1990 due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries at least in part as a result of national emissions standards for hazardous air pollutants (USEPA 2013). As a result of phasing out leaded gasoline, metal processing currently remains the primary source of lead emissions. The highest level of lead in the air is generally found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. The health impacts of lead include behavioral and hearing disabilities in children and nervous system impairment (USEPA 2022d).

Toxic Air Contaminants

Toxic air contaminants (TACs) are a subcategory of air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about $1/70^{th}$ the diameter of a human hair) and thus is a subset of $PM_{2.5}$. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2023b).

TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

d. Current Air Quality

The SCCAB is designated nonattainment for the federal and state standard for ozone and the state standard for PM_{10}. The SBCAPCD operates a network of air quality monitoring stations throughout the SCCAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the NAAQS and CAAQS.

Table 4.1-1 Annual Ambient Air Quality Data

Pollutant	2019	2020	2021
Ozone (ppm), Worst 1-Hour	0.086	0.105	0.082
Number of days above CAAQS (>0.09 ppm)	0	4	0
Number of days above NAAQS (>0.12 ppm)	0	0	0
Ozone (ppm), Worst 8-Hour Average	0.072	0.086	0.071
Number of days above CAAQS (>0.070 ppm)	1	6	1
Number of days above NAAQS (>0.070 ppm)	1	6	1
Carbon Monoxide (ppm), Highest 8-Hour Average	1.2	1.0	1.4
Number of days above CAAQS or NAAQS (>9.0 ppm)	0	0	0
Nitrogen Dioxide (ppm), Worst 1-Hour	33.7	36.4	62.0
Number of days above CAAQS (>0.180 ppm)	0	0	0
Number of days above NAAQS (>0.100 ppm)	0	0	0
Sulfur Dioxide (ppm), Worst Hour	0.004	0.026	0.005
Number of days above CAAQS (>0.25 ppm)	0	0	0
Number of days above NAAQS (>0.075 ppm)	0	0	0
Particulate Matter ≤10 microns (μg/m^3), Worst 24 Hours	132	112	73
Number of days above CAAQS (>50 μg/m^3)	*	*	*
Number of days above NAAQS (>150 μg/m^3)	0	0	0
Particulate Matter ≤2.5 microns (μg/m^3), Worst 24 Hours	26.3	88.4	20.2
Number of days above NAAQS (>35 μg/m^3)	0	9	0
Lead (μg/m^3), 3-Month Average	*	*	*
Number of days above NAAQS (>0.15 μg/m^3)	*	*	*

ppm = parts per million; μg/m^3 = micrograms per cubic meter; CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard

The ambient air quality data presented in this table is intended to be representative of existing conditions and is not a comprehensive summary of all monitoring efforts for all the CAAQS and NAAQS. Additional ambient air quality data can be accessed at https://www.epa.gov/outdoor-air-quality-data/monitor-values-report.

* Insufficient data to determine value

Source: CARB 2023c; USEPA 2022e

e. Sensitive Receptors

The NAAQs and CAAQS were established to represent the levels of air quality considered sufficient to protect public health and welfare with an adequate margin of safety. They are designed to protect that segment of the public most susceptible to respiratory distress as a result of poor air quality, such as children under 14, persons over 65, persons engaged in strenuous work or exercise, and people with pre-existing cardiovascular and chronic respiratory diseases. Locations of sensitive receptors include schools, parks and playgrounds, hospitals, day cares, assisted living facilities, and residential communities, all of which are present in Santa Barbara County (CARB 2005). Federal, state and local regulations, including land use plans, can influence the proximity to which a sensitive receptor can be located near a significant source of air pollution.

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). CARB guidelines also suggest that sensitive receptors not be sited within 500 feet of a high traffic freeway to avoid prolonged exposure to diesel particulates (CARB 2005).

4.1.2 Regulatory Setting

a. Federal Regulations

Federal Clean Air Act

The federal CAA governs air quality in the United States. The CAA is administered by USEPA at the federal level, CARB at the State level, and by the Air Quality Management Districts at the regional and local levels. The CAA of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants. On April 2, 2007, the Supreme Court found that CO_2 is an air pollutant covered by the CAA; however, no NAAQS have been established for CO_2.

The USEPA is responsible for enforcing the federal CAA. The USEPA is also responsible for establishing NAAQS. NAAQS are required under the 1977 CAA and subsequent amendments. The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by CARB.

Construction Equipment Fuel Efficiency Standard

The USEPA sets emission standards for construction equipment. The first federal standards (Tier 1) were adopted in 1994 for all off-road engines over 50 horsepower (hp) and were phased in by 2000. A new standard was adopted in 1998 that introduced Tier 1 for all equipment below 50 hp and established the Tier 2 and Tier 3 standards. The Tier 2 and Tier 3 standards were phased in by 2008 for all equipment. The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements, which are contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068 (originally adopted in 69 Federal Register 38958 [June 29, 2004], and most recently updated in 2014 [79 Federal Register 46356]). Emissions requirements for new off-road Tier 4 vehicles were completely phased in by the end of 2015.

b. State Regulations

California Clean Air Act

The California CAA allows the State to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles

sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California Code of Regulations

CARB has promulgated Airborne Toxic Control Measures (ATCMs) for several source categories. Each ATCM is codified under Titles 13 or 17 of the California Code of Regulations (CCR). CCR Title 13, Sections 2449 and 2485 set requirements for diesel-fueled vehicles. These requirements include, but are not limited to, idling restrictions which prohibits diesel-fueled vehicles from idling for more than five minutes and requirements for the use of diesel engines equipped to minimize emissions of particulate matter.

California Proposition 65

The USEPA considers those pollutants that could cause cancer risks between one in 10,000 (1.0×10^{4}) and one in one million (1.0×10^{-6}) for risk management. Proposition 65 (California Health and Safety Code Section 25249.6), enacted in 1986, prohibits a person in the course of doing business from knowingly and intentionally exposing any individual to a chemical that has been listed as known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning. For a chemical that is listed as a carcinogen, the "no significant risk" level under Proposition 65 is defined as the level that is calculated to result in not more than one excess case of cancer in 100,000 individuals (1.0×10^{-5}). The SBCAPCD recommends the use of this risk level (also reportable as 10 in one million) as the significance threshold for TACs (SBCAPCD 2022b).

c. Local Regulations

SBCAPCD 2022 Ozone Plan

As the local air quality management agency, the SBCAPCD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the SCCAB is classified as being in "attainment" or "nonattainment." In areas designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts described in Section 4.1.1c, *Air Pollutants of Primary Concern*, are already occurring in that area as part of the environmental baseline condition.

In accordance with State law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The *2001 Clean Air Plan* (2002) was the first plan prepared by SBCAPCD and established specific planning requirements to maintain the state one-hour ozone standard. In 2006, CARB revised the CAAQS and added an 8-hour average to the ozone standard. Both components of the standard must now be met before CARB can designate an area to be in attainment. The current 2022 Ozone Plan was adopted by SBCAPCD in December 2022 and is the tenth update to the 2001 Clean Air Plan. The 2022 Ozone Plan addresses SBCAPCD's progress toward attaining the federal and State ozone standard. As with prior updates, the 2022 update includes an evaluation of feasible reduction measures for stationary sources and considers numerous factors such as technology advancements, efficiency measures, cost-effectiveness, and the successful implementation of measures at other California air districts. All of the control

measures that were found to be feasible in prior ozone plan updates have been implemented (SBCAPCD 2022a).

SBCAPCD Regulations

To minimize potential impacts from project emissions, the SBCAPCD implements rules and regulations for emissions that may be generated by various uses and activities. The rules and regulations detail pollution-reduction measures that must be implemented during construction and operation of projects. Rules and regulations relevant to the 2030 CAP include the following:

- **Regulation II, Rule 206 (Conditional Approval of Authority to Construct or Permit to Operate).** This rule governs the construction and operation of any new, modified, or reevaluated source for which a permit is required, subject to specified written conditions. Such conditions are for the purpose of ensuring that construction and operation of the source complies with all applicable local, State, and federal air quality laws, rules, and regulations.
- **Regulation III, Rule 302 (Visible Emissions).** This rule states person shall not discharge into the atmosphere from any single source of emission any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:
  - As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or
  - Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection B.1. of this Rule.
- **Regulation III, Rule 303 (Nuisance).** This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material in violation of Section 41700 of the Health and Safety Code which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety or any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.
- **Regulation III, Rule 304 (Particulate Matter- Northern Zone).** This rule states that in the northern zone of SBCAPCD jurisdiction a person shall not discharge into the atmosphere from any source particulate matter in excess of 0.3 grain per cubic foot of gas at standard conditions.
- **Regulation III, Rule 305 (Particulate Matter Concentration – Southern Zone).** This rule governs the amount of particulate matter a person can discharge in the southern zone of SBCAPCD jurisdiction.
- **Regulation III, Rule 323 (Architectural Coatings).** This rule governs the manufacture, distribution, and sale of architectural coatings and limits the reactive organic gases content in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the ROC content of paint available for use during the construction.
- **Regulation III, Rule 345 (Control of Fugitive Dust from Construction and Demolition Activities).** This rule applies to any activity associated with construction or demolition of a structure or structures. Activities subject to this regulation are also subject to Rule 302 (Visible Emissions) and Rule 303 (Nuisance).
- **Regulation VIII, Rule 802 (New Source Review).** The purpose of New Source Review is to provide for the review of new and modified stationary sources of air pollution and provide mechanisms by which Authorities to Construct for such sources may be granted without interfering with the attainment or maintenance of any ambient air quality standard, preventing

reasonable further progress towards the attainment or maintenance of any ambient air quality standard and without interfering with the protection of areas designated attainment or unclassifiable. This rule applies to any applicant for a new or modified stationary source which emits or may emit any affected pollutant.

SBCAG 2050 RTP/SCS

On August 19, 2021, Santa Barbara County Association of Governments (SBCAG) approved Connected 2050, the region's long-range Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS). The following Connected 2050 policies would be applicable to air quality impacts resulting from the 2030 CAP (SBCAG 2021):

- **Policy 1.2.1: Air Quality.** Transportation planning and projects shall be designed to lead to reductions in greenhouse gas and criteria pollutant emissions, consistent with the air quality goals of the region, including targets for greenhouse gas emissions from passenger vehicles in 2020 and 2035 as required by Senate Bill 375 (SB 375).
- **Policy 1.3.1: Alternative Fuels and Energy.** Transportation planning and projects shall encourage the use of alternative fuels, and the application of advanced transportation and energy technologies to reduce vehicular emission production and energy consumption.
- **Policy 2.2.2: System Maintenance, Expansion, and Efficiency.** Transportation planning and projects shall promote the maintenance and enhancement of the existing highway and roadway system as a high priority.
- **Policy 2.3.1: Alternative Transportation Modes.** Transportation planning and projects shall encourage alternatives to single-occupancy vehicle trips and the use alternative transportation modes to reduce vehicle miles traveled and increase bike, walk and transit mode share.
- **Policy 2.3.2: Alternative Transportation Modes.** Transportation planning and projects shall provide for a variety of transportation modes and ensure connectivity within and between transportation modes both within and outside the Santa Barbara region. Alternative mode planning and projects shall be compatible with neighboring regions' transportation systems.

Santa Barbara County Comprehensive Plan

The Santa Barbara County Comprehensive Plan's Land Use Element contains an Air Quality Supplement which includes strategies and measures that incorporate air quality planning techniques into the County's land use planning program. Goals and policies in the Air Quality Supplement which are applicable to the 2030 CAP include (County of Santa Barbara 2009):

Goal. Significant increases in the use of bicycles, walking, and transit.

Goal. Reduced use of the automobile.

- **Policy C:** Increase the attractiveness of bicycling, walking, transit, and ridesharing.
- **Policy D:** Restrict the development of auto-dependent facilities.
- **Policy E:** Improve the integration of long-range planning and project approval procedures with air quality planning requirements.

4.1.3 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

The evaluation of whether the 2030 CAP would conflict with or obstruct implementation of the applicable air quality plan is based on the 2030 CAP's consistency with the land use and population forecasts that underlie the air pollutant emissions forecasts contained in the 2022 Ozone Plan. Populations that remain within 2022 Ozone Plan and SBCAG forecasts are accounted for with regard to SBCAPCD emissions inventories. When population growth and employment growth exceed these forecasts, emission inventories could be surpassed, affecting attainment status.

To assess if the 2030 CAP would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, this analysis evaluates the potential for the 2030 CAP to result in air pollutant emissions during construction and operation of 2030 CAP-related projects and compares the potential for new air pollutant emissions to existing and proposed pollutant reduction measures required for new development.

The evaluation of whether the 2030 CAP would expose sensitive receptors to substantial pollutant concentration is based on an evaluation of State regulations, SBCAPCD regulations, and guidance from the California Office of Environmental Health Hazard Assessment (OEHHA). The evaluation of the 2030 CAP's potential to result in objectionable odors is based on regulations and guidance from SBCAPCD.

Significance Thresholds

Appendix G of the *State CEQA Guidelines* provides the following significance thresholds to determine if a project would have a potentially significant impact on air quality:

a. Conflict with or obstruct implementation of the applicable air quality plan;
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
c. Expose sensitive receptors to substantial pollutant concentrations; or
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The County's *Environmental Thresholds and Guidelines Manual* contains thresholds which have been developed and implemented by SBCAPCD. The County and SBCAPCD have not adopted significance thresholds for construction-related emissions. However, according to SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* on a project-level, construction-related NO_X, ROC, PM_{10}, and $PM_{2.5}$ emissions from diesel- and gasoline-powered equipment, paving and other activities, should be quantified (SBCAPCD uses 25 tons per year for ROC or NO_X as a guideline for determining the significance of construction impacts for individual projects) (SBCAPCD 2022b). Construction-related emissions are speculative at the programmatic/plan level because such emissions are dependent on the characteristics of individual development projects. However, because construction activities resulting from projects implementing the 2030 CAP would generate temporary criteria pollutant emissions, primarily due to the operation of construction equipment and truck trips, a qualitative analysis of construction emissions is provided.

The County's *Environmental Thresholds and Guidelines Manual* and SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* state operation of a project would not have a significant air quality impact on the environment if operation of the project would:

- Emit (from all project sources, both stationary and mobile) less than the daily trigger for offsets or Air Quality Impact Analysis set in the SBCAPCD New Source Review Rule, for any pollutant (i.e., 240 lbs/day for ROC; 80 lbs/day for PM_{10}; there is no daily operational threshold for CO since it is an attainment pollution);
- Emit less than 25 lbs/day of NO_X or ROC from motor vehicle trips only;
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);
- Not exceed the SBCAPCD health risk public notification thresholds adopted by the SBCAPCD Board (10 excess cancer cases in a million for cancer risk and/or a Hazard Index of greater than (1.0) for non-cancer risk);
- Be consistent with the latest adopted federal and State air quality plans for Santa Barbara County.

The County and SBCAPCD have not established quantitative thresholds for program-level planning documents such as the 2030 CAP. Therefore, air quality impact resulting from implementation of the 2030 CAP are determined by evaluating the 2030 CAP's consistency with the 2022 Ozone Plan, and comparing reasonably foreseeable 2030 CAP-related projects to existing regulatory requirements.

b. 2030 CAP Impacts and Mitigation Measures

Threshold a:	Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact AQ-1 THE 2030 CAP WOULD NOT DIRECTLY RESULT IN REGIONAL POPULATION GROWTH OR AN INCREASE IN REGIONAL EMPLOYMENT AND WOULD BE CONSISTENT WITH THE COUNTY'S REGIONAL GROWTH FORECAST, WHICH IS THE BASIS FOR THE 2022 OZONE PLAN. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The 2030 CAP's consistency with the 2022 Ozone Plan is evaluated based on whether the 2030 CAP is accounted for in SBCAG's Regional Growth Forecast, which is the basis for the 2022 Ozone Plan. In addition, in order to be consistent with the 2022 Ozone Plan, projects involving earthmoving activities must implement SBCAPCD's standard dust control measures.

The 2030 CAP does not promote residential development; therefore, the 2030 CAP would not directly result in population/housing unit growth. Furthermore, the 2030 CAP would not directly result in a long-term increase in regional employment because the 2030 CAP does not propose commercial or industrial development. Any new employment opportunities that may indirectly result from construction activities associated with 2030 CAP-related projects would be temporary, and would target existing residents. Therefore, the 2030 CAP would not conflict with population growth or employment projections.

In accordance with the 2022 Ozone Plan, standard dust control measures would be implemented during grading and earth moving activities for 2030 CAP-related projects requiring a grading permit. Similarly, all construction activities in SBCAPCD's jurisdiction are required to comply with the

requirements of SBCAPCD Rule 345 (Control of Fugitive Dust from Construction and Demolition Activities) which would reduce temporary construction emissions.

Overall, the 2030 CAP would not conflict with or obstruct implementation of the 2022 Ozone Plan. This impact would be less than significant.

Mitigation Measures

No mitigation measures are required because this impact would be less than significant.

Threshold b:	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Impact AQ-2 CONSTRUCTION OF 2030 CAP-RELATED PROJECTS WOULD COMPLY WITH APPLICABLE SBCAPCD RULES, WHICH ARE DESIGNED TO MINIMIZE CONSTRUCTION EMISSIONS IN THE COUNTY. THE 2030 CAP WOULD IMPLEMENT ACTIONS WHICH WOULD REDUCE LONG-TERM REGIONAL POLLUTANT EMISSIONS ASSOCIATED WITH VEHICLE USE, BUILDING USE, AND LANDFILL OPERATIONS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The SCCAB is designated nonattainment for the federal and state standard for ozone and the State standard for PM_{10}. The SCCAB is designated in attainment or unclassifiable for all other federal and State standards. The following provides a discussion of the 2030 CAP's potential to result in cumulatively considerable net increases of ozone and/or PM_{10}.

Temporary Construction

Construction activities from 2030 CAP-related projects would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction equipment and construction vehicles. The extent of daily emissions, particularly NO_X emissions, generated by construction equipment, would depend on the equipment used and the hours of operation for each project. The extent of PM_{10} and $PM_{2.5}$ emissions would depend upon the following factors: (1) the amount of disturbed soils; (2) the length of disturbance time; (3) whether existing structures are demolished; (4) whether excavation is involved; and (5) whether transporting excavated materials off site is necessary. It is possible ROC emissions could be released during any paving and architectural coating activities, and the extent of ROC emissions would primarily depend on the square footage of buildings being painted and asphalt surfaces being paved daily.

As discussed in Section 4.1.3a, *Methodology and Significance Thresholds*, the County and SBCAPCD have not established programmatic significance thresholds for construction air pollutant emissions. At this time, detail regarding the specific scope and timing of construction of 2030-CAP related projects is unknown given the 2030 CAP is a policy document, absent of specific development proposals. As a result, it would be speculative to estimate potential project-level construction emissions quantitatively, and a qualitative approach to characterizing construction-related air emissions has been employed for this analysis.

Construction of 2030 CAP-related projects would comply with applicable SBCAPCD rules including Rule 345 (Control of Fugitive Dust from Construction and Demolition Activities), Rule 303 (Nuisance), Rule 323 (Architectural Coating), and Rule 206 (Conditional Approval of Authority to Construct or Permit to Operate). Additionally, the SBCAPCD's Standard Dust Control Measures are

required to be applied to all projects. Compliance with SBCAPCD rules would reduce the overall level of emissions associated with 2030 CAP-related construction activities.

For discretionary projects resulting in construction emissions as discussed above, County and SBCAPCD thresholds would be applied, with determinations made as to whether additional mitigation measures would be required, as described in Section 6 of the SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* (SBCAPCD 2022b). Discretionary and ministerial development would be required to adhere to Section 14-23 of the County Code, which requires construction personnel to apply water to graded surfaces and materials to prevent fugitive dust. Therefore, construction activities related to the 2030 CAP would result in a less than significant impact related to the net increase of criteria pollutants.

Long-Term Regional Operation

Implementation of 2030 CAP-related projects would result in reduced long-term regional pollutant emissions associated with vehicle use, building use, and landfill operations. The 2030 CAP includes Actions TR-1.1 through TR-1.10 which are designed to increase electric vehicle use and reduce the use of gasoline-powered vehicles. Actions TR-2.1 through TR-2.12 promote active and alternative transportation, which would further reduce reliance on gasoline-powered vehicles and reduce vehicle miles traveled, thereby reducing air pollutant emissions associated with vehicles. 2030 CAP Actions CE-1.1, CE-1.5, and CE-1.10 promote the use of renewable energy and require the County to restrict natural gas infrastructure for new development and major remodels, achieve 100 percent renewable energy use for residential and commercial customers, and expand opportunities for solar development. Implementation of these 2030 CAP Actions would reduce air emissions from buildings. 2030 CAP Actions W-1.1 through W-2.3 promote the reduction of landfill waste, which would reduce pollutant emissions associated with landfill operations.

The 2030 CAP would implement Actions which would reduce regional air pollutant emissions in Santa Barbara County. Operation of the 2030 CAP would not result in a cumulatively considerable net increase of any criteria pollutant for which the SCCAB is in non-attainment (ROC, NO_X and PM_{10}). This impact would be less than significant.

Mitigation Measures

No mitigation measures are required because this impact would be less than significant.

Threshold c:	Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-3 2030 CAP-RELATED PROJECTS COULD WOULD RESULT IN SMALL-SCALE CONSTRUCTION ACTIVITIES, WHICH MAY OCCUR IN PROXIMITY TO SENSITIVE RECEPTORS. EXISTING STATE REGULATIONS, SBCAPCD REGULATIONS, AND PROJECT-SPECIFIC ENVIRONMENTAL REVIEW WOULD MINIMIZE THE POTENTIAL FOR SENSITIVE RECEPTORS TO BE EXPOSED TO SUBSTANTIAL POLLUTANT CONCENTRATIONS. IMPLEMENTATION OF THE 2030 CAP WOULD REDUCE LONG-TERM REGIONAL POLLUTANT EMISSIONS AND REDUCE THE POTENTIAL FOR EXISTING SENSITIVE RECEPTORS TO BE EXPOSED TO TAC CONCENTRATIONS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Carbon Monoxide

A carbon monoxide hotspot is a localized concentration of carbon monoxide that exceeds the NAAQS and CAAQS. Localized carbon monoxide hotspots can occur at intersections with heavy peak

hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local carbon monoxide concentration exceeds the federal one-hour standard of 35.0 parts per million (ppm) or the federal and State eight-hour standard of 9.0 ppm.

The SCCAB is in attainment of the carbon monoxide NAAQS and CAAQS. The SBCAPCD states that due to the relatively low background ambient carbon monoxide levels in Santa Barbara County, localized carbon monoxide impacts associated with congested intersections are not expected to exceed the CO health-related air quality standards. Therefore, carbon monoxide hotspot analyses are no longer required in Santa Barbara (SBCAPCD 2022a).

Based on the low background level of carbon monoxide in Santa Barbara County, improved vehicle emissions standards for new vehicles in accordance with State and federal regulations, and the low level of operational carbon monoxide emissions anticipated for 2030 CAP-related projects, the 2030 CAP would not create new carbon monoxide hotspots or contribute to substantially existing hotspots. Therefore, the 2030 CAP would not expose sensitive receptors to substantial carbon monoxide concentrations.

Toxic Air Contaminants

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following subsections discuss the 2030 CAP's potential to result in impacts related to TAC emissions during construction and operation.

Construction

Construction-related activities would result in temporary emissions of DPM exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM is a carcinogen and approximately 70 percent of total known cancer risk related to TACs in California are attributable to DPM. DPM also contributes to similar non-cancer related health effects as $PM_{2.5}$ exposure. However, because DPM contributes to substantially more cancer risk than other non-cancer related impacts, the potential cancer risk from the inhalation of DPM is the focus of this analysis (CARB 2023b).

Generation of DPM from construction projects typically occurs in a single area for a temporary period during construction activity. The extent to which an affected receptor is exposed is a function of the concentration of a TAC in the environment and the extent of exposure the receptor has with the TAC, with a longer exposure period resulting in a higher exposure level. DPM emissions associated with construction occurs primarily in site preparation (i.e., excavation) and grading activities where heavy, diesel-powered machinery is utilized. According to the OEHHA, construction of individual projects lasting longer than two months or placed within 1,000 feet of sensitive receptors could potentially expose nearby sensitive receptors to substantial pollutant concentrations and therefore could result in potentially significant risk impacts (OEHHA 2015). Additionally, for the types of projects discussed above, if they do not utilize Tier 4 or alternative fuel construction equipment, the potential for substantial heath impacts to occur increases.

A majority of reasonably foreseeable 2030 CAP-related projects would not require substantial site preparation and grading activities. 2030 CAP Measure CE-1 requires energy efficiency in new and existing buildings but would not obligate the County or other entity to construct new buildings. 2030 CAP Actions related to reducing food waste and reducing non-recyclable single use items would not result in new development. 2030 CAP Actions promoting Measure NBS-1 involve

supporting existing agriculture and implementing programs for composting and tree planting which are not types of projects that require site preparation and grading. Overall, the 2030 CAP would not directly result in substantial new development or other construction activity necessitating the use of heavy machinery that would cause substantial DPM and TAC emissions.

In instances where implementation of 2030 CAP Measures and Actions result in construction activities involving site preparation and grading, all discretionary approvals would be subject to project-specific environmental review in which the County would identify and mitigate project-specific environmental impacts related to TAC emissions. As discussed in Impact AQ-2, construction of 2030 CAP-related projects would comply with State ATCMS and applicable SBCAPCD rules including CCR Title 13, Sections 2449 and 2485 requirements for diesel-fueled vehicles, Rule 303 (Nuisance), Rule 323 (Architectural Coating), and Rule 206 (Conditional Approval of Authority to Construct or Permit to Operate). Compliance with State ATCMs and SBCAPCD rules would reduce the overall level of TAC emissions associated with 2030 CAP-related construction activities. 2030 CAP Actions promote Measure CE-1, which would require energy efficiency in new and existing buildings but would not obligate the County or other entity to construct new buildings. 2030 CAP Actions related to reducing food waste and reducing non-recyclable single use items would not result in new development. 2030 CAP Actions promoting Measure NBS-1 involve supporting existing agriculture and implementing programs for composting and tree planting which are not types of projects that require site preparation and grading. Because the 2030 CAP would not directly result in substantial new development that would involve the use of heavy machinery which could result in substantial DPM and TAC emissions, and because construction activity would be required to comply with State ATCMS and applicable SBCAPCD rules, construction related TAC impacts would be less than significant.

Operation

The 2030 CAP would not result in development of new sensitive land uses, including residences, schools, daycare centers, playgrounds, or medical facilities. Therefore, operation of 2030 CAP-related projects would not result in the introduction of new sensitive receptors in proximity to TAC concentrations. As described in Impact AQ-2, the 2030 CAP would implement Actions which would reduce long-term regional pollutant emissions associated with vehicle use and building use, thereby reducing the potential for existing sensitive receptors to be exposed to TAC concentrations. Therefore, the 2030 CAP would not result in long-term exposure of sensitive receptors to substantial pollutant concentrations.

Mitigation Measures

No mitigation measures are required because this impact is less than significant.

Threshold d:	Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact AQ-4 2030 CAP-RELATED PROJECTS WOULD BE SUBJECT TO SBCAPCD REGULATIONS WHICH WOULD MINIMIZE THE CREATION OF ODORS DURING CONSTRUCTION. THE 2030 CAP WOULD NOT RESULT IN OR PROMOTE PROJECTS IDENTIFIED BY SBCAPCD AS HAVING THE POTENTIAL TO RESULT IN SUBSTANTIAL ODORS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The occurrence and severity of objectionable odors depend on a number of factors, including the nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of

the receiving location. Although objectionable odors seldom cause physical harm, they can be perceived as a nuisance, cause distress among the public, and result in citizen complaints.

2030 CAP-related project construction may produce temporary odors associated with operation of construction equipment. Examples of odors produced by construction activities include concentrations of unburned hydrocarbons from construction equipment tailpipes and reactive organic gases/compounds from architectural coatings. Such odors generally disperse rapidly from individual project sites, occur at magnitudes that would not affect substantial numbers of people, and would be limited to the temporary construction period.

Construction activities in accordance with 2030 CAP-related projects would be required to comply with SBCAPCD Rule 303, which regulates nuisance odors (SBCAPCD 1978). The types of reasonably foreseeable 2030 CAP-related projects does not include projects, such as fast food restaurants, bakeries, or coffee roasting facilities, identified by SBCAPCD as having the potential result in substantial odors (SBCAPCD 2022b). Accordingly, the 2030 CAP would not result in the creation of objectionable odors affecting a substantial number of people. This impact would be less than significant.

Mitigation Measures

No mitigation measures are required because this impact would be less than significant.

4.2 Energy

This section discusses the 2030 CAP's potential to result in wasteful or inefficient use of energy, or conflict with state or local plans related to energy. Physical environmental impacts associated with criteria pollutants and greenhouse gas emissions (GHGs) that result from electricity generation and burning of fuels are discussed in Section 4.1, *Air Quality*, and Section 4.3, *Greenhouse Gas Emissions*.

4.2.1 Setting

Energy use relates directly to environmental quality because energy use can adversely affect air quality and can generate GHG emissions that contribute to climate change. Fossil fuels are burned to create electricity that powers residences, heats and cools buildings, and powers vehicles. Transportation energy use is dependent on the fuel efficiency of cars, trucks, and public transportation; the different travel modes such as auto, carpool, and public transit; and the miles traveled using these modes. Construction and routine operation and maintenance of transportation infrastructure also consume energy.

a. Electricity

In 2021, California's in-state electricity generation totaled 194,127 gigawatt-hours (GWh) (California Energy Commission [CEC] 2022a). Primary fuel sources for the state's electricity generation in 2021 included natural gas, solar photovoltaic, nuclear, wind, hydroelectric, and geothermal. According to the Final 2022 Integrated Energy Policy Report, California's electricity sector is becoming increasingly reliant on solar, with more than 22,000 GWh of electricity produced by photovoltaic systems in 2021 (CEC 2023a).

Electricity providers in the County include Pacific Gas and Electric Company (PG&E) and the Southern California Edison Company (SCE). SCE maintains 91,375 miles of electric distribution lines and 12,635 miles of interconnected transmission lines (SCE 2023). PG&E maintains approximately 106,681 miles of electric distribution lines and 18,466 miles of interconnected transmission lines (PG&E 2023). Central Coast Community Energy (3CE) is a Community Choice Aggregator established by local communities to source clean and renewable electricity for Santa Barbara, San Luis Obispo, Monterey, San Benito, and Santa Cruz counties while retaining the primary utility provider's (i.e., PG&E, SCE) traditional role delivering power, maintaining electric infrastructure, and billing for electricity. In 2021, 3CE's power mix consisted of 38.4 percent renewable resources, 11.8 percent large hydroelectric facilities, and 49.8 percent unspecified power (3CE 2022).

Santa Barbara County consumed an estimated 2,733 GWh of electricity in 2021, which was approximately 3.4 percent of SCE's electricity consumption, approximately 3.5 percent of PG&E's electricity consumption, and approximately 1.0 percent of statewide electricity consumption (CEC 2022b; CEC 2022c; California Department of Finance [DOF] 2022). Table 4.2-1 provides an overview 2021 electricity consumption in Santa Barbara County, in California, by PG&E customers and by SCE customers.

Table 4.2-1 2021 Electricity Consumption

Energy Type	Santa Barbara County (GWh)	SCE (GWh)	PG&E (GWh)	California (GWh)	Proportion of SCE Consumption	Proportion of PG&E Consumption	Proportion of Statewide Consumption[1]
Electricity	2,733	81,128	78,587	280,738	3.4	3.5	1.0

GWh = Gigawatt hours

[1]For reference, the population of Santa Barbara County (445,164) is approximately 1.1 percent of the population of California (39,185,605).

Source: CEC 2022b; CEC 2022c; DOF 2022

b. Natural Gas

California's net natural gas production for 2019 was 166 billion cubic feet (CalGEM 2020). California depends on out-of-state imports for nearly 90 percent of its natural gas supply. The CEC estimates approximately 45 percent of natural gas burned in California is used for electricity generation, 21 percent is used in the residential sector, 25 percent is used in the industrial sector, and 9 percent is used in the commercial sector (CEC 2023b).

The Southern California Gas Company (SCG) is the principal distributor of natural gas in Santa Barbara County (CEC 2021). SCG's service area is equipped with 101,000 miles of gas transmission and distribution pipelines (SCG 2023). Natural gas supplied by SCG is sourced from California (onshore and offshore), Southwestern United States (the Permian, Anadarko, and San Juan basins), the Rocky Mountains, and Canada (California Gas and Electric Utilities 2022). In 2021, SCG customers consumed a total of 5,100 million therms of natural gas. Residential users accounted for approximately 44 percent of SCG's natural gas consumption. Industrial and commercial users accounted for another 32 percent and 17 percent of consumption, respectively. The remainder was used for agriculture, water pumping, mining, and construction activities (CEC 2022d).

Santa Barbara County consumed approximately 130 million therms of natural gas in 2021, which was approximately 2.5 percent of the natural gas consumed by SCG customers and approximately 1.1 percent of statewide natural gas consumption (CEC 2022d; CEC 2022e). Table 4.2-2 provides an overview of natural gas consumption in Santa Barbara County and compares natural gas use in the County with natural gas use in California, and by SCG customers statewide.

Table 4.2-2 2021 Natural Gas Consumption

Energy Type	Santa Barbara County (millions of Therms)	SCG (millions of Therms)	California (millions of Therms)	Proportion of SCG Consumption	Proportion of Statewide Consumption[1]
Natural Gas	130	5,100	11,922	2.5	1.1

[1]For reference, the population of Santa Barbara County (445,164) is approximately 1.1 percent of the population of California (39,185,605).

Source: CEC 2022d; CEC 2022e; DOF 2022

c. Petroleum

California is one of the top producers of petroleum in the nation with drilling operations occurring throughout the state but concentrated primarily in Kern and Los Angeles counties. A network of crude oil pipelines connects production areas to oil refineries in Northern and Southern California. California oil refineries also process Alaskan and foreign crude oil (2022f). According to the United States Energy Information Administration (USEIA), California oil refineries produced almost 131

million barrels of crude oil in 2021 (USEIA 2022). According to the California Department of Conservation, Geologic Energy Management Division (CalGEM), there are several idle and plugged oil and gas production wells, plugged wells, active observation wells, and permitted wells in Santa Barbara County (CalGEM 2023).

Santa Barbara County consumed an estimated 168 million gallons of gasoline and an estimated 17 million gallons of diesel fuel in 2021, which was approximately 1.2 percent of statewide gasoline consumption 0.9 percent of statewide diesel fuel consumption (CEC 2022g). Table 4.2-3 provides an overview of 2021 gasoline and diesel consumption in Santa Barbara County and California.

Table 4.2-3 2021 Gasoline and Diesel Consumption

Fuel Type	Santa Barbara County (million gallons)	California (million gallons)	Proportion of Statewide Consumption[1]
Gasoline	168	13,818	1.2
Diesel	17	1,883	0.9

[1]For reference, the population of Santa Barbara County (445,164) is approximately 1.1 percent of the population of California (39,185,605).

Source: CEC 2022g; California Department of Finance (DOF) 2022

4.2.2 Regulatory Setting

a. Federal Regulations

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 was designed to improve vehicle fuel economy and help reduce nationwide dependence on foreign oil. It expands the production of renewable fuels, reducing dependence on oil, and confronting global climate change. Specifically, it increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard and reduces U.S. demand for oil by setting a national fuel economy standard of 35 mpg by 2020. The Act also set energy efficiency standards for lighting (specifically light bulbs) and appliances.

Energy Policy and Conservation Act

Enacted in 1975, the Energy Policy and Conservation Act legislation established fuel economy standards for new light-duty vehicles (autos, pickups, vans, and sport-utility vehicles). The law placed responsibility on the National Highway Traffic and Safety Administration (NHTSA), a part of the U.S. Department of Transportation (USDOT), for establishing and regularly updating vehicle standards. The U.S. Environmental Protection Agency (USEPA) administers the Corporate Average Fuel Economy (CAFE) program, which determines vehicle manufacturers' compliance with existing fuel economy standards. Since the inception of the program, the average fuel economy for new light-duty vehicles steadily increased from 13.1 miles per gallon (mpg) for the 1975 model year to 30.7 mpg for the 2014 model year and can increase to 54.5 mpg by 2025.

On August 2, 2018, the NHTSA and USEPA, operating under the direction of the Trump Administration, proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule). This rule addresses emissions and fuel economy standards for motor vehicles and is separated in two parts as described below.

- Part One, "One National Program" (84 Federal Register 51310) revokes a waiver granted by USEPA to the State of California under Section 209 of the Clean Air Act to enforce more stringent emission standards for motor vehicles than those required by USEPA for the explicit purpose of GHG emission reduction, and indirectly, criteria air pollutants and ozone precursor emission reduction. This revocation became effective on November 26, 2019, potentially restricting the ability of the California Air Resources Board (CARB) to enforce more stringent GHG emission standards for new vehicles and set zero emission vehicle mandates in California.
- Part Two addresses CAFE standards for passenger cars and light trucks for model years 2021 to 2026. This rulemaking proposes new CAFE standards for model years 2022 through 2026 and would amend existing CAFE standards for model year 2021. The proposal would retain the model year 2020 standards (specifically, the footprint target curves for passenger cars and light trucks) through model year 2026. The proposal addressing CAFE standards was jointly developed by NHTSA and USEPA, with USEPA simultaneously proposing tailpipe carbon dioxide standards for the same vehicles covered by the same model years.

The USEPA and NTHSA published final rules to amend and establish national CO_2 and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 Federal Register 24174). On April 22, 2021, the Biden Administration formally proposed to roll back portions of the SAFE Rule, thereby restoring California's right to enforce more stringent fuel efficiency standards. Most recently, on December 21, 2021, the NHTSA finalized rules to repeal the SAFE I Rule. The final rule concludes the SAFE I Rule overstepped the agency's legal authority and established overly broad prohibitions that did not account for a variety of important State and local interests. The final rule ensures the SAFE I Rule will no longer form an improper barrier to states exploring creative solutions to address their local communities' environmental and public health challenges.

Construction Equipment Fuel Efficiency Standard

The USEPA sets emission standards for construction equipment. The first federal standards (Tier 1) were adopted in 1994 for all off-road engines over 50 horsepower (hp) and were phased in by 2000. A new standard was adopted in 1998 that introduced Tier 1 for all equipment below 50 hp and established the Tier 2 and Tier 3 standards. The Tier 2 and Tier 3 standards were phased in by 2008 for all equipment. The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements are contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068 (originally adopted in 69 Federal Register 38958 [June 29, 2004], and most recently updated in 2014 [79 Federal Register 46356]). Emissions requirements for new off-road Tier 4 vehicles were to be completely phased in by the end of 2015.

b. State Regulations

California Energy Plan

The CEC, in collaboration with California Public Utilities Commission (CPUC), is responsible for preparing the California Energy Action Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The 2003 Energy Action Plan calls for the State to assist in transformation of the transportation system to improve air quality, reduce congestion, and increase efficient use of fuel supplies with the least environmental and energy costs. The Energy Action Plan identifies strategies, such as assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs and encourages urban designs that

reduce VMT and accommodate pedestrian and bicycle access. In the 2005 Energy Action Plan, the CEC and CPUC updated the energy policy vision by adding dimensions to the policy areas, such as information on the emerging importance of climate change, transportation-related energy issues, and research and development activities. The CEC adopted an update to the 2005 Energy Action Plan in 2008 that supplements the earlier Energy Action Plans and examines the State's ongoing actions in the context of global climate change.

Assembly Bill 1493

Assembly Bill 1493 (Chapter 200, Statutes of 2002), known as the Pavley Bill, amended Health and Safety Code Sections 42823 and added 43018.5, requiring CARB to develop and adopt regulations that achieve maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles, light-duty trucks, and other vehicles used for noncommercial personal transportation in California.

Senate Bill 100 (100 Percent Clean Energy Act)

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the State's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

California Code of Regulations Title 24 (California Building Code)

Updated every three years through a rigorous stakeholder process, Title 24 of the California Code of Regulations requires California homes and businesses to meet strong energy efficiency and sustainability measures, thereby lowering their GHG emissions. Title 24 contains numerous subparts, including Part 1 (Administrative Code), Part 2 (Building Code), Part 3 (Electrical Code), Part 4 (Mechanical Code), Part 5 (Plumbing Code), Part 6 (Energy Code), Part 8 (Historical Building Code), Part 9 (Fire Code), Part 10 (Existing Building Code), Part 11 (Green Building Standards Code), Part 12 (Referenced Standards Code). The California Building Code is applicable to all development in California (Health and Safety Code Sections 17950 and 18938[b].

The regulations receive input from members of industry, as well as the public, with the goal of "[r]educing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (Public Resources Code Section 25402). These regulations are scrutinized and analyzed for technological and economic feasibility (Public Resources Code Section 25402[d]) and cost effectiveness (Public Resources Code Sections 25402[b][2] and [b][3]).

Part 6 – Building Energy Efficiency Standards

California Code of Regulations Title 24 Part 6 is the Building Energy Efficiency Standards. This code, originally enacted in 1978, establishes energy efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. The Building Energy Efficiency Standards is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. New construction and major renovations must demonstrate their compliance with the current Building Energy Efficiency Standards through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission.

In 2021, the California Energy Commission updated Title 24 standards with more stringent requirements that became effective January 1, 2023. The building efficiency standards are enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary due to local climatologic, geologic, or topographic conditions, provided these standards exceed those provided in Title 24.

The 2022 update to the Building Energy Efficiency Standards under Title 24 applies to buildings for which an application for a building permit is submitted on or after January 1, 2023. The updated standards mainly established electric-ready requirements when natural gas is installed, expanded solar photovoltaic and battery storage standards, and strengthened ventilation standards to improve indoor air quality.

Part 11 – California Green Building Standards

The California Green Building Standards Code, commonly referred to as "CALGreen" originally went into effect on August 1, 2009 and outlines architectural design and engineering principles that are in synergy with environmental resources and public welfare. CALGreen sets minimum standards for buildings, and since 2016, applies to new building construction and some alterations/additions within certain parameters. CALGreen establishes planning and design standards for sustainable site development, including water conservation measures and requirements that new buildings reduce water consumption by 20 percent below a specified baseline. CALGreen requires installations of 1.28 gallons-per-flush toilets and 0.5-gallon-per flush urinals for all non-residential projects as part of the prescriptive method of reducing indoor water use by the required 20 percent.

CALGreen lays out the minimum requirements for newly constructed residential and non-residential buildings to reduce greenhouse gas emissions through improved efficiency and process improvements. It also includes voluntary tiers to encourage building practices that improve public health, safety, and general welfare by promoting a more sustainable design. In addition, CALGreen includes several requirements related to solid waste diversion. Importantly, new non-residential construction is required to achieve at least 65 percent construction and demolition waste diversion and provide recycling areas for paper, cardboard, glass, plastics, metal, and organic waste. The 2022 CALGreen update primarily includes new requirements for the inclusion of electric vehicle charging stations and carbon dioxide monitoring and controls in classrooms. These requirements went into effect January 1, 2023.

Assembly Bill 1007

Assembly Bill 1007 (Chapter 371, Statutes of 2005) required the CEC to prepare a State plan to increase the use of alternative fuels in California. The CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other federal, State, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

CARB In-Use On-Road and Off-Road Diesel Rules

The CARB In-Use On-Road and Off-Road Diesel Rules impose limits on idling, restrict the addition of older vehicles, and require the retirement or replacement of older engines depending on their fleet size category. This policy indirectly impacts energy consumption. More specifically, CARB is also charged with developing air pollution control regulations based upon the best available control measures and implementing every feasible control measure under the State and Federal Clean Air Act (Health and Safety Code Sections 39602.5, 39667, 43013[a, h], 43018, 40600, 40601, 40612[a][2] and [c][1][A]). Pursuant to these directives, stringent emission standards were adopted in 2004 for off-road construction equipment (i.e., "Tier 4" standards) (40 Code of Federal Regulations Parts 1039, 1065, and 1068; Title 13 California Code of Regulations Section 2025). CARB also adopted emission standards for on-road heavy duty diesel vehicles (i.e., haul trucks) (13 California Code of Regulations Section 1956.8). These haul truck regulations mandate fleet turnover to ensure that nearly all on-road diesel trucks will have 2010 model year engines or equivalent (i.e., Tier 4) by January 1, 2023.

California Advanced Clean Trucks Program

In June 2020, CARB approved the Advanced Clean Trucks regulation, which requires manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. In addition, the regulation requires company and fleet reporting for large employers and fleet owners with 50 or more trucks. By 2045, all new trucks sold in California must be zero-emission. Implementation of this regulation would reduce consumption of nonrenewable transportation fuels as trucks transition to alternative fuel sources.

c. Local Regulations

County of Santa Barbara Comprehensive Plan

The County's Comprehensive Plan contains goals and policies aimed at guiding future development in Santa Barbara County. The Energy Element contains goals and policies pertaining to energy efficiency and alternative energy sources. Goals and policies relevant to the 2030 CAP include the following (County of Santa Barbara 2015):

Goal 1: Governmental Facilities and Operations. Provide for cost-effective and efficient use of energy in the facilities and operations owned by the County of Santa Barbara to reduce operating costs, mitigate adverse environmental impacts and set a good example in the community.

- **Policy 1.2: Retrofit Governmental Buildings.** County facilities shall be retrofitted to improve energy efficiency where improvements offer full return on investment in 5 years or less by way of energy savings.
- **Policy 1.4: Energy-Efficient Purchasing**. The County shall promote purchasing of energy-efficient equipment based on a fair return on investment, and shall use energy-savings estimates as one basis for purchasing decisions for major energy-using devices.
- **Policy 1.5: Governmental Vehicle Efficiency.** The County shall purchase fuel-efficient and alternatively fueled vehicles for the County fleet, to the maximum extent feasible.
- **Policy 1.6: Siting Governmental Facilities.** Promote coordination of new public facilities with mass transit service and other alternative transportation services, including bicycles, and design structures to enhance mass transit, bicycle, and pedestrian use.

Goal 2: Buildings. Foster development whose location, design, construction, and systems reduce the use of non-renewable energy resources in buildings and urban services.

- **Policy 2.1: Voluntarily Going Beyond State Building Energy Standards.** Establish mechanisms and incentives to encourage architects and builders to exceed the energy efficiency standards of the California Building Code (Title 24) in new and existing buildings by implementing energy efficiency measures.
- **Policy 2.4: Passive Solar Designs.** Encourage increased use of passive, solar design and daylighting in existing and new structures.
- **Policy 2.6: Retrofitting Buildings Audit/Rebate Programs**. Encourage homeowners, and commercial and industrial building owners to improve energy efficiency upon renovation of buildings.
- **Policy 2.7: Shade Trees:** The County shall maintain and expand the tree population to enhance the cooling benefits.

Goal 3: Transportation and Land Use. Provide a composition of land-uses and transportation programs that reduces dependency on automobiles.

- **Policy 3.1: Alternative Transportation and Support Facilities.** Enhance opportunities for alternative transportation.
- **Policy 3.5: Bikeways and Support Facilities.** The County shall consider the completion of an integrated bikeway system, linking residences with commercial centers, work locations, schools, parks and mass transit facilities to be a high priority for promoting the use of the bicycle as an alternative mode of transportation.
- **Policy 3.6: Pedestrian-Oriented Designs.** The County shall improve the convenience, comfort and safety for pedestrians.
- **Policy 3.7: Mixed-Use Developments.** Planning efforts shall focus on mixed-use development to reduce vehicular trips, where appropriate.
- **Policy 3.8: Employment Density Near Mass Transit**. The County shall coordinate office, commercial and industrial developments with mass transit service and existing or proposed bikeways.
- **Policy 3.9: Housing Density Near Mass Transit.** The County shall coordinate high density residential developments with mass transit service and existing or proposed bikeways.

Goal 4: Water Use and Solid Waste. Increase the efficiency of water and resource use to reduce energy consumption associated with various phases of using resources (pumping, distribution, treatment, heating, etc.).

- **Policy 4.5: Waste Collection and Recycling Programs.** The County shall continue to support the programs associated with efficient waste collection and recycling, public school education, and composting.
- **Policy 4.7: Interior Water-Efficient Plumbing Fixtures.** The County shall encourage water purveyors and water customers to continue their efforts to install more efficient options to increase energy benefits associated with reduced pumping, distribution, heating and treatment of water and wastewater.

Goal 5: Alternative Energy. Encourage the use of alternative energy for environmental and economic benefits, and encourage opportunities for businesses that develop or market alternative energy technologies.

- **Policy 5.2: Alternative Energy Technologies.** The County shall encourage the use of alternative energy technology in appropriate new and existing development.
- **Policy 5.4: Solar Photovoltaic Equipment.** The County shall use solar photovoltaic equipment in county applications when it is cost-effective on a life-cycle cost basis.
- **Policy 5.9: Electric Vehicle Charging Facilities.** Encourage electric vehicle recharging infrastructure.
- **Policy 5.10: Alternatively Fueled Vehicles.** The County shall encourage the use of alternatively fueled vehicles by individuals.

Goal 6: Incentive Program. Employ a design approach which takes maximum advantage of incentive-based policy measures.

- **Policy 6.1: Incentive Program.** The County shall prepare an Incentive Program for implementing the incentive-based policies in the Energy Element.

Goal 7: Inter-Jurisdictional Coordination. Implement applicable federal and state energy policy in cooperation with cities and communities.

- **Policy 7.1: Coordination with All Levels of Government.** Maintain awareness of national and state legislation and rulemaking, as well as energy policies of other local jurisdictions and private organizations, to keep the county's energy policies up-to-date.

Santa Barbara County Code

Santa Barbara County Code Article VI adopts the California Energy Code, 2019 Edition as the Primary Energy Code of the County. The California Energy Code has specific requirements for building design to reduce energy consumption, including the use of certain building materials to ensure a greater degree of energy efficiency during building operation and construction and energy efficiency standards for appliances, lighting amenities, and water fixtures, among other project components.

4.2.3 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

This section evaluates construction related energy consumption from 2030 CAP development projects, taking into account existing energy regulations. 2030 CAP Measures and Actions are compared to existing state and County regulations to evaluate their consistency.

Significance Thresholds

Appendix G of the *State CEQA Guidelines* provides the following significance thresholds to determine if a project would have a potentially significant impact on energy:

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The County's *Environmental Thresholds and Guidelines Manual* does not provide specific significance thresholds related to the analysis of a project's impacts related to energy. Therefore, the 2030 CAP's potential to result in impact related to energy is evaluated using the *CEQA Guidelines* Appendix G checklist questions, listed above, as qualitative thresholds of significance.

b. 2030 CAP Impacts and Mitigation Measures

Threshold a:	Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
Threshold b:	Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact E-1 THE 2030 CAP INCLUDES MEASURES AND ACTIONS THAT WOULD PROMOTE ENERGY EFFICIENCY IN SANTA BARBARA COUNTY, CONSISTENT WITH EXISTING ENERGY POLICIES. 2030 CAP-RELATED PROJECTS REQUIRING CONSTRUCTION ACTIVITIES WOULD CONSUME ENERGY RESOURCES; HOWEVER, CONSUMPTION OF ELECTRICITY AND PETROLEUM DURING CONSTRUCTION WOULD BE TEMPORARY, AND WOULD BE SUBJECT TO APPLICABLE STATE REGULATIONS, WHICH WOULD MINIMIZE WASTEFUL ENERGY USE. THEREFORE, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

2030 CAP Purpose and Consistency with Energy Policies

The purpose and intended effect of the 2030 CAP is to reduce GHG emissions generated in Santa Barbara County, including those emissions generated by energy demand and supply, and as a result, to minimize the effects of climate change. The 2030 CAP includes Actions which would encourage energy efficiency in the transportation sector. These include Actions TR-2.1 through TR-2.10 which encourage active transportation, alternative transportation, require greater transit accessibility, and provide incentives for carpooling. Implementation of these Actions would ensure the 2030 CAP would not result in wasteful, inefficient, or unnecessary consumption of energy resources associated with transportation.

The 2030 CAP also includes Measures and Actions which would promote energy efficiency in compliance with State and local energy policy and encourage energy efficiency in existing and new buildings. Actions CE-1.1 through CE-1.11 promote renewable energy use and energy resilience by requiring the County to achieve 100 percent renewable electricity by 2030, requiring the County to restrict natural gas infrastructure for new development, and requiring the County to develop and adopt an ordinance that establishes building performance standards for GHG emissions reduction over time. Measure CE-1 requires increased clean energy use and energy resilience in new and existing buildings, exceeding the requirements of Title 24 of the California Code of Regulations. Action CE-1.5 requires the County to achieve 100 percent renewable energy for all residential and commercial customers through 2030, which would meet SB 100 requirements of 100 percent electricity procurement from renewable energy resources. Action W-3.2 require the County to track energy intensities of public water systems and adopt carbon reduction goals for the water system. Action W-3.3 requires the County to assess options for the expansion of renewable energy at the Laguna County Sanitary District water treatment plant. Several 2030 CAP Actions promote energy efficiency in Santa Barbara County. Implementation of these Actions would ensure the 2030 CAP

would not result in wasteful, inefficient, or unnecessary consumption of energy resources associated with buildings.

The 2030 CAP Measures and Actions are aligned with the goals and policies of the County's Energy Element which promote energy-efficiency, use of renewable energy resources, reduced dependency on vehicle travel, and increased water use efficiency. Furthermore, the 2030 CAP includes incentive-based actions such as Actions TR-3.3, CE-1.1, and CE-1.11, to reduce energy use, which is consistent with Goal 6 of the County's Energy Element to employ incentive-based policy measures. Overall, implementation of the 2030 CAP would assist in reducing the use of non-renewable energy resources, increasing the production of renewable energy, and retrofitting buildings and the transportation system in Santa Barbara County to become energy efficient in compliance with existing energy plans. Therefore, the 2030 CAP would not conflict or obstruct implementation of existing energy plans.

2030 CAP-Related Project Implementation

Implementation of 2030 CAP Measures and Actions would result in energy use associated with construction of 2030 CAP-related projects; however, energy use during construction of individual projects would be temporary. During construction activity, contractors would be required to comply with applicable CARB regulations that restrict the idling of heavy-duty diesel motor vehicles and govern the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment. Construction activities would be required to utilize fuel-efficient equipment consistent with state and federal regulations and would comply with state measures to reduce inefficient, wasteful, or unnecessary consumption of energy. Applicable regulatory requirements such as 2019 California's Green Building Standards Code (CALGreen; California Code of Regulations, Title 24, Part 11), mandate that future infrastructure projects comply with construction waste management practices to divert a minimum of 65 percent of construction and demolition debris. These practices would result in efficient use of energy during construction of 2030 CAP-related projects. In the interest of both environmental awareness and cost efficiency, construction contractors would not reasonably be expected to utilize fuel in a manner that is wasteful or unnecessary. With adherence to applicable State regulations, implementation of 2030 CAP Measures and Actions would not result in wasteful or unnecessary energy use during related construction activities. Therefore, this impact would be less than significant.

Mitigation Measures

No mitigation measures are required because this impact would be less than significant.

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4.3 Greenhouse Gas Emissions

This section analyzes the potential impacts related to greenhouse gas (GHG) emissions and climate change resulting from implementation of the 2030 CAP.

4.3.1 Setting

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2); methane (CH_4); nitrous oxides (N_2O); fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs); and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a 100-year GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (United Nations Intergovernmental Panel on Climate Change [IPCC] 2021).

GHGs are emitted by natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are usually by-products of fossil fuel combustion, and CH_4 results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (United States Environmental Protection Agency [USEPA] 2022a).

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record, which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The IPCC expressed in their Sixth Assessment Report that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities (IPCC 2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, a total of 2,390 gigatons of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased by 47 percent, 156 percent, and 23 percent, respectively, primarily due to human activity (IPCC 2021). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

a. Types of Greenhouse Gases

Gases that are widely seen as the principal contributors to human-induced climate change include CO_2, CH_4, N_2O, fluorinated gases such as HFCs and PFCs, and SF_6. The following discusses the primary GHGs of concern.

Carbon Dioxide

Carbon dioxide is the primary GHG emitted by human activities. In 2020, CO_2 accounted for about 79 percent of all U.S. GHG emissions from human activities. CO_2 is naturally present in the atmosphere as part of the Earth's carbon cycle (the natural circulation of carbon among the atmosphere, oceans, soil, plants, and animals). Human activities are altering the carbon cycle, both by adding more CO_2 to the atmosphere and by influencing the ability of natural sinks, like forests and soils, to remove and store CO_2 from the atmosphere. While CO_2 emissions come from a variety of natural sources, human-related emissions are responsible for the increase that has occurred in the atmosphere since the industrial revolution (USEPA 2022a).

Methane

Methane is a colorless, odorless gas and is the major component of natural gas. In 2020, CH_4 accounted for about 11 percent of all GHG emissions generated by the United States from human activities. Human activities emitting methane include leaks from natural gas systems and the raising of livestock. Methane is also emitted by natural sources, such as natural wetlands. In addition, natural processes in soil and chemical reactions in the atmosphere help remove CH_4 from the atmosphere. Methane's lifetime in the atmosphere is much shorter than CO_2, but CH_4 is more efficient at trapping radiation than CO_2 (USEPA 2022a).

Nitrous Oxide

Nitrous oxide is a clear, colorless gas with a slightly sweet odor. In 2020, N_2O accounted for about seven percent of all GHG emissions generated by the United States from human activities. Human activities such as agriculture, fuel combustion, wastewater management, and industrial processes are increasing the amount of N_2O in the atmosphere. Nitrous oxide is also naturally present in the atmosphere as part of the Earth's nitrogen cycle and has a variety of natural sources. Nitrous oxide molecules stay in the atmosphere for an average of 114 years before being removed by a sink or destroyed through chemical reactions (USEPA 2022a).

Fluorinated Gases (HFCS, PFCS AND SF_6)

Unlike many other GHGs, fluorinated gases have no natural sources and are produced solely by human-related activities. They are emitted through their use as substitutes for ozone-depleting substances (e.g., as refrigerants) and through a variety of industrial processes, such as aluminum and semiconductor manufacturing. Many fluorinated gases have very high GWPs relative to other GHGs, meaning that small atmospheric concentrations can have disproportionately large effects on

global temperatures. They can also have long atmospheric lifetimes, lasting thousands of years in some cases. Like other long-lived GHGs, most fluorinated gases are well-mixed in the atmosphere, spreading around the world after they are emitted. Many fluorinated gases are removed from the atmosphere only when they are destroyed by sunlight in the far upper atmosphere. In general, fluorinated gases are the most potent and longest-lasting type of GHGs emitted by human activities (USEPA 2022a).

b. Greenhouse Gas Emissions Inventory

United States Emissions Inventory

Total GHG emissions generated by the U.S were 6,558 million metric tons (MMT) of CO_2e in 2019. Emissions decreased by 1.7 percent from 2018 to 2019. Since 1990, total U.S. emissions have increased by an average annual rate of 0.06 percent for a total increase of 1.8 percent between 1990 and 2019. The decrease from 2018 to 2019 reflects the combined influences of several long-term trends, including population changes, economic growth, energy market shifts, technological changes such as improvements in energy efficiency, and decrease carbon intensity of energy fuel choices. In 2019, the industrial and transportation end-use sectors accounted for 30 percent and 29 percent, respectively, of nationwide GHG emissions; while the commercial and residential end-use sectors accounted for 16 percent and 15 percent of nationwide GHG emissions, respectively, with electricity emissions distributed among the various sectors (USEPA 2022b).

California Emissions Inventory

Based on the California Air Resources Board (CARB) California GHG Inventory for 2000-2019, California produced 418.2 MMT of CO_2e in 2019 (CARB 2021). The largest single source of GHG emissions in California is transportation, contributing 40 percent of the State's total GHG emissions. Industrial sources are the second-largest source of the State's GHG emissions, contributing 21 percent (CARB 2021). The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions as compared to other states is its relatively mild climate. In 2016, California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 MMT of CO_2e (CARB 2021). The annual 2030 statewide target emissions level is 226 MMT of CO_2e (CARB 2022a).

Local Emissions Inventory

The 2030 CAP includes an emissions inventory of all GHGs emitted in the County in 2018. According to the emissions inventory, unincorporated Santa Barbara County generated approximately 1,426,540 metric tons (MT) of CO_2e in 2018. On-road transportation was the major source of GHG emissions in the County, accounting for 49 percent of the total, largely due to vehicle trips from cars and trucks. Natural gas used in buildings and facilities was the second largest source of emissions at 21 percent. Agriculture accounted for 14 percent, electricity used in buildings and facilities accounted for seven percent, off-road equipment accounted for five percent, solid waste accounted for four percent, and water/wastewater accounted for less than one percent, combined.

c. Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling

predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Each of the past three decades has been warmer than all the previous decades on record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature from 2015 to 2017 was approximately 1.0°C higher than the average global mean surface temperature over the period from 1880 to 1900 (National Oceanic and Atmospheric Administration 2020). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature obtained from station observations jointly indicate that Land-Surface Air Temperature and sea surface temperatures have increased. According to California's Fourth Climate Change Assessment, statewide temperatures from 1986 to 2016 were approximately 0.6 to 1.1°C higher than those recorded from 1901 to 1960.

Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, larger forest fires, and more drought years (State of California 2018). In addition to statewide projections, California's Fourth Climate Change Assessment includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally specific climate change case studies (State of California 2018). However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows of some of the potential effects that could be experienced in California because of climate change.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century (State of California 2018). Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone. The magnitude of the effect of the increased concentration of ground-level ozone, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (State of California 2018). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. The main air quality challenge in California, exacerbated by wildfire, is associated with Particulate Matter (State of California 2018).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the western United States, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring

snowpack in the western U.S., including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts (State of California 2018). The Sierra snowpack provides most of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack (State of California 2018). Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding (State of California 2018). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2022, observed by satellites, is approximately 3.6 millimeters per year, double the twentieth century trend of 1.4 millimeters per year (National Oceanic and Atmospheric Administration 2022). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. Sea level rise may jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018).

Agriculture

California has an over $50 billion annual agricultural industry that produces over a third of the country's vegetables and three-quarters of the country's fruits and nuts (California Department of Food and Agriculture 2023). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). Temperature increases could also change the time of year certain crops bloom or ripen, and thereby affect their quality (National Aeronautics and Space Administration 2021).

Ecosystems

Climate change and the potential resultant changes in weather patterns could have ecological effects on the global and local scales. Soil moisture is likely to decline in many regions because of higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures would have negative impacts on California's ecosystems, leading to local species extinctions, migrations, and management challenges (State of California 2018).

4.3.2 Regulatory Setting

a. Federal Regulations

Federal Clean Air Act

On April 2, 2007, in *Massachusetts v. EPA* (549 U.S. 497 [2007]), the U.S. Supreme Court found GHGs are air pollutants covered by the Clean Air Act (CAA). The Court held the Administrator must determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- **Endangerment Finding:** The Administrator finds the current and projected concentrations of six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to GHG pollution, which threatens public health and welfare.

These findings do not directly impose any requirements on industry or other entities. However, this action was a prerequisite for implementing GHG emission standards for vehicles (USEPA 2022c). In collaboration with the National Highway Traffic Safety Administration (NHTSA) and CARB, the USEPA developed emission standards for light-duty vehicles and heavy-duty vehicles (NHTSA et al. 2016; U.S. Government Publishing Office 2016).

Federal Fuel Efficiency Standards (CAFE)

Under the CAA, corporate average fuel economy (CAFE) standards have been set for passenger cars and light trucks. The State of California has traditionally had a waiver to set its own more stringent fuel efficiency standards. However, on August 2, 2018, the NHTSA and USEPA, operating under the direction of the Trump Administration, proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule). This rule addresses emissions and fuel economy standards for motor vehicles. The SAFE Rule revokes a waiver granted by USEPA to the State of California under Section 209 of the CAA to enforce more stringent emission standards for motor vehicles than those required by USEPA for the explicit purpose of GHG reduction and proposed new CAFE standards for model years 2022 through 2026 which retained the model year 2020 standards through the model year 2026. On April 22, 2021, the Biden Administration formally proposed to roll back portions of the SAFE Rule, restoring California's right to enforce more stringent fuel efficiency standards (NHTSA 2022). On December 21, 2021 the NHTSA finalized rules to repeal the SAFE Rule. For further information on CAFE, refer to Section 4.2.2, *Regulatory Setting*, in Section 4.2, *Energy*.

b. State Regulations

California Global Warming Solutions Act of 2006 (Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279)

The "California Global Warming Solutions Act of 2006," (AB 32), outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the

main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT of CO_2e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others.

CARB approved the 2013 Scoping Plan update in May 2014. The update defined the CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan.

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the state to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100 (discussed below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies (CARB 2017).

AB 1279, "The California Climate Crisis Act," was passed on September 16, 2022 and declares the State would achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative greenhouse gas emissions thereafter. In addition, the bill states that the State would reduce GHG emissions by 85 percent below 1990 levels no later than 2045. The 2022 Scoping Plan lays out a path to achieve AB 1279 targets (CARB 2022a). The actions and outcomes in the 2022 Scoping Plan would achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

Senate Bill 100 (100 Percent Clean Energy Act)

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the State's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)

SB 375, signed in August 2008, enhances the State's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. Santa Barbara County Association of Governments (SBCAG) was assigned targets of a 13 percent reduction in GHGs from passenger vehicles by 2020 and a 17 percent reduction in GHGs from passenger vehicles by 2035 (CARB 2022b).

Executive Order B-55-18

On September 10, 2018, the governor issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 32, SB 100, SB 375, and SB 1383.

CARB Innovative Clean Transit Regulations

In December 2018, CARB adopted the Innovative Clean Transit regulations, requiring all transit agencies to develop a plan to achieve zero emission bus fleets on or before 2040. Starting between 2023 and 2029, transit agencies must begin purchasing only zero-emission bus replacements and must have completed the fleet replacement program prior to 2040.

California Code of Regulations Title 24 (California Building Code)

Updated every three years through a rigorous stakeholder process, Title 24 of the California Code of Regulations requires California homes and businesses to meet strong energy efficiency and sustainability measures, thereby lowering their GHG emissions. The California Building Code is applicable to all development in California (Health and Safety Code Sections 17950 and 18938[b].

California Code of Regulations Title 24 Part 6 is the Building Energy Efficiency Standards which establishes energy efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Building Energy Efficiency Standards through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission.

California Code of Regulations Title 24 Part 11 is the California Green Building Standards Code, commonly referred to as "CALGreen". CALGreen lays out the minimum requirements for newly constructed residential and non-residential buildings to reduce greenhouse gas emissions through improved efficiency and process improvements. It also includes voluntary tiers to encourage building practices that improve public health, safety, and general welfare by promoting a more sustainable design.

For additional discussion of the California Building Code energy efficiency and green building standards, refer to Section 4.2.2, *Regulatory Setting*, in Section 4.2, *Energy*.

California Model Water Efficient Landscape Ordinance

The revised Model Water Efficient Landscape Ordinance became effective on December 15, 2015. New development that includes landscaped areas of 500 square feet or more are subject to the following revised ordinance requirements:

- More efficient irrigation systems;
- Incentives for graywater usage;
- Improvements in on-site stormwater capture;
- Limiting the portion of landscape that can be planted with high water use plants; and
- Reporting requirements for local agencies.

c. Local Regulations

SBCAG Connected 2050 RTP/SCS

SBCAG's Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), titled Connected 2050, is the most recent RTP/SCS adopted by SBCAG, and it builds upon the goals, policies, and forecasts of preceding plans. Connected 2050 demonstrates that the SBCAG region would achieve emissions reductions consistent with targets set forth by SB 375. GHG reductions achieved through Connected 2050 would result in corresponding reductions in energy consumption in the region. The following Connected 2050 policies would be applicable to GHG impacts resulting from the 2030 CAP (SBCAG 2021):

- **Policy 1.1: Land Use.** The planning, construction, and operation of transportation facilities shall be coordinated with local land use planning and should encourage local agencies to:
  - Plan for transit-oriented development consistent with the RTP/SCS by:
    - Concentrating residences and commercial centers in urban areas near rail stations, transit centers and along transit development corridors.
    - Designing and building "complete streets" serving all transportation modes that connect high-usage origins and destinations.
  - Preserve open space, agricultural land and sensitive biological areas.
  - Identify, minimize and mitigate adverse environmental impacts and, in particular, require mitigation of traffic impacts of new land development through on-site and related off-site improvements for all modes of transportation, including incentives to encourage the use of alternative transportation modes.
- **Policy 1.2: Air Quality.** Transportation planning and projects shall be designed to:
  - Lead to reductions in greenhouse gas and criteria pollutant emissions, consistent with the air quality goals of the region, including targets for greenhouse gas emissions from passenger vehicles in 2020 and 2035 as required by Senate Bill 375 (SB 375).
- **Policy 1.3: Alternative Fuels and Energy.** Transportation planning and projects shall:
  - Encourage the use of alternative fuels, and the application of advanced transportation and energy technologies to reduce vehicular emission production and energy consumption.
  - Promote renewable energy and energy conservation, consistent with applicable federal, State, and local energy programs, goals, and objectives.
- **Policy 2.3: Alternative Transportation Modes.** Transportation planning and projects shall:
  - Encourage alternatives to single-occupancy vehicle trips and the use alternative transportation modes to reduce vehicle miles traveled and increase bike, walk and transit mode share.
  - Provide for a variety of transportation modes and ensure connectivity within and between transportation modes both within and outside the Santa Barbara region. Alternative mode planning and projects shall be compatible with neighboring regions' transportation systems.
  - Plan and provide for ancillary support facilities for alternative transportation, such as bicycle parking.
  - Promote inter-regional commuter transit and rail service.

- Promote local and inter-city transit.

- **Policy 4.2: Public Health.** The RTP/SCS shall promote integrated transportation and land use planning that encourages:
  - Active transportation to promote alternative modes of transportation and physical activity (transit, biking and walking).
  - Development of "complete streets" which safely and conveniently accommodate all transportation modes, including active transportation.

Santa Barbara County Comprehensive Plan – Energy Element

The County's Comprehensive Plan contains goals and policies aimed at guiding future development within Santa Barbara County. The Energy Element contains goals and policies pertaining to the reduction of greenhouse gas emissions. Goals and policies relevant to the 2030 CAP include the following (County of Santa Barbara 2015):

Goal 1: Governmental Facilities and Operations. Provide for cost-effective and efficient use of energy in the facilities and operations owned by the County of Santa Barbara to reduce operating costs, mitigate adverse environmental impacts and set a good example in the community.

- **Policy 1.2: Retrofit Governmental Buildings.** County facilities shall be retrofitted to improve energy efficiency where improvements offer full return on investment in 5 years or less by way of energy savings.
- **Policy 1.4: Energy-Efficient Purchasing**. The County shall promote purchasing of energy-efficient equipment based on a fair return on investment, and shall use energy-savings estimates as one basis for purchasing decisions for major energy-using devices.
- **Policy 1.5: Governmental Vehicle Efficiency.** The County shall purchase fuel-efficient and alternatively fueled vehicles for the County fleet, to the maximum extent feasible.
- **Policy 1.6: Siting Governmental Facilities.** Promote coordination of new public facilities with mass transit service and other alternative transportation services, including bicycles, and design structures to enhance mass transit, bicycle, and pedestrian use.

Goal 2: Buildings. Foster development whose location, design, construction, and systems reduce the use of non-renewable energy resources in buildings and urban services.

- **Policy 2.1: Voluntarily Going Beyond State Building Energy Standards.** Establish mechanisms and incentives to encourage architects and builders to exceed the energy efficiency standards of the California Building Code (Title 24) in new and existing buildings by implementing energy efficiency measures.
- **Policy 2.4: Passive Solar Designs.** Encourage increased use of passive, solar design and daylighting in existing and new structures.
- **Policy 2.6: Retrofitting Buildings Audit/Rebate Programs**. Encourage homeowners, and commercial and industrial building owners to improve energy efficiency upon renovation of buildings.
- **Policy 2.7: Shade Trees:** The County shall maintain and expand the tree population to enhance the cooling benefits.

Goal 3: Transportation and Land Use. Provide a composition of land-uses and transportation programs that reduces dependency on automobiles.

- **Policy 3.1: Alternative Transportation and Support Facilities.** Enhance opportunities for alternative transportation.
- **Policy 3.5: Bikeways and Support Facilities.** The County shall consider the completion of an integrated bikeway system, linking residences with commercial centers, work locations, schools, parks and mass transit facilities to be a high priority for promoting the use of the bicycle as an alternative mode of transportation.
- **Policy 3.6: Pedestrian-Oriented Designs.** The County shall improve the convenience, comfort and safety for pedestrians.
- **Policy 3.7: Mixed-Use Developments.** Planning efforts shall focus on mixed-use development to reduce vehicular trips, where appropriate.
- **Policy 3.8: Employment Density Near Mass Transit**. The County shall coordinate office, commercial and industrial developments with mass transit service and existing or proposed bikeways.
- **Policy 3.9: Housing Density Near Mass Transit.** The County shall coordinate high density residential developments with mass transit service and existing or proposed bikeways.

Goal 4: Water Use and Solid Waste. Increase the efficiency of water and resource use to reduce energy consumption associated with various phases of using resources (pumping, distribution, treatment, heating, etc.).

- **Policy 4.5: Waste Collection and Recycling Programs.** The County shall continue to support the programs associated with efficient waste collection and recycling, public school education, and composting.
- **Policy 4.7: Interior Water-Efficient Plumbing Fixtures.** The County shall encourage water purveyors and water customers to continue their efforts to install more efficient options to increase energy benefits associated with reduced pumping, distribution, heating and treatment of water and wastewater.

Goal 5: Alternative Energy. Encourage the use of alternative energy for environmental and economic benefits, and encourage opportunities for businesses that develop or market alternative energy technologies.

- **Policy 5.2: Alternative Energy Technologies.** The County shall encourage the use of alternative energy technology in appropriate new and existing development.
- **Policy 5.4: Solar Photovoltaic Equipment.** The County shall use solar photovoltaic equipment in county applications when it is cost-effective on a life-cycle cost basis.
- **Policy 5.9: Electric Vehicle Charging Facilities.** Encourage electric vehicle recharging infrastructure.
- **Policy 5.10: Alternatively Fueled Vehicles.** The County shall encourage the use of alternatively fueled vehicles by individuals.

Goal 6: Incentive Program. Employ a design approach which takes maximum advantage of incentive-based policy measures.

- **Policy 6.1: Incentive Program.** The County shall prepare an Incentive Program for implementing the incentive-based policies in the Energy Element.

Goal 7: Inter-Jurisdictional Coordination. Implement applicable federal and state energy policy in cooperation with cities and communities.

- **Policy 7.1: Coordination with All Levels of Government.** Maintain awareness of national and state legislation and rulemaking, as well as energy policies of other local jurisdictions and private organizations, to keep the county's energy policies up-to-date.

4.3.3 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

This analysis compares 2030 GHG emission projections based on a business-as-usual (BAU) forecast, a state-adjusted forecast (SB 32), and a 2030 CAP forecast. The analysis identifies GHG emissions reductions that would occur in accordance with 2030 CAP implementation. In addition, 2030 CAP Measures and Actions are compared to the goals and requirements of existing plans, policies, and regulations adopted for the purpose of reducing GHG emissions, to determine if 2030 CAP Measures and Actions are consistent with these plans, policies, and regulations.

Significance Thresholds

Appendix G of the *State CEQA Guidelines* provides the following significance thresholds to determine if a project would have a potentially significant impact on greenhouse gas emissions:

a. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Although the County has adopted interim GHG emissions thresholds of significance into the *Environmental Thresholds and Guidelines Manual*, the *Environmental Thresholds and Guidelines Manual* states that the adopted interim GHG emissions thresholds of significance shall not be used following the County's release and adoption of updated GHG emissions thresholds, which are incorporated in the 2030 CAP. Therefore, this analysis does not rely on use of the County's interim GHG emissions thresholds of significance.

b. 2030 CAP Impacts and Mitigation Measures

Threshold a:	Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact GHG-1 IMPLEMENTATION OF THE 2030 CAP WOULD RESULT IN SUBSTANTIAL GHG REDUCTIONS COMPARED TO THE BUSINESS-AS-USUAL SCENARIO AND THE SCENARIO IMPLEMENTING ONLY STATE GHG REDUCTION LAWS. THE 2030 CAP WOULD REDUCE OVERALL GHG EMISSIONS IN THE COUNTY, CONSISTENT WITH STATEWIDE LEGISLATION (SB 32). THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The 2030 CAP provides a GHG emissions projections for unincorporated Santa Barbara County. The GHG emissions projections are based on a BAU forecast, a state-adjusted forecast, and a 2030 CAP forecast. The BAU assumes emissions would continue to occur if consumption and growth trends continue as projected by the County. The state-adjusted forecast includes GHG reductions that are expected to occur as a result of adopted state laws designed to reduce GHG emissions (ex. 2019 Title 24 Building Energy Efficiency Standards, SB 100). The 2030 CAP forecast includes GHG reductions expected to occur in accordance with 2030 CAP implementation and implementation of state law. GHG emission projections are shown in Table 4.3-1.

Table 4.3-1 Santa Barbara County GHG Emissions Inventory and Projections

Scenario	2030 (MT CO_2e per year)
Business-As-Usual	1,371,850
State-Adjusted Forecast	1,163,184
2030 CAP Forecast	781,296

Source: 2030 CAP

As shown in Table 4.3-1, the BAU scenario forecasts countywide GHG emissions in 2030 would total approximately 1,371,850 MT CO_2e per year. Statewide initiatives would reduce countywide GHG emissions in 2030 to approximately 1,163,184 MT CO_2e per year. Implementation of the 2030 CAP, alongside state laws, would reduce countywide GHG emissions in 2030 to approximately 781,296 MT CO_2e per year.

The Measures and Actions included in the 2030 CAP, combined with statewide legislation, would enable the County to meet the state's SB 32 emissions reduction target of 40 percent below 1990 levels by 2030. SB 32 is an interim target toward meeting the State's 2045 goal of carbon neutrality, and implementation of the 2030 CAP would result in substantial progress toward meeting the State's long-term GHG reduction goals. Implementation of the 2030 CAP Measures and Actions could result in temporary GHG emissions resulting from construction of 2030 CAP-related projects; however, these impacts would be short-term, intermittent, and minimal. The overall GHG emissions reductions that be achieved through implementation of the 2030 CAP would render construction-related GHG emissions from 2030 CAP-related projects inconsequential. Since the 2030 CAP would reduce overall greenhouse gas emissions, consistent with Statewide legislation establishing reduction targets (SB 32), the 2030 CAP would not have a significant impact on the environment.

Mitigation Measures

No mitigation measures are required because this impact would be less than significant.

Threshold b:	Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact GHG-2 THE 2030 CAP WOULD NOT CONFLICT WITH APPLICABLE PLANS, POLICIES OR REGULATIONS ADOPTED FOR THE PURPOSE OF REDUCING THE EMISSIONS OF GHGS, AS THE 2030 CAP IS A POLICY DRIVEN DOCUMENT INTENDED TO REDUCE GHGS. THE 2030 CAP WOULD ACHIEVE GHG REDUCTION TARGETS ESTABLISHED BY SENATE BILL 32 AND WOULD INCLUDE MEASURES AND ACTIONS PROMOTING THE GOALS OF APPLICABLE PLANS, POLICIES, AND REGULATIONS, SUCH AS SBCAG'S CONNECTED 2050, SENATE BILL 100, INNOVATIVE CLEAN TRANSIT REGULATIONS, THE CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE, TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS, AND THE COUNTY'S ENERGY ELEMENT. THEREFORE, THERE WOULD BE NO IMPACT.

The 2030 CAP is a policy document that would set strategies to reduce GHG emissions within Santa Barbara County, in compliance with State regulations. The purpose of the 2030 CAP is to meet Santa Barbara County's proportional fair share of the statewide emissions reduction target established by SB 32, which the 2030 CAP achieves through implementation of its Measures and Actions. Additionally, the 2030 CAP contributes toward meeting the state's goal of carbon neutrality in 2045 established by Executive Order B-55-18 and assists in making progress toward the County's reduction goal of 50 percent below 2018 baseline emissions by 2030.

The 2030 CAP would implement Measures and Actions promoting alternative transportation, thereby reducing GHG emissions associated with vehicle travel. This reduction in vehicle GHG emissions would align with the policies of SBCAG's Connected 2050, assisting in achieving SBCAG's assigned SB 375 target of a 17 percent reduction in GHGs from passenger vehicles by 2035. The 2030 CAP includes Action CE-1.5, which requires the County to achieve 100 percent renewable energy for all residential and commercial customers through 2030, meeting SB 100 requirements of 100 percent electricity procurement from renewable energy resources. 2030 CAP Action TR-1.7 would require the County to transition medium and heavy-duty fleet vehicles to zero emissions vehicles by 2035, promoting CARB's Innovative Clean Transit Regulations. 2030 CAP Measure W-3 intends to increase energy- and carbon-efficiency of water systems, and Action W-3.2 requires water intensity tracking for the purpose of adopting carbon-reduction goals for public water systems, promoting the requirements of the California Model Water Efficient Landscape Ordinance. 2030 CAP Measure CE-1 requires increased clean energy use and energy resilience in new and existing buildings, exceeding the requirements of Title 24 of the California Code of Regulations. Furthermore, 2030 CAP Measures and Actions align with the goals and policies of the County's Energy Element, which promote energy-efficiency, use of renewable energy resources, reduced dependency on vehicle travel, and increased water use efficiency.

Since the 2030 CAP would promote State and local plans, policies, and regulations adopted for the purpose of reducing greenhouse gas emissions, the 2030 CAP would be consistent with plans, policies, and regulations adopted for the purpose of reducing greenhouse gas emissions.

Mitigation Measures

No mitigation measures are required because there would be no impact.

4.4 Transportation

This section analyzes the potential effects of the 2030 CAP on transportation, including conflicts with applicable transportation plans, conflicts with *CEQA Guidelines* Section 15064.3(b), transportation hazards/incompatible uses, and emergency access.

4.4.1 Setting

a. Freeway and Highway Network

Santa Barbara County is served by a multi-modal transportation system that facilitates circulation. Major freeways and highways include United States Route 101 (U.S. 101) and State Routes (SR) 1, 135, 154, 166, 192, and 246. Brief descriptions of these routes are provided below.

United States Route 101

U.S. 101 functions as the region's main travel corridor, connecting Santa Barbara County to Ventura and Los Angeles Counties to the south and San Luis Obispo and other northern California counties to the north. Within Santa Barbara County, U.S. 101 extends westward from the Ventura County line and through the South Coast portion of the County and then northward through the Gaviota area and Santa Maria Valley to the San Luis Obispo County line. U.S. 101 runs for approximately 90 miles in Santa Barbara County, primarily as a limited-access freeway, with instances of side street and driveway access in rural areas.

State Route 1

SR 1 extends west from U.S. 101 near Gaviota and curves northwest through the City of Lompoc, Vandenberg Air Force Base, and rural areas of the Santa Maria Valley to the San Luis Obispo County line, just north of the City of Guadalupe. The segment of SR 1 between U.S. 101 and the City of Lompoc is a 2-lane rural highway, heavily utilized by commuters living in the Lompoc Valley and working in the South Coast area.

State Route 135

SR 135 is a four- to six-lane highway serving as the primary north-south route through the Santa Maria/Orcutt area. SR 135 connects to SR 1 approximately five miles northeast of Vandenberg Air Force Base and connects to U.S. 101 at Los Alamos.

State Route 154

SR 154 is a rural two-lane highway that extends north from U.S. 101 in the city of Santa Barbara, through the Lake Cachuma and Los Olivos areas in the Santa Ynez Valley, to U.S. 101 approximately 4.5 miles north of Buellton.

State Route 166

In Santa Barbara County, SR 166 is a two to four-lane highway that extends east from Guadalupe to U.S. 101 in Santa Maria. SR 166 continues east over the mountain range to the Cuyama Valley, SR 166 road meanders through the mountains, portions lie within San Luis Obispo County.

State Route 192

SR 192 is a two-lane highway that extends west from SR 154 and through the Santa Barbara foothills to Route 150 in Carpinteria. SR 192 provides access to residential areas in Mission Canyon, Montecito, Summerland, and Carpinteria and serves as an alternate route to U.S. 101 on the South Coast. Through the Carpinteria Valley, SR 192 serves numerous agricultural land properties. As a result of passing through residential areas, SR 192 features many driveways and access points.

State Route 246

SR 246 is a two to four-lane highway that extends east from Lompoc and through the Santa Ynez Valley to its terminus at SR 154, east of Solvang. SR 246 is the primary connection between communities in the Lompoc Valley and Santa Ynez Valley.

b. Transit Services/Agencies

A number of different transit agencies provide public transit services in Santa Barbara County, including the Santa Barbara Metropolitan Transit District (MTD), Santa Maria Regional Transit (SMRT), Santa Ynez Valley Transit (SYVT), Clean Air Express, City of Lompoc Transit (COLT), Santa Maria Organization of Transportation Helpers (SMOOTH), and Easy Lift Transportation. These transit agencies and their services are briefly described below.

Santa Barbara Metropolitan Transit District

MTD is the primary provider of fixed-route transit services in the South Coast area of Santa Barbara. MTD offers 42 transit routes and delivers approximately 2,627,848 annual service miles. According to MTD, in Fiscal Year 2021-2022, concluding in June 2022, MTD served 4,082,287 passenger trips (MTD 2023; MTD 2022).

Santa Maria Regional Transit

In the Santa Maria Valley, transit service is provided by SMRT. SMRT provides transit service through northern unincorporated Santa Barbara County between Santa Maria and Lompoc, and through th Santa Maria to the cities of Buellton and Solvang. SMRT utilizes U.S. 101 and SR 1 to provide transportation in northern unincorporated Santa Barbara County (SMRT 2022).

Santa Ynez Valley Transit

SYVT provides fixed-route and paratransit services between Buellton, Solvang, Santa Ynez, Ballard, and Los Olivos (SYVT 2022).

Clean Air Express

The Santa Barbara County Association of Governments (SBCAG) operates the Clean Air Express commuter services from the communities of Santa Maria, Lompoc, and the Santa Ynez Valley to the City of Goleta and the City of Santa Barbara. In Fiscal Year 2018-2019, the Clean Air Express served 179,026 passenger trips (SBCAG 2023).

City of Lompoc Transit

COLT provides service in the Lompoc area, including the unincorporated areas of Mission Hills and Vandenberg Village (SBCAG 2021).

Santa Maria Organization of Transportation Helpers and Easy Lift Transportation

The Santa Maria Organization of Transportation Helpers (SMOOTH) and Easy Lift Transportation serve as the Consolidated Transportation Service Agencies (CTSA) for transit between Santa Maria and Guadalupe, and the South Coast, respectively. Both agencies provide senior dial-a-ride, and Americans with Disabilities paratransit services (SMOOTH 2023; Easy Lift Transportation 2023).

c. Pedestrian and Bicycle Facilities

The region's pedestrian network is expansive and an inventory of the network at the regional scale has not been completed. A complete sidewalk network is present in most of Santa Barbara County's urbanized areas. Where deficiencies exist, local agencies continuously work to fill gaps and improve the network. Santa Barbara County provides funding for pedestrian network improvements which connect residential areas to schools (SBCAG 2021).

Santa Barbara County's bicycle network consists of 338 miles of bikeways. Portions of the California Pacific Coast Bike Route and the California Coastal Trail run through Santa Barbara County. Bikeways in Santa Barbara include the following categories, as defined by the State of California (SBCAG 2021):

- **Class I:** A Class I bikeway, or a bike path, is a multi-purpose trail that is completely separated from motor vehicle traffic.
- **Class II:** A Class II bikeway, or a bike lane, is an on-street lane dedicated to one-way bicycle travel adjacent to motorized travel lanes.
- **Class III:** A Class III bikeway, or bike route, are on-street shared facilities. Class III bikeways serve to provide continuity to other bicycle facilities or designate a preferred route through high demand corridors. These routes are typically demarcated using sharrows and/or signage.
- **Class IV:** A Class IV bikeway, also known as cycle tracks, are exclusive bicycle infrastructure that are separated and protected from motorist traffic. Class IV bikeways can be separated from motor traffic lanes in various ways including grade separation, posts, barriers, or on-street parking.

4.4.2 Regulatory Setting

a. Federal Regulations

United States Department of Transportation

The United States Department of Transportation (USDOT) provides a number of grant programs, primarily for the construction and upgrading of major highways and transit facilities. Many of these grants are administered by the state and regional governments. Use of federal grant funding also invokes the National Environmental Protection Act (NEPA), in some cases.

b. State Regulations

California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for the planning, design, construction and maintenance of all interstate freeways and state routes. Caltrans builds, maintains,

and operates the State Highway System in California with a goal to facilitate the safe and efficient use of the state transportation system for all users. Caltrans sets standards in its 2020 Transportation Impact Study Guide that focus on the vehicle miles traveled (VMT) metric. The document is intended to be a reference and informational document that aligns with the standards and thresholds established in the Governor's Office of Planning and Research's (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA*. This document is available to be used by local governments to uniformly review transportation analysis and assess the operational standards of Caltrans-maintained facilities. The 2020 Transportation Impact Study Guide acts as a replacement for the 2002 Guide for the Preparation of Traffic Impact Studies but is only intended to be used with local land use projects and plans, not to be used for transportation projects on the State Highway System.

Statewide Transportation Improvement Plan

The Statewide Transportation Improvement Plan (STIP) is a capital improvement program that plans transportation projects related to state facilities in California for the next five years. The program is updated every two years with new construction projects as more funding is provided. The California Transportation Commission approves the fund estimate and then Caltrans and regional planning agencies submit plans for transportation improvement projects. If the projects are programmed in the STIP, then relevant agencies can begin the implementation process.

Complete Streets Act

The Complete Streets Act was signed into law as Assembly Bill (AB) 1358 in 2008. It requires that cities and other public agencies incorporate "complete street" policies and principles into their General Plans and Updates within the Circulation Elements, so that the plan addresses the needs of all users, including bicyclists and pedestrians. Caltrans Deputy Directive 64 (DD-64-R1 October 2008) embraces the Complete Streets Act and its incorporation into all phases of state highway projects, from planning to construction to maintenance and repair.

Assembly Bill 32 and Senate Bill 375

With the passage of Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, the State of California committed itself to reducing statewide greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resources Board (CARB) is coordinating the response to comply with AB 32.

On December 11, 2008, CARB adopted its Scoping Plan for AB 32. This scoping plan included the approval of Senate Bill (SB) 375 as the means for achieving regional transportation related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the state comply with AB 32.

There are five major components to SB 375. First, regional GHG emissions targets: CARB's Regional Targets Advisory Committee guides the adoption of targets to be met by 2020 and 2035 for each Metropolitan Planning Organization (MPO) in the State. These targets, which MPOs may propose themselves, are updated every eight years in conjunction with the revision schedule of housing and transportation elements. On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. Santa Barbara County Association of Governments (SBCAG) was assigned targets of a 13 percent reduction in GHGs from passenger vehicles by 2020 and a 17 percent reduction in GHGs from passenger vehicles by 2035 (CARB 2022).

Second, MPOs are required to prepare a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the Regional Transportation Plan (RTP) must be consistent with each other, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative plan to meet the target. The RTP and SCS are further described below.

Third, SB 375 requires that regional housing elements and transportation plans be synchronized on eight-year schedules. In addition, Regional Housing Needs Allocation (RHNA) allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within three years.

Fourth, SB 375 provides CEQA streamlining incentives for preferred development types. Certain residential or mixed-use projects qualify if they conform to the SCS. Transit-oriented developments (TODs) also qualify if they (1) are at least 50 percent residential, (2) meet density requirements, and (3) are within 0.5 mile of a transit stop. The degree of CEQA streamlining is based on the degree of compliance with these development preferences.

Finally, MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC). Regional transportation planning agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the CTC guidelines.

Senate Bill 743

SB 743, which was signed into law in 2013, directed OPR to develop revisions to the *CEQA Guidelines* by July 1, 2014 to establish new criteria for determining the significance of transportation impacts and define alternative metrics instead of traffic level of service (LOS). SB 743 requires the new criteria to "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." It also states that alternative measures of transportation impacts may include "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated." SB 743 changes the way that public agencies evaluate the transportation impacts of projects in accordance with CEQA by recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact (see Pub. Resource Code, § 21099, subd. [b][2]).

On January 20, 2016, OPR released the *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*, which was an update to *Updating Transportation Impacts Analysis in the CEQA Guidelines*, which had been released on August 6, 2014. Of note was the updated text of the proposed new *CEQA Guidelines* Section 15064.3 which discusses the determination of the significance of transportation impacts, alternatives, and mitigation measures. Specifically, *CEQA Guidelines* Section 15064.3 establishes VMT as the most appropriate measure of transportation impacts. In November 2018, the California Natural Resources Agency finalized the updates to the *CEQA Guidelines*, and the updated guidelines became effective on December 28, 2018. OPR's updated guidelines states the following about transit and active transportation projects (OPR 2018):

> Transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less-than-significant impact on transportation. This presumption may apply to all passenger rail projects, bus and bus rapid transit projects, and bicycle and pedestrian infrastructure projects. Streamlining transit and active transportation projects aligns with each

of the three statutory goals contained in SB 743 by reducing GHG emissions, increasing multimodal transportation networks, and facilitating mixed use development.

c. Local Regulations

SBCAG Connected 2050 RTP/SCS

SBCAG is required by State and federal law to prepare, update, and adopt a Regional Transportation Plan (RTP) every four years. The most recent update to the RTP was completed by SBCAG in 2021 and sets forth long-range transportation planning goal describing how the region will meet its transportation needs for the 30-year period from 2020 to 2050. The 2050 RTP/SCS analyzes the transportation needs of the region into the future and identifies project priorities in order to improve the transportation system. The 2050 RTP/SCS uses existing and future land use patterns and forecasted population and job growth to identify and prioritize transportation projects for all modes of transportation including highways, streets and roads, transit, rail, bicycle, and pedestrian, as well as transportation demand management measures and intelligent transportation systems (SBCAG 2021).

All transportation projects that use State and federal funds, or that could significantly affect transportation in Santa Barbara County must be included in the RTP/SCS. The RTP/SCS offers a mix of mobility options and commits to a more sustainable transportation system through investments in public transportation, active transportation, highways, streets, and roads, and system efficiency. The 2050 RTP includes five goal areas – Environment, Mobility & System Reliability, Equity, Health & Safety, and Prosperous Economy – with respective policies to meet each of the goal areas. These policies are expected to result in significant benefits to the region, not only with respect to transportation and mobility, but also economic activity, safety, and social equity. The following list summarizes the most applicable policies which relate to the 2030 CAP (SBCAG 2021):

- **Policy 1.3 Alternative Fuels and Energy.** Transportation planning and projects shall:
  1. Encourage the use of alternative fuels, and the application of advanced transportation and energy technologies to reduce vehicular emission production and energy consumption.
  2. Promote renewable energy and energy conservation, consistent with applicable federal, State, and local energy programs, goals, and objectives.

- **Policy 2.3: Alternative Transportation Modes.** Transportation planning and projects shall:
  1. Encourage alternatives to single-occupancy vehicle trips and the use alternative transportation modes to reduce vehicle miles traveled and increase bike, walk and transit mode share.
  2. Provide for a variety of transportation modes and ensure connectivity within and between transportation modes both within and outside the Santa Barbara region. Alternative mode planning and projects shall be compatible with neighboring regions' transportation systems.
  3. Plan and provide for ancillary support facilities for alternative transportation, such as bicycle parking.
  4. Promote inter-regional commuter transit and rail service.
  5. Promote local and inter-city transit.

6. Work to complete the California Coastal Trail through provision and implementation of trail segments and connections in coordination with the California State Coastal Conservancy, California Department of Parks and Recreation, California Coastal Commission, Caltrans, and other agencies.

- **Policy 2.6: Consistency with Other Plans.**
  1. The planning, construction, and operation of transportation facilities shall be consistent with all relevant plans, including, but not limited to: (1) the California Transportation Plan, (2) SBCAG's Transportation Connections: The Public Transit Human Services Transportation Plan for Santa Barbara County, (3) adopted local General Plans, (4) short-range transit plans, and (5) other regional policies.

- **Policy 4.2: Public Health.** The RTP/SCS shall promote integrated transportation and land use planning that encourages:
  1. Active transportation to promote alternative modes of transportation and physical activity (transit, biking and walking).
  2. Development of "complete streets" which safely and conveniently accommodate all transportation modes, including active transportation.

Santa Barbara County Comprehensive Plan – Circulation Element

The Santa Barbara County Comprehensive Plan's Circulation Element identifies key roadway links throughout the unincorporated areas of the County, and along with the other elements of the Comprehensive Plan, guides decisions regarding new development. The objective of the Circulation Element is to provide clear traffic capacity guidelines, intended to maintain acceptable levels of service on the County's roadways and intersections, while allowing reasonable growth within the communities of the unincorporated area. Circulation Element policies apply to all roadways and intersections within the unincorporated area of the County, with the exception of those roadways and intersections located within an area included in an adopted community or area plan. Circulation Element Policy C is relevant to the 2030 CAP (Santa Barbara County 2014):

- **Policy C:** The County shall continue to develop programs that encourage the use of alternative modes of transportation including, but not limited to, an updated bicycle route plan, park and ride facilities, and transportation demand management ordinances.

4.4.3 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

2030 CAP Measures and Actions were compared to the policies of SBCAG's Connected 2050 RTP/SCS and the County's Circulation Element to determine the 2030 CAP's consistency with these plans. Based on 2030 CAP Measures and Actions, reasonably foreseeable 2030 CAP-related projects were evaluated to determine their potential to increase VMT in Santa Barbara County. Potential 2030 CAP-related projects were compared to existing State and County regulations to determine if the 2030 CAP could result in substantial transportation hazards or result in inadequate emergency access with application of State and County regulations.

Significance Thresholds

Appendix G of the State *CEQA Guidelines* and the County's *Environmental Thresholds and Guidelines Manual* provide the following significance thresholds to determine if a project would have a potentially significant impact on transportation:

a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
d. Result in inadequate emergency access.

The *CEQA Guidelines* and SB 743 changed the criteria for determining what constitutes a significant transportation-related environmental impact to rely upon quantification of VMT instead of level of service. *CEQA Guidelines* Section 15064.3(c) states that the requirement to use the VMT criteria applies on and after July 1, 2020. In September 2020, Santa Barbara County approved an amendment to the County's *Environmental Thresholds and Guidelines Manual*, which included adoption of VMT thresholds of significance and analysis methodologies. The County adopted thresholds identical to those recommended in the Office of Planning and Research guidelines.

b. 2030 CAP Impacts and Mitigation Measures

Threshold a:	Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Impact TRA-1 THE 2030 CAP WOULD NOT CONFLICT WITH THE SANTA BARBARA COUNTY ASSOCIATION OF GOVERNMENT'S CONNECTED 2050 RTP/SCS, THE COUNTY'S CIRCULATION ELEMENT, OR ANY OTHER APPLICABLE PROGRAM, PLAN, ORDINANCE, OR POLICY RELEVANT TO THE TRANSPORTATION SYSTEM. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The Measures and Actions included in the 2030 CAP are consistent with the goals and policies of SBCAG's Connected 2050 RTP/SCS and the County's Circulation Element. A discussion of the 2030 CAP's consistency with each of these plans is provided below.

Connected 2050 RTP/SCS

The 2030 CAP would implement specific Actions which are consistent with the Connected 2050 RTP/SCS. Action TR-2.10 would direct the County to develop an ordinance which requires large employers to meet vehicle trip and emissions reduction goals consistent with the Connected 2050 RTP/SCS. The 2030 CAP includes Actions which would promote alternative fuels and energy, alternative transportation modes, and active transportation consistent with Connected 2050 RTP/SCS Policies 1.3, 2.3, and 4.2. These include, but are not limited to, Action TR-2.2, which would require the County to identify areas for road diets and complete streets along roadways in urban areas and repurpose the additional lanes for active transportation infrastructure including sidewalks and bike lanes, and Action TR-2.9, which would require the County to convert underutilized County parking facilities to support commuter park-and-ride and electric bike share.

Implementation of the Measures and Actions in the 2030 CAP would reduce GHG emission from vehicle travel, assisting SBCAG in meeting their SB 375 emissions reduction requirements. As

described below, the 2030 CAP is consistent with the County's Circulation Element, fulfilling Connected 2050 RTP/SCS Policy 2.6, which requires consistency with adopted local General Plans. Furthermore, SBCAG is listed as a partner on 2030 CAP Actions TR-1.6, TR-2.2, TR-2.4 through TR-2.10, and TR-2.12, ensuring SBCAG is involved during implementation of transportation-related Actions in the 2030 CAP. This would ensure the 2030 CAP is consistent with the Connected 2050 RTP/SCS, and furthermore assist to implement SBCAG's transportation goals.

Circulation Element

The County's Circulation Element promotes the use of alternative modes of transportation and implementation of transportation demand ordinances. The 2030 CAP includes Measures and Actions that are consistent with the County Circulation Element Policy C, which encourages the use of alternative modes of transportation. Measures and Actions include Measure TR-1, promoting increased use of zero emission vehicles, and Actions TR-1.6, TR-2.7, TR-2.10, TR-2.11, which would incentivize the use of E-bikes, promote increased transit services and discounted transit passes for low-income commuters, require the County to develop an ordinance which requires large employers to meet vehicle trip and emissions reduction goals, and implement incentives for County employees to commute using carpool or alternative modes of transportation. Once implemented, the 2030 CAP would promote alternative transportation consistent with Policy C of the County's Circulation Element. Therefore, the 2030 CAP would be consistent with the County's Circulation Element.

Mitigation Measures

No mitigation measures are required because this impact would be less than significant.

Threshold b:	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Impact TRA-2 THE 2030 CAP WOULD IMPLEMENT SPECIFIC ACTIONS WHICH WOULD REDUCE VMT FOR RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL SECTORS THROUGHOUT THE COUNTY. THE 2030 CAP WOULD RESULT IN A REDUCTION OF COUNTYWIDE VMT. THEREFORE, THE 2030 CAP WOULD NOT CONFLICT OR BE INCONSISTENT WITH CEQA GUIDELINES SECTION 15064.3, SUBDIVISION (B). THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The 2030 CAP implements the following Actions designed to reduce VMT for residential and commercial/industrial sectors:

- **TR-1.6: E-Bike Incentivization.** Partner with community groups to obtain external funding for a pilot bike-share program in low-income communities and to connect low-income communities with the E-Bike Purchase Incentive Program through CalBike.
- **TR-2.2: Active Transportation Plan Implementation.** Prioritize and implement the programs and projects identified in the Active Transportation Plan with the highest VMT reduction potential. Identify areas for road diets and complete streets along roadways in urban areas and repurpose the additional lanes for active transportation infrastructure including sidewalks and bike lanes.
- **TR-2.3: Local Food Systems.** Reduce trips and trip lengths of food distributors by supporting local businesses that enhance access, equity, and resilience in the regional food system, such as cooperative food kitchens. Reduce trips and trip lengths of food consumers by leading or supporting efforts to obtain external funding to increase local food cultivation and access through community gardens, food forests, home gardening, community farming, and more.

- **TR-2.4: Regional VMT Mitigation Program.** Lead or support the establishment of a regional transportation VMT bank to identify and direct funding to unfunded transportation infrastructure and programs.
- **TR-2.7: Transit Accessibility & Reliability**. Partner with transit providers to increase transit service and provide subsidized or discounted transit passes for low-income commuters.
- **TR-2.8 LOSSAN Rail Ridership.** Work with the LOSSAN Rail Corridor Agency to increase commuter rider services.
- **TR-2.9: Park and Ride Expansion.** Convert underutilized County parking facilities to support commuter park-and-ride and electric bike share.
- **TR-2.10: Employer Trip Reduction Requirements & Programs.** Develop an ordinance that requires large employers, including the County, to meet vehicle trip and emission reduction goals, or pay non-compliance fees to expand transit and commuter services and resources. Partner with SBCAG to work with large employers within the unincorporated County achieve a 50-80% telework participation rate by eligible employees able to work remotely consistent with Connected 2050 RTP/SCS.
- **TR-2.11: Carpool & Vanpool Incentives.** Incentivize County employees to reduce the number of car trips by increasing rewards for carpooling, transit, and non-vehicular commuting. Conduct a feasibility study to implement employee parking fees. Partner with CalVans to promote use of the Vanpool Program to employers and employees, including the County. Consider offering incentives to increase rider participation for CalVans and transit.
- **TR-2.12: Broadband Accessibility.** Work with SBCAG to increase internet access and speed to support telecommuting and remote workforce participation, especially in rural areas of the County.

According to OPR's *Technical Advisory On Evaluating Transportation Impacts in CEQA*, transit and active transportation projects generally reduce VMT, and are therefore presumed to result in less than significant impacts on transportation. OPR applies this presumption to passenger rail projects, bus and bus rapid transit projects, and bicycle and pedestrian infrastructure projects. The majority of the 2030 CAP Actions promote active transportation development and transit improvements, which, accordingly, would be presumed to have less than significant VMT impacts. Based on the *GHG Emissions Reductions Technical Evidence,* prepared for the 2030 CAP, VMT reductions from implementation of Measure TR-2 and associated actions are anticipated to result in a reduction of 261,930,723 VMT compared to SBCAG's Connected 2050 baseline year of 2015 which represents the most recently available year for which countywide VMT data is available (Appendix C). Therefore, the 2030 CAP would not result in substantial VMT and would not conflict or be inconsistent with *CEQA Guidelines* Section 15064.3(b). This impact would be less than significant.

Mitigation Measures

No mitigation measures are required because this impact would be less than significant.

Threshold c:	Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?
Threshold d:	Would the project result in inadequate emergency access?

Impact TRA-3 2030 CAP-RELATED PROJECTS WOULD BE REQUIRED TO ADHERE TO APPLICABLE REGULATIONS TO ENSURE EMERGENCY ACCESS IS MAINTAINED, SUCH AS THE CALIFORNIA DEPARTMENT OF TRANSPORTATION'S MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, THE COUNTY CODE, AND THE ACCESS REQUIREMENTS OF THE APPLICABLE FIRE DEPARTMENT. WITH ADHERENCE TO APPLICABLE REGULATIONS, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Implementation of some 2030 CAP Actions may cause intermittent and temporary traffic interferences due to construction. However, existing State and County regulations minimize the potential for 2030 CAP-related projects to result in inadequate emergency access. For example, temporary construction barricades or other obstructions that could impede emergency access on State highway systems/routes would be subject to the standards set forth in the California Manual of Uniform Traffic Control Devices (Manual) (Caltrans 2021). The Manual requires the creation and approval of temporary traffic control plans to be used for facilitating road users through a work zone (Caltrans 2021). Pursuant to County Code Section 28-31 and Section 28-33, construction activities, which have been granted a permit occurring on County roads, would be required to maintain safe crossing for two lanes of vehicle traffic at all road intersections, and are required to take measures to maintain traffic conditions, subject to the County Road Commissioner.

2030 CAP-related projects would be required to be designed in accordance with applicable fire department standards, including standards set by the Santa Barbara County Fire Department, Carpinteria-Summerland Fire Protection District, and Montecito Fire Protection District, if applicable. Standards include those that address minimum driveway width, signage and addressing, fire hydrants, fire sprinklers, and emergency access. Furthermore, in accordance with standard development review procedures, plans for projects promoted by 2030 CAP Actions would be submitted to the County for review and approval to ensure that all new development has adequate emergency access and escape routes in compliance with existing fire department regulations. 2030 CAP-related projects would be reviewed by County staff to ensure consistency with all applicable design standards, including standards for project access points, location, and design, sight lines, roadway modifications, and provisions for bicycle and pedestrian transportation connections. Through adherence to applicable state and County regulations, the 2030 CAP would not introduce development resulting in transportation design hazards or inadequate emergency access. This impact would be less than significant.

Mitigation Measures

No mitigation measures are required because this impact would be less than significant.

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5 Other CEQA-Required Discussions

This section discusses growth-inducing impacts and significant irreversible environmental impacts that would be caused by the 2030 CAP.

5.1 Growth Inducement

Section 15126(d) of the *CEQA Guidelines* requires a discussion of a proposed project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The 2030 CAP's growth inducing potential is therefore considered significant if project-induced growth could result in significant physical effects in one or more environmental issue areas.

The 2030 CAP would support development allowed in accordance with the land use assumptions of the County's Comprehensive Plan. The 2030 CAP is a policy document that does not include specific development proposals that would induce population growth. Implementation of 2030 CAP Actions would not directly result in increases in population. Similarly, the 2030 CAP would not directly result in an increase in employment, and new employment opportunities that may result indirectly from implementation of 2030 CAP Actions would target existing residents and not induce population growth. The 2030 CAP includes Measure TR-2 to encourage affordable housing and mobility options in collaboration with the Santa Barbara County Association of Governments (SBCAG) and consistent with the growth projections within SBCAG's Connected 2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). No changes to the County Comprehensive Plan land use designations are proposed. Therefore, the 2030 CAP would not result in an unplanned increase in population or housing outside of what was accounted for in the County's Comprehensive Plan and SBCAG's RTP/SCS.

5.2 Irreversible Environmental Effects

Section 15126.2(c) of the *CEQA Guidelines* requires a discussion of significant irreversible environmental changes that would occur as a result of a proposed project.

The 2030 CAP does not propose any change in land use or zoning. Implementation of the 2030 CAP would occur in accordance with existing County-designated land use and zoning. The 2030 CAP does not include proposals for individual development projects, and future project locations would not be committed to any particular land use as a result of the 2030 CAP.

The 2030 CAP would set a framework for Santa Barbara County to achieve the State's goal of reducing emissions by 40 percent from 1990 levels by 2030. The Measures and Actions included in the 2030 CAP encourage improvements to housing, transportation, clean energy, and utility infrastructure. These Measures and Actions may indirectly result in construction activities which would require the use of fuel and building materials during construction. However, the result of the improvements would be a long-term reduction in energy consumption and a reduction in the use of nonrenewable energy sources. As discussed in Section 4.2, *Energy*, continued operation and maintenance of some 2030 CAP-related projects may require the additional use of fuel

consumption; however, such use would be incremental compared to the overall reduction in use of these resources that would result from implementation of the 2030 CAP. Therefore, no significant irreversible environmental changes would occur as a result of the 2030 CAP.

5.3 List of Significant and Unavoidable Impacts

As discussed in Sections 4.1 through 4.4 of the EIR, implementation of the 2030 CAP would not result in any significant and unavoidable impacts.

6 Alternatives

CEQA requires a lead agency to analyze a reasonable range of alternatives to a proposed project that could feasibly attain most of the basic objectives of the project (stated in Section 2 of this EIR) while substantially reducing or eliminating significant environmental impacts.

As discussed in Section 2, *Project Description*, the objectives for the 2030 Climate Action Plan (CAP), are as follows:

- Quantify GHG emissions in Santa Barbara County in a GHG inventory.
- Provide a road map to achieve GHG reductions that meet the State's SB 32 reduction target of 40 percent below baseline emissions by 2030, with an aspirational goal to meet the County's GHG emissions reduction target goal of 50 percent below baseline emissions by 2030.
- Demonstrate a level of GHG emissions below which future projects covered by the 2030 CAP would not have a cumulatively considerable contribution to GHG impacts.
- Serve as a Qualified Greenhouse Gas Emissions Reduction Plan to provide CEQA streamlining for future development projects.

This section of the EIR describes the key considerations used to identify and screen potential alternatives, explains why some potential alternatives were eliminated from further consideration, and describes the alternatives that were carried forward for more detailed analysis.

This chapter also compares the environmental impacts of the 2030 CAP and alternatives evaluated in detail. This comparison is based on the analysis of environmental impacts of the 2030 CAP, provided in Chapter 4, *Environmental Impact Analysis*, and the alternatives that were carried forward for more detailed review.

6.1 Alternatives Development and Screening

The County screened and selected alternatives to be discussed based on the following key provisions of the State *CEQA Guidelines* (California Code of Regulations Title 14, Section 15126.6):

- The discussion of alternatives shall consider a reasonable range of potentially feasible alternatives to the proposed project or its location that are capable of avoiding or substantially lessening any significant impacts of the proposed project, even if these alternatives would impede to some degree the attainment of the proposed project objectives, or would be costlier.
- The No Project Alternative shall be evaluated, along with its impacts. The no project analysis shall discuss the existing conditions at the time the notice of preparation was published, as well as what would be reasonably expected to occur in the foreseeable future if the proposed project were not approved, based on current plans and consistent with available infrastructure and community services.
- The range of alternatives required in an EIR is governed by a "rule of reason," meaning the EIR must evaluate only those alternatives necessary to permit a reasoned choice.
- An EIR need not consider an alternative whose impacts cannot be reasonably ascertained and whose implementation is remote and speculative.

Among the factors that may be considered in determining whether to carry a potential alternative forward for more detailed consideration in an EIR are:

1. Whether the alternative would meet most of the basic project objectives. Subsection 2.4, *2030 CAP Objectives*, in Section 2, *Project Description*, identifies four project objectives. Any alternative determined not to meet at least two of the four objectives was not carried forward for more detailed review.
2. Whether the alternative would be potentially feasible, where feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (Public Resources Code Section 21061.1; CEQA Guidelines Sections 15126.6 and 15364).[1] Any alternative determined to be infeasible was not carried forward for more detailed review.
3. Whether implementation of the alternative is remote or speculative. For purposes of this analysis, remote means unlikely or having only a slight chance of occurring, and speculative means unsupported, theoretical, or based on conjecture or guesswork. Any potential alternative determined to be remote or speculative was not carried forward for more detailed review.

In addition to these screening criteria, the County considered input received during the scoping period for the EIR as part of the alternatives' development process. Written and oral comments from agencies and the public were received during the scoping period. Table 1-1 in the *Program EIR Background* discussion of Section 1, *Introduction*, summarizes all comments received during the scoping period; none of the comments were related to potential alternatives.

6.2 Alternatives Rejected from Detailed Consideration

CEQA Guidelines Section 15126.6(a) states that "an EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation." Section 15126.6(c) of the CEQA Guidelines requires that an EIR identify alternatives that were considered but rejected as infeasible and provide a brief explanation as to why such alternatives were not fully considered in the Program EIR. Alternatives that do not meet basic project objectives, are infeasible, or are remote or speculative, have been eliminated from further consideration. The factors that may be considered when addressing the feasibility of alternatives include site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (CEQA Guidelines, Section 15126.6[f][1]).

The following alternatives were considered, but eliminated from further analysis by the County, due to one or more of the factors described in Section 6.1, *Alternatives Development and Screening*.

6.2.1 No Growth Policy

A No Growth Policy Alternative would involve the County reducing GHG emissions by enacting a moratorium on new development, thereby avoiding additional carbon emissions that would occur from new development. A No Growth Policy Alternative would not meet most of the basic objectives, including quantifying GHG emissions in the County or providing the County with a

[1] A sufficient demonstration of financial infeasibility requires more than a showing that the alternative would be more expensive or less profitable; it requires evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project. *Citizens of Goleta Valley* (1998) 197 Cal. App. 3d. 1167, 1181.

Qualified Greenhouse Gas Emissions Reduction Plan to streamline the environmental review of future development projects. The County cannot reasonably or feasibly restrict growth across all sectors of development, including residential, commercial, and industrial. A No Growth Policy Alternative would result in negative economic effects as new employment opportunities from new development would halt, opportunities for new residents to live in the County would be limited and contributions to the local economy would cease. Therefore, this alternative is rejected because it would not meet most of the basic project objectives and is not feasible.

6.2.2 Transportation Infrastructure Improvements

A Transportation Infrastructure Improvements Alternative would reduce GHG emissions from the transportation sector by advancing aggressive policies to enhance bicycle and pedestrian travel, upgrade public transit, construct electric vehicle charging stations, resulting in multimodal transportation improvements that would reduce vehicle miles traveled (VMT) and associated GHG emissions beyond what would occur in accordance with implementation of the 2030 CAP. The transportation sector is the leading contributor to GHG emissions in Santa Barbara County. As described in the 2030 CAP, on-road transportation accounted for 49 percent of 2018 GHG emissions. The 2030 CAP includes Actions designed to achieve GHG reductions by increasing electric vehicle use, ownership, and infrastructure; increase public transit and bike use; and reduce carbon emissions from off-road equipment.

Achieving a substantial reduction in GHG emissions from transportation infrastructure improvements would require implementation of aggressive policies and a shift in decision-making regarding mode and frequency of travel by households and businesses in the County. Substantially improved transit and alternative transportation infrastructure, widespread access to alternative modes of transportation, financial incentives to use alternative modes of transportation, or disincentives to use of motor vehicles, all could be part of the solution towards achieving substantial GHG reductions in the transportation sector. However, there is currently no evidence to assume this alternative could feasibly be accomplished within the timeframe to achieve the State's GHG emissions reduction target of 40 percent below 1990 emissions levels by 2030. Furthermore, transportation infrastructure improvements required to substantially reduce GHG emissions in the County would be costly, likely requiring the County to abandon pursuit of other community priorities. Therefore, the Transportation Infrastructure Improvements Alternative is rejected because it is speculative and would not be feasible.

6.2.3 Expedited Timeline to Carbon Neutrality Implementation

The County has adopted a goal to achieve carbon neutrality by 2045. The Expedited Timeline to Carbon Neutrality Implementation Alternative would involve accelerating the County's projected GHG emissions reductions programs in order to achieve carbon neutrality by 2035.

While emerging technologies that would further reduce GHG emissions are expected to become more commercially available over the course of the timeframe of the County's GHG emissions reduction goals, sufficient technological advancements to meet the County's GHG emissions reduction goals by 2035 are not currently available. Therefore, it is speculative to assume such technologies would become available in the time needed for the County to achieve carbon neutrality by 2035. Furthermore, the County would likely need to ensure the following actions in order to achieve carbon neutrality by 2035:

- Electrify 100 percent of buildings and facilities in the County, including residential, commercial, industrial, and energy industries.
- Achieve zero (or near-zero) waste landfilling.
- Have more than 95 percent of the Countywide vehicle fleet, including light-duty passenger vehicles and heavy-duty trucks, be zero-emission vehicles.
- Eliminate all oil and natural gas operations in the County.
- Transition all refrigerants, fire suppressants, and consumer products used within the County to substitutes with extremely low (or zero) global warming potential.
- Replace all off-road equipment and off-road vehicles (including locomotives) with electric, green hydrogen, or other zero-emission engine technologies.
- Capture nearly all fugitive wastewater treatment process emissions and converting to fuel.
- Eliminate nitrous oxide emissions from fertilizer application.
- Implement carbon removal and/or carbon capture and sequestration strategies to offset all remaining residual emissions.

There is no basis to assume achieving carbon neutrality by 2035 would be accomplished in a successful manner, taking into account economic, environmental, legal, social, and technological factors. Therefore, this alternative is rejected because it is speculative and would not be feasible.

6.3 Alternatives Evaluated in Detail in this EIR

This EIR analyses three alternatives, including the CEQA-required "no project" alternative, which involve changes to the 2030 CAP that serve as alternative methods for reducing GHG emissions in the County. Alternatives have been developed to provide a reasonable range of options to consider that would help decision makers and the public understand the general implications of revising or eliminating certain components of the 2030 CAP. Descriptions of the alternatives are provided in Sections 6.3.1 through 6.3.3. The potential environmental impacts of each alternative are discussed in Sections 6.4.1 through 6.4.3.

6.3.1 Alternative 1: No Project Alternative

CEQA Guidelines Section 15126.6(e) requires an EIR to evaluate the impacts of a no project alternative to enable a comparison of the potential environmental consequences that would result with and without a proposed project. In this case, the No Project Alternative examines a scenario in which the County would not approve the 2030 CAP. Under such a scenario, none of the emissions reductions Measures or Actions outlined in the 2030 CAP would be implemented, and none of the benefits of the 2030 CAP would be realized. The County would continue to rely on implementation of GHG emissions reductions strategies within the 2015 Energy and Climate Action Plan, which would not achieve the State's goal of a 40 percent reduction in emissions from 1990 levels by 2030.

The anticipated GHG emissions that would occur in accordance with the No Project Alternative are generally described in the 2030 CAP's State-Adjusted forecast, which accounts for future growth in accordance with business-as-usual conditions, adjusting for implementation of existing State laws

and programs that were implemented prior to the development of the 2030 CAP[2]. This alternative would not provide a clear pathway for the County to meet the State's emissions reduction goal.

6.3.2 Alternative 2: Carbon Credit Alternative

Under the Carbon Credit Alternative, in lieu of adopting the 2030 CAP, the County would purchase carbon offsets to reduce GHG emissions. Carbon offset projects could increase or protect carbon sequestration, invest in solar or wind projects, improve water or energy efficiency, capture methane at animal farms or landfills, replace high-global warming-potential gas use with a gas that has a lower global warming potential, or implement other types of measures. To achieve the greatest environmental benefits to Santa Barbara County, priority would be given, from highest to lowest, to offsets purchased locally (within the County), regionally (within the Central Coast of California), within California, outside of California but within the Pacific Southwest (within Arizona, Hawaii, Utah, or Nevada), and elsewhere in the United States.

6.3.3 Alternative 3: Building Electrification Alternative

The 2030 CAP includes Action CE-1.1 and Action CE-1.2 which requires the County to restrict natural gas infrastructure for new development and major remodels and complete an existing building electrification plan to identify the policies and programs needed to achieve the 2030 CAP goal to electrify 14 percent of existing buildings by 2030, respectively. The Building Electrification Alternative would revise these Actions to require the County to adopt a building electrification ordinance concurrently with adoption of the 2030 CAP which requires 100 percent building electrification by 2030. This would result in the complete and immediate restriction of all natural gas infrastructure rather than a restriction for only new development and major remodels. The Building Electrification Alternative would result in the complete electrification of buildings in Santa Barbara County within the timeframe of the 2030 CAP, substantially reducing GHG emissions resulting from the use of natural gas.

6.4 Comparative Analysis of Alternatives

6.4.1 No Project – Alternative 1 Impact Analysis

a. Air Quality

Under the No Project Alternative the County would continue to implement GHG emissions reductions strategies contained in the 2015 Energy and Climate Action Plan, which include State Air Toxic Control Measures, Santa Barbara County Air Pollution Control District rules, and County Code regulations. This alternative would not implement 2030 CAP Measures and Actions that would encourage alternative transportation facilities, building electrification, electric vehicle charging facilities, or use of solar photovoltaic panels, or other development that would have the secondary effect of reducing criteria pollutant emissions. As a result, the No Project Alternative would result in higher regional criteria pollutant emissions than the 2030 CAP. However, continued implementation of current emissions reductions strategies would still minimize the potential for the No Project Alternative to result in an increase of criteria pollutants for which the South Central Coast Air Basin is in non-attainment, minimize the potential for sensitive receptors to be exposed to substantial pollutant concentrations, and minimize the potential for the No Project Alternative to result in

[2] The "business-as-usual" forecast assumes no action is taken to reduce GHG emissions in the County. 2018 emissions are projected forward using growth indicators such as population, housing, and employment.

substantial odors. Therefore, the No Project Alternative would result in greater air quality impacts than the 2030 CAP, but overall impacts to air quality would remain less than significant.

b. Energy

The No Project Alternative would result in the County continuing to implement GHG emissions reductions strategies within the 2015 Energy and Climate Action Plan, including strategies to minimize energy related GHG emissions, such as promoting renewable energy procurement and designing buildings to exceed Title 24 energy standards. Strategies in the 2015 Energy and Climate Action Plan were developed to reduce energy use throughout Santa Barbara County and promote State SB 100 requirements and Title 24 energy standards. However, this alternative would not implement 2030 CAP Measures and Actions that would encourage alternative transportation facilities, building electrification, electric vehicle charging facilities, or use of solar photovoltaic panels, or other development that would have the secondary effect of reducing wasteful, inefficient, or unnecessary consumption of energy resources. As a result, the No Project Alternative would not achieve a comparable reduction in energy use in comparison to the 2030 CAP. Construction resulting from implementation the No Project Alternative would continue to comply with applicable State regulations to minimize energy use. Overall, the No Project Alternative would result greater energy impacts than the 2030 CAP, but impacts to energy would remain less than significant.

c. Greenhouse Gas Emissions

Under the No Project Alternative the County would continue to implement GHG emissions reductions strategies in the 2015 Energy and Climate Action Plan, developed to reduce GHG emissions in Santa Barbara County by 15 percent below 2007 levels by 2020. Although the No Project Alternative would implement strategies to reduce GHG emissions, the anticipated GHG reductions would be less than the County's proportional fair share of the statewide emissions reduction target established by Senate Bill 32. Therefore, the No Project Alternative would result in greater GHG emissions in comparison to the 2030 CAP, and would not be consistent with State GHG emissions reductions targets, which would be a significant and unavoidable impact.

d. Transportation

The No Project Alternative would result in the County continuing to implement 2015 Energy and Climate Action Plan GHG emissions reductions strategies, which are consistent with SBCAG and County alternative transportation goals. As a result, the No Project Alternative would result in VMT reductions consistent with *CEQA Guidelines* Section 15064.3(b), although this alternative would not implement 2030 CAP Measures and Actions that would encourage alternative transportation facilities, electric vehicle charging facilities, or other development that would further reduce VMT for residential, commercial, and industrial sectors throughout the County. As a result, the No Project Alternative would result in higher VMT in comparison to the 2030 CAP. Development projects in Santa Barbara County would continue to be designed in accordance with applicable State regulations, County Code requirements, and applicable fire department standards intended to minimize transportation hazards and ensure adequate emergency access. Overall, the No Project Alternative would result in higher VMT than the 2030 CAP, but impacts to transportation would remain less than significant.

6.4.2 Carbon Credit – Alternative 2 Impact Analysis

a. Air Quality

The Carbon Credit Alternative would not implement the 2030 CAP's County-specific Measures or Actions designed to reduce GHG emissions, and would not encourage alternative transportation facilities, building electrification, electric vehicle charging facilities, use of solar photovoltaic panels, or other development that would have the secondary effect of reducing criteria pollutant emissions. As a result, the Carbon Credit Alternative would result in higher regional criteria pollutant emissions than the 2030 CAP. However, continued implementation of current emissions reductions strategies would still minimize the potential for the Carbon Credit Alternative to result in an increase of criteria pollutants for which the South Central Coast Air Basin is in non-attainment, minimize the potential for sensitive receptors to be exposed to substantial pollutant concentrations, and minimize the potential for the Carbon Credit Alternative to result in substantial odors. Therefore, the Carbon Credit Alternative would result in greater air quality impacts than the 2030 CAP, but overall impacts to air quality would remain less than significant.

b. Energy

The Carbon Credit Alternative would result in the County purchasing carbon credits in compliance with the California Air Resources Board (CARB) Cap-and-Trade Program requirements rather than implementing the 2030 CAP's County-specific Measures and Actions to reduce GHG emissions. The Carbon Credit Alternative would not encourage alternative transportation facilities, building electrification, electric vehicle charging facilities, or use of solar photovoltaic panels, or other development that would have the secondary effect of reducing wasteful, inefficient, or unnecessary consumption of energy resources. As a result, the Carbon Credit Alternative may result in increased impacts to energy in comparison to the 2030 CAP; however, because the Carbon Credit Alternative would not directly result in wasteful, inefficient, or unnecessary consumption of energy resources, the overall impact would remain less than significant.

c. Greenhouse Gas Emissions

The Carbon Credit Alternative would result in the County purchasing carbon offsets to reduce GHG emissions rather than implementing the 2030 CAP's County-specific Measures and Actions to reduce GHG emissions. Although priority would be given to carbon offsets purchased locally, regionally, and within California, the County would also have the opportunity to purchase carbon offsets which would be applied outside of California, thereby not contributing to achieving the State's GHG emissions reductions goals. The purchase of carbon offsets would not obligate the County to implement additional programs to reduce GHG emissions locally. In addition, there is substantial uncertainty associated with existing markets for carbon credit and offset, such that the amount of carbon offsets purchased may not result in an equivalent reduction in GHG emissions. Without substantial evidence of the efficacy of carbon offsets, it would remain speculative whether the Carbon Credit Alternative would result in GHG emissions reductions in compliance with Senate Bill 32 goals. Feasible mitigation is not available for this alternative to demonstrate compliance with Senate Bill 32 goals. Therefore, the Carbon Credit Alternative has the potential to result in greater GHG emissions in comparison to the 2030 CAP, and would not be consistent with State GHG emissions reductions targets, resulting in a significant and unavoidable impact.

d. Transportation

The Carbon Credit Alternative would result in the County purchasing carbon offsets to reduce GHG emissions rather than implementing the 2030 CAP's County-specific Measures and Actions to reduce GHG emissions. However, existing 2015 Energy and Climate Action Plan GHG emissions reductions strategies, which are consistent with SBCAG and County transportation goals, would continue to be implemented. As a result, the Carbon Credit Alternative would result in VMT reductions consistent with *CEQA Guidelines* Section 15064.3(b), although this alternative would not implement 2030 CAP Measures and Actions that would further reduce VMT for residential, commercial, and industrial sectors throughout the County. As a result, the Carbon Credit Alternative would result in higher VMT in comparison to the 2030 CAP. Development projects in Santa Barbara County would continue to be designed in accordance with applicable State regulations, County Code requirements, and applicable fire department standards intended to minimize transportation hazards and ensure adequate emergency access. Overall, the Carbon Credit Alternative would result higher VMT than the 2030 CAP, but impacts to transportation would remain less than significant.

6.4.3 Building Electrification – Alternative 3 Impact Analysis

a. Air Quality

The Building Electrification Alternative would necessitate more construction activities than the 2030 CAP in order to retrofit existing buildings to achieve 100 percent building electrification in Santa Barbara County. Construction activity associated with electrifying existing buildings would be required to comply with State Air Toxic Control Measures, Santa Barbara County Air Pollution Control District rules, and County Code regulations, which would minimize criteria air pollutant, TAC, and odor emissions. Once implemented, the Building Electrification Alternative would result in a greater reduction of long-term regional pollutant emissions associated with building operation than the 2030 CAP. Overall, the Building Electrification Alternative would result in reduced regional air quality impacts in comparison to the 2030 CAP.

b. Energy

The Building Electrification Alternative would necessitate more construction activities than the 2030 CAP in order to retrofit existing buildings to achieve 100 percent building electrification in Santa Barbara County. However, construction resulting from implementation of the Building Electrification Alternative would be required to comply with applicable State regulations to minimize energy use. Overall the Building Electrification Alternative would result in similar long-term energy consumption as the 2030 CAP, and would not directly result in wasteful, inefficient, or unnecessary consumption of energy resources. Similar to the 2030 CAP, the Building Electrification Alternative would result in less than significant impacts to energy.

c. Greenhouse Gas Emissions

The Building Electrification Alternative would result in greater reductions of GHG emissions associated with building energy by requiring 100 percent building electrification by 2030, rather than the 2030 CAP's goal of 14 percent building electrification by 2030, in addition to the other Measures and Actions already included in the 2030 CAP. These additional GHG emissions reductions would exceed the State's 2030 GHG emissions reduction goals and further contribute to the County and State's goal of achieving carbon neutrality by 2045. Therefore, the Building Electrification

Alternative would result in reduced GHG emissions in comparison to the 2030 CAP, and would be consistent with State GHG emission reduction targets, resulting in a less than significant impact.

d. Transportation

The Building Electrification Alternative would implement similar alternative transportation Measures and Actions to the 2030 CAP, resulting in similar VMT reductions consistent with *CEQA Guidelines* Section 15064.3(b). Development projects in Santa Barbara County would continue to be designed in accordance with applicable State regulations, County Code requirements, and applicable fire department standards intended to minimize transportation hazards and ensure adequate emergency access. Therefore, similar to the 2030 CAP, the Building Electrification Alternative would result in less than significant impacts to transportation.

6.5 Environmentally Superior Alternative

The *CEQA Guidelines* define the environmentally superior alternative as the alternative with the least adverse impacts on the project site and its surrounding environment. Table 6-1 indicates whether each alternative's environmental impact is greater than, less than, or similar to that of the 2030 CAP for each of the issue areas studied. For this project, the Building Electrification Alternative is considered the environmentally superior alternative.

Table 6-1 Impact Comparison of Alternatives

Issue	2030 CAP Impact Classification	Alternative 1: No Project	Alternative 2: Carbon Credit	Alternative 3: Building Electrification
Air Quality	Less than significant	Less than significant	Less than significant	Less than significant
Energy	Less than significant	Less than significant	Less than significant	Less than significant
Greenhouse Gas Emissions	Less than significant	Significant and Unavoidable	Significant and Unavoidable -	Less than significant
Transportation	Less than significant	Less than significant	Less than significant	Less than significant

The Building Electrification Alternative would result in less than significant impacts to air quality, energy, greenhouse gas emissions, and transportation, similar to the 2030 CAP. In comparison, the No Project Alternative and the Carbon Credit Alternative would each result in significant and unavoidable impacts to greenhouse gas emissions. The Building Electrification Alternative would result in greater GHG emissions reductions than the 2030 CAP and would meet all project objectives. However, the Building Electrification Alternative may require the County to utilize substantial resources in excess of the 2030 CAP to electrify 100 percent of the buildings in Santa Barbara County which could delay implementation of other Measures and Actions designed to reduce GHG emissions.

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7 References

7.1 Bibliography

Air Quality

California Air Resources Board (CARB). 2023a. "Inhalable Particulate Matter and Health (PM2.5 and PM10)." https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health (accessed March 2023).

_____. 2023b. "Overview: Diesel Exhaust & Health." https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health (accessed March 2023).

_____. 2023c. "Top 4 summary: Select Pollutant, Years, & Area." https://www.arb.ca.gov/adam/topfour/topfour1.php (accessed March 2023).

_____. 2005. Air Quality and Land Use Handbook: A Community Health Perspective. https://sfmohcd.org/sites/default/files/20%20-%20CARB%2C%20Air%20Quality%20and%20Land%20Use%20Handbook%202005.pdf (accessed March 2023).

California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program. February 2015. https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf (accessed March 2023).

Santa Barbara County Air Pollution Control District (SBCAPCD). 2022a. 2022 Ozone Plan. December 2022. https://www.ourair.org/wp-content/uploads/2022-Ozone-Plan.pdf (accessed March 2023).

_____. 2022b. Scope and Content of Air Quality Sections in Environmental Documents. January 2022. https://www.ourair.org/wp-content/uploads/ScopeContentJanuary2022-LimitedUpdates.pdf (accessed March 2023).

_____. 1978. Rule 303 Nuisance. October 23, 1978. https://www.ourair.org/wp-content/uploads/rule303.pdf (accessed March 2023).

Santa Barbara, County of. 2023a. Monthly and Yearly Rainfall Record. https://files.countyofsb.org/pwd/hydrology/historic%20data/rainfall/204mdd.pdf (accessed March 2023).

_____. 2023b. Historical Monthly Rainfall Trends- Countywide. https://www.countyofsb.org/2322/Monthly-Yearly-Rainfall (accessed March 2023).

_____. 2009. Land Use Element Air Quality Supplement. May 2009. https://cosantabarbara.app.box.com/s/rnp4ztmr4r9dda9il22fk93nlenfhu7r (accessed March 2023).

Santa Barbara County Association of Governments (SBCAG). 2021. Connected 2050 Regional Transportation Plan Sustainable Communities Strategy. August 2021. http://www.sbcag.org/uploads/2/4/5/4/24540302/connected_2050_final.pdf (accessed March 2023).

South Coast Air Quality Management District (SCAQMD). 1993. CEQA Air Quality Handbook. November 1993.

United States Environmental Protection Agency (USEPA). 2023. Sulfur Dioxide Basics. https://www.epa.gov/so2-pollution/sulfur-dioxide-basics#effects (accessed March 2023).

_____. 2022a. Health Effects of Ozone Pollution. https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution (accessed March 2023).

_____. 2022b. Basic Information about Carbon Monoxide (CO) Outdoor Air Pollution. https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution#Effects (accessed March 2023).

_____. 2022c. Basic Information about NO2. https://www.epa.gov/no2-pollution/basic-information-about-no2#Effects (accessed March 2023).

_____. 2022d. What are some of the health effects of lead? https://www.epa.gov/lead/what-are-some-health-effects-lead (accessed March 2023).

_____. 2022e. Monitor Values Report. https://www.epa.gov/outdoor-air-quality-data/monitor-values-report (accessed March 2023).

_____. 2013. Policy Assessment for the Review of the Lead National Ambient Air Quality Standards, External Review Draft. https://www3.epa.gov/ttn/naaqs/standards/pb/data/010913_pb-draft-pa.pdf (accessed March 2023).

Energy

California Department of Conservation Geologic Energy Management Division (CalGEM). 2023. Well Finder. https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-119.85870/34.42508/14 (accessed February 2023).

California Department of Finance (DOF). 2022. Table 1: E-5 County/State Population and Housing Estimates, 1/1/2022. https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/ (accessed February 2023).

California Energy Commission (CEC). 2023a. Final 2022 Integrated Energy Policy Report Update. February 10, 2023. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2022-integrated-energy-policy-report-update (accessed February 2023).

_____. 2023b. Supply and Demand of Natural Gas in California. https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california (accessed February 2023).

_____. 2022a. 2021 Total System Electric Generation. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation (accessed February 2023).

_____. 2022b. Electricity Consumption by County. http://www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed February 2023).

_____. 2022c. Electricity Consumption by Entity. https://ecdms.energy.ca.gov/elecbyutil.aspx (accessed February 2023).

_____. 2022d. Gas Consumption by Entity. http://ecdms.energy.ca.gov/gasbyutil.aspx (accessed February 2023).

_____. 2022e. Gas Consumption by County. http://ecdms.energy.ca.gov/gasbycounty.aspx (accessed February 2023).

_____. 2022f. Oil Supply Sources to California Refineries. https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/oil-supply-sources-california-refineries (accessed February 2023).

_____. 2022g. 2010-2021 CEC-A15 Results and Analysis. https://www.energy.ca.gov/media/3874 (accessed February 2023).

_____. 2021. California Natural Gas Service Area. https://cecgis-caenergy.opendata.arcgis.com/datasets/CAEnergy::california-natural-gas-service-area/explore?location=35.185856%2C-117.832574%2C7.15 (accessed February 2023).

Central Coast Community Energy (3CE). 2022. 2021 Power Content Label. July 2022. https://3cenergy.org/wp-content/uploads/2023/02/2021-3CE-Power-Content-Label-1.pdf (accessed February 2023).

Santa Barbara, County of. 2015. Energy Element. June 2015. https://cosantabarbara.app.box.com/s/mihghnn9kxxv7v60gtopyjeng1o998gc (accessed February 2023).

Southern California Edison Company (SCE). 2023. About Us. https://www.sce.com/about-us/who-we-are (accessed February 2023).

Southern California Gas Company (SCG). 2023. Pipeline Integrity. https://www.socalgas.com/stay-safe/pipeline-and-storage-safety/pipeline-integrity (accessed February 2023).

United States Energy Information Administration (USEIA). 2022. California State Profile and Energy Estimates. March 17, 2022. https://www.eia.gov/state/analysis.php?sid=CA#:~:text=California%20is%20the%20most%20populous%20state%20in%20the,second%20only%20to%20Texas%20in%20total%20energy%20consumption. (accessed February 2023).

Greenhouse Gas Emissions

California Air Resource Board (CARB). 2022a. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16. https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp.pdf (accessed February 2023).

_____. 2022b. SB 375 Regional Plan Climate Targets. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets#:~:text=CARB%20has%20set%20regional%20targets%2C%20indexed%20to%20years,of%20statewide%20public%20health%20and%20air%20quality%20objectives (accessed February 2023).

_____. 2021. “California Greenhouse Gas Emissions for 2000 to 2019 – Trends of Emissions and Other Indicators.” https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000_2019_ghg_inventory_trends_20220516.pdf (accessed February 2023).

_____. 2017. California's 2017 Climate Change Scoping Plan. December 14, 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (accessed February 2023).

California Department of Food and Agriculture. 2023. California Agricultural Production Statistics. https://www.cdfa.ca.gov/statistics/ (accessed February 2023).

California Department of Water Resources. 2018. Indicators of Climate Change in California. May 2018. https://oehha.ca.gov/media/downloads/climate-change/report/2018caindicatorsreportmay2018.pdf (accessed February 2023).

Intergovernmental Panel on Climate Change (IPCC). 2021. IPCC Sixth Assessment Report. https://report.ipcc.ch/ar6/wg3/IPCC_AR6_WGIII_Full_Report.pdf (accessed February 2023).

National Aeronautics and Space Administration. 2021. NASA at Your Table: Climate Change and Its Environmental Impacts on Crop Growth. September 1, 2021. https://www.nasa.gov/feature/goddard/esnt/2021/nasa-at-your-table-climate-change-and-its-environmental-impacts-on-crop-growth (accessed March 2023).

National Oceanic and Atmospheric Administration. 2022. Climate Change: Global Sea Level. April 19, 2022. https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level (accessed February 2023).

_____. 2020. Global Climate Report for Annual 2019. State of the Climate. January 2020. https://www.ncdc.noaa.gov/sotc/global/201813 (accessed February 2023).

National Highway Traffic Safety Administration, United States Environmental Protection Agency, and California Air Resources Board. 2016. Draft Technical Assessment Report (TAR) of Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards for Model Years 2022-2025. July 2016.

Santa Barbara, County of. 2015. Energy Element. June 2015. https://cosantabarbara.app.box.com/s/mihghnn9kxxv7v60gtopyjeng1o998gc (accessed February 2023).

Santa Barbara County Association of Governments (SBCAG). 2021. Connected 2050 Regional Transportation Plan Sustainable Communities Strategy. August 2021. http://www.sbcag.org/uploads/2/4/5/4/24540302/connected_2050_final.pdf (accessed February 2023).

State of California. 2018. California's Fourth Climate Change Assessment Statewide Summary Report. https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf (accessed February 2023).

United States Environmental Protection Agency (USEPA). 2022a. "Overview of Greenhouse Gases." May 18, 2022. https://www.epa.gov/ghgemissions/overview-greenhouse-gases (accessed February 2023).

_____. 2022b. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2019 (accessed February 2023).

_____. 2022c. "Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act." April 25, 2022. https://www.epa.gov/climate-change/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a (accessed January 2023).

United States Government Publishing Office. 2016. NHTSA 49 Code of Federal Regulations Parts 523, 534, 535, and 538, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles - Phase 2, 2016. Federal Register Vol. 81, No. 206. October 25, 2016.

Transportation

California Air Resources Board (CARB). 2022. SB 375 Regional Plan Climate Targets. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets#:~:text=CARB%20has%20set%20regional%20targets%2C%20indexed%20to%20years,of%20statewide%20public%20health%20and%20air%20quality%20objectives (accessed February 2023).

California Department of Transportation (Caltrans). 2021. California Manual on Uniform Traffic Control Devices. March 30, 2021. https://dot.ca.gov/-/media/dot-media/programs/safety-programs/documents/ca-mutcd/rev6/camutcd2014-rev6.pdf (accessed February 2023).

Easy Lift Transportation. 2023. About. https://www.easylift.org/ (accessed February 2023).

Governor's Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. https://opr.ca.gov/docs/20180416-743_Technical_Advisory_4.16.18.pdf (accessed February 2023).

Santa Barbara, County of. 2014. Circulation Element. April 2014. https://cosantabarbara.app.box.com/s/z9h6t9g0y1fnsqc3bb27xw4r344y5lxo (accessed February 2023).

Santa Barbara County Association of Governments (SBCAG). 2023. Clean Air Express Facts at a Glance (2018/2019). https://cleanairexpress.com/about/#agency-documents (accessed February 2023).

_____. 2021. Connected 2050 Regional Transportation Plan Sustainable Communities Strategy. August 2021. http://www.sbcag.org/uploads/2/4/5/4/24540302/connected_2050_final.pdf (accessed February 2023).

Santa Barbara Metropolitan Transit District (MTD). 2023. Service Statistics. https://sbmtd.gov/about/about-mtd/ (accessed February 2023).

_____. 2022. FY 2021-22 System Ridership Report for 4th Quarter and for the Twelve-Month Period Ending June 30, 2022. https://sbmtd.gov/wp-content/uploads/2022/08/4QFY22-Report.pdf (accessed February 2023).

Santa Maria Organization of Transportation Helpers (SMOOTH). 2023. Services. https://www.smoothinc.org/dial-a-ride.php (accessed February 2023).

Santa Maria Regional Transit (SMRT). 2022. Updated, Individual SMRT Route Maps and Guides. https://www.cityofsantamaria.org/home/showpublisheddocument/30272/637973631880470000 (accessed February 2023).

Santa Ynez Valley Transit (SYVT). 2022. Fixed-Route Brochure. https://syvt.com/DocumentCenter/View/3463/SYVT_Fixed-Route-Brochure_July-2022_Web-Version (accessed February 2023).

7.2 List of Preparers

This EIR was prepared by the County of Santa Barbara, with the assistance of Rincon Consultants, Inc. Rincon staff involved in the preparation of the EIR are listed below.

RINCON CONSULTANTS, INC.

Matt Maddox, AICP, Principal
Christopher Bersbach, Supervising Environmental Planner/Project Manager
Nik Kilpelainen, Environmental Planner
Ethan Knox, Environmental Planner

Appendix A

Environmental Scoping Document

Environmental Scoping Document

for the 2030 Climate Action Plan

Project Website:

https://sbco.mysocialpinpoint.com/2030cap/

Contact:
Garrett Wong, Climate Program Manager
(805) 568-3543
gwong@countyofsb.org

Community Services Department, Sustainability Division,123 E. Anapamu St. • Santa Barbara, CA 93101
(805) 568-2467

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1.0 Purpose

This environmental scoping document describes the proposed 2030 Climate Action Plan (2030 CAP) Update ("Proposed Plan") and provides a preliminary review of the Proposed Plan's potential environmental impacts in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). This scoping document, along with comments received in response to the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Proposed Plan, will assist the County of Santa Barbara, as the lead agency for the preparation of the EIR for the Proposed Plan, in identifying environmental impacts that must be evaluated in the EIR.

2.0 Background

CEQA requires the preparation of an EIR to inform the public and decision-makers of the potential environmental effects of the proposed regulations. According to CEQA Guidelines Section 15151, an EIR should include a "sufficient degree of analysis, or scope, to provide decision-makers with information that enables them to make a decision which intelligently takes account of environmental consequences."

The EIR for the Proposed Plan will evaluate the environmental impacts of anticipated activities resulting from implementing the 2030 CAP. The environmental analysis will be based on the project description and, if potentially significant environmental effects are identified, will set forth mitigation measures to be implemented as requirements in the 2030 CAP approval process, in order to avoid or reduce significant impacts identified in the environmental analysis.

3.0 Project Description

This section describes the Proposed Plan, including the applicant/lead agency, project location, Proposed Plan summary, and Proposed Plan adoption and implementation actions.

3.1 Project Applicant/Lead Agency

The County of Santa Barbara is both the project applicant/proponent and the lead agency for the Proposed Plan.

3.2 Project Location

The Proposed Plan would update the County's 2015 Energy & Climate Action Plan which is implemented across unincorporated Santa Barbara County, excluding lands under the jurisdiction of incorporated cities, the federal government (Los Padres National Forest and Vandenberg Space Force Base), and the University of California. Santa Barbara County is shown in Figure 1 below.

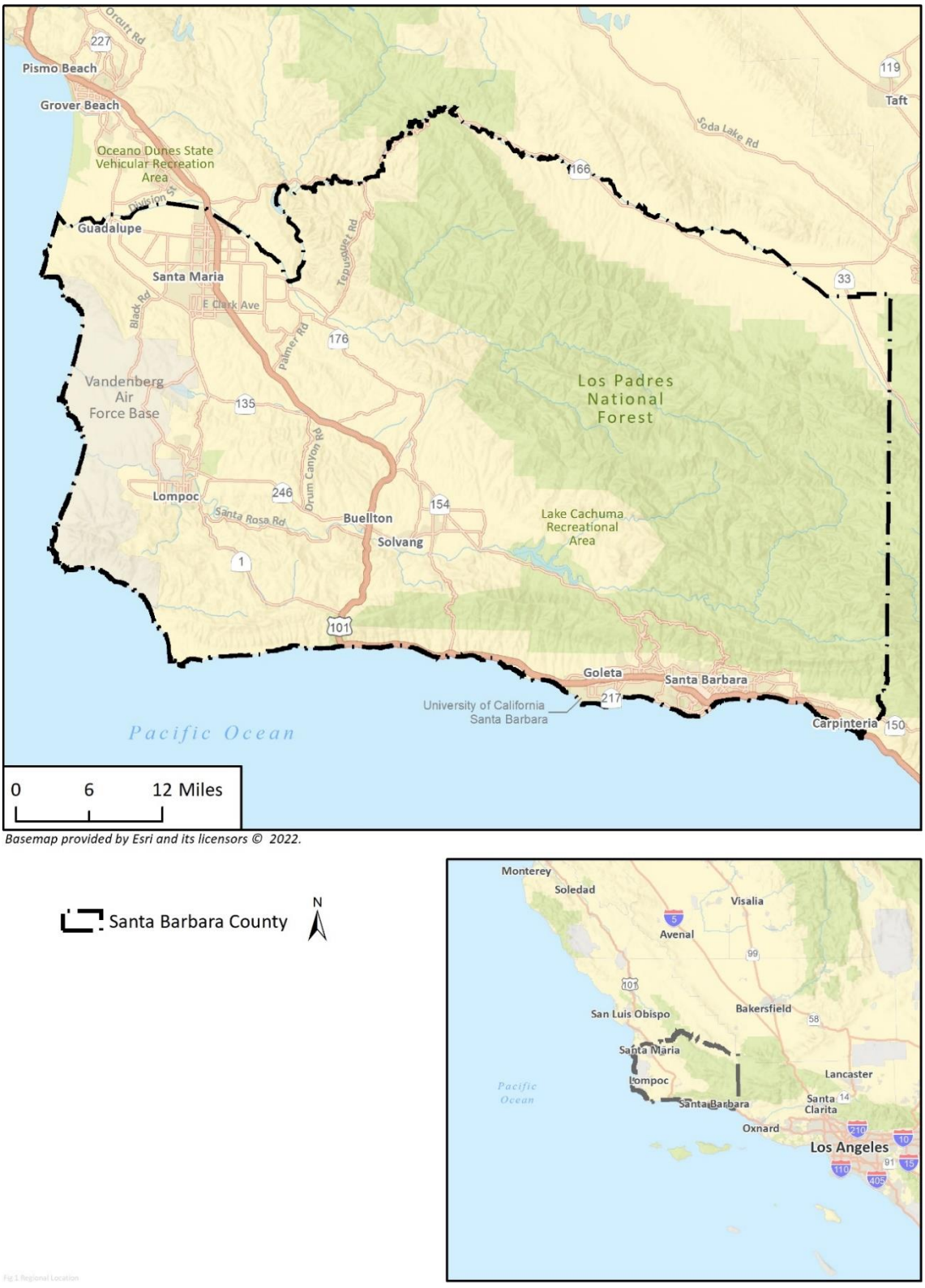

Figure 1: Regional Location

3.3 Project Overview

In 2018, the County of Santa Barbara adopted a goal of 50 percent net reduction from 2018 emissions levels by 2030, and carbon neutrality by 2045. To reach this goal, the County is proposing to update the 2015 Energy and Climate Action Plan (i.e., the Proposed Plan; 2030 CAP). The 2030 CAP would include a community-wide greenhouse gas (GHG) emissions inventory and create climate action strategies to address issues related to improving building efficiency; decreasing transportation emissions; decreasing emissions related to water, wastewater, and solid waste; increasing carbon sequestration, creating food system improvements; and encouraging a low carbon economy. Climate action strategies within the 2030 CAP would be fulfilled through implementation of 2030 CAP Measures and Actions. A Measure is a long-range policy developed to achieve specific GHG reductions. An Action is a specific program or step that supports GHG reduction Measures. Adoption of the 2030 CAP would require accompanying amendments to the Energy Element and amendments to other components of the Santa Barbara County Comprehensive Plan as needed for consistency with 2030 CAP Measures and Actions.

3.4 Potential Development That May Result from the Proposed Plan

The 2030 CAP does not identify individual site-specific projects that may result from implementing actions included in the 2030 CAP. However, the types of supportive programs, policies, financial pathways, and other commitments identified in the Actions included in the 2030 CAP are considered during review of the Proposed Plan. Such programs, policies, or potential new development would be aligned with the 2030 CAP Measures, included in **Table 1**.

Each of the 2030 CAP Measures are fulfilled through 2030 CAP Actions. 2030 CAP Actions identify the supportive programs, policies, financial pathways, and other commitments that assist in accomplishing these Measures. The types of infrastructure, improvements, and other new development facilitated by the 2030 CAP Actions includes, but is not limited to, the installation of electric vehicle charging stations; new bicycle or pedestrian facilities; upgrading existing infrastructure including electrical panels and branch circuits; the increase of sustainable agricultural practices such as expanding solar development on agricultural lands, increasing the use of compost, mulching, cover crops, and hedgerow planting; the restoration of natural habitats and ecosystems; and the development of new building policies to increase wildfire resilience. The 2030 CAP Actions promote programs or developments aligned with the 2030 CAP Measures which could introduce physical changes associated with construction and could alter pedestrian and vehicular traffic patterns. A full list of 2030 CAP Actions can be found in the Implementation Table within the 2030 CAP document.

Each of these example actions in 2030 CAP would either involve the initial development of programs to implement these actions and/or result in collaboration with other entities to promote an existing program. Therefore, future plans or projects requiring discretionary approval would be subject to environmental review under the California Environmental Quality Act (CEQA), and individual impact analyses will identify required plan- or project-specific mitigation measures where applicable.

Table 1 Santa Barbara County 2030 CAP GHG Emissions Reduction Measures List

Measure #	Measures
Resilient Clean Energy Measures: Building Energy - BE; Municipal Operations - MO	
BE-1	Increase clean energy use and energy resilience in new and existing buildings
MO-1	Increase sustainability and resilience of County-operated facilities
Connected Communities Measures: Transportation - TR	
TR-1	Increase the use of zero-emission vehicles
TR-2	Enhance transportation policy infrastructure planning
TR-3	Increase affordable housing and reduce number of commuter car trips
TR-4	Increase reliability and accessibility of transit services
TR-5	Reduce the need for commuting by encouraging work at home, walk to work and locating jobs near transit
TR-6	Decarbonize Offroad Emissions
Sustainable Economies Measures: Waste - W; Water & Wastewater - WW; Food System - FS, Low Carbon Economy - LCE	
W-1	Reduce food waste and increase use of organic recycled materials
W-2	Reduce use of non-recyclable and non-compostable single use items
WW-1	Increase energy efficiency and reduce greenhouse gas emissions of public water system operations
FS-1	Increase community food access equity and resilience
FS-2	Reduce energy- and carbon-intensity of the food system
LCE-1	Limit the increase of fossil fuel extraction emissions and develop a sunset strategy
LCE-2	Support local business in becoming more sustainable
Nature-Based Solutions (Land Stewardship & Carbon Farming - LCSF)	
LSCF-1	Promote and support land management practices that sequester carbon
LSCF-2	Facilitate mechanisms to value and fund carbon sequestration projects
LSCF-3	Reduce carbon emissions from agricultural operations

3.5 Adoption and Implementation

The County Planning Commission will consider and advise the Board of Supervisors (Board) regarding the adoption of the 2030 CAP. In order to implement the Proposed Plan, the Board will need to adopt environmental findings, certify the EIR, and, if necessary, adopt a Statement of

Overriding Considerations for any unavoidable, significant environmental impacts resulting from the Project. The Board will need to adopt any CAP-related Comprehensive Plan amendments (e.g., amendments to the Energy Element) to be consistent with, and ensure the successful implementation of, certain features of the CAP. In addition to the actions set forth above, the Coastal Commission must certify any amendments to the Local Coastal Program (LCP) – including Article II, as the implementing ordinance of the LCP.

4.0 Scope of the Environmental Review

4.1 Overview

CEQA requires the preparation of an EIR to inform the public and decision-makers of the project's potential environmental effects. This includes any potential environmental effects resulting from the allowance of the supplemental uses described in the project description. According to CEQA Guidelines Section 15151, "[a]n EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences."

4.2 Program EIR Requirements and Benefits

The EIR for the Proposed Plan is planned to fulfill the requirements for a Program EIR. Although the legally required contents of a Program EIR are the same as those of a Project EIR, Program EIRs are by necessity more conceptual and may contain a more general discussion of impacts, alternatives, and mitigation measures than a Project EIR. As provided in Section 15168 of the CEQA Guidelines, a Program EIR may be prepared on a series of actions that may be characterized as one large project. Use of a Program EIR provides the County of Santa Barbara (as the Lead Agency) with the opportunity to consider broad policy alternatives and program-wide mitigation measures and provides the County with greater flexibility to address environmental issues and/or cumulative impacts on a comprehensive basis. Agencies generally prepare Program EIRs for programs or a series of related actions that are linked geographically, are logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program, or are individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways. A Program EIR considers the broad effects associated with implementing a program (such as a General Plan or Specific Plan, or in the case of the Proposed Plan, a Climate Action Plan) and does not, and is not intended to, examine the specific environmental effects associated with specific projects that may be accommodated by the provisions of a program.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine what, if any, additional CEQA documentation needs to be prepared. If the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documentation may not be required (CEQA Guidelines Section 15168[c]). When a lead agency relies on a Program EIR for a subsequent activity, it must incorporate applicable mitigation measures and alternatives developed in the Program EIR into the subsequent activities (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects not contemplated or not within the scope of the Program EIR, the lead agency must prepare a new

Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or a project-level EIR.

As a wide-ranging environmental document, the Program EIR uses expansive thresholds as compared to the project-level thresholds that might be used for an EIR on a specific development project. It should not be assumed that impacts determined to be insignificant at a program level would be insignificant at a project level. In other words, determination that implementation of the Proposed Plan as a program would not have a significant environmental effect does not necessarily mean that an individual project would not have significant effects based on project-level CEQA thresholds, even if the project is consistent with the proposed 2030 CAP.

4.1 Environmental Topics to be Analyzed in the EIR

CEQA Guidelines Section 15060(d) states that an initial study is not required in cases where preparation of an EIR is determined to be clearly required by the lead agency. Accordingly, an initial study for the project is not provided herein. However, preliminary review of the Proposed Plan identified the following issue areas for evaluation in the EIR. Additional environmental topics beyond what is set forth below might be added to the EIR, based on comments received in response to the NOP for the EIR and Draft EIR that will be prepared for the project.

4.2.1 Air Quality and Greenhouse Gas Emissions

The EIR will describe existing conditions within the South Central Coast Air Basin and in the Proposed Plan vicinity, including attainment status for criteria pollutants, climatic conditions, local emissions sources, and sensitive receptors, such as schools, elder care facilities, park visitors and adjacent neighborhoods. This section of the EIR will evaluate any potential conflicts the Proposed Plan may create with applicable Santa Barbara County Air Pollution Control District thresholds of significance (Santa Barbara County Air Pollution Control District 2022), including consistency with adopted federal, state, and local air quality plans for Santa Barbara County (ex. SBCAPCD 2019 Ozone Plan). The Proposed Plan's potential to create objectionable odors will also be analyzed in this section of the EIR. This section of the EIR will identify the need for mitigation, as necessary, to reduce significant impacts to the maximum extent feasible.

4.2.2 Energy

Potential new development that may result from actions included in the 2030 CAP includes modifications to the existing built environment, including building retrofits and installation of pedestrian facilities. Such development would result in the consumption of energy resources during construction and/or operation. The EIR will describe the existing energy setting, including energy supply and energy consumption and sources, including the use of electricity, natural gas, and alternative energy sources. This section of the EIR will evaluate if the Proposed Plan would result in the wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. In addition, this section of the EIR would evaluate any potential conflicts the Proposed Plan may create with State or local plans for renewable energy or energy efficiency (e.g., California Building Structure Code, Title 21, Santa Barbara County Comprehensive Plan, and SBCAPCD 2019 Ozone Plan). This section of the EIR will identify the need for mitigation, as necessary, to reduce significant impacts to the maximum extent feasible.

4.2.3 Transportation

Transportation impacts associated with the Proposed Plan may result from possible safety hazards associated with increased pedestrian or bicycle use, and potential temporary disruptions or permanent alterations in traffic patterns due to construction and the implementation of active transportation improvements, respectively. The EIR will evaluate existing County traffic volume data, vehicle miles traveled (VMT) impacts, geometric hazards, accident data, and safety issues including evacuation/emergency access; identify potential construction-related traffic impacts; assess the project's long-term operational impacts associated with the expansion of active transportation facilities; and identify feasible mitigation measures to address significant impacts.

4.2.4 Cumulative Impacts

CEQA Guidelines Section 15355 defines "cumulative impacts" as follows:

> *"Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*
>
> *(a) The individual effects may be changes resulting from a single project or a number of separate projects.*
>
> *(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

The EIR will assess the significant cumulative impacts to which the project may make a "cumulatively considerable" contribution (CEQA Guidelines Section 15130).

4.2 Alternatives Analysis

The EIR will describe a reasonable range of alternatives to the project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, as required by CEQA Guidelines Section 15126.6. The alternatives discussion in the EIR will include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. The EIR will programmatically describe the major characteristics and significant environmental effects of each alternative. The EIR analysis will also include a brief discussion of each alternative considered but rejected from further analysis in the EIR (CEQA Guidelines Section 15126.6).

4.3 Other CEQA Required Discussions

The EIR will include a section that addresses other issues for which CEQA Guidelines Section 15126 requires analysis beyond the environmental topical areas described above. In this section, the EIR will analyze the project's additional possible impacts, including growth inducement and significant irreversible environmental changes.

4.4 Environmental Topics that will not be Analyzed in Further Detail in the EIR

4.2.1 Aesthetics/Visual Resources

Thresholds of Significance

a. Would the project result in the obstruction of any scenic vista or view open to the public or the creation of aesthetically offensive site open to public view?
b. Would the project result in a change to the visual character of an area?
c. Would the project result in glare or night lighting which may affect adjoining areas?
d. Would the project result in visually incompatible structures?

The County's Visual Aesthetics Impact Guidelines classify coastal and mountainous areas, the urban fringe, and travel corridors as "especially important" visual resources. A project may have the potential to create a significantly adverse aesthetic impact if (among other potential effects) it would impact important visual resources, obstruct public views, remove significant amounts of vegetation, substantially alter the natural character of the landscape, or involve extensive grading visible from public areas. The guidelines address public, not private views (County of Santa Barbara 2021).

Setting

Santa Barbara County is defined by a multitude of scenic resources, including hillsides, mountains, coastline, beaches, historic buildings, and trees. Significant visual resources, as defined in the County's Open Space Element of the Comprehensive Plan, include scenic highway corridors; parks and recreational areas; views of coastal bluffs, streams, lakes, estuaries, rivers, watersheds, mountains, and cultural resources sites; and scenic areas. Scenic vistas are often available from publicly accessible roadways, including designated and eligible State Scenic Highways such as U.S. Route 101, State Route 166, State Route 154, and State Route 1 (California Department of Transportation [Caltrans] 2022).

Impact Analysis

Threshold of Significance: a

As a policy document the 2030 CAP would not result in the obstruction of scenic vistas or views open to the public or create an aesthetically offensive site open to public view. However, implementation of some 2030 CAP Actions may promote infrastructure development and other physical changes through policies and programs designed to achieve the County's GHG emissions reductions goals. 2030 CAP Action BE-1.8 promotes increasing solar and battery storage requirements in buildings. Action TR-5.5 promotes prioritizing bicycle and pedestrian programmed projects implemented in the Connected 2050 Regional Transportation Plan/Sustainable Community Strategies. Action BE-1.10 promotes implementation of best practices and upgrade energy systems to streamline permitting for projects associated with renewable energy and energy storage systems, building retrofits, and electrical infrastructure upgrades.

Although implementation of 2030 CAP includes actions that may result in future development that could change the visual environment of the County, infrastructure development, redevelopment, renewable energy, and other potential future development projects would be subject to County regulations and policies intended to ensure new development would be complimentary to existing development and land uses. Santa Barbara County Code (County Code) Section 21-28 requires preservation of natural features including, but not limited to, large trees; natural groves; watercourses; scenic points; and historic spots, and Section 25-22, which requires grading activities to keep aesthetic disfigurement to a minimum (County of Santa Barbara 2022a). Division

8 of the County Code includes provisions for Special Treatment Areas defined by the County, which requires the retention of trees and preservation of natural topographical features in order to avoid the destruction of natural scenic beauty and unsightly developments (County of Santa Barbara 2022a). The County's Coastal Land Use Plan (CLUP) contains specific policies to protect scenic and visual qualities within the Coastal Zone (County of Santa Barbara 2019). Specifically, Policy 4-6 requires that posted signs do not detract from scenic areas or views from public roads or other viewing points, Policy 4-7 requires utilities to be placed underground in new developments (except where cost of undergrounding would be so high as to deny service), and Policy 4-9 requires structures to be sited and designed to preserve unobstructed broad views of the ocean from U.S. Route 101, and to be clustered to the maximum extent feasible (County of Santa Barbara 2019), minimizing potential aesthetic impacts.

As a result of required compliance with County regulations and policies, the 2030 CAP would not obstruct a scenic vista or view open to the public or create an aesthetically offensive site open to public view. Therefore, the 2030 CAP would result in insignificant impacts related to scenic vistas.

Thresholds of Significance: b, d

The visual character of the County is defined by a mix of urban land, agriculture, and open space, as designated by the County's zoning ordinance (County of Santa Barbara 2019). The 2030 CAP does not include land use or zoning changes that would have the potential to alter the visual character of the County. As a policy document, the 2030 CAP would be used to implement actions designed to achieve the County's GHG emissions reductions goals.

Implementation of some actions in the 2030 CAP may promote infrastructure improvements that could alter visual character, such as solar panels on existing and new buildings, bicycle facilities, and electric vehicle charging stations. Future CAP-related improvements would be designed and located to be complementary to existing land uses and would be required to be developed in conformance with applicable County regulations, including Land Use Element policies, which require submittal of a landscaping plan for all planned development; require new structures to have compatible height, scale, and design with existing development in areas designated as rural by the County; and require new structures in existing communities designated as urban land to be in conformance with the scale and character of such communities (County of Santa Barbara 2016). Pursuant to County Code Section 2-33.12, projects in the County promoted through 2030 CAP Actions would be subject to the standards of the appropriate Board of Architectural Review[1] (BAR) which reviews changes or additions to the exterior architecture of buildings, structures, and signs (County of Santa Barbara 2022a). As described in County Code Section 2-33.14, BARs throughout the County review projects to maintain compliance with design standards including height, bulk, and area of building and structures; colors and types of building materials and applications; site layout, orientation, and relationship with open areas and topography, location

[1]Santa Barbara County has established separate Boards of Architectural Review for the geographic regions of North County, Central County, South County, and Montecito. Each Board of Architectural Review has the same regulatory authority over their respective jurisdiction.

and type of landscaping; and appropriateness of sign design and exterior lighting (County of Santa Barbara 2019).

Installation of new solar panels, development of battery storage projects and electric vehicle (EV) charging stations, and introduction of active transportation and public transit infrastructure may slightly change the scenic character of the County. Future CAP-related renewable energy and electrification improvements would be required to adhere to Santa Barbara County Comprehensive Plan policies and County zoning and development regulations, and as a result, would be designed complementary to existing land uses. Such regulations include Section 35.82.070(F)(1) of the County's Land Use and Development Code which requires projects to have a harmony of color, composition, and material; have a harmonious relationship with existing and proposed adjoining development; design a project site in relationship to environmental qualities, open spaces, and topography; and be consistent with additional design standards expressly adopted for a specific local area, community, or zone (County of Santa Barbara 2020). In addition, future CAP-related improvements would be required to be reviewed by the County Planning and Development Department for consistency with the Santa Barbara County Comprehensive Plan policies described above and other applicable regulatory land use actions prior to approval. Therefore, the 2030 CAP would not significantly impact the visual character of the area or introduce visually compatible structures.

Threshold of Significance: c

The 2030 CAP would not involve land use or zoning changes. Rather, the 2030 CAP would promote sustainable infrastructure development and redevelopment that is complimentary to existing development and land uses. As a policy document, the 2030 CAP would not directly result in impacts related to light and glare. However, the 2030 CAP would implement actions that would support the introduction of solar panels and EV charging stations. Solar panels have the potential to result in new sources of glare within the County if not thoughtfully designed and located. The design and location of proposed solar infrastructure would be complimentary to existing development in the County, such as the addition of small-scale rooftop solar panels, in order to reduce potential glare impacts. Pursuant to County Code Section 21-32A, implementation of development within an urban area, inner-rural area, existing developed rural neighborhood, or land zoned industrial that is located in a rural area, as designated by the Santa Barbara County Comprehensive Plan, would be required to implement a Lighting Plan. The Lighting Plan illustrates proposed lighting and would be required to reduce/shield light generating sources in agricultural buffers through project design. Lighting Plans are required to be submitted to the Director of the Planning and Development Department for approval (County of Santa Barbara 2019). Furthermore, installation of new solar panels and EV charging stations would be subject to the solar energy system review process provided within County Code Chapter 10, Article XVI and Chapter 10, Article XVII, respectively (County of Santa Barbara 2019). As such, all new solar and EV charging stations would be reviewed by the County for consistency with applicable requirements prior to project approval. Compliance with these and other County Code standards would ensure that implementation of 2030 CAP Actions would not result in glare or night lighting which may affect adjoining areas. Therefore, the 2030 CAP would result in an insignificant impact related to light and glare.

4.2.2 Agricultural Resources

Thresholds of Significance

a. Would the project convert prime agricultural land to non-agricultural use, impair agricultural land productivity (whether prime or non-prime) or conflict with agricultural preserve programs?
b. Would the project result in an effect upon any unique or other farmland of State or Local Importance?

The County's Agricultural Resources Guidelines (approved by the Board of Supervisors, August 1993) provides examples of types of projects that are considered to have a potentially significant impact. These projects include a division of land which is currently considered viable agricultural land; a Development Plan, Conditional Use Permit, or other discretionary act which would result in the conversion of agricultural land to nonagricultural land; and discretionary projects which may result in substantial disruption of surrounding agricultural operations. As a general guideline, the Agricultural Resources Guidelines notes an agricultural parcel of land should be considered viable if it is of sufficient size and capability to support an agricultural enterprise (County of Santa Barbara 2021).

Setting

The County is characterized by both urban and agricultural land. According to the California Department of Conservation's (DOC's) Farmland Mapping and Monitoring Program, the County is comprised of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, and Urban and Built-Up Land (DOC 2016). There are lands under Williamson Act contract throughout the County (County of Santa Barbara 2017a).

Impact Analysis

Thresholds of Significance: a-b

The 2030 CAP does not include land use or zoning changes that would have the potential to convert agricultural land to non-agricultural use. As a policy document, the majority of the 2030 CAP's proposed actions focus on promoting sustainable infrastructure and redevelopment of existing land uses. Actions in the 2030 CAP related to agriculture promote incentives and partnerships to increase sustainable agricultural practices in the County, rather than encourage development. Action FS-1.1 directs County departments to procure food and supplies from local vendors, giving preference to vendors who use regenerative agricultural practices. Action FS-1.3 requires the County to lead or support efforts in obtaining funding to increase local food cultivation. These actions would not convert agricultural land to nonagricultural use or impair agriculture land productivity. 2030 CAP actions also protect existing viable agricultural land from potential conversion to non-agricultural use. Action LSCF-1.5 reinforces the County's support of the Williamson Act Program and requires the County to explore the expansion of tax incentives to conserve agricultural land. Action LSCF-1.6 requires the County to develop a Regional Agricultural Plan to identify agricultural areas at risk of development and identify policies, programs, and projects to reduce urban sprawl and avoid land conversion. These actions are designed to support the viability and longevity of existing agricultural lands and operations in the County.

Action FS-2.3 would direct the County Planning and Development Department to update and adopt a utility-scale solar ordinance to expand opportunities for solar development on agricultural lands. The provisions of the updated utility-scale solar ordinance would be developed by the County Planning and Development Department in accordance with existing County regulations regarding the protection of agricultural land. These County regulations include Agricultural Element Policy IA, which prohibits the integrity of agricultural operations to be violated by recreational or other non-compatible uses, and Policy II.D, which discourages conversion of highly productive agricultural lands, whether urban or rural (County of Santa Barbara 2009a). Conformity with these Comprehensive Plan Policies would ensure the updated utility-scale solar ordinance would not result in development that would substantially reduce agricultural productivity. Other 2030 CAP actions, such as Action LSCF-1.5 and Action LSCF-1.7 would substantially minimize introduction of new development on agricultural preserves such that substantial agricultural land would be converted to non-agricultural use. As a result, solar development on agricultural lands would not result in a loss of agricultural land, Important Farmland, or impairment of agricultural productivity.

Future development within or near rural areas of the County would be subject to the provisions of County Code Section 21-32A which requires a 100-foot minimum buffer between agricultural and other commercial, industrial, or residential development. Any development promoted as a result of implementation of 2030 CAP Actions which occur on commercial, industrial, or residential development in an urban area, inner-rural area, existing developed rural neighborhood, or land zoned industrial that is located in a rural area would adhere to established agricultural buffers. Therefore, the 2030 CAP would not convert prime agricultural land to non-agricultural use, impair agricultural land productivity, conflict with agricultural preserve programs, or have an effect upon unique or other farmland of State or Local importance.

4.2.3 Biological Resources

Thresholds of Significance

Flora

a. Would the project result in a loss or disturbance to a unique, rare or threatened plant community?
b. Would the project result in a reduction in the numbers or restriction in the range of any unique, rare or threatened species of plants?
c. Would the project result in a reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)?
d. Would the project result in an impact on non-native vegetation whether naturalized or horticultural if of habitat value?
e. Would the project result in the loss of healthy native specimen trees?
f. Would the project result in introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat?

Fauna

g. Would the project result in a reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals?

h. Would the project result in a reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates?

i. Would the project result in a deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)?

j. Would the project result in introduction of barriers to movement of any resident or migratory fish or wildlife species?

k. Would the project result in introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife?

The County's Environmental Threshold and Guidelines Manual includes guidelines for the assessment of biological resource impacts. The Manual addresses types of impacts to biological resources and provides habitat-specific impact assessment guidelines for project-specific development (County of Santa Barbara 2019).

Setting

The County contains natural areas that provide habitat supporting a wide variety of plants and animals. The County Code and CLUP incorporate policies to protect biological resources such as plants, trees, wildlife habitats, vegetation communities, wetlands, coastal resources, and species throughout the County (County of Santa Barbara 2019; County of Santa Barbara 2022a). Species including, but not limited to, the federally-listed California Red-legged frog (*Rana draytonii*), the federally and State listed San Joaquin Kit Fox (*Vulpes macrotis mutica*) and the federally and State listed Least Bell's Vireo (*Vireo bellii pusillus*), have the potential to be present within the County's open space (United States Fish and Wildlife Service [USFWS] 2022).

Impact Analysis

Thresholds of Significance: a-b, g-j.

The 2030 CAP would not involve land use or zoning changes, rather it would promote actions that encourage sustainable infrastructure development and redevelopment. Furthermore, the 2030 CAP would introduce actions that would supplement existing Santa Barbara County Comprehensive Plan policies to protect and improve natural areas in the County, such as the restoration of riparian, native grassland, oak woodland, and wetland areas. Implementation of some 2030 CAP Actions may promote infrastructure development that would result in impacts to protected species through construction activities. For example, the promotion of installation of electric vehicle charging stations, solar infrastructure, and electrification retrofits could indirectly result in the disturbance of nesting habitat for bird and raptor species protected under Sections 3503, 3503.5, and 3513 of the California Fish and Game Code (CFGC) and under the Migratory Bird Treaty Act (MBTA). However, construction activities for future projects promoted by 2030 CAP Actions would be required to comply with the requirements of the MBTA and Sections 3503, 3503.5, and 3513 of the CFGC which include obtaining prior authorization by the USFWS before the take of a protected migratory bird species occurs, subject to USFWS requirements, and prohibiting the take, possession, or destruction of nests or eggs. In addition, new development that may result from 2030 CAP Actions would be required to be reviewed for consistency with applicable federal and State policies related to protected species and habitat, including, but not limited to, the federal

Endangered Species Act and California Endangered Species Act. In addition, 2030 CAP Action LSCF-1.9 would result in the planting of 3,000 new trees within the County by 2030. The planting of trees and reforestation of County parks and public rights-of-way could promote additional foraging, breeding, roosting, and/or nesting habitat within the County.

The majority of 2030 CAP Actions promote projects in urbanized areas of the County; however, it is possible 2030 CAP Actions could promote projects near County-designated Environmentally Sensitive Habitat Areas (ESHAs). Any new development that may be facilitated by 2030 CAP Actions near County-designated ESHAs would be subject to applicable CLUP policies that address the protection of special status flora and fauna species and associated habitat. Policy 9-1 requires projects within a Habitat Overlay designation to show the precise location of habitats potentially affected on all development plans and requires site inspection by a qualified biologist. Policy 9-14 requires projects within proximity to a wetland to not result in a reduction of biological productivity or water quality due to runoff, noise, thermal pollution, or other disturbances. Policy 9-36 requires projects to be sited, designed, and constructed to preserve native vegetation, and prohibits grading and paving activities from adversely affecting root zone aeration and stability of native trees in native plant communities (County of Santa Barbara 2019). The CLUP contains similar policies for 13 distinct ESHAs which any project within the vicinity of an ESHA would be required to follow. Similarly, the County's Land Use and Development Code Section 35.28.100 applies an ESHA Overlay Zone within the Eastern Goleta Valley Community Plan, the Gaviota Coast Plan, the Goleta Community Plan, the Mission Canyon Community Plan, and the Toro Canyon Plan areas (County of Santa Barbara 2020). Development within these areas is subject to a CLUP issued by the County after the determination is made that the development shall protect the ESHA to the fullest extent feasible and is compliant with the biological resource policies and development standards within the applicable community plan (County of Santa Barbara 2020). Although Action FS-2.3 would direct the County Planning and Development Department to update and adopt a utility-scale solar ordinance to expand opportunities for solar development on agricultural lands, the ordinance would be updated consistent existing County regulations including the provisions of Section 35.28.100. This would minimize the potential for future solar development to substantially impact ESHAs. Overall, a 2030 CAP strategy which would promote a project near an ESHA would not result in substantial impacts to these critical habitats as existing County regulations would minimize such impacts.

Implementation of 2030 CAP Actions would not significantly impact areas of the County considered critical habitat which serves unique, rare, threatened, and endangered species. Furthermore, the 2030 CAP would introduce actions to protect and improve natural areas in the County, such as the planting of 3,000 new trees. The 2030 CAP would promote the improvement of habitat quality for plant and animal species and existing County regulations would minimize the potential for 2030 CAP Actions to result in a reduction of unique, rare, threatened or endangered species of plants or animals; deterioration of existing habitat used for foraging, breeding, roosting, or nesting; or introduction of barriers to wildlife movement. Therefore, the 2030 CAP would not have a substantial adverse effect on a plant species, animal species, or habitat, including habitat which serves as a migratory corridor.

Thresholds of Significance: c-e

The 2030 CAP would not involve land use or zoning changes but would promote sustainable infrastructure development and redevelopment primarily within urbanized portions of the County. Although Action FS-2.3 would direct the County Planning and Development Department to update and adopt a utility-scale solar ordinance to expand opportunities for solar development on agricultural lands, the development and implementation of an updated utility-scale solar ordinance would not directly result in solar development on rural or agricultural lands where native and/or non-native horticultural vegetation could be present. Further, the utility-scale solar ordinance would be updated by the County Planning and Development Department in compliance with existing County regulations concerning the protection of rural lands. As stated in Section 4.2.2, *Agricultural Resources*, CAP Actions CS-1.5 and CS-1.7 promote the protection of rural lands through policies and incentives which would deter substantial urban sprawl or development on rural lands. Therefore, the extent to which native and non-native vegetation (including native specimen trees) in rural lands would be impacted is limited, as new development would occur in compliance with existing County regulations and 2030 CAP Actions would protect rural land where such vegetation may be present.

Future 2030 CAP-related projects would be required to adhere to County development regulations and Santa Barbara County Comprehensive Plan policies intended to protect and preserve native vegetation and non-native vegetation of habitat value. County Code Section 35-911 requires implementation of an oak tree management plan and oak tree replacement should any deciduous oak tree removal occur. County standards for an oak tree replacement ratio is 15:1 (County of Santa Barbara 2022a). County Code Chapter 28 Article II prohibits the removal, cutting, mutilation, or injury of street trees except upon the approval of the County Road Commissioner or Director of Parks. Section 28-63 requires the issuance of a permit by the County Department of Transportation to remove or cut trees within a road right-of-way. These County Code policies would minimize potential impacts to trees, particularly in an urbanized environment where 2030 CAP Actions promote infrastructure development and redevelopment. County Code Section 14-9 requires erosion control permits for projects which must include details on revegetation practices and that would be implemented if vegetation would be disturbed. This permit is subject to approval by the County Building Official (County of Santa Barbara 2022a). CLUP Policy 9-36 prohibits grading and paving activities from adversely affecting root zone aeration and stability of native trees in native plant communities (County of Santa Barbara 2019). These policies would minimize adverse impacts to vegetation. In addition, the location and details of future CAP projects would be reviewed for consistency with applicable local, regional, and State regulations related to sensitive habitat prior to approval.

The purpose and intended effect of 2030 CAP is to reduce GHG emissions generated in Santa Barbara to help reduce the effects of climate change, including the restoration of native grassland and oak woodland areas, and development of vegetation management programs. As a result, the 2030 CAP would serve as a benefit to vegetation, and trees in the County and would not have a substantial adverse effect on native vegetation or non-native vegetation of habitat value. In addition, the 2030 CAP would not conflict with or obstruct implementation of the applicable policies for preserving biological resources and would not affect the County's ability to attain goals and policies that protect biological resources. Therefore, the 2030 CAP would result in insignificant impacts associated with the reduction of native vegetation, impact non-native vegetation of habitat value, or result in a loss of healthy native specimen trees.

Thresholds of Significance: f, k

As a policy document, the 2030 CAP would not directly introduce light, fencing, noise, human presence, domestic animals, herbicides, or non-native plants. 2030 CAP Actions would generally apply to the urbanized areas of the County with existing human presence. However, Action FS-2.3 would direct the County Planning and Development Department to update and adopt a utility-scale solar ordinance which could apply to areas of the County with a lack of human presence. Action FS-2.3 would not directly result in new solar development in rural areas. Solar development is not conducive to the introduction of domestic animals, fencing, herbicides, non-native plants, or lighting. As discussed in Subsection 4.2.9, *Noise*, construction activities would be required to comply with County Code Chapter 40 which limits construction noise to prohibited hours. Therefore, existing County regulations would require development in rural areas to minimize disturbance associated with human presence. Consequently, the introduction of human disturbance brought about by 2030 CAP Actions would be incremental.

The 2030 CAP would not result in land use or zoning changes which could increase human or domestic animal presence or result in the introduction of herbicides or pesticides in parks, open spaces area, or undeveloped portions of the County. As discussed in Subsection 4.2.1, *Aesthetics/Visual Resources*, glare and light introduced through development promoted by 2030 CAP Actions would be limited through adherence to the County Code Section 21-32A, which requires implementation of a Lighting Plan for projects in rural areas, subject to the approval of the Director of the Planning and Development Department. Projects promoted through 2030 CAP Actions, such as installation of solar and EV charging stations, would be subject to review and approval by the County pursuant to County Code Chapter 10, Article XVI and Chapter 10, Article XVII (County of Santa Barbara 2019) which would minimize impacts concerning light and glare. Projects promoted through 2030 CAP Actions would be reviewed for consistency with the Santa Barbara County Comprehensive Plan, including the CLUP, and other applicable regulatory standards prior to approval. Therefore, the 2030 CAP would result in insignificant impacts associated with the introduction of herbicides, pesticides, animal life, human habitation, non-native plants, light, fencing, or noise, which would change or hamper existing habitat or hinder normal wildlife activities.

4.2.4 Cultural Resources

Thresholds of Significance

a. Would the project cause a substantial adverse change in the significance of any object, building, structure, area, place, record, or manuscript that qualifies as a historical resource as defined in CEQA Section 15064.5?

b. Would the project cause a substantial adverse change in the significance of a prehistoric or historic archaeological resource pursuant to CEQA Section 15064.5?

c. Would the project disturb any human remains, including those located outside of formal cemeteries?

d. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the

landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Chapter 8 of the County's Environmental Thresholds and Guidelines Manual contains guidelines for the identification, significance evaluation, and mitigation of impacts to cultural resources, including archaeological, historic, and tribal cultural resources. In accordance with the requirements of CEQA, these guidelines specify that if a resource cannot be avoided, it must be evaluated for importance under specific CEQA criteria (County of Santa Barbara 2021).

Setting

The County contains numerous historical resources, including El Presidio de Santa Barbara, Mission Santa Barbara, and various buildings that display Spanish-style architecture, among other resources (County of Santa Barbara 2010). According to the County's Conservation Element, there are several areas throughout the County which contain numerous archaeological resources. The South Coast region of the County is considered one of the most important archaeological regions in California due to Chumash occupation at the time of Spanish contact (County of Santa Barbara 2010).

Impact Analysis

Threshold of Significance: a

The 2030 CAP would not involve land use or zoning changes but would promote actions to redevelop infrastructure complementary to existing development. 2030 CAP Actions would promote minor alterations to existing development which would not substantially adversely change existing development within the County. New development resulting from implementation of 2030 CAP Actions would be required to comply with County policies related to the preservation of historic resources, including County Code Section 18A-5 which imposes conditions on historical landmarks, that are approved by the Historical Landmarks Advisory Commission. Such conditions include, but are not limited to, prohibition of demolition, removal or destruction; prohibition of alterations, repairs, additions, or changes unless approved by the Historical Landmarks Advisory Commission; and prohibition of placement, alteration, or removal buildings or structures exposed to public view within a specified distance (County of Santa Barbara 2022a). In compliance with California Public Resources Code 5024.5(f), if a project would potentially interfere with a historical resource, measures to eliminate or mitigate adverse effects would be adopted, pursuant to recommendations from the State Historic Preservation Officer. 2030 CAP-related projects would be reviewed for compliance with applicable local, regional, and State regulations regarding cultural resources and in addition to compliance with the Santa Barbara County Comprehensive Plan to avoid adverse impacts related to historic resources. Therefore, the 2030 CAP would not

cause a substantial adverse change in the significance of any object, building, structure, area, place, record, or manuscript that qualifies as a historical resource, and would result in an insignificant impact related to historical resources.

Thresholds of Significance: b, d

2030 CAP Actions would promote minor alterations to existing development which would not substantially adversely affect known archaeologically sensitive locations. New development that could result from 2030 CAP Actions, such as installation of EV charging stations and bicycle paths, would involve small-scale construction that may expose previously undiscovered archaeological resources which could be of Native American origin during ground disturbing activities. Chapter 8 of the County's Environmental Thresholds and Guidelines Manual requires the likelihood of buried archaeological deposits be considered, and Phase I and Phase II archaeological studies are performed, if necessary. As part of standard County condition of approval CulRes-09, all future development resulting from implementation of 2030 CAP Actions would require construction workers to stop or redirect work immediately in the event archaeological resources are encountered during grading, construction, or other construction related activities. Construction contractors are required to immediately contact the County and retain a County-qualified archaeologist and Native American representative to evaluate the significance of the find in compliance with the County's Standard Conditions CulRes-01, -05, -07, -08, -09, and/or -10 of the County Archaeological Guidelines, as necessary. If a discovery proves to be potentially significant and avoidance of the resource is not feasible, the resource would be subject to a Phase III mitigation program consistent with the County Archaeological Guidelines. The mitigation program may include, but shall not be limited to, data recovery and curation of non-burial related artifacts within a qualified institution within Santa Barbara County (such as the University of California, Santa Barbara's Department of Anthropology). Consistent with these requirements, archeological resources would be protected prior to and/or upon discovery and, thus, potential impacts would be reduced to a minimal level. With implementation of the County's Standard Conditions typical for a construction project, future development associated with 2030 CAP Actions would not result in a significant impact to archaeological and tribal cultural resources.

Threshold of Significance: c

There is a possibility of encountering unknown buried human remains/burial sites where new development that could result from 2030 CAP Actions would require ground disturbing activities, particularly in native soils/previously undisturbed areas. CAP-related projects would be reviewed for compliance with applicable local, regional, and State regulations regarding cultural resources and human remains to avoid impacts related to unknown human interments. In addition, CAP projects would be required to comply with State coroner requirements related to burial findings, including assessment and mitigation incorporation once project details and locations are known. Pursuant to California Health and Safety Code Section 7050.5, if human remains are encountered, the County Coroner must be notified immediately, and no further disturbance would occur until the County Coroner determines their origin and disposition pursuant to California Public Resource Code Section 5097.98. If the human remains are determined to be of Native American origin, the County Coroner would notify the NAHC, which would determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make

recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in a location that would not be affected by future ground-disturbing activities. Projects promoted by 2030 CAP Actions would comply with the provisions set forth pursuant to California Health and Safety Code Section 7050.5. Although it is possible ground-disturbing activities from future development associated with 2030 CAP Actions could disturb human remains, adherence to California Health and Safety Code Section 7050.5 would ensure human remains, including those located outside of formal cemeteries, are not disturbed. Therefore, the CAP would result in an insignificant impact related to human remains.

4.2.5 Fire Protection

Thresholds of Significance

a. Would the project result in introduction of development into an existing high fire hazard area or exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?
b. Would the project result in project-caused high fire hazard?
c. Would the project result in introduction of development into an area without adequate water pressure, fire hydrants or adequate access for fire fighting?
d. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
e. Would the project result in introduction of development that will substantially impair an adopted emergency response plan, emergency evacuation plan, or fire prevention techniques such as controlled burns or backfiring in high fire hazard areas?
f. Would the project result in development of structures beyond safe Fire Dept. response time?

Setting

According to the California Department of Forestry and Fire Protection (CAL FIRE), the County contains lands designated as moderate, high, and very high fire hazard severity zones in both State Responsibility Areas and Local Responsibility Areas. These fire hazard severity zones occur primarily in central Santa Barbara, extending east to west from the Los Padres National Forest to the coastline (CAL FIRE 2022).

Impact Analysis

Thresholds of Significance: a-c

Although portions of Santa Barbara Country are at risk of wildfires, the 2030 CAP is a policy-level document that does not propose new residential, commercial, or industrial development that would be at substantial risk from wildfire, nor would the 2030 CAP grant entitlements for development that would have the potential to directly cause wildfire. Development such as EV charging stations, bicycle and pedestrian facilities, installation of condensate drains, and existing building retrofits would occur in urbanized areas that already provide existing infrastructure, such as water pressure and fire hydrants, to allow for use for firefighting. CAP Action FS-2.3 requires the County to update and adopt the utility-scale solar ordinance to expand opportunities for solar development on agricultural lands. Implementation of Action FS-2.3 would not directly result in

utility-scale solar development. Potential utility-scale solar projects would be subject to Seismic Safety & Safety Element Implementation Measure 8 which enforces development standards set forth by the Santa Barbara County Fire Department, Carpinteria-Summerland Fire Protection District, and Montecito Fire Protection District, each of which services rural and urbanized areas within and/or surrounded by land designated as a fire hazard severity zone (CAL FIRE 2022; County of Santa Barbara 2015). Development standards are designed to reduce the risk of wildfire in rural and urbanized areas, including areas designated as fire hazard severity zones. Development standards include implementation of defensible space for new structures subject to the approval of the respective Fire Marshal, implementation of a vegetation management plan, required installation of fire alarm and sprinkler systems subject the approval of the respective Fire Marshal, and implementation and approval of stored water systems for fire protection (Carpinteria-Summerland Fire Protection District 2018; Montecito Fire Protection District 2019; Santa Barbara County Fire Department 2022). These development standards minimize the risk of wildfire by limiting the potential for vegetation to ignite nearby structures and implementing safeguards for structures in the event a fire occurs.

Fire risk for potential new CAP-related development would also be minimized through compliance with County Code Chapter 15 which adopts the 2019 California Fire Code (County of Santa Barbara 2022a). The 2019 California Fire Code establishes minimum requirements to safeguard public health, safety, and general welfare from fire hazards. Pursuant to the County's Seismic Safety & Safety Element, development would be required to adhere to the California Fire Code's standards for water quantity, automatic detection, and early warning devices (County of Santa Barbara 2015).Therefore, the 2030 CAP would not expose people or structures to significant risk of loss, injury or death involving wildland fires, cause a high fire hazard, or introduce development into an area without adequate firefighting equipment and access.

Threshold of Significance: d

The 2030 CAP is a policy document containing actions that are consistent with the Santa Barbara County Comprehensive Plan. The 2030 CAP does not include land use or zoning changes; therefore, no new habitable development would occur that would be subject to wildfire risk, nor does it grant entitlements for development with the potential to directly cause wildfire. Implementation of 2030 CAP Actions would not directly result in increases in population. Similarly, the 2030 CAP would not directly result in an increase in employment, and any new employment opportunities that may result indirectly from implementation of 2030 CAP Actions would target existing residents and not induce population growth. As such, the CAP would not require the construction of new or physically altered governmental facilities to serve additional population, the construction of which could cause significant environmental impacts.

Implementation of 2030 CAP Actions may result in electrification retrofits, the construction of which could temporarily increase fire risk. However, new construction in the County would be subject to the California Fire Code, which includes safety measures to minimize risk of fire, including Section 603 which requires electrical equipment and wiring to be installed, used, and maintained in accordance with the National Electrical Code. Title 14 of the California Code of Regulations sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent loss of structures or life by reducing wildfire hazards. California Public Resources Code Section 4291 requires maintenance

of a minimum 100 feet of vegetation management around all buildings. Pursuant to County Code Chapter 15, combustible materials are required to be kept greater than 10 feet from ground-mounted solar panel systems, and up to 30 feet if the ground-mounted solar system is greater than 1,500 square feet (County of Santa Barbara 2022a). A minimum defensible space of 30 feet is required around communication towers, non-fire-resistive water tanks, water supply pumps, pump houses, and generators (County of Santa Barbara 2022a). Installation and maintenance of infrastructure promoted by 2030 CAP Actions would be implemented in accordance with these standards which would minimize fire risk. Therefore, the 2030 CAP would not result in a significant impact related to the installation or maintenance of infrastructure that may exacerbate fire risk or may result in temporary or ongoing impacts to the environment.

Thresholds of Significance: e-f

The 2030 CAP is a policy document which would not increase population or density in a manner that would impair an adopted emergency plan or impact a Fire Department's ability to adequately respond to emergencies associated with developed structures. While the implementation of some 2030 CAP Actions may cause intermittent and temporary traffic interference due to construction, existing emergency access and other applicable County requirements would minimize impacts to emergency response. Temporary construction barricades or other obstructions that could impede emergency access on State highway systems/routes would be subject to the standards set forth in the California Manual of Uniform Traffic Control Devices (Manual) (Caltrans 2021). The Manual requires the creation and approval of temporary traffic control plans to be used for facilitating road users through a work zone (Caltrans 2021). Per the County's Land Use and Development Code, utility-scale-solar photovoltaic facilities would be required to implement a project-specific traffic control plan which would include traffic control measures to avoid impacts to vehicles and pedestrians (County of Santa Barbara 2020). Pursuant to County Code Section 28-31 and Section 28-33 construction activities which have been granted a permit occurring on County roads would be required to maintain safe crossing for two lanes of vehicle traffic at all road intersections and is required to take measures to maintain traffic conditions, subject to the County Road Commissioner (County of Santa Barbara 2022a).

Implementation of the 2030 CAP would not interfere with the County's Multi-Jurisdictional Hazard Mitigation Plan which provide direction for traffic control and management in emergency situations as the 2030 CAP would not promote actions which would result in increased population density or land use designation changes which could change traffic patterns (County of Santa Barbara 2017b). As part of standard procedures, plans for projects promoted by 2030 CAP Actions would be submitted to the County for review and approval to ensure that all new development has adequate emergency access and escape routes in compliance with existing County and Santa Barbara County Fire Department regulations (Santa Barbara County Fire Department 2022). Implementation of the 2030 CAP would not introduce actions which would preclude implementation of or alter established emergency response and evacuation policies or procedures. In addition, 2030 CAP Measures and Actions would help to increase community resiliency and reduce vulnerability to the impacts of climate change in Santa Barbara County, thereby reducing the burden on local public services related to such climate impacts and disasters. For example, 2030 CAP Action BE-1.8 promotes the development and adoption of building and land use standards that encourages solar and battery storage, reduces heat island effects, and enhances wildfire resilience. Therefore, the 2030 CAP would not introduce development that would

substantially impair adopted emergency response plans or structures beyond safe Fire Department response time. The 2030 CAP would not conflict with the County's adopted thresholds of significance and impacts would be insignificant.

4.2.6 Geologic Processes

Thresholds of Significance

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards?
b. Would the project result in disruption, displacement, compaction or overcovering of the soil by cuts, fills or extensive grading?
c. Would the project result in exposure to or production of permanent changes in topography, such as bluff retreat or sea level rise?
d. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
e. Would the project result in any increase in wind or water erosion of soils, either on or off the site?
f. Would the project result in changes in deposition or erosion of beach sands or dunes, or changes in siltation, deposition or erosion which may modify the channel of a river, or stream, or the bed of the ocean, or any bay, inlet or lake?
g. Would the project result in the placement of septic disposal systems in impermeable soils with severe constraints to disposal of liquid effluent?
h. Would the project result in extraction of mineral or ore?
i. Would the project result in excessive grading on slopes of over 20%?
j. Would the project result in sand or gravel removal or loss of topsoil?
k. Would the project result in vibrations, from short-term construction or long-term operation, which may affect adjoining areas?
l. Would the project result in excessive spoils, tailings or over-burden?

Setting

The County of Santa Barbara is susceptible to seismic activity. Alquist-Priolo earthquake fault zones are regulatory zones compiled by the California Geological Survey which designate the surface traces of active faults in California (DOC 2019). Under the Alquist-Priolo Earthquake Fault Zoning Act, an active fault is defined as a fault that has ruptured in the past 11,000 years (DOC 2019). There is one Alquist-Priolo earthquake fault zone, the Los Alamos Fault, within the County, located adjacent to U.S. Route 101 approximately 5.25 miles northwest of Los Olivos, extending approximately 2.85 miles northwest and ending at the intersection of Alisos Canyon Road and U.S. Route 101 (DOC 2021)

According to the County's Seismic Safety & Safety Element, low to moderate liquefaction potential exists throughout the County (County of Santa Barbara 2015). The areas considered to be most susceptible to liquefaction include low coastal areas with high groundwater near

Carpinteria, the valleys along the Santa Ynez River, and along the Santa Maria River near Santa Maria and Guadalupe (County of Santa Barbara 2015). In addition, the County's mountainous and hilly topography creates concern for landslides and slope stability (County of Santa Barbara 2015).

Impact Analysis

Threshold of Significance: a

Earthquake faults, such the Los Alamos Fault, have the potential to produce strong seismic groundshaking. The 2030 CAP is a policy document containing climate actions and supporting actions to reduce GHG emissions and is consistent with the Santa Barbara County Comprehensive Plan and other regional regulations. The 2030 CAP does not include land use or zoning changes, and new development that may be facilitated by 2030 CAP Actions would not exacerbate fault rupture or seismic groundshaking conditions beyond what is already present within the region.

The County has adopted the California Building Code (CBC), which includes measures such as requiring site-specific geotechnical investigations and incorporating site specific recommendations regarding suitability and foundation design for new development projects (County Code Section 10-8.1). New development that may be facilitated by 2030 CAP Actions would be required to comply with CBC standards regulating procedures for soil preparation, including, but not limited to: excavation, grading and earthwork, fills and embankments, expansive soils, foundation investigations, liquefaction potential, and soil strength loss. Compliance with CBC requirements would ensure current engineering practices and standards are followed, reducing the potential to directly or indirectly cause the risk, loss, injury, or death involving exposure to or production of unstable earth conditions. Incorporation of required CBC soil treatment programs (replacement, grouting, compaction, drainage control, etc.) in future grading and construction plans would ensure site-specific soil conditions achieve accepted safety standards relative to soil stability. In addition, the 2030 CAP would not result in the construction of new habitable development that could expose people to substantial adverse geologic effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides. Therefore, 2030 CAP would not directly or indirectly cause significant risk of loss, injury, or death involving exposure to, or production of, unstable earth conditions.

Thresholds of Significance: b, e-f, i-j.

The 2030 CAP would not involve land use or zoning changes but would promote sustainable actions designed to redevelop infrastructure which generally would not require excessive grading on slopes greater than 20 percent grade. 2030 CAP Actions would not result in the alteration of beach sands or dunes. As a policy document, the 2030 CAP would not directly require ground disturbing activities. However, implementation of 2030 CAP Actions may result in construction activities that could cause soil erosion.

2030 CAP-related projects and actions would be required to be reviewed for consistency with Santa Barbara County Comprehensive Plan policies and other local and State geology and soils regulations prior to final siting and construction. Construction activities that disturb one or more acres of land are subject to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which requires the development of a Storm Water Pollution Prevention Plan (SWPPP) developed by a certified Qualified SWPPP Developer. The SWPPP

includes project-specific Best Management Practices (BMPs) to control erosion, sediment release, and otherwise reduce the potential for discharge of pollutants from construction into stormwater. Additionally, pursuant to County Code Chapter 14, a grading plan is required to be prepared by or under the direction of a registered civil engineer, licensed architect, licensed surveyor, registered designer or landscape architect, unless waived by the County Building Official. The grading plan would detail drainage, erosion, and sediment control measures that would be implemented as required by County Code Section 14-29 (County of Santa Barbara 2022a). Construction activities, including those disturbing under an acre of land, would also be required to comply with California Building Code Chapter 70 standards, which are designed to ensure implementation of appropriate measures during grading and construction to control erosion and storm water pollution. Consequently, the 2030 CAP would not result in the disruption, displacement, compaction or overcovering of soil by cuts, fills or extensive grading; would not increase wind or water erosion of soils; would not change the deposition or erosion of beach sands or dunes; would not result in significant excessive grading on slopes over 20 percent; and would not significantly remove sand, gravel, or topsoil.

Threshold of Significance: c

The 2030 CAP is a policy document that includes actions developed to achieve the County's GHG emissions reductions goals. Actions in the 2030 CAP are designed to combat climate change and its effects, including sea level rise. Future development that may be facilitated by 2030 CAP Actions located near a bluff that could be affected by sea level rise would be subject to CLUP Policies 3-4 through 3-8, which require setbacks from bluff edges for a minimum of a 75-year sea level rise projection, maintenance of drought-tolerant vegetation for erosion control, project design that would not contribute to erosion of a bluff face or stability of a bluff, and prohibition of development on the bluff face (County of Santa Barbara 2019). Therefore, consistency with existing regulatory requirements would ensure future development that may be facilitated by 2030 CAP Actions would not result in exposure to, or production of, permanent changes in topography such as bluff retreat or sea level rise.

Threshold of Significance: d

The 2030 CAP would not involve land use or zoning changes that would encourage new development but would instead include Actions designed to redevelop infrastructure in a manner that would reduce GHG emissions and impacts related to climate change. As a policy document, the 2030 CAP would not directly result in impacts related to paleontological resources or unique geologic features. New development facilitated by 2030 CAP Actions which would involve construction activities, such as building energy-efficiency, renewable energy retrofits, active transportation and public transit infrastructure, and EV charging infrastructure, would primarily involve work within previously developed and disturbed areas where the likelihood of encountering intact and previously undiscovered paleontological resources would be minimal. Nonetheless, there is a possibility that small-scale construction projects may expose paleontological resources during ground disturbing activities. To reduce such risks, 2030 CAP-related project would be reviewed for consistency with State geotechnical and paleontological regulations prior to final siting and construction. New development facilitated by 2030 CAP Actions would be located and designed to reduce ground disturbance to the maximum extent possible, consistent with County Code Section 14-25 which limits excessive excavations and cut

slopes greater than a slope of 1.5 units horizontal to one unit vertical and CLUP Policy 3-13 which requires development plans minimize cut and fill operations and states plans requiring excessive cut and fill may be denied if it is determined development could be carried out with less alteration of natural terrain (County of Santa Barbara 2022a; County of Santa Barbara 2019). Therefore, the 2030 CAP would not result in a significant impact directly or indirectly to paleontological resources, sites, or unique geologic features.

Thresholds of Significance: g-h, l

The 2030 CAP does not include actions which would result in development of new habitable structures or septic disposal systems, or mining activities that would result in the extraction of mineral ore or lead to excessive spoils, tailings, or over-burden. Therefore, the project would not result in the placement of septic disposal systems in impermeable soils, extraction of mineral or ore, or excessive spoils, tailings, or over-burden. The 2030 CAP would not conflict with the County's adopted thresholds of significance and there would be no impact.

Threshold of Significance: k

While people have varying sensitivities to vibrations at different frequencies, in general, they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise (Caltrans 2020). Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

The 2030 CAP is a policy document containing actions which assist the County in meeting its GHG emission reduction targets which is consistent with the Santa Barbara County Comprehensive Plan. Some 2030 CAP Actions would support small scale construction projects, such as EV charging stations and building energy efficiency retrofits that may result in a temporary and intermittent increase in groundborne vibration during construction activities. However, projects involving new construction would be reviewed by the County Planning and Development Department for consistency with the County Land Use and Development Code which prohibits the creation of objectionable vibration (County of Santa Barbara 2020). To reduce construction noise and vibration, the County of Santa Barbara Environmental Thresholds and Guidelines Manual indicates construction within 1,600 feet of sensitive receptors shall be limited to weekdays between the hours of 8:00am and 5:00pm (County of Santa Barbara 2021). As discussed in Section 4.2.9, *Noise*, construction activities would be required to comply with County Code Chapter 40, which limits the hours of construction. Vibrations occurring from any future construction work that would affect adjoining areas would be short-term and would occur during permitted hours. Furthermore, 2030 CAP-related project would not include operational sources of groundborne vibration. Therefore, the 2030 CAP would not result in vibrations which may affect adjoining areas or otherwise result in significant impacts associated with groundborne vibration.

4.2.7 Hazardous Materials/Risk of Upset

Thresholds of Significance

a. In the known history of this project, have there been any past uses, storage or discharge of hazardous materials (e.g., fuel or oil stored in underground tanks, pesticides, solvents or other chemicals)?
b. Would the project result in the use, storage or distribution of hazardous or toxic materials?
c. Would the project result in a risk of an explosion or the release of hazardous substances (e.g., oil, gas, biocides, bacteria, pesticides, chemicals or radiation) in the event of an accident or upset conditions?
d. Would the project result in possible interference with an emergency response plan or an emergency evacuation plan?
e. Would the project result the creation of a potential public health hazard?
f. Would the project result in public safety hazards (e.g., due to development near chemical or industrial activity, producing oil wells, toxic disposal sites, etc.)?
g. Would the project result in exposure to hazards from oil or gas pipelines or oil well facilities?
h. Would the project result in the contamination of a public water supply?

Setting

The County contains numerous site-specific hazardous materials sites, which are generally commercial and industrial land uses (State Water Resources Control Board [SWRCB] 2022). Additionally, oil and gas wells and hazardous/flammable material pipelines span portions the County (California Geologic Energy Management Division [CalGEM] 2022; Southern California Gas Company 2022).

Impact Analysis

Threshold of Significance: a

The 2030 CAP is a policy document containing actions consistent with the Santa Barbara County Comprehensive Plan that are designed to reduce GHG emissions. The 2030 CAP does not include site-specific proposals and development, however, 2030 CAP Actions could result in implementation of projects that could be located on a hazardous materials site. However, 2030 CAP-related projects would be required to comply with Santa Barbara County Comprehensive Plan policies and other local, State and federal regulations related to hazardous materials sites. In Santa Barbara County, hazardous materials sites are monitored by the County's Site Mitigation Unit which provides regulatory oversight and corrective actions at properties where hazardous substance releases have occurred. The Site Mitigation Unit oversees cases including the releases of crude oil, toxic heavy metals, oilfield restoration, properties contaminated by former industrial/commercial uses, and sites with historically contaminated fill. Leaking Underground Fuel/Storage Tanks are regulated and remediated by the County's Environmental Health and Safety department (County of Santa Barbara 2022b). 2030 CAP-related projects that would occur on a hazardous materials site would be subject to the regulations and remedial actions set forth by the County's Site Mitigation Unit and Environmental Health and Safety department. Furthermore, the 2030 CAP would not directly result in increases in population. Similarly, the 2030 CAP would not directly result in an increase in employment, and any new employment opportunities that may result indirectly from implementation of 2030 CAP Actions would target existing residents and not induce new residences or new commercial properties that have the potential to expose persons

or workers to hazardous materials due to their respective siting. Therefore, the 2030 CAP would not result in significant impacts due to being located on a site with past uses, storage, or discharge of hazardous materials.

Thresholds of Significance: b-c, e

The 2030 CAP is a policy document containing actions designed to achieve the County's GHG emissions reductions goals. The 2030 CAP does not involve identified site-specific development and, for the most part, CAP 2030 Actions would not promote development that would involve the routine use of hazardous materials. Implementation of some 2030 CAP Actions, such as energy efficiency retrofits, installation of EV charging stations, and implementation of active transportation projects, would require construction activities. Construction would involve the temporary use of hazardous materials such as vehicle fuels and fluids that could be released should an accidental leak or spill occur. However, these types of materials are not considered acutely hazardous, and storage, handling, and disposal of these materials are required to comply with applicable regulations from the California Department of Toxic Substances Control, United States Environmental Protection Agency, and Occupational Safety & Health Administration. In addition, standard construction BMPs for the use and handling of such materials would avoid or reduce the potential for such conditions to occur. Any transport, use, or disposal of hazardous materials during construction would be carried out in accordance with applicable local, State, and federal regulations regarding the handling of potentially hazardous materials. These regulations include Title 49 of the Code of Federal Regulations, the Hazardous Material Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Materials Management Act, and California Code of Regulations Title 22, Division 4.5. Risk of spills would cease after construction is completed. Therefore, construction activities associated with 2030 CAP-related projects would not be anticipated to create upset and accident conditions involving the release of hazardous materials, and operation of the majority of 2030 CAP-related projects would not involve the routine transport, use, or disposal of hazardous materials during operation.

2030 CAP Actions BE-1.8, BE-1.9, BE-1.10, FS-2.3, WW-1.3, and MO-1.4 emphasize increasing local renewable energy production and use, and battery energy storage within the County by encouraging the deployment of renewable energy systems such as local solar and battery storage systems. Hazardous materials used in a solar panel and battery energy storage systems would generally consist of lithium-ion batteries. Lithium-ion technology is a common battery storage medium and is considered one of the safest and most efficient methods of energy storage on the market. Lithium-ion batteries do not represent a risk to off-site receptors, and safety standards applicable to energy storage systems and safety certifications tests established by independent bodies, such as the National Fire Protection Association, would prevent any reasonably possibility of a substantial adverse environmental effect related to hazardous material exposure from batteries. However, in the unlikely event of a fire, there is a risk of the accidental release of hazardous materials associated with solar panels and battery energy storage systems. Any future proposed battery energy storage facilities or solar development would be subject to the development standards within the County's Hazardous Waste Element, including creation of a risk management and prevention plan which details risk reduction measures for the construction of a facility (County of Santa Barbara 2009b). The County would review the plan for appropriate locations, safety measures, and consistency with the Santa Barbara County Comprehensive Plan, County Code, and applicable local, State, and federal regulations. As such, the 2030 CAP would not result in a

significant impact due to the use, storage, or distribution of hazardous materials; risk of explosion; or creation of a potential public health hazard.

Threshold of Significance: d

The 2030 CAP is a policy document intended to reduce GHG emissions. The 2030 CAP does not involve site-specific development, nor would 2030 CAP Actions interfere with adopted emergency plans. Implementation of some 2030 CAP Actions, such as TR-2.6 which would implement Connected 2050 Regional Transportation Plan/Sustainable Community Strategies projects, could involve construction within the local right-of-way. Construction activities associated with such projects have the potential to impact traffic due to lane closures and vehicle speeds on affected roadways. However, as discussed in Subsection 4.2.5, *Fire Protection*, these impacts would be temporary and access to roadways would be maintained throughout project construction in accordance with applicable regulations such as the Caltrans Manual and County Code Section 28-31 and Section 28-33 which require the implementation of traffic control plans on State highways and maintenance of traffic conditions subject to the County Road Commissioner, respectively (Caltrans 2021; County of Santa Barbara 2022a). Implementation of the 2030 CAP would not interfere with the County's Multi-Jurisdictional Hazard Mitigation Plan which provide direction for traffic control and management in emergency situations as the 2030 CAP would not promote actions which would result in increased population density or land use designation changes which could change traffic patterns (County of Santa Barbara 2017b). As part of standard procedures, plans for 2030 CAP-related projects would be submitted to the County for review and approval to ensure that all new development has adequate emergency access and escape routes in compliance with existing County and Santa Barbara County Fire Department regulations (Santa Barbara County Fire Department 2022). Therefore, the 2030 CAP would not result in a significant impact due to interference with an emergency response or an emergency evacuation plan.

Thresholds of Significance: f-g

The 2030 CAP is a policy-level document that does not propose new residential, commercial, or industrial development that would expose people to hazards from oil or gas pipelines or oil well facilities. The 2030 CAP contains actions consistent with the Santa Barbara County Comprehensive Plan that are designed to reduce GHG emissions. 2030 CAP Actions would not promote projects which would be associated with the use of oil and gas. Potential 2030 CAP-related projects, such as installation of EV charging stations and building retrofits, would not introduce any adverse conditions which could increase the chance of exposure to hazards associated with oil and gas pipelines or well facilities. If a 2030 CAP-related project would be located near petroleum facilities, existing regulatory standards would minimize the potential to create a public safety hazard. County Code Chapter 25 requires petroleum facilities and operations not to exceed set limits for hazardous vapor release. Drilling, well servicing, and piping are required to be maintained in accordance with applicable laws and regulations. Storage of materials associated with well facilities are required to prevent the escape of fluid and be of sufficient size to contain 1.5 times the capacity of the largest tank (County of Santa Barbara 2022a). Petroleum facilities are regulated such that hazardous material release would be minimized. Therefore, the 2030 CAP would result in insignificant impacts related to the creation of public safety hazards or exposure to hazards from oil or gas pipelines or oil well facilities.

Threshold of Significance: h

2030 CAP-related projects could result in the minor use of hazardous materials, primarily due to fuel use during construction. Any use of hazardous materials would be carried out in compliance with applicable federal, State, and local regulations. As discussed in Subsection 4.2.6, *Geologic Processes*, project-specific BMPs would be implemented into future construction to ensure erosion is minimized, which would minimize the risk of contaminated soil entering a water supply. Furthermore, projects located on hazardous sites would be developed in compliance with the County's Site Mitigation Unit and/or Environmental Health and Safety protocols. With adherence to applicable regulatory standards, the 2030 CAP would result in an insignificant impact to the contamination of a public water supply.

4.2.8 Land Use

Thresholds of Significance

a. Would the project result in structures and/or land use incompatible with existing land use?
b. Would the project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?
c. Would the project result in the induction of substantial unplanned population growth or concentration of population?
d. Would the project result in the extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project?
e. Would the project result in loss of existing affordable dwellings through demolition, conversion or removal?
f. Would the project result in displacement of substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?
g. Would the project result in displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere?
h. Would the project result in the loss of a substantial amount of open space?
i. Would the project result in an economic or social effect that would result in a physical change? (i.e. Closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)
j. Would the project result in conflicts with adopted airport safety zones?

Setting

The County is comprised of both urban and rural land uses. Rural land uses, such as rangeland, agricultural land, and open space, are generally located outlying of associated City limits. The 2022 population of Santa Barbara County is estimated to be approximately 445,164, with approximately 139,956 persons living in unincorporated areas (California Department of Finance [DOF] 2022).

Impact Analysis

Thresholds of Significance: a-j

The 2030 CAP is a policy document containing actions consistent with the Santa Barbara County Comprehensive Plan that are designed to reduce GHG emissions. The 2030 CAP would not involve land use or zoning changes that would divide an established community but would promote actions designed to promote Comprehensive Plan policies. 2030 CAP Measure TR-5.5 promotes prioritizing bicycle and pedestrian programmed projects implemented in the Connected 2050 Regional Transportation Plan/Sustainable Community Strategies. Such Measures would be consistent with the County's Circulation Element goal to develop programs and encourage the use of alternative modes of transportation (County of Santa Barbara 2014). Furthermore, the increase of alternative transportation would increase connectivity within the County.

Action BE-1.1 includes the adoption and enforcement of new building and major remodel electrification ordinance to require all-electric commercial and residential buildings. Action BE-1.4 proposes the development and adoption of an ordinance that establishes building performance standards for existing large buildings and facilities to reduce their carbon emissions over time. Action TR-3.2 includes development of an ordinance to phase out light duty gasoline and diesel-powered off road equipment by 2025, leading to a ban in 2035. Action WW-1.1 would consider an ordinance for installation of greywater systems for new construction of commercial and multifamily buildings. In order to implement these Actions, the County Code, Santa Barbara County Comprehensive Plan, and other applicable documents may need to be amended to reflect new or modified requirements. However, where modifications of existing policies are needed, such as updates to policies related to energy, solid waste, and transportation, the 2030 CAP would result in greater avoidance or reduction of environmental effects.

Implementation of 2030 CAP Actions would not directly result in increases in population. Similarly, the 2030 CAP would not directly result in an increase in employment, and new employment opportunities that may result indirectly from implementation of 2030 CAP Actions would target existing residents and not induce population growth. 2030 CAP Actions do not include residential or commercial development. Implementation of the 2030 CAP would not displace people or housing, but rather encourage GHG reduction actions in existing and future development. Implementation of 2030 CAP Actions would generally apply to the urbanized areas of the County; however, it is possible 2030 CAP Actions could promote solar development in rural areas. Implementation of future solar development promoted by the 2030 CAP in rural areas would occur in compliance with existing County regulations regarding the preservation of open space. As a result, the 2030 CAP would not result in the loss of substantial open space. New development that may be facilitated by 2030 CAP Actions that would occur within an adopted airport safety zone would adhere to the provisions of the airport safety zone provided in the applicable Airport Land Use Compatibility Plan. Specific projects that may affect navigable airspace would be subject to Federal Aviation Administration review, pursuant to the Code of Federal Regulations, Parts 77.5, 77.7, and 77.9, ensuring incompatible uses or structures would not be constructed. The 2030 CAP would not introduce incompatible structures, conflict with applicable land use plans, introduce substantial population, extend sewer trunk lines or access roads with capacity to serve new development, result in the loss of existing affordable housing, displace people or housing, result in the loss of substantial open space, result in an economic change or social effect that would result in a physical change, or conflict with adopted airport safety zones. These impacts would be insignificant.

4.2.9 Noise

Thresholds of Significance

a. Would the project result in long-term exposure of people to noise levels exceeding County thresholds (e.g. locating noise sensitive uses next to an airport.)?

b. Would the project result in short-term exposure of people to noise levels exceeding County thresholds?

c. Would the project result in project-generated substantial increase in the ambient noise levels for adjoining areas (either day or night)?

The County's *Environmental Thresholds and Guidelines Manual* establishes an interior noise level of 45 decibels (dB) using the A-weighted sound pressure level (dBA) for all residential uses, consistent with State noise insulation standards (California Code of Regulations Title 24 Part 11). The manual also establishes a 65 dBA threshold of significance for exterior noise levels. In addition, the manual states that noise from grading and construction activity proposed within 1,600 feet of sensitive receptors would generally result in a potentially significant impact, and to mitigate this impact, construction within 1,600 feet of sensitive receptors shall be limited to weekdays between the hours of 8 AM to 5 PM only.

Setting

Noise is unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels using the A-weighted sound pressure level. Because of the way the human ear works, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources (such as construction equipment). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance, while noise from a point source typically attenuates at about 6 dBA per doubling of distance. Noise levels may also be reduced by the introduction of intervening structures. For example, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm that breaks the line-of-sight reduces noise levels by 5 to 10 dBA.

The County's Noise Element identifies transportation facilities as the dominant source of noise within the County (County of Santa Barbara 2009c). In addition, airport operations and railroad operations contribute to noise within the County; however, these sources of noise are predictable and intermittent (County of Santa Barbara 2009c).

Impact Analysis

Thresholds of Significance: a, c

The 2030 CAP is a policy document containing actions consistent with the Santa Barbara County Comprehensive Plan that are designed to reduce GHG emissions. Some 2030 CAP Actions would support small scale construction projects that could result in temporary noise. These include, but are not limited to, Action MO-1.4 which expands the use of renewable energy at County facilities, Action TR-2.2 which implements Connected 2050 Regional Transportation Plan/Sustainable Community Strategies projects, Action TR-2.7 which would convert County parking facilities to support commuter parking and electric bike sharing, and Action BE-1.8 which would develop building standards that would increase solar and battery storage requirements. However, 2030 CAP-related projects would be reviewed for consistency with the Santa Barbara County Comprehensive Plan, and construction activities would be required to comply with the provisions in County Code Chapter 40 which limits hours of construction. Furthermore, 2030 CAP Actions would not promote projects that would result in substantial operational noise. Rather, the 2030 CAP provides GHG-reduction opportunities that affect the transportation sector and sources of associated transportation related noise. For example, 2030 CAP Actions TR-1.3 – TR-1.7 would encourage the adoption of EVs, which are quieter than gas-powered alternatives. TR-1.2 and TR-2.9 and promote shared alternative transportation and TR-2.3 prioritizes bike and pedestrian improvements to increase active transportation and transit ridership. These Actions would result in a decrease of VMT and traffic-related noise. Therefore, the 2030 CAP would not result in significant impacts due to long-term exposure of people to noise levels exceeding County thresholds or project-generated substantial increase in ambient noise levels.

Threshold of Significance: b

The 2030 CAP is a policy document containing actions consistent with the Santa Barbara County Comprehensive Plan that are designed to reduce GHG emissions. 2030 CAP Actions would support small scale construction projects that could result in temporary and intermittent noise. Construction activities would be required to comply with the provisions of County Code Section 28-48 which requires measures are implemented to reduce noise to the fullest extent practicable. In addition, pursuant to County Code Chapter 40, construction noise would not be permitted to occur between the hours of 10:00 P.M. and 7:00 A.M. Sunday through Thursday or between the hours of 12:00 A.M. and 7:00 A.M. Friday through Saturday (County of Santa Barbara 2022a). County Code 14-22 limits grading work between the hours of 7:00AM and 7:00PM (County of Santa Barbara 2022a). Pursuant to the County's Environmental Thresholds and Guidelines Manual, construction within 1,600 feet of a sensitive receptor would be limited to weekdays between 8:00 A.M. and 5:00 P.M. Construction would be conducted in compliance with project-specific measures to reduce noise to the fullest extent practicable. Therefore, construction activities associated with new development that may be facilitated 2030 CAP Actions would result in insignificant impacts regarding short-term exposure to noise levels.

4.2.10 Public Facilities

Thresholds of Significance

a. Would the project require or result in a need for new or altered police protection and/or health care services?

b. Would the project require or result in student generation exceeding school capacity?

c. Would the project require or result in significant amounts of solid waste or breach any federal, state, or local standards or thresholds relating to solid waste disposal and generation (including recycling facilities and existing landfill capacity)?

d. Would the project require or result in the relocation or construction of new or expanded wastewater treatment facilities (sewer lines, lift-stations, etc.) the construction or relocation of which could cause significant environmental effects?

e. Would the project require or result in the relocation or construction of new or expanded storm water drainage or water quality control facilities, the construction of which could cause significant environmental effects?

Setting

The County operates one active Class III landfill, the Tajiguas Landfill, located in Goleta. The landfill also serves as a composting and transfer/processing facility. The Tajiguas landfill can accept a max throughput of 1,500 tons per day and has a remaining capacity of approximately 4,336,335 cubic yards (California Department of Resources, Recycling, and Recovery [CalRecycle] 2019).

Impact Analysis

Thresholds of Significance: a-b, d

The 2030 CAP is a policy document containing actions consistent with the Santa Barbara County Comprehensive Plan that are designed to reduce GHG emissions. Implementation of 2030 CAP Actions would not directly result in increases in population. Similarly, the 2030 CAP would not directly result in an increase in employment, and any new employment opportunities that may result indirectly from implementation of 2030 CAP Actions would target existing residents and not induce population growth. Therefore, no increased demand from public facilities providers including police protection, health care services, or schools would occur. As such, the 2030 CAP would not require the construction of new or physically altered police protection, health care, or schools. Further, the 2030 CAP would not result in new land uses that would generate sanitary wastewater or otherwise contribute to an increase in wastewater treatment requirements. Therefore, the 2030 CAP would not cause the relocation or construction of new or expanded sewer system facilities. 2030 CAP Measures and Actions would help to increase community resiliency and reduce vulnerability to the impacts of climate change within Santa Barbara, thereby reducing the burden on local public services related to such climate impacts and disasters. Furthermore, future 2030 CAP-related projects would be reviewed for consistency with the Santa Barbara County Comprehensive Plan, County Code, and other applicable local and State regulations related to public facilities. Therefore, no impact would occur related to the need for police protection facilities, health care facilities, schools, or sewer system facilities.

Threshold of Significance: c

The 2030 CAP is a policy document containing actions consistent with the Santa Barbara County Comprehensive Plan that are designed to reduce GHG emissions and does not include land use or other policy changes which would result in increased residential, commercial, or other development that would increase solid waste generation in the County. 2030 CAP-related small-scale construction projects would generate minimal solid waste. In compliance with AB 939, at

least 50 percent of solid waste generated from the 2030 CAP would be diverted from landfills. Pursuant to County Code Section 17-23, at least 65 percent of construction waste would be required to be recycled, pursuant to the California Green Building Standards Code (County of Santa Barbara 2022a). 2030 CAP-related projects would adhere to these regulatory standards which would minimize solid waste generation. As described above, Tajiguas Landfill has sufficient capacity to accept construction waste generated by new development that may be facilitated by 2030 CAP Actions. Furthermore, implementation of 2030 CAP Actions W-1.1 through W-1.4 and W-2.1 through W-2.3 would reduce organic waste and the use of non-recyclable and non-compostable single-use items, thereby reducing overall waste generated in Santa Barbara. The 2030 CAP would not create significant amounts of solid waste or breach any federal, State, or local standards or thresholds related to solid waste disposal. Therefore, this impact would be insignificant.

Threshold of Significance: e

2030 CAP-related projects may include infrastructure development and redevelopment involving small-scale construction. Construction could result in soil erosion and a minimal increase in impervious surfaces. However, as discussed under Subsection 4.2.6, *Geologic Processes*, development that would disturb one or more acres would be subject to the NPDES Construction General Permit, including the implementation of a SWPPP and BMPs to control drainage patterns and erosion. In addition, and for projects under an acre, a grading plan would be required to be implemented, pursuant to County Code Section 14-29 (County of Santa Barbara 2022a). These projects would also comply with California Building Code Chapter 70 standards, which are designed to ensure implementation of appropriate measures during grading and construction to control erosion and storm water pollution. Regulatory compliance would minimize stormwater runoff, erosion, and potential impacts to a stormwater drainage system generated by 2030 CAP-related projects. The 2030 CAP would not necessitate the construction of new or the expansion of existing stormwater drainage or water quality control facilities, the construction of which could cause significant environmental effects. Therefore, this impact would be insignificant.

4.2.11 Recreation

Thresholds of Significance

a. Would the project conflict with established recreational uses of the area?
b. Would the project conflict with biking, equestrian and hiking trails?
c. Would the project result in a substantial impact on the quality or quantity of existing recreational opportunities (e.g., overuse of an area with constraints on numbers of people, vehicles, animals, etc. which might safely use the area)?

Setting

The County contains regional parks, beaches, biking trails, equestrian trails, hiking trails, golf courses, and recreational facilities (County of Santa Barbara 2009d). The County has established a minimum standard ratio of 4.7 acres of recreation and/or open space per 1,000 persons to meet the needs of the community (County of Santa Barbara 2016).

Impact Analysis

Thresholds of Significance: a-c

The 2030 CAP is a policy document containing programs that are consistent with the Santa Barbara County Comprehensive Plan. The 2030 CAP would not result in substantial new population growth or direct land use changes. As such, implementation of the 2030 CAP would not have a substantial impact on the quality of existing recreational opportunities including deterioration of parks or other recreational facilities. Implementation of 2030 CAP Actions would not promote development where biking, equestrian, and hiking trails are present. Furthermore, some 2030 CAP Actions, such as TR-4.5 which would convert County parking facilities to support commuter park and electric bike share, would result in an increase of access to recreational opportunities for residents in the County. The 2030 CAP would not conflict with established recreational uses; conflict with biking, equestrian, or hiking trails; or substantially impact the quality or quantity of existing recreational opportunities. Therefore, impacts would be insignificant.

4.2.12 Water Resources/Flooding

Thresholds of Significance

a. Would the project result in changes in currents, or the course or direction of water movements, in either marine or fresh waters?
b. Would the project result in changes in percolation rates, drainage patterns or the rate and amount of surface water runoff?
c. Would the project change in the amount of surface water in any water body?
d. Would the project result in discharge, directly or through a storm drain system, into surface waters (including but not limited to wetlands, riparian areas, ponds, springs, creeks, streams, rivers, lakes, estuaries, tidal areas, bays, ocean, etc) or alteration of surface water quality, including but not limited to temperature, dissolved oxygen, turbidity, or thermal water pollution?
e. Would the project result in alterations to the course or flow of flood water or need for private or public flood control projects?
f. Would the project result in exposure of people or property to water related hazards such as flooding (placement of project in 100 year flood plain), accelerated runoff or tsunamis, sea level rise, or seawater intrusion?
g. Would the project result in alteration of the direction or rate of flow of groundwater?
h. Would the project result in a change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge interference?
i. Would the project result in overdraft or over-commitment of any groundwater basin? Or, a significant increase in the existing overdraft or over-commitment of any groundwater basin?
j. Would the project result in the substantial degradation of groundwater quality including saltwater intrusion?
k. Would the project result in substantial reduction in the amount of water otherwise available for public water supplies?
l. Would the project result in introduction of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) into groundwater or surface water?

As detailed in the County's *Environmental Thresholds and Guidelines Manual*, a project is determined to have a significant effect on water resources if it would exceed established threshold values which have been set for each overdrafted groundwater basin. These values were determined based on an estimation of a basin's remaining life of available water storage. If the project's net new consumptive water use [total consumptive demand adjusted for recharge less discontinued historic use] exceeds the threshold adopted for the basin, the project's impacts on water resources are considered significant. A project is also deemed to have a significant effect on water resources if a net increase in pumpage from a well would substantially affect production or quality from a nearby well (County of Santa Barbara 2021).

Setting

The County contains streams, channels, tributaries, and groundwater basins that contribute to the availability of surface water and groundwater supplies (County of Santa Barbara 2010). Approximately 85 percent of total water used is derived from groundwater resources (County of Santa Barbara 2009e). The County identifies 16 groundwater basins within Santa Barbara (County of Santa Barbara 2009e). Of these basins, three are designated by the California Department of Water Resources as high priority and two are designated as medium priority, meaning they are subject to management by local Groundwater Sustainability Agencies (GSA) pursuant to the Sustainable Groundwater Management Act (SGMA). These high and medium priority basins are the Carpinteria basin, the Montecito basin, the Cuyama Valley basin, the Santa Ynez River Valley basin, and the San Antonio Creek Valley basin, respectively (California Department of Water Resources 2022). Based on County Code Chapter 15A, there are areas of the County within a 100-year flood hazard zone, as defined by the Federal Emergency Management Agency (County of Santa Barbara 2022a).

Impact Analysis

Thresholds of Significance: a-d, l

The 2030 CAP is a policy document containing actions designed to achieve the County's GHG reduction goals. New development that may be facilitated by 2030 CAP Actions, such TR-4.5 which would convert County parking facilities to support commuter park and electric bike share and TR-1.9 which would spearhead the installation of 225 publicly accessible EV chargers, may result in small scale construction activities which could result in water quality impacts due to ground disturbance and soil erosion. In addition, 2030 CAP Action CS-1.6 would result in the planting of 2,800 net new trees in the public right-of-way which would result in ground disturbing activities.

2030 CAP-related projects would be reviewed for consistency with applicable regulations, including the NPDES permitting program, which requires implementation of SWPPPs and County Code Chapter 14, *Grading Code* (County of Santa Barbara 2022a). These regulations require the implementation of BMPs during construction to minimize potential impacts to surface and groundwater quality. Typical BMPs include, but are not limited to, installation of silt fences, erosion control blankets, and anti-tracking pads at site exists to prevent off-site transport of soil materials. Adherence to State and local regulatory requirements would minimize the potential to alter surface water quality or introduce stormwater pollutants.

2030 CAP Actions would generally apply to the urbanized areas of the County where impervious surfaces are largely present. However, it is possible the 2030 CAP could indirectly promote solar development areas with little impervious surfaces. While 2030 CAP Action FS-2.3 would require the update and adoption of the utility-scale solar ordinance to expand opportunities for solar development on agricultural lands, this Action would not directly result in solar development, and any individual developments would be reviewed for consistency with applicable County regulations related to stormwater prior to project approval. Primarily, 2030 CAP-related projects would result in marginal increases to impervious surfaces in the already urbanized environment. If a 2030 CAP-related project would occur near a watercourse the project would be subjected to the requirements of County Code Section 15B-5 which requires any development within 50 feet from the top of the bank of a watercourse, or within 200 feet from the top of the riverbank to not significantly reduce the capacity of the existing watercourse, not realign streambeds, or otherwise not affect other properties by altering velocity, depth, or flows such that an erosion hazard would exist. Projects would be reviewed and approved by the Building Official for consistency with local regulations prior to implementation. Therefore, County regulatory requirements would minimize impacts to changes in currents, drainage patterns, and surface water. The 2030 CAP would not result in changes in currents, drainage patterns, amount of surface water in a water body, alternation of flood flows, or introduction of stormwater pollutants. Therefore, impacts would be insignificant.

Thresholds of Significance: e-f

The 2030 CAP is a policy document containing programs that are consistent with the Santa Barbara County Comprehensive Plan. The 2030 CAP would not result in direct land use changes. However, implementation of 2030 CAP Actions may promote infrastructure development and small-scale construction activities within the County. Providing new active and public transportation infrastructure and battery storage facilities may marginally change the City's existing drainage pattern and amount of impervious surface. Construction of 2030 CAP-related projects could also result in erosion, as discussed in Section 4.2.6, *Geologic Processes*. However, impacts to drainage patterns and alterations of water courses would be minimized through implementation BMPs as required by the NPDES Construction General Permit program and County Code. In addition, 2030 CAP Action CS-1.9 would result in the planting of over 3,000 trees which would reduce the potential for erosion. 2030 CAP-related projects occurring in a flood hazard zone would be subject to the requirements of County Code Chapter 15A, *Floodplain Management.* Section 15A-16 sets standards of construction in flood hazard zones, including anchoring, construction materials, and elevation and floodproofing. Section 15A-22 requires all new development within a coastal high hazard area to be adequately leveled and elevated, and prohibits the use of fill for structural support, among other requirements (County of Santa Barbara 2022a). 2030 CAP-related projects would be required to present proof to a floodplain administrator which shows all standards within County Code Chapter 15A have been met. In addition, the 2030 CAP would not promote new residential, commercial, or industrial development that have the potential to expose people or structures to water related hazards, including tsunamis, sea level rise, or seawater intrusion. The 2030 CAP would not alter the course or flow of flood water or expose people to water related hazards. Therefore, impacts would be insignificant.

Thresholds of Significance: g-j

The CAP is a policy document containing programs that are consistent with the Santa Barbara County Comprehensive Plan. Implementation of 2030 CAP Actions related to infrastructure development and redevelopment, such as electrifying existing buildings, improving active transportation and public transit facilities, and implementing EV charging stations, would not substantially interfere with groundwater recharge as impervious surfaces would only marginally increase. Small scale construction would require minimal amounts of water for routine construction activities, such as suppressing fugitive dust in compliance with the Santa Barbara County Air Pollution Control District's Rule 345 (Santa Barbara County Air Pollution Control District 2010). Although the minimal amount of water supplied for these construction activities may consist of groundwater, water purveyors who supply this groundwater would be subject to management requirements and pumping limitations implemented by a GSA for a specific basin. Therefore, the potential minimal use of groundwater supplies for CAP-related construction activities that occur within the boundaries of medium and high priority basins would not result in the overdraft of a groundwater basin in conflict with a GSA. Implementation of the 2030 CAP would not require groundwater use that would change the quantity of groundwater; overdraft, substantially overcommit, or significantly increase existing overdraft of a groundwater basin; or degrade water quality. Therefore, no impact would occur.

Threshold of Significance: k

The CAP is a policy document containing programs that are consistent with the Santa Barbara County Comprehensive Plan. Implementation of 2030 CAP Actions would result in small scale construction activities. These small-scale projects would require minimal amounts of water for routine construction activities, such as fugitive dust control. Small, temporary, and intermittent uses of water for construction activities would not substantially reduce the amount of water available for public water supplies. Therefore, implementation of the 2030 CAP would result in an insignificant impact to reduction of public water supplies.

5.0 References

California Department of Conservation (DOC). 2021. Earthquake Zones of Required Investigation. September 23, 2021. https://maps.conservation.ca.gov/cgs/EQZApp/app/ (accessed August 2022).

_____. 2019. Alquist-Priolo Earthquake Fault Zones. https://www.conservation.ca.gov/cgs/alquist-priolo (accessed August 2022).

_____. 2016. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed August 2022).

California Department of Finance (DOF). 2022. Table 2: E-5 City/County Population and Housing Estimates, 1/1/2022. https://dof.ca.gov/Forecasting/Demographics/Estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/ (accessed August 2022).

California Department of Fish and Wildlife. State and Federally Listed Endangered and Threatened Animals of California. July 2022. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline (accessed September 2022).

California Department of Forestry and Fire Protection (CAL FIRE). 2022. FHSZ Viewer. https://egis.fire.ca.gov/FHSZ/ (accessed August 2022).

California Department of Resources, Recycling, and Recovery (CalRecycle). 2019. Tajiguas Res Rec Proj & Sanitary LF (42-AA-0015). https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1252?siteID=3283 (accessed August 2022).

California Department of Transportation (Caltrans). 2022. California State Scenic Highway System Map. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed August 2022).

_____. 2021. California Manual on Uniform Traffic Control Devices. March 30, 2021. https://dot.ca.gov/programs/safety-programs/camutcd (accessed August 2022).

_____. 2020. Transportation and Construction Vibration Guidance Manual. April 2020. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf (accessed September 2022).

California Department of Water Resources. 2022. SGMA Basin Prioritization Dashboard. https://gis.water.ca.gov/app/bp-dashboard/final/ (accessed October 2022).

California Geologic Energy Management Division (CalGEM). 2022. Well Finder. https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-119.78365/34.47447/12 (accessed August 2022).

Carpinteria-Summerland Fire Protection District. 2018. Prevention Bureau – Standards. July 2018. https://s3.amazonaws.com/siteninja/multitenant/assets/26128/files/original/2018_VEGETATION_MANAGEMENT_PLAN_2018_7_1.pdf (accessed October 2022).

County of Santa Barbara Air Pollution Control District. 2022. Scope and Content of Air Quality Sections in Environmental Documents. January 2022. https://www.ourair.org/wp-content/uploads/ScopeContentJanuary2022-LimitedUpdates.pdf (accessed August 2022).

_____. 2010. Rule 345 Control of Fugitive Dust from Construction and Demolition Activities. January 21, 2010. https://www.ourair.org/wp-content/uploads/Rule345.pdf (accessed August 2022).

Montecito Fire Protection District. 2019. Development Standards Index. November 25, 2019. https://www.montecitofire.com/development-standards (accessed October 2022).

Santa Barbara, County of. 2022a. County of Santa Barbara Code of Ordinances. https://library.municode.com/ca/santa_barbara_county/codes/code_of_ordinances (accessed August 2022).

_____. 2022b. Site Mitigation Unit (SMU). https://www.countyofsb.org/2012/Site-Mitigation-Unit-SMU (accessed August 2022).

_____. 2021. Environmental Thresholds and Guidelines Manual. January 2021. https://cosantabarbara.app.box.com/s/vtxutffe2n52jme97lgmv66os7pp3lm5 (accessed August 2022).

_____. 2020. County Land Use and Development Code. https://cosantabarbara.app.box.com/s/6hrqg4blorc7zjyh2hklhsl3pv2j2tad (accessed September 2022).

_____. 2019. Coastal Land Use Plan. https://cosantabarbara.app.box.com/s/cx95k0r4hnfo58hg291fi5gzf5rrdurd (accessed August 2022).

_____. 2017a. Agricultural Preserve (Williamson Act) of Santa Barbara County, 2015. April 18, 2017. https://sbcblueprint.databasin.org/datasets/293bb2006edc4c8986d6b564d4502527/ (accessed August 2022).

_____, 2017b. 2017 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan. https://content.civicplus.com/api/assets/621b6b3f-5c9e-4231-9755-ea921484ce17 (accessed August 2022).

_____. 2016. Land Use Element. December 2016. https://cosantabarbara.app.box.com/s/zdbhjm5zclzn70fv6z9zdiysbnnei1x3 (accessed August 2022).

_____. 2015. Seismic Safety & Safety Element. February 2015. https://cosantabarbara.app.box.com/s/85hcgkw8xelm0n60ctyu62a7if1lhxfi (accessed August 2022).

_____. 2014. Circulation Element. April 2014. https://cosantabarbara.app.box.com/s/z9h6t9g0y1fnsqc3bb27xw4r344y5lxo (accessed August 2022).

_____. 2010. Conservation Element. August 2010. https://cosantabarbara.app.box.com/s/t6t55tvyoczghf6gx2kypz7wkao0464z (accessed August 2022).

_____. 2009a. Agricultural Element. May 2009. https://cosantabarbara.app.box.com/s/rdbaorkvulbjkxmo1jufgwoxh1qaoxu9 (accessed October 2022).

_____. 2009b. Hazardous Waste Element. May 2009. https://cosantabarbara.app.box.com/s/2rhuseya3lal5u1kxtkz7fxij4datda3 (accessed August 2022).

_____. 2009c. Noise Element. May 2009. https://cosantabarbara.app.box.com/s/3yex3g6a5vex3cjpkx1bxg1pgvzp9k1y (accessed August 2022).

_____. 2009d. Open Space Element. https://cosantabarbara.app.box.com/s/tjpi5vq90gul6pmsww66q8nwpiqq2kqg (accessed August 2022).

_____. 2009e. Conservation Element – Groundwater Resources Section. May 2009. https://cosantabarbara.app.box.com/s/u65evwzqqheat96lq5zx4gd4dp6mpmjq (accessed August 2022).

Santa Barbara County Fire Department. 2022. Development Standards. https://www.sbcfire.com/development-standards (accessed August 2022).

Southern California Gas Company. 2022. Gas Transmission Pipeline Interactive Map – Santa Barbara. https://socalgas.maps.arcgis.com/apps/webappviewer/index.html?id=3c71f5a4b90f442297eed4ba5a68811c (accessed August 2022).

State Water Resources Control Board (SWRCB). 2022. GeoTracker. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=santa+barbara+county (accessed August 2022).

United States Fish and Wildlife Service (USFWS). 2022. Information for Planning and Consulting. https://ipac.ecosphere.fws.gov/location/7ZWNHX35YJEVHAM4B6D45VTKQA/resources (accessed August 2022).

Appendix B

NOP and NOP Comment Letter

Notice of Preparation

To: State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814
(Address)

From: Community Services Department, Sustainability Division
123 E. Anapamu Street
Santa Barbara, California 93101
(Address)

Subject: Notice of Preparation of a Draft Environmental Impact Report

The County of Santa Barbara will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (☐ is ▣ is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Garrett Wong, Climate Program Manager at the address shown above. We will need the name for a contact person in your agency.

Project Title: 2030 Climate Action Plan

Project Applicant, if any:

Date October 22, 2020

Signature

Title Climate Program Manager

Telephone (805) 568-3543

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

November 21, 2022

Garrett Wong
County of Santa Barbara, Community Services Department, Sustainability Division
123 E. Anapamu Street
Santa Barbara, CA 93101

Re: 2022110453, 2030 Climate Action Plan Project, Santa Barbara County

Dear Mr. Wong:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

cc: State Clearinghouse

Appendix C

GHG Emissions Reductions Technical Evidence

County of Santa Barbara CAP Update

GHG Emissions Reductions Technical Evidence

prepared by

Santa Barbara County
Community Services Department
123 East Anapamu Street
Santa Barbara, California 93101
Contact: Garrett Wong, Climate Program Manager

prepared with the assistance of

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

May 2023

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

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Figures

Tables

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1 Introduction

This report presents the technical quantification and evidence supporting the greenhouse gas (GHG) emissions reduction potential of the County of Santa Barbara's Climate Action Plan (CAP) Update. Section 15183.5(b)(1) of the California Environmental Quality Act (CEQA) guidelines establishes several criteria which a CAP must meet to be considered a "qualified GHG reduction plan" and allow for programmatic CEQA streamlining of project GHG emissions. This document provides the evidence substantiating the GHG emissions reductions associated with the CAP Update measures pursuant to Subsection (D) which states, "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." Based on the substantial evidence contained in this report, the GHG emissions reductions associated with the measures in the CAP Update are sufficient to meet and exceed the County of Santa Barbara's fair share of GHG emissions consistent with the reduction target established in 2022 by Assembly Bill (AB) 1279 of 40% below 1990 levels by 2030 and make substantial progress towards the County's 2045 target, which is in line with California's carbon neutrality target established by AB 1279.

The quantification in this report is specifically intended to illustrate a viable path to achieving the state climate action target. As required in CEQA Guidelines Section 15183.5(b)(e), mechanisms to monitor the CAP's progress toward achieving the GHG emission reductions provided in this report have been established through the CAP development process. If, based on the tracking of community GHG emissions, the County is not on track to reach the 2030 GHG reduction specified here and exceed the target established by AB 1279, the CAP as a whole or specific measures and actions will be amended and a new CAP update will be prepared that includes altered or additional measures and actions, with evidence that their implementation can achieve the County's climate action targets.

1.1 Climate Action Targets

The County of Santa Barbara's climate action targets are more aggressive than California's goals to reduce GHG emissions 40% below 1990 levels by 2030 (AB 1279) and 85% below 1990 levels or net zero[1] by 2045 (AB 1279). The County of Santa Barbara's targets align with state legislation.

1.2 Measures and Actions Organization

As part of the CAP Update process, the County of Santa Barbara has developed a comprehensive set of measures reducing community wide GHG emissions in all sectors to achieve the County's climate action targets. Each measure is supported by a set of actions that provide measurable GHG emissions reduction that is supported by substantial evidence. The County has also developed a set of measures and actions for offsetting GHG emissions through carbon sequestration on natural and working lands, however, these are not quantified because they are exploratory at this stage and the

[1] Net-zero refers to a state of carbon neutrality GHG emissions (in units of carbon dioxide equivalent, or CO_2e), where a community's GHG emissions have been reduced as much as possible, and any remaining GHG emissions arising from community-level activities are offset by GHG emissions sequestration activities and technologies, such as tree planting, compost application, or industrial practices that take GHG emissions out of the atmosphere and sequester them in solid or liquid form.

County has limited control over them. Measures and actions are organized according to the following hierarchy:

1. **Sectors:** Sectors define the GHG emissions category in which the GHG reductions will take place and include Clean Energy, Transportation, Waste, and Water and Wastewater.[2]
2. **Measures:** Measures are developed under each sector pursuant to the GHG Inventory and Forecast and in line with the Community Protocol and the California Air Resources Board (CARB) 2022 Climate Change Scoping Plan:
   - Clean Energy
   - Transportation
   - Waste, Water, and Wastewater
   - Nature-Based Solutions

   Additional measures developed for the Santa Barbra County Climate Action Plan not quantified in emissions reductions include:

   - Low Carbon Economy
   - Municipal Operations

   These measures are not quantified in this report because they are outside of the scoping plan and the County has limited control over these sources.
3. **GHG Reduction Metrics:** Metrics identify specific goals (i.e., activity data targets by 2030 and 2045) to address GHG emissions in each sector. A single metric generally addresses a subsector or represents an incremental step towards impacting an overall sector; for example, three metrics may be established under transportation measures to address active transportation, shared transportation, and single-passenger vehicles.
4. **Actions:** Actions identify the programs, policies, funding pathways, and other specific commitments that the County of Santa Barbara will implement. Each measure contains a suite of actions, which together have been designed to accomplish the measure goal and metrics.
   a. **Key Pillars:** The actions supporting each measure have been designed around a set of key pillars. Each pillar emphasizes specific criteria that have been proven to play an essential role in the implementation of the measure. Because community-focused climate action often requires community-level behavioral changes and buy-in to be implementable and successful, the County must design a suite of actions that support these changes by emphasizing specific needs of the community. The key pillars are: Structural Change, Education, Equity, Funding, Partnerships, and Feasibility Studies. In general, the actions under a single measure should collectively address all the key pillars.[3] Identification of the pillars and their inclusion into the CAP helps plan for implementation. More information on the pillars can be found in the CAP.

[2] Note that the County's municipal measures as established in the CAP Update are not discussed in this document. While the municipal measures are important for reducing the GHG emissions of County operations and establishing the County's operations as demonstrations of climate action leadership, they contribute only minorly to community-level GHG emissions reductions and are a subset of the community GHG emissions. For this reason, the GHG emissions reductions expected from municipal measures were conservatively excluded from the analysis in this document and were not quantified as part of the CAP Update preparation process.

[3] The exception is for measures and actions in the municipal sector because the County has much more leverage to enact changes at a municipal level and may not need to consider each pillar to ensure success during implementation.

Measures and actions can be either quantitative or supportive, defined as follows:

- **Quantitative:** Quantitative measures and actions result in quantifiable GHG emissions reductions when implemented. GHG emissions reductions from these measures and actions are supported by case studies, scientific articles, calculations, or other third-party substantial evidence. Quantitative measures/actions can be summed to quantify how the County of Santa Barbara will meets its 2030 climate action target and demonstrate progress towards the 2045 target. GHG emissions reductions were calculated using published evidence provided through adequately controlled investigations, studies, and articles carried out by qualified experts that establish the effectiveness for the reduction measures and actions. The estimates and underlying calculations provided in this report include the substantial evidence and a transparent approach to achieving the County's GHG emissions reduction targets.
- **Supportive:** Supportive measures and actions may also be quantifiable and have substantial evidence to support their overall contribution to GHG reduction. However, due to one of several factors – including a low GHG reduction benefit, indirect GHG reduction benefit, or potential for double-counting– they have not been quantified and do not contribute directly to the expected GHG reduction target and consistency with the state goals. Despite not being quantified, supportive measures/actions are nevertheless critical to the overall success of the CAP and provide support so that the quantitative measures and actions will be successfully implemented.

1.3 GHG Reduction Metrics Quantification

The GHG reductions for the County of Santa Barbara CAP are achieved through implementation of specific actions which drives quantifiable changes in activity data and emissions factors. Each quantifiable measure is given respective metric(s) that are articulated in the actions and used for the purposes of quantifying emissions reductions over time. Achieving the listed metrics is how the County will quantify successful reductions through future GHG inventories. This document is structured around metric-oriented evidence of emissions reductions.

1.4 GHG Emissions Reductions

The GHG emissions reduction associated with the quantifiable CAP measures and actions have been calculated and presented in this report in terms of mass emissions (in units of MT CO_2e). Measures and actions that are not quantifiable, specifically Low-Carbon Economy and Municipal Operations, are not included. Population projections are shown in Table 1 and give context to how emissions scale over time.[4] Population growth well beyond these projections may require additional GHG reductions to achieve the County's goals.

Table 1 Population Projections for County of Santa Barbara

Year	2018	2030	2045
Population	137,524	160,390	154,885

[4] Population projections were obtained from the United States Census Bureau (US Census) ACS 5-Year Estimates website; accessed at: https://data.census.gov/cedsci/table?g=0400000US06_1600000US0682072&d=ACS%205-Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2019.DP05, the State pf California Department of Finance E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022 accessed at: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/, and adjusted using the6th Cycle Regional Housing Needs Allocation Plan through SBCAG accessed at: http://www.sbcag.org/uploads/2/4/5/4/24540302/item_5_attach_a_-_rhna_plan.pdf

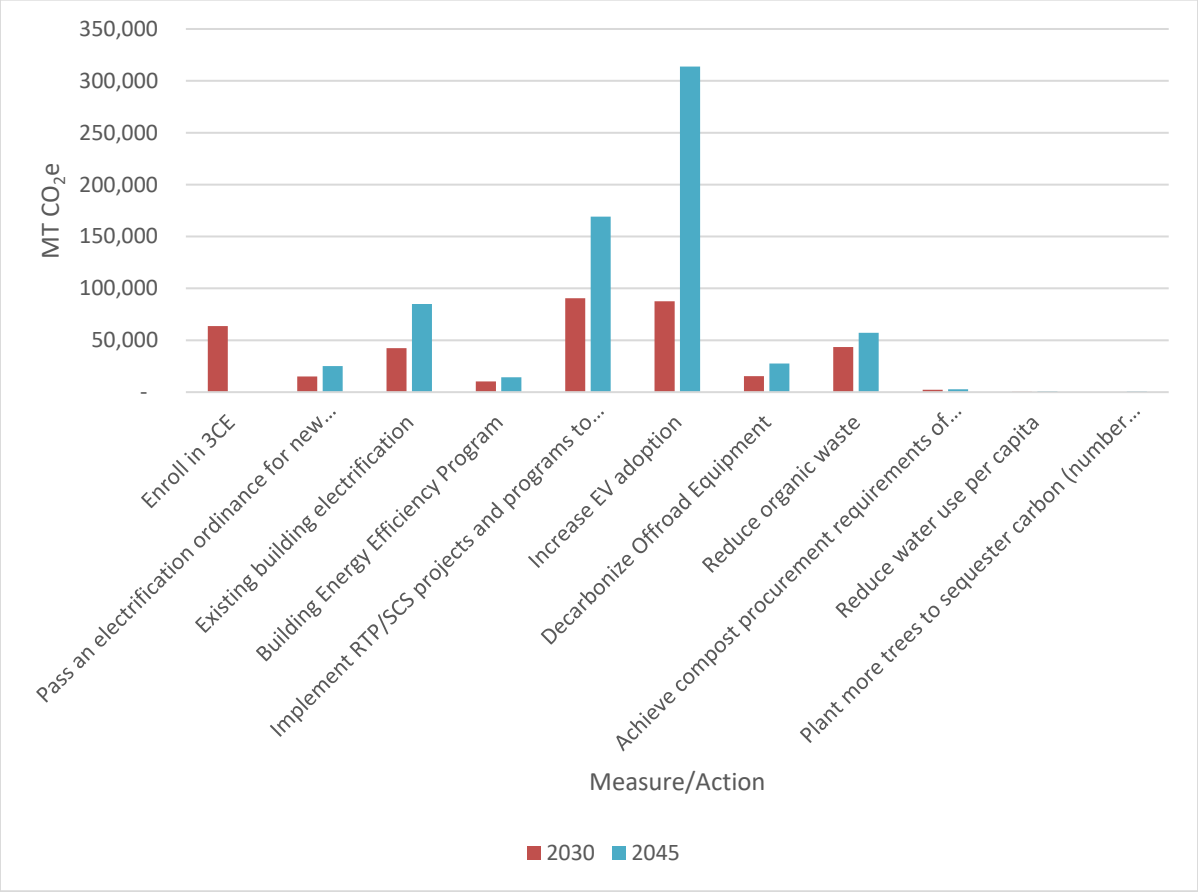
A breakdown of the GHG emissions reductions calculated for each measure/metric is included in Table 2 and Figure 1.

Table 2 Estimated GHG Emissions Reductions by Measure

Measure #	GHG Emissions Reduction Measures and Metrics	Anticipated Reduction/Sequestration (MT CO_2e)
Clean Energy		
CE-1	**Increase energy resilience in new and existing buildings.**	2030: 131,582 2045: 140,411
CE-1 Metrics	CE-1.a Electrify 100% of new residential and new commercial construction by 2023 CE-1.b Electrify 14% of existing residential buildings by 2030 and 90% by 2045 CE-1.c Electrify 14% of existing commercial buildings by 2030 and 75% by 2045 CE-1.d Achieve 100% renewable electricity for all residential and commercial customers into by 2030 CE-1.e Implement residential and commercial building energy efficiency programs in 4% of buildings by 2030 and 7% of buildings by 2045	
Transportation		
TR-1	**Increase the use of zero emission vehicles.**	2030: 87,607 2045: 313,728
TR-1 Metrics	TR-1.a Increase passenger EV car ownership to 25% by 2030 and 90% by 2045 TR-1.b Increase commercial EV car use to 15% by 2030 and 75% by 2045 TR-1.c Install at least 375 publicly available EV chargers by 2030	
TR-2	**Increase affordable housing and mobility options.**	
TR-2 Metric	TR-2.a Decrease vehicles miles travelled by 14% by 2030 and 28% by 2045 by increasing public transit mode share, increasing bike mode share, and implementing land use/development strategies consistent with the Connected 2050 RTP/SCS.	2030: 90,473 2045: 169,106
TR-3	**Decarbonize off-road equipment.**	2030: 15,396 2045: 27,619
TR-3 Metric	TR-3.a Decarbonize 21% of off-road equipment by 2030 and 38% by 2045	

Measure #	GHG Emissions Reduction Measures and Metrics	Anticipated Reduction/Sequestration (MT CO_2e)
Waste, Water, and Wastewater		
W-1	**Reduce food waste and increase use of organic recycled materials.**	2030: 45,763 2045: 59,963
W-1 Metric	W-1.a Reduce landfilled organics 80% by 2030 and 100% by 2045, compared to 2014 levels W-1.b Meet SB 1383 compost procurement requirements for the unincorporated County of 0.08 tons per capita	
W-2	**Reduce use of non-recyclable and non-compostable single use items.**	Supportive
W-2 Metric	W-2.a Reduce landfilled inorganic waste 35% by 2030 and 90% by 2045	
W-3	**Increase energy- and carbon-efficiency of water production treatment conveyance and use.**	2030: 393 2045: 964
W-3 Metric	W-3.a Establish a baseline and set a regional target to reduce emissions as well as improve water and energy efficiency essential for water system operations, including water treatment, pumping, and conveyance by 2024	
Nature-Based Solutions		
NBS-1	**Promote and support land management practices that sequester carbon.**	2030: 159
NBS-1 Metric	NBS-1.a Plant 3,000 trees by 2030	

Figure 1 Estimated GHG Emissions Reductions Associated with CAP Update



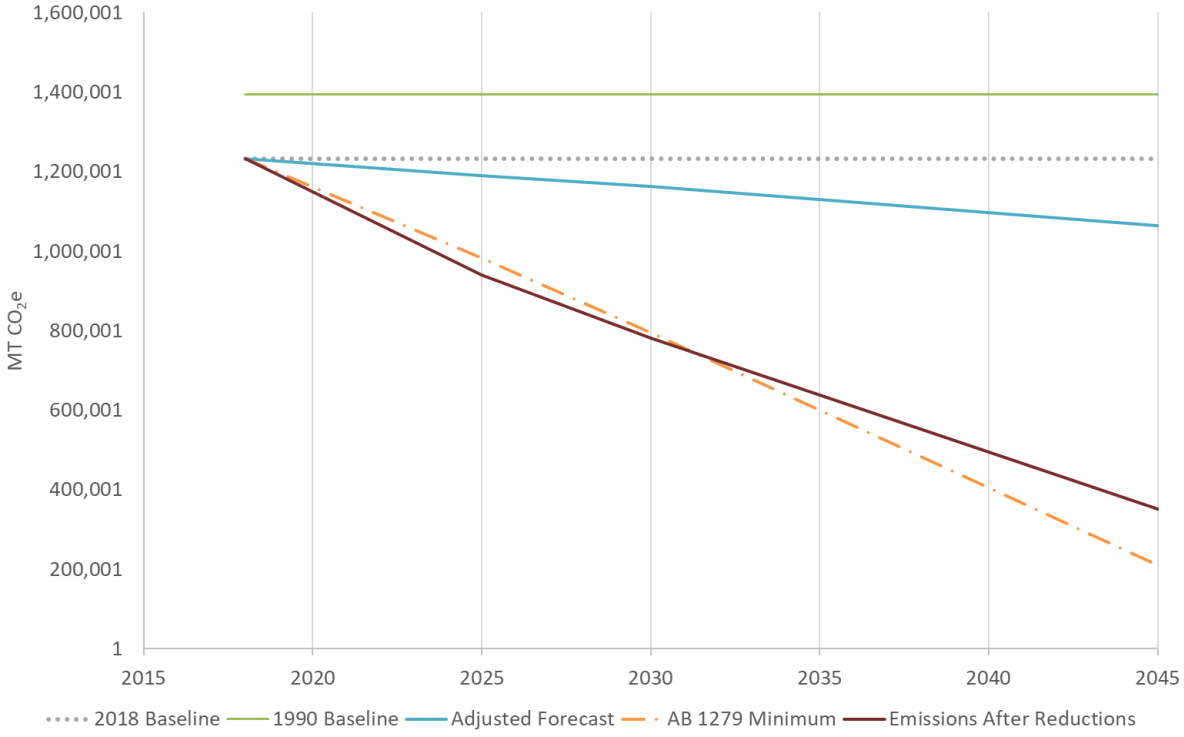
Together, the measures and actions in the CAP provide the County of Santa Barbara with the GHG reductions necessary to make substantial progress to the County's 2030 climate action target (Table 3). However, the 2045 GHG emissions reductions quantified in this report are not yet enough to meet the County's long-term climate action target of carbon neutrality by 2045. Achieving carbon neutrality will require significant changes to the technology and systems currently in place. The CAP aims to establish new systems that are resilient and equitable and allow for a transition to carbon neutrality in the future. This includes electrification of building and transportation systems, support for land use policies and growth policies that reduce vehicle miles traveled, increased usage of carbon neutral electricity, increased water use efficiency, and waste reduction and diversion. As these measures and actions are implemented, the County will gain more information, new technologies will emerge, and current pilot projects and programs will scale to the size needed to reach carbon neutrality. Furthermore, the state is expected to update state-level regulations and provide additional support for meeting carbon neutrality in the future. Future CAP updates past 2030 will also outline new measures and actions that the County of Santa Barbara will implement to close the remaining gap to achieve the carbon neutrality target.

Table 3 Targets Versus GHG Emissions Reductions

Target/Forecast	2030 GHG Emissions (MT CO_2e)	2045 GHG Emissions (MT CO_2e)
Business-as-usual Forecast	1,371,849	1,504,582
Adjusted Forecast	1,163,184	1,063,770
GHG Emissions Reductions from Full Implementation of Measures	381,887	712,782
GHG Emissions after Measure Reductions (Adjusted Forecast – GHG Emissions Reductions)	781,296	351,287
AB 1279 Minimum Target to be Met?	Yes	No; substantial progress demonstrated

Figure 2 shows the climate action targets in relation to the County's GHG emissions after measure implementation. A complete description of each measure and its contributing actions is included in the remainder of the report.

Figure 2 Targets Versus GHG Emissions Reductions



2 Clean Energy Measure

The clean energy measure is focused on leveraging the renewable energy portfolio offered by Central Coast Community Energy (3CE) by incentivizing customers to opt in to 3CE's 100% renewable energy plan (3Cprime)[5] of Santa Barbara County's new and existing building stock. All-electric buildings are powered 100% by electricity and when coupled with renewable electricity generation, their operational energy footprint becomes GHG emissions-free. Based on this strategy, the CAP Update's energy measure consists of the following:

Measure:

- CE-1: Increase clean energy use and energy resilience in new and existing buildings

Metrics:

- CE-1.a Electrify 100% of new residential and new commercial construction by 2023
- CE-1.b Electrify 14% of existing residential buildings by 2030 and 90% by 2045
- CE-1.c Electrify 14% of existing commercial buildings by 2030 and 75% by 2045
- CE-1.d Achieve 100% renewable electricity for all residential and commercial customers into by 2030
- CE-1.e Implement residential and commercial building energy efficiency programs in 4% of buildings by 2030 and 7% of buildings by 2045

Measures CE-1 provides frameworks of updated regulations, programs, funding mechanisms, education, and advocacy to drive electrification of both new and existing residential and commercial buildings. 3CE procures low-carbon renewable energy for the community through wind and solar. Using electricity from 3CE instead of natural gas, propane, or other electricity sources to power buildings reduces the GHG emissions associated with building operations to zero or near-zero. Measure CE-1 directs the County to work with 3CE to increase participation in 3CE usage, which increases the GHG reduction potential for 3CE's renewable electricity. Santa Barbara County's building stock currently relies heavily on natural gas. GHG emissions from the County's existing buildings must also be reduced to achieve the County's climate action targets.

[5] Building electrification consists of converting building appliances, such as space heaters, boilers, stoves, clothes dryers, and hot water heaters, that are currently powered by natural gas or propane to electricity as the primary energy source. This most often consists of retrofitting a building to support more electric capacity and replacing natural gas or propane appliances with electric-powered alternatives.

Measure CE-1: Increase energy resilience in new and existing buildings

	Metric/Action #	Metric/action	Anticipated Reduction by Year (MT CO_2e)
Metrics	CE-1.a	Electrify 100% of new residential and new commercial construction by 2023	2030: 15,157 2045: 25,185
	CE-1.b	Electrify 14% of existing residential buildings by 2030 and 90% by 2045	2030: 42,350 2045: 100,918
	CE-1.c	Electrify 14% of existing commercial buildings by 2030 and 75% by 2045	
	CE-1.d	Achieve 100% renewable electricity for all residential and commercial customers into by 2030	2030: 63,697 2045: 0
	CE-1.e	Implement residential and commercial building energy efficiency programs in 4% of buildings by 2030 and 7% of buildings by 2045	2030: 10,377 2045: 14,307
Actions	CE-1.1	Restrict natural gas infrastructure for new development and major remodels, including municipal projects. Work with partner agencies, like 3C-REN and Central Coast Community Energy, to provide incentives, programs and support services to provide no- or low-cost retrofits, utility bill relief, and no-net increase in bill payments for low-income customers.	Supportive
	CE-1.2	By 2024, complete an existing building electrification plan to identify the policies and programs needed to achieve the goal to electrify 14% of existing buildings. Focus on ensuring inclusive engagement of under resourced populations, maintaining affordability, and equitable distribution of resources	Supportive
	CE-1.3	Develop an ordinance to require 'replacement upon burnout' requirement for residential natural gas appliances by 2025.	Supportive
	CE-1.4	By 2024, develop and adopt an ordinance that establishes a building performance standard for existing large buildings and facilities that requires the reduction of GHG emissions over time. Implement and promote programs, incentives, and technical support to facilitate and reduce the cost of retrofits.	Supportive
	CE-1.5	Achieve 100% renewable electricity for all residential and commercial customers by 2030 through Central Coast Community Energy.	Supportive
	CE-1.6	Support the creation of resilience hubs that utilize renewable energy and backup energy systems, prioritizing frontline communities.	Supportive
	CE-1.7	Develop and adopt the Energy Assurance Plan and provide support for agencies to install renewable energy and backup power systems at critical facilities.	Supportive
	CE-1.8	Leverage relationship with 3C-REN, Promotores, and Climate Resilient SBC to promote incentives and resources for electrifying buildings and increasing energy efficiency, particularly for low-income populations, agricultural operations, and businesses.	Supportive
	CE-1.9	Implement best practices and streamline permitting for projects associated with renewable energy and energy storage systems, whole building retrofits, and electrical infrastructure upgrades necessary to support electrification and resilience projects.	Supportive

Metric/Action #	Metric/action	Anticipated Reduction by Year (MT CO_2e)
CE-1.10	Update and adopt the utility-scale solar ordinance to expand opportunities for solar development on agricultural, commercial, and industrial lands.	Supportive
CE-1.11	Promote incentives and grants to improve water, energy, and fuel efficiency from agricultural operations.	Supportive

Metric CE-1.a New Building Electrification

Metric CE-1.a as initiated by Action CE-1.2, directs the County to adopt a reach code in 2023 to require all new construction to be all-electric. This metric is supported by several actions with the focal point being Action CE-1.1 which requires the County to adopt an electrification ordinance for all new construction. Additionally, the County must actively study and re-adopt or modify the new construction electrification ordinance with each tri-annual code cycle. The ordinance consists of local amendments to the State Energy Code and the State Green Building Code. Other supporting action CE-1.8 ensures partnerships to provide community resources and education on electrification to further strengthen the implementation of the new building electrification ordinance.

The methods and assumptions used to calculate the GHG emissions reductions associated with this metric are explained further here and shown in the Table 4 below. The GHG emissions reduction benefits associated with building electrification of new construction were quantified by estimating the increase in gas use from 2023 to 2030 and 2045, based on the adjusted forecast. These emissions are expected to be replaced with carbon-free electricity. Metric CE-1.a and supporting actions provide no exemptions for new residential and commercial buildings.

Table 4 GHG Emissions Reductions from Metric CE-1.a

Inputs and Assumptions		
Implementation year for residential development		2023
Implementation year for commercial development		2023
Natural gas emission factor (MT CO_2e/therm)[6]		0.00531
Natural gas fugitive emissions factor (MT CO_2e/therm)[7]		0.0525
Convert kWh to therms (kWh/therm)		29.3001
Average increased efficiency of electric appliances over natural gas appliances (%)[8]		300%
GHG Emissions Reductions Calculations		
Year	**2030**	**2045**
Residential Reductions		
Forecasted Residential NG usage (therms)	22,597,695	23,050,580
NG usage in implementation year (therms)	20,819,573	20,819,573
NG usage avoided (therms)	1,778,121	2,231,007

[6] Appendix A.

[7] Appendix A

[8] Pacific Gas & Electric. 2021. Electrification for your home or building. Accessed at: https://www.pge.com/en_US/residential/customer-service/home-services/renovating-and-building/benefits-of-electric-homes-and-buildings/benefits-of-electric-homes-and-buildings.page?

NG usage after implementation (therms)	20,819,573	20,819,573
Emissions from NG usage avoided (MT CO_2e)	9,444	11,850
Electricity usage from converting to electric (kWh)	17,366,376	21,789,577
Weighted electricity EF (MT CO_2e/kWh)	0.0000046	-
Emissions from converted electricity usage (MT CO_2e)	80	-
Methane Leakage Avoided (therms)	49,787	62,468
Emissions from Methane Leaked (MT CO_2e)	2,615	3,281
Residential emission reductions (MT CO_2e)	**11,979**	**15,131**
Commercial Reductions		
Commercial NG usage (therms)	23,882,7914	24,893,574
NG usage in implementation year (therms)	23,411,092	23,411,092
NG usage avoided (therms)	134,771	1,482,482
NG usage after implementation (therms)	23,411,092	23,411,092
Emissions from NG usage avoided (MT CO_2e)	2,505	7,874
Electricity usage from converting to electric (kWh)	4,606,942	14,478,962
Weighted electricity EF (MT CO_2e/kWh)	0.0000046	-
Emissions from converted electricity usage (MT CO_2e)	21	-
Methane Leakage Avoided (therms)	13,208	41,510
Emissions from Methane Leaked (MT CO_2e)	694	2,180
Commercial emission reductions (MT CO_2e)	**3,178**	**10,054**
Totals		
Total Reductions (MT CO_2e)	**15,157**	**25,185**

Metric CE-1.b Existing Residential Building Electrification

Metric CE-1.b as supported by actions CE-1.2, CE-1.3, CE-1.4, CE-1.7, CE-1.8, and CE-1.9 tracks the progress made by the County in developing an existing building residential building electrification plan as a first step towards implementing a residential building electrification ordinance. Because of the comparably higher cost of electrification in existing buildings, developing solutions for potential equity impacts is key to successful implementation (Action CE-1.2).[9] The residential building electrification plan is designed to give special consideration to the potential equity impacts of an electrification ordinance by investigating up-front and on-bill costs of electrification to residents, potential impacts to renters, potential impacts to electrical grid resiliency, and by specifically targeting equity groups for feedback on a residential building electrification strategy development.

Common community concerns include the potential for electrification to increase demands on and lower the resiliency of the electrical grid, especially given the potential for service disruptions for public safety power shutoffs (PSPS) multiple times a year. Peak grid demand, and therefore PSPS, usually occurs in the summer on the hottest days when most buildings are running air conditioning. Hot water heaters, while used throughout the year, can use electricity during off-peak times by heating water and storing it for use at a later time, avoiding significant contribution to peak demand in the summer. Electrifying a heat pump or other space heating appliance has the added benefit of

[9] Greenlining Institute. 2019. Equitable Building Electrification: A Framework for Powering Resilient Communities. Accessed at: https://greenlining.org/wp-content/uploads/2019/10/Greenlining_EquitableElectrification_Report_2019_WEB.pdf

being highly efficient, and widespread electrification of temperature control appliances would likely reduce electricity demand throughout the year.[10] The electrical grid is therefore well-suited to absorbing increased electrical demands from electrification, which even under full electrification scenarios would not exceed current peak summer electricity demands.[11]

Action CE-1.3 commits the County to planning for an electrification ordinance for existing residential buildings by 2025, to be enforced through a comprehensive and equitable permitting compliance program. Natural gas usage from residential buildings accounted for about 8% of GHG emissions in Santa Barbara County in 2018. To address these GHG emissions, the electrification ordinance bans natural gas line expansion and installation of natural gas heating, ventilation, and air conditioning (HVAC) systems, hot water heaters, and other appliances starting in 2025. HVAC system and hot water heaters are targeted in the ordinance due to their large contribution to residential natural gas end-uses and the cost-effectiveness associated with their replacement on burnout.[12]

The County recognizes that successful ordinance implementation will require effective permit compliance. Permits are required for many energy efficiency improvements, including hot water heaters, insulation, HVAC systems, duct replacement, and others. However, permit evasion remains an issue in many jurisdictions, with permitted HVAC systems only accounting for 8-29% of total installations.[13, 14] Strategies that have proven effective at improving permit compliance in various states and local jurisdictions include streamlining the compliance process, improving third-party enforcement, and advanced training for enforcement staff.[15] Action CE-1.9 aims to re-work existing systems and implement these best practices in streamlining permitting to achieve better permit compliance and therefore improved ordinance implementation success. Per Action CE-1.9, the County will work to streamline permitting for electrification and other energy projects at a county level, to reduce the workforce education needed for project implementation on the ground.

In general, electrification has been found to reduce costs for homeowners over the lifetime of appliances when compared to propane or natural gas-fueled equipment, especially when retrofits are bundled and completed when appliances are already planned for replacement, or when coupled with rooftop solar installation.[16] However, the County anticipates that the residential building electrification ordinance will result in up-front retrofit costs for residents that may be difficult for the community, particularly low-income residents, to bear. The largest barrier to existing building electrification is higher up-front capital costs compared to natural gas.[17] On-bill or financed incentives to offset these costs for the end-user are therefore among the most promising

[10] Pacific Gas & Electric. 2021. Electrification for your home or building. Accessed at: https://www.pge.com/en_US/residential/customer-service/home-services/renovating-and-building/benefits-of-electric-homes-and-buildings/benefits-of-electric-homes-and-buildings.page?

[11] Reem Rayef. National Resources Defense Council. April 2020. California's Grid is Ready for All-Electric Buildings. Accessed at: https://www.nrdc.org/experts/merrian-borgeson/californias-grid-ready-all-electric-buildings

[12] Energy and Environmental Economics (E3). April 2019. Residential Building Electrification in California: Consumer economics, greenhouse gases and grid impacts. Accessed at: https://www.ethree.com/wp-content/uploads/2019/04/E3_Residential_Building_Electrification_in_California_April_2019.pdf

[13] Emily Alvarez and Bruce Mast. BayREN Codes & Standards Program. October 2021. Local Government Policy Calculator for Existing Single-Family Buildings – User Guide. Accessed at: https://www.bayrencodes.org/wp-content/uploads/2021/11/BayREN-Policy-Calculator-User-Guide_10.29.2021.pdf

[14] California Public Utilities Commission (CPUC). September 2017. Final Report: 2014-16 HVAC Permit and Code Compliance Market Assessment (Work Order 6) Volume I – Report. Accessed at: http://www.calmac.org/publications/HVAC_WO6_FINAL_REPORT_VolumeI_22Sept2017.pdf

[15] Ryan Meres et al. American Council for an Energy-Efficient Economy (ACEEE). 2012. Successful Strategies for Improving Compliance with Building Energy Codes. Accessed at: https://www.aceee.org/files/proceedings/2012/data/papers/0193-000112.pdf

[16] Rocky Mountain Institute (RMI). 2018. The Economics of Electrifying Buildings: How Electric Space and Water Heating Supports Decarbonization of Residential Buildings. Accessed at: https://rmi.org/insight/the-economics-of-electrifying-buildings/

[17] California Center for Sustainable Energy. 2009. Solar Water Heating Pilot Program: Interim Evaluation Report.

opportunities for electrification.[18] Action CE-1.8 builds the support and funding pathway to make existing building electrification possible, particularly for low-income residents of the County. Once up-front costs are financed, long term savings can be used to achieve cash flow positive retrofits and/or acceptable return on investment. Demonstrating cost-effective pathways for existing building electrification will be a key step before mandatory requirements can be set (Action CE-1.3). Action CE-1.8 commits the County to partnering and broadening implementation efforts with equity and affordability considerations, two prominent barriers to electrification.

The methods and assumptions used to calculate the GHG emissions reductions associated with these actions are shown in the table below. The electrification of existing buildings contributes the largest proportion of projected emissions reductions for the clean energy measure. The County will start with voluntary actions and move towards a replace-on-burnout ordinance[19] by 2025 depending on progress made towards 2030 and 2045 targets. To estimate the GHG reductions associated with a replace on burnout ordinance beginning in 2025, the expected life span of each appliance (HVAC, water heater, stove) and the estimated contribution to total natural gas consumption was modeled. References for appliance life span and contribution to overall natural gas usage are included in Table 5. While the replace on burnout ordinance does achieve the 2030 target, it does not get the County to its goal of 90% residential building electrification by 2045. Alone, the actions outlined under Measure CE-1 reach a 39% target by 2045. Future CAP updates past 2030 will need to outline new actions to close the remaining gap to 90% existing residential building electrification. The growing efficiency of Santa Barbara County's energy portfolio working towards carbon-free electricity supports these reductions and is also quantified in the calculations. The calculation also assumes that 96% of all appliances being replaced would adhere to the ordinance. Measure CE-1 includes a permit compliance program which would allow the County to achieve this relatively high rate of compliance.

[18] Synapse Energy Economics, Inc. October 2018. Decarbonization of Heating Energy Use in California Buildings. https://www.synapse-energy.com/sites/default/files/Decarbonization-Heating-CA-Buildings-17-092-1.pdf

[19] A replace on burnout ordinance is the terminology used for an ordinance that requires a replacement at the time of failure of the previous appliance.

Table 5 GHG Emissions Reductions from Metric CE-1.b

Inputs and Assumptions		
Ordinance implementation year		2025
Natural gas emissions factor (MT CO_2e/therm)[20]		0.00531
Methane Leakage (% of NG delivered)[21]		2.8%
Methane Leakage EF (MT CO_2e/therm)		0.0525
Conversion Factor (kWh/therm)		29.3001
Average increased efficiency of electric appliances over natural gas appliances (%)[22]		300%
Natural gas usage that comes from water heater[23]		38%
Natural gas usage that comes from space heating/cooling[24]		39%
Natural gas usage that comes from cooking[25]		9%
Average natural gas water heater lifespan[26]		13
Average natural gas HVAC lifespan[27]		21.5
Average natural gas stove lifespan[28]		12
Assumed noncompliance[29]		85%
GHG Emissions Reductions Calculations		
Year	**2030**	**2045**
Residential NG usage after new building electrification ordinance is implemented (therms)	20,819,573	20,819,573
Percentage of homes with replaced water heaters, assuming some non-compliance	33%	85%
NG reduction from water heater replacement (%)	12%	32%
Percentage of homes with replaced HVAC, assuming some non-compliance	3%	14%

[20] Appendix A.

[21] Appendix A.

[22] Pacific Gas & Electric. 2021. Electrification for your home or building. Accessed at: https://www.pge.com/en_US/residential/customer-service/home-services/renovating-and-building/benefits-of-electric-homes-and-buildings/benefits-of-electric-homes-and-buildings.page?

[23] Decarbonization of Heating Energy Use in California Buildings (figure 2, page 8) https://www.synapse-energy.com/sites/default/files/Decarbonization-Heating-CA-Buildings-17-092-1.pdf

[24] Decarbonization of Heating Energy Use in California Buildings (figure 2, page 8) https://www.synapse-energy.com/sites/default/files/Decarbonization-Heating-CA-Buildings-17-092-1.pdf

[25] https://treehozz.com/how-many-ccf-of-natural-gas-does-a-home-use

[26] EIA. 2018. Updated Buildings Sector Appliance and Equipment Cost and Efficiencies. Appendix C. Accessed at: https://www.eia.gov/analysis/studies/buildings/equipcosts/pdf/full.pdf

[27] EIA. 2018. Updated Buildings Sector Appliance and Equipment Cost and Efficiencies. Appendix C. Accessed at: https://www.eia.gov/analysis/studies/buildings/equipcosts/pdf/full.pdf.

[28] EIA. 2018. Updated Buildings Sector Appliance and Equipment Cost and Efficiencies. Appendix C. Accessed at: https://www.eia.gov/analysis/studies/buildings/equipcosts/pdf/full.pdf.

[29] Based off the percent of energy efficiency requirements for HVAC unit being met or exceeded - this gives indication of likely hood that a piece of equipment will be upgraded with a more efficiency version. In most cases an electric alternative is the more efficient version. See CPUC's Final Report: 2014-16 HVAC Permit and Code Compliance Market Assessment (Work Order 6) Volume I – Report, accessed at: http://www.calmac.org/publications/HVAC_WO6_FINAL_REPORT_VolumeI_22Sept2017.pdf

NG reduction from HVAC replacement (%)	1%	5%
Percentage of homes with replaced stoves, assuming some non-compliance	6%	15%
NG reduction from stove replacement (%)	1%	1%
Total percent reduction of NG (%)	14%	39%
Total NG saved (therms)	2,953,206.66	8,052,091
Emissions from total NG saved (MT CO_2e)	15,685.81	42,768
Methane Leakage Avoided (therms)	82,689.79	225,459
Emissions from Methane Leaked (MT CO_2e)	4,342.86	11,841
Electricity usage from converting to electric (kWh)	28,843,083.50	78,642,357
Weighted electricity EF (MT CO_2e/kWh)	4.59286E-06	0
Emissions from converted electricity usage (MT CO_2e)	132.4722476	0
Total Residential Reductions (MT CO_2e)	**19,896**	**54,609**

Metric CE-1.c Existing Commercial Building Electrification

Metric CE-1.C as supported by actions CE-1.2, CE-1.3, CE-1.4, CE-1.7, CE-1.8, and CE-1.9 commit the County to developing an existing commercial building electrification plan as a first step towards implementing a commercial building electrification ordinance. Existing building electrification in the commercial sector is less well-researched than in the residential sector. While some commercial natural gas end uses may be ripe for electrification (about 27% of commercial floor space heated with fossil fuel systems can be electrified today with a simple payback period of less than 10 years) other end uses may not.[30] However, the commercial sector accounts for a large portion of the County's total natural gas usage (about 9%), and therefore provides significant opportunity for decarbonization. To close the knowledge gap about commercial building electrification in Santa Barbara, Actions CE-1.4 and 1.8 commits the County to engaging with the commercial sector and business community to understand barriers, equity/cost impacts, and opportunities associated with electrification of commercial natural gas end uses.

Action CE-1.2 commits the County to adopting an existing electrification plan to be enforced through the same process as outlined under Metric CE-1.b. Natural gas usage from commercial buildings accounted for about 9% of GHG emissions in Santa Barbara in 2018. The ordinance recognizes that current technology may limit the extent to which commercial natural gas end uses in Santa Barbara County can be electrified;[31] for this reason, some limited exemptions are included in the ordinance.

Technologies that currently exist for electrifying HVAC systems and water heaters in the commercial sector range from cost-effective to prohibitively expensive, usually depending on the complexity of

[30] Steven Nadel and Chris Perry. American Council for an Energy-Efficient Economy (ACEEE). October 2020. Electrifying Space Heating in Existing Commercial Buildings: Opportunities and Challenges. Accessed at: https://www.aceee.org/press-release/2020/10/report-electrifying-heating-existing-commercial-buildings-could-cut-their

[31] kW Engineering. March 2021. Important Considerations for Electrification of Commercial Buildings. Accessed at: https://www.kw-engineering.com/electrification-commercial-buildings-important-considerations/

the system.[32] Additionally, while all-electric HVAC systems and water heaters can be cost-effective over their lifetimes, up-front costs may be substantially higher with payback periods longer than 10 years.[33] Financial incentives are needed to make conversion of about 73% of commercial floor space cost effective, not to mention other end uses that are less well studied.[34] To meet this need, CE-1.4commits the County to developing and expanding financial incentive programs targeted to the commercial sector, including rebates and grant programs.

While electrification is not expected to result in additional strain on the electrical grid,[35] commercial-scale energy assurance projects present an opportunity to improve the resilience of the electrical grid and provide cost savings over the lifetime of the equipment through battery storage.[36] 2022 California Building Energy Code requires new commercial construction over 5,000 square feet to install PV and storage to meet 60% of the building's energy load and reduce exports to 10%.[37] Action CE-1.7 commits the County to exploring opportunities to support commercial battery storage installations beyond these requirements.

The methods and assumptions used to calculate the GHG emissions reductions associated with these actions are shown in the table below. The reductions gained from commercial building electrification follow a similar process to residential buildings with the replace on burnout starting in 2025 intended to help reach a 14% reduction in overall natural gas usage by 2030. The growing efficiency of Santa Barbara County's energy portfolio working towards carbon-free electricity further supports these reductions and is also quantified in the calculations. Based on assumptions of the average lifespan of hot water heaters, HVAC systems, and natural gas stoves at 10, 23, and 12 years, respectively, emissions reductions to be claimed from time of replacement and the supportive actions above amount to 14% existing commercial building electrification by 2030 and 29% by 2045.[38] While this strategy does support the County in achieving the 2030 GHG reduction target, the County-set goal of 75% existing commercial building electrification by 2045 is not attainable through the actions in this CAP alone. Future CAP updates past 2030 will need to outline new actions focused on streamlined compliance that the County of Santa Barbara will implement to close the remaining gap to reach the goal of 75% electrification of existing commercial buildings by 2045. The replace-on-burnout must be coupled with additional ordinances or other strategies to fully reach the County target however, the replace on burnout ordinance supported by additional actions in measure CE-1 can reach 29% existing commercial building electrification by 2045. References for these timelines are included in Table 6.

[32] Steven Nadel and Chris Perry. American Council for an Energy-Efficient Economy (ACEEE). October 2020. Electrifying Space Heating in Existing Commercial Buildings: Opportunities and Challenges. Accessed at: https://www.aceee.org/press-release/2020/10/report-electrifying-heating-existing-commercial-buildings-could-cut-their

[33] Steven Nadel and Chris Perry. American Council for an Energy-Efficient Economy (ACEEE). October 2020. Electrifying Space Heating in Existing Commercial Buildings: Opportunities and Challenges. Accessed at: https://www.aceee.org/press-release/2020/10/report-electrifying-heating-existing-commercial-buildings-could-cut-their.

[34] Steven Nadel and Chris Perry. American Council for an Energy-Efficient Economy (ACEEE). October 2020. Electrifying Space Heating in Existing Commercial Buildings: Opportunities and Challenges. Accessed at: https://www.aceee.org/press-release/2020/10/report-electrifying-heating-existing-commercial-buildings-could-cut-their

[35] Reem Rayef. National Resources Defense Council. April 2020. California's Grid is Ready for All-Electric Buildings. Accessed at: https://www.nrdc.org/experts/merrian-borgeson/californias-grid-ready-all-electric-buildings

[36] National Renewable Energy Laboratory (NREL). June 2021. Battery Storage for Resilience. Accessed at: https://www.nrel.gov/docs/fy21osti/79850.pdf

[37] Kelsey Misbrener. Solar Power World. August 2021. California Energy Commission mandates solar + storage on new commercial buildings. Accessed at: https://www.solarpowerworldonline.com/2021/08/california-energy-commission-mandates-solar-storage-new-commercial-buildings/

[38] EIA. 2018. Updated Buildings Sector Appliance and Equipment Cost and Efficiencies. Appendix C. Accessed at: https://www.eia.gov/analysis/studies/buildings/equipcosts/pdf/full.pdf

Table 6 GHG Emissions Reductions from Metric CE-1.c

Inputs and Assumptions		
Ordinance implementation year	2025	
Natural gas emissions factor (MT CO_2e/therm)[39]	0.00531	
Methane Leakage (% of NG delivered)[40]	2.8%	
Methane Leakage EF (MT CO_2e/therm)	0.0525	
Conversion Factor (kWh/therm)	29.3001	
Natural gas usage that comes from water heater[41]	28%	
Natural gas usage that comes from space heating/cooling[42]	42%	
Average natural gas water heater lifespan[43]	10	
Average natural gas HVAC lifespan[44]	23	
Average natural gas stove lifespan[45]	12	
Assumed noncompliance[46]	90%	
GHG Emissions Reductions Calculations		
Year	**2030**	**2045**
Commercial NG usage after new building electrification ordinance is implemented (therms)	23,411,092	23,411,092
Percentage of buildings with replaced water heaters, assuming some non-compliance	45%	90%
NG reduction from water heater replacement (%)	13%	25%
Percentage of commercial buildings with replaced HVAC, assuming some non-compliance	4%	10%
NG reduction from HVAC replacement (%)	2%	4%
Total percent reduction of NG (%)	14%	29%
Total NG saved (therms)	3,332,829	6,828,235
Emissions from total NG saved (MT CO_2e)	17,702	36,267.83

[39] Appendix A.

[40] Appendix A.

[41] Decarbonization of Heating Energy Use in California Buildings (figure 2, page 8) https://www.synapse-energy.com/sites/default/files/Decarbonization-Heating-CA-Buildings-17-092-1.pdf

[42] Decarbonization of Heating Energy Use in California Buildings (figure 2, page 8) https://www.synapse-energy.com/sites/default/files/Decarbonization-Heating-CA-Buildings-17-092-1.pdf

[43] EIA. 2018. Updated Buildings Sector Appliance and Equipment Cost and Efficiencies. Appendix C. Accessed at: https://www.eia.gov/analysis/studies/buildings/equipcosts/pdf/full.pdf

[44] EIA. 2018. Updated Buildings Sector Appliance and Equipment Cost and Efficiencies. Appendix C. Accessed at: https://www.eia.gov/analysis/studies/buildings/equipcosts/pdf/full.pdf

[45] EIA. 2018. Updated Buildings Sector Appliance and Equipment Cost and Efficiencies. Appendix C. Accessed at: https://www.eia.gov/analysis/studies/buildings/equipcosts/pdf/full.pdf

[46] Based off the percent of energy efficiency requirements for HVAC unit being met or exceeded - this gives indication of likely hood that a piece of equipment will be upgraded with a more efficiency version. In most cases an electric alternative is the more efficient version. See CPUC's Final Report: 2014-16 HVAC Permit and Code Compliance Market Assessment (Work Order 6) Volume I – Report, accessed at: http://www.calmac.org/publications/HVAC_WO6_FINAL_REPORT_VolumeI_22Sept2017.pdf

Methane Leakage Avoided (therms)	93,319	191,191
Emissions from Methane Leaked (MT CO_2e)	4,901	10,041
Electricity usage from converting to electric (kWh)	32,550,741	66,689,323.94
Weighted electricity EF (MT CO_2e/kWh)	4.59286E-06	-
Emissions from converted electricity usage (MT CO_2e)	149.5010019	-
Total Commercial emission reductions (MT CO_2e)[47]	**22,454**	**46,309**

Metric CE-1.d. 3Cprime Opt-in

Electricity in the County is currently supplied by Pacific Gas & Electric (PG&E), Southern California Edison (SCE),and Central Coast Community Energy (3CE), a Community Choice Aggregation (CCA). CCAs are public, non-profit agencies that procure electricity for a region or community in place of the incumbent utility provider, in this case PG&E or SCE. While 3CE determines how electricity will be procured to meet customer demand, PG&E and SCE are still responsible for delivering that electricity to 3CE customers via the existing electrical grid. 3CE offers two carbon-free electricity options with lower GHG emissions rates than PG&E and SCE: 3Cchoice, made up of 31% renewables, and 3Cprime, made up of 100% renewable electricity from solar and wind.[48] Customers in Santa Barbara County are automatically enrolled in 3CE 3Cchoice, but have the option to opt-up to 3Cprime, to opt-out to receive electricity directly from PG&E or SCE, or to procure electricity wholesale directly from electricity generators (i.e., through direct access).

Typical California CCA opt-out rates are 0% for municipal accounts, 5% for residential accounts, and 15% for commercial and industrial accounts.[49] Switching more customers, particularly direct access customers[50], to 3CE reduces electricity emissions in the short term and increases the GHG reduction impact of Measure CE-1, when natural gas end-uses are converted to electricity. Measure CE-1 and its actions aim to reduce opt-out rates to 4% for both residential and commercial customers.

The methods and assumptions used to calculate the GHG emissions reductions associated with this metric are shown in the table below. To support these lower opt-out rates, the County will start by working with 3CE to identify barriers to 3CE opt-in. Assuming a implementation year of 2024, GHG emissions reductions were calculated by subtracting GHG emissions attributed to electricity usage after reducing the opt-out rate from GHG emissions attributed to electricity usage under the current

[47] See Calculations for Measure CE-1

[48] Central Coast Community Energy (CCCE). 2021. Opt-up. Accessed at: https://3cenergy.org/opt-up/

[49] County of Butte. July 2018. Community Choice Aggregation Initial Feasibility Study. Page 18. Accessed at: http://buttecounty.granicus.com/MetaViewer.php?view_id=2&clip_id=512&meta_id=87147

[50] Direct Access is electricity bought from an electric service provider instead of a utility company. https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/learn-more-about-costs-and-rates

opt-out rate. GHG emissions for 3Cprime were calculated by multiplying the community's total residential/commercial electricity usage by the weighted average residential/commercial electricity emissions factor. Weighted average electricity emissions factors were calculated per the equation below:

$$EF_{scenario\ x} = 3CE\ EF * (1 - non\ 3CE\ usage\ rate_{scenario\ x}) + non\ 3CE\ EF * non\ 3CE\ usage\ rate_{scenario\ x}$$

Table 7 GHG Emissions Reductions from Metric CE-1.d

Inputs and Assumptions		
Electricity Energy Package	3CE Prime	
Year of Implementation	2024	
% Opt-out rate[51]	4%	
GHG Emissions Reductions Calculations		
Year	**2030**	**2045**[52]
Forecasted Electricity Purchased + T&D (kWh)	577,865,722.39	588,590,027.78
Weighted Emission factor (MT CO_2e/kWh)	0.00	-
Emissions in Current Program (MT CO_2e)	66,351.41	-
Emissions with Measure Implementation (MT CO_2e)	2,654.06	-
Emissions Reduced (MT CO_2e)	**63,697.35**	**-**

Metric CE-1.e Building Energy Efficiency Program

Action CE-1.7 commits the County to establishing a building performance standard ordinance. building energy efficiency programs can have the effect of improving building performance for participating entities as shown in the City of Portland wherein a 93% compliance rate with the building energy efficiency program has led to 3.6% improved energy use efficiency within residential buildings and 5% in commercial buildings.[53] Building efficiency is qualified by programs promoting weatherization, insulation, double-pane windows, HVAC sealing, and general improvements to a building envelope. A highly efficient building envelope reduces the heating and cooling load and subsequent GHG emissions associated with building operations.[54] The actions under this metric can achieve a significant GHG emissions reductions for the County.

The methods and assumptions used to calculate the GHG emissions reductions associated with these actions are shown in the table below. The County expects significant reductions from these actions based on several reasonable assumptions. The reductions accounted for are a product of natural gas and electricity reductions from avoided leakage and use respectively. The 2023

[51] The assumption here is that a reasonbable conservative estimate leaves a 4% opt out rate. Based rate comparison of SCE base rate and CPA rates, generally there is ~0% difference between CPA Clean power and SCE base rate (https://www.sce.com/sites/default/files/inline-files/SCE%20and%20CPA%20Joint%20Rate%20Comparison%20Effective%20June%201%202020.pdf). Therefore, assumed that opt-out will be low. 96% of 1 million CPA customers across LA and VTA Counties remain in the default rate product they were enrolled in. Claremont (next to Montclair) saw only a 2% opt-out rate.

[52] Already accounts for Title 24 Reductions. 2040 emissions reduced equate to 21,494.99 MT CO2e

[53] City of Portland. November 2019. 2018 Building Energy Performance Reporting Results. Accessed at: https://www.portland.gov/sites/default/files/2019-11/pepr_2018buildingperformancereport_final_0.pdf

[54] *Energy-Efficient Building Envelope* Advanced energy efficient building envelope design is essential to reducing building energy consumption. https://www.sciencedirect.com/topics/engineering/energy-efficient-building-envelope#:~:text=Building%20envelopes%20of%20energy%2Defficient,consumption%20(Aksamija%2C%202015).

residential and commercial implementation year for the building efficiency program as well as an assumed 0.6% annual efficiency gain (for electricity and natural gas use) based on a report around building efficiency programs published by the EPA, are the basis of this calculation.[55] To avoid double counting of reductions the gained efficiencies from this program were calculated using forecasted totals of electricity and natural gas use with an assumed successful implementation of electrification programs (Metrics CE-1.a, CE-1.b, and CE-1.c). Under these assumptions the potential reductions amount to 10,377 MT CO2e in 2030 and 14,307 MT CO2e in 2045 for residential and commercial buildings.

Table 8 GHG Emissions Reductions from Metric CE-1.e

Inputs and Assumptions		
NG EF (MT CO_2e/therm)	0.005311	
Methane Leakage (% of NG delivered)	2.8%	
Methane Leakage EF (MT CO_2e/therm)	0.0525	
Electricity T&D Losses (% of total delivered)	5%	
Total Annual Energy Savings Achievable	0.6%[56]	
Residential Implementation Year	2023	
Commercial Implementation Year	2023	
GHG Emissions Reductions Calculations		
Year	**2030**	**2045**
Residential Reductions		
Natural Gas Reductions		
Residential NG usage after new building electrification ordinance is implemented (therms)	20,819,573	20,819,573
Residential NG avoidance with existing building electrification reach code (therms)	3,332,829	6,828,235
Residential NG usage after existing electrification and new building electrification (therms)	17,486,744	13,991,338
Avoided NG from Energy Efficiency Program (therms)	703,841	965,402
Emissions from NG saved (MT CO_2e)	3,738	5,128
Methane Leakage Avoided (therms)	19,708	27,031
Emissions from Methane Leaked (MT CO_2e)	1,035	1,420
Electricity Reductions		
Forecasted residential electricity usage (kWh)	290,188,223	292,615,075
Electricity Usage from electrification measures (kWh)	46,209,460	100,431,934
T&D from new electricity usage from electrification measures (kWh)	16,147,089	18,866,256

[55] Consistently funded, well-designed efficiency programs are cutting electricity and natural gas load—providing annual savings for a given program year of 0.15 to 1 percent of energy sales. These savings typically will accrue at this level for 10 to 15 years. These programs are helping to offset 20 to 50 percent of expected energy growth in some regions without compromising end-user activity or economic wellbeing. https://www.epa.gov/sites/default/files/2015-08/documents/napee_chap6.pdf

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Total residential electricity usage + T&D Losses (kWh)	352,544,771	411,913,266
Avoided electricity from Energy Efficiency Program (kWh)	14,189,927	28,422,015
Electricity Emission Factor (MT CO_2e/kWh)	0.0000046	-
Emissions from avoided electricity use (MT CO_2e)	65	-
Residential Sub-Total		
Total Residential Reductions (MT CO_2e)	4,839	6,547
Commercial Reductions		
Commercial NG usage after new building electrification ordinance is implemented (therms)	23,411,092	23,411,092
Commercial NG avoidance with existing building electrification reach code (therms)	3,332,829	6,828,235
Commercial NG usage after existing electrification and new building electrification (therms)	20,078,263	16,582,857
Avoided NG from Energy Efficiency Program (therms)	808,150	1,144,217
Emissions from NG saved (MT CO_2e)	4,292	6,077
Methane Leakage Avoided (therms)	22,628	32,038
Emissions from Methane Leaked (MT CO_2e)	1,188	1,683
Forecasted commercial electricity usage (kWh)	260,969,399	268,773,508
Electricity Usage from electrification measures (kWh)	37,157,684	81,168,286
T&D from new electricity usage from electrification measures (kWh)	14,310,100	16,797,206
Total residential electricity usage + T&D Losses (kWh)	312,437,182	366,739,000
Avoided electricity from Energy Efficiency Program (kWh)	12,575,597	25,304,991
Electricity Emission Factor (MT CO_2e/kWh)	0.0000046	-
Emissions from avoided electricity use (MT CO_2e)	58	-
Total Commercial Reductions (MT CO_2e)	5,539	7,760
Totals		
Total Reductions Residential and Commercial (MT CO_2e)	**10,377**	**14,307**

3 Transportation Measures

Reducing transportation emissions and becoming a carbon neutral county means reducing the number of miles driven by fossil fuel-powered vehicles, particularly passenger vehicles, which account for 37% of GHG emissions in the County of Santa Barbara in 2018. The County's transportation strategy consists of a multi-pronged approach for incentivizing alternatives to fossil fuel-powered vehicle trips, including shifting transportation mode share[57] to active transportation and public transit options; electrifying passenger and commercial vehicle trips, enhancing transportation policy infrastructure planning, and decarbonizing off-road equipment. This CAP prioritizes reducing vehicle miles travelled (VMT) by improving active and public transportation mode share, achieving land use changes that reduce VMT, and shifting remaining VMT to electric vehicles. While, in theory, 100% electrification of all vehicles in the County of Santa Barbara could achieve zero-emissions in the transportation sector without reducing VMT, the County recognizes that cars and roadways carry huge amounts of embodied emissions (emissions associated with the construction of cars and roads)[58] not accounted for in the inventory, over which the County has little control.[59] Reducing VMT carries additional benefits outside of GHG emissions reductions as well, including reduced congestion, reduced space needed for roadways and parking, local economic revitalization, and lifestyle improvements.[60] Based on this strategy, the CAP's transportation measures consist of the following:

Measures:

- TR-1: Increase the use of zero emission vehicles
- TR-2: Increase affordable housing and mobility options
- TR-3: Decarbonize off-road equipment

Metrics:

- TR-1.a Increase passenger EV car ownership to 25% by 2030 and 90% by 2045
- TR-1.b Increase commercial EV car use to 15% by 2030 and 75% by 2045
- TR-1.c Install at least 375 publicly available EV chargers by 2030
- TR-2.a Increase public transit mode share by 20% by 2030 and 50% by 2045
- TR-2.b Increase bike-mode share 1% by 2030 and 5% by 2045
- TR-6.a Decarbonize 21% of off-road equipment by 2030 and 38% by 2045

To achieve a 25% passenger Electric Vehicle (EV) and 15% commercial EV car ownership by 2030, and 90% passenger EV and 75% commercial EV car ownership by 2045 (Measure TR-1), the County

[57] Mode share in this context is used to refer to percentage of passenger trips that can be attributed to one transportation mode or another. For example, 5% active transit mode share means that 5% of all passenger trips are taken using active transit modes (walking, biking, scootering, etc.). Importantly, mode share does not refer to percentage of passenger VMT that can be attributed to a specific transportation mode, since not all trips are the same length. To convert from mode share to percent of VMT, some assumption about the length of trip in each type of mode must be applied.

[58] Embodied emissions are associated with energy used in the extraction, processing, and transportation of materials.

[59] Mark Mills. August 2021. The tough calculus of emissions and the future of EVs. Accessed at: https://techcrunch.com/2021/08/22/the-tough-calculus-of-emissions-and-the-future-of-evs/

[60] Richard Campbell and Margaret Wittgens. March 2004. The Business Case for Active Transportation. Accessed at: http://thirdwavecycling.com/pdfs/at_business_case.pdf

plans to provide incentivized options and infrastructure for Zero Emission Vehicles (ZEV) including charging infrastructure.

While the County cannot require its residents or businesses to buy ZEVs, Measure TR-1 will ensure the infrastructure and incentives are present in the County to begin to remove present barriers to passenger and commercial ZEV adoption.

Measure TR-2 is quantified consistent with the calculations conducted for the Connected 2050 RTP/SCS projects to reduce VMT 14% by 2030 and 28% by 2045. Included activities and actions relevant to this plan are included throughout all transportation measures. Measure TR-2 also aims to increase key components of transit-oriented development through affordable housing increases around transit. This measure supports the others in achieving reduced commuter trips via single passenger vehicles.

To achieve a greater reliability in public transit, the County plans to improve public and shared transit programs and infrastructure. This measure prioritizes shared and public transit in the County, makes transit more convenient, and reduces the time it takes to reach a destination via transit—important determining factors for shared and public transit mode share.

Lastly, Measure TR-2 aims to achieve greater mode-shifts to active transportation as well as low-stress and convenient infrastructure. Infrastructure needs include bikeways, sidewalk improvements, and expansions of both kinds of infrastructure to all areas of the County. Once the infrastructure is available and stress/comfort is not an issue, heightened accessibility to alternatives suggests more people will choose active transportation.

Measure TR-3 directs County efforts and activity in decarbonizing off-road equipment.[61]

[61] Off road equipment includes vehicles and equipment that operates not on traditional roadways https://ww2.arb.ca.gov/sites/default/files/offroadzone/pdfs/offroad_booklet.pdf

Measure TR-1: Increase the use of zero emission vehicles

	Metric/Action #	Metric/action	Anticipated Reduction by Year (MT CO_2e)
Metrics	TR-1.a	Increase passenger Electric Vehicle car ownership to 25% by 2030 and 90% by 2045	2030: 76,709 2045: 289,491
	TR-1.b	Increase commercial Electric Vehicle car use to 15% by 2030 and 75% by 2045	2030: 10,898 2045: 24,237
	TR-1.c	Install at least 375 publicly available EV chargers by 2030	Supportive
Actions	TR-1.1	Support the development of the Central Coast Zero Emission Vehicle Strategy by SBCAG. Develop and adopt a County-specific ZEV plan to increase adoption and utilization of zero-emission vehicles and charging infrastructure in County operations.	Supportive
	TR-1.2	By 2024, develop and adopt an ordinance that increases EV charging readiness requirements (over Title 24) for new residential and commercial development.	Supportive
	TR-1.3	Promote and provide education and assistance to community members about the local and statewide incentives for buying electric vehicles, private and shared electric scooters and bikes through educational campaigns, outreach events and partnerships like Electric Drive 805 and the Central Coast Clean Cities Coalition.	Supportive
	TR-1.4	Partner with local agencies and businesses to develop an educational program for commercial fleet owners to assist them with the purchase and maintenance of zero emission vehicles and fueling and charging infrastructure.	Supportive
	TR-1.5	Lead or support efforts to obtain external funding to facilitate the procurement of electric vans and charging infrastructure for CalVans, a vanpool service provider. Evaluate the feasibility of installing charging stations for CalVans and other carpool vehicles at County facilities.	Supportive
	TR-1.6	Partner with community groups to obtain external funding for a pilot bike-share program in low-income communities and to connect low-income communities with the E-Bike Purchase Incentive Program through CalBike.	Supportive
	TR-1.7	Transition the County medium and heavy-duty fleet vehicles to zero emission vehicles by 2035.	Supportive
	TR-1.8	Expand County-owned and operated electric vehicle charging stations for fleet and public use to at least 150, focusing on increasing access to multifamily households and rural communities, by 2030.	Supportive
	TR-1.9	Maintain and advertise a streamlined electric vehicle infrastructure permitting process in accordance with SB 1236 and SB 970. Dedicate staff	Supportive

Metric/Action #	Metric/action	Anticipated Reduction by Year (MT CO_2e)
	time to ensure continuity of the process.	
TR-1.10	Leverage public-private partnerships and collaboration with local businesses to install 225 publicly accessible chargers needed throughout the County.	

Metrics TR-1.a and TR-1.b Increased Passenger and Commercial EV Ownership

Research from the Transportation Sustainability Research Center at the University of California – Berkeley shows that car share programs lower vehicle ownership and overall VMT.[62] While a majority of car share members use the program to add or replace vehicle trips (leading generally to small VMT increases), a minority of members (2-5%) use car share as a replacement for vehicle ownership (leading generally to larger VMT reductions). The net effect is an overall decrease in vehicle ownership, VMT, and GHG emissions. Approximately one car share vehicle replaces seven to eleven cars and VMT is reduced, on average, between 6% to 16% per car share household assuming one-way usage. A similar application was used for Action TR-1.3 and TR-1.6 in promoting shared electric scooters and bikes.

Community and stakeholder engagement around ZEV adoption will be critical in helping the County understand existing barriers to ZEV adoption, and in helping the community share in the benefits of ZEV adoption. Actions TR-1.1 and TR-1.3 commit the County to working with local community-based organizations to engage populations where ZEV ownership is low (such as among renters or low-income residents) and conducting education and outreach around the benefits of ZEV ownership and available incentives that can make ZEV ownership more affordable in the short-term.

Action TR-1.5 commits the County to providing education and incentives, for fleet vehicles and charging infrastructure through CalVans. Action TR-1.7 commits the County to adopting ZEV fleet vehicles by 2045. These actions help accelerate the County's ZEV adoption rates.

Metric TR-1.c EV Charging Infrastructure

Adding and supporting the addition of electric vehicle chargers within Santa Barbara County will be the main mechanism through which the County will encourage zero-emission vehicle (ZEV) adoption within the community. This metric of 375 additional public EV chargers by 2030 is an important component to meeting the emissions reductions possible through measure TR-1. The state has established a goal of putting 5 million ZEVs on the road by 2030. However, Governor Newsom's recent signing of executive order N-79-20 calls for 100% of passenger vehicle sales to be all-electric by 2035. This new executive order puts the total number of ZEVs on the road by 2035 at approximately 15 million.[63] Based on the current number of vehicles registered in California and a 2% growth rate per year, 15 million ZEVs accounts for 35% of total passenger vehicles in 2035. The

[62] Elliot Martin and Susan Shaheen. Transportation Sustainability Research Center at University of California, Berkeley. July 2016. Impacts of Car2Go on Vehicle Ownership, Modal Shift, Vehicle Miles Travelled, and Greenhouse Gas Emissions: An Analysis of Five North American Cities. Accessed at: http://innovativemobility.org/wp-content/uploads/2016/07/Impactsofcar2go_FiveCities_2016.pdf

[63] Susan Carpenter. Spectrum News 1. October 2020. What it will take to get 100% EV sales in California. Accessed at: https://spectrumnews1.com/ca/la-west/transportation/2020/10/05/what-it-will-take-to-sell-100--evs-in-california

County has established its own goal aiming to reach 25% passenger ZEV adoption by 2030, and 90% by 2045. As of 2020, approximately 1% of passenger vehicles in Santa Barbara County were ZEVs.[64]

While the County cannot require residents to buy and use ZEVs rather than gasoline or diesel-powered vehicles, the County will take actions to incentivize this behavior change and support this level of ZEV adoption. The County's primary target to achieve this measure is to provide 375 additional public electric vehicle chargers in line with the leading ZEV counties in California, such as Alameda, Santa Clara, and Marin counties and consistent with state legislation assessing the gap to needed ZEV charging infrastructure.[65]This number was reached through a proportional calculation of needed charging infrastructure given the County's population and it's relative proportion to the state. Actions TR-1.8 and TR-1.10 commits the County to surveying the existing network of publicly accessible electric vehicle chargers including stations in all of Santa Barbara County (the incorporated and unincorporated areas) to correspond with DMV data to determine priority locations for installation of new chargers.

The methods and assumptions used to calculate the GHG emissions reductions associated with metrics TR-1.a, 1.b, and 1.c are shown in the table below. The GHG emissions reduction benefits associated with increased use of ZEVs were quantified in line with SBCAG's Connected 2050 Regional Transportation Plan Sustainable Communities Strategy which includes targets based on Executive Order N-79-20.[66] The Connected 2050 projects scoped under the ZEV Readiness subsection align with state-mandated Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS) reductions.[67] The quantification of reductions is based on an estimation of registered vehicles in Santa Barbara County as well as a per capita proportion of vehicles to scale emissions projections through 2045. Metric TR-1.c supports the transition to more ZEVs with scaled charging infrastructure to meet increased demand. Emissions reductions were estimated with the targeted percentage of electric vehicles for each horizon year and the associated electricity emissions compared to the adjusted forecast. Based on successful implementation of Metric CE-1.c (carbon-free electricity use in buildings) the County is projected to gain significant reductions from these metrics.

Table 9 GHG Emissions Reductions from Metrics TR-1.a, TR-1.b, and TR-1.c

Inputs and Assumptions	
Total registered vehicles in Santa Barbara County (2020)	359,492
Registered EVs in Santa Barbara County (2020)	16,239
2019 population	444,829
Cars per capita	0.81
Cars per public EV charger	34.19
EV chargers in Santa Barbara County	475[68]

[64] California Department of Motor Vehicles (DMV). January 2020. Fuel Type by County as of 11/2020. Accessed at: https://www.dmv.ca.gov/portal/uploads/2020/09/MotorVehicleFuelTypes_City_01012020.pdf

[65] AB 2127 directs the CEC to assess needed charging infrastructure from which the number of chargers in the County was inferred. Accessed here: https://www.energy.ca.gov/programs-and-topics/programs/electric-vehicle-charging-infrastructure-assessment-ab-2127

[66] Executive Order N-79-29 requiring 100% of new vehicles sold by 2035 to be ZEV's enforced through the State Air Resources Board. Accessed here: https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf

[67] SBCAG Connected 2050 ZEV Readiness (page 6-21 through 6-24). April 2021. Accessed here: http://www.sbcag.org/uploads/2/4/5/4/24540302/connected_2050_final.pdf

[68] Current EV chargers in Santa Barbara County Accessed here: https://www.plugshare.com/directory/us/california

Passenger GHG Emissions Reductions Calculations		
Year	**2030**	**2045**
Passenger ICE VMT after RTP/SCS VMT reductions (miles)	1,388,124,618	1,311,291,580
Passenger VMT EF (MT CO_2e/VMT)	0.00030583	0.00027542
EV adoption beyond baseline	18.2%[69]	80.2%
Emission Reduction from EV increased adoption (MT CO_2e)	77,136	289,491
EV electricity usage (kWh/mile)	0.368515183	0.369266995
EV electricity usage from increased EV adoption (kWh)	92,945,312	388,134,442
Weighted electricity EF (MT CO_2e/kWh)	0.000004593	0.000000000
Emissions from electricity usage for EVs	427	-
Total Reductions (MT CO_2e)	**76,709**	**289,491**
Commercial GHG Emissions Reductions Calculations		
Year	**2030**	**2045**
Commercial ICE VMT after RTP/SCS VMT reductions (miles)	111,578,191	67,328,608
Commercial VMT EF (MT CO_2e/VMT)	0.00113061	0.00109449
EV adoption	8.7%	32.9%
Emission Reduction from EV increased adoption (MT CO_2e)	10,944	24,237
EV electricity usage (kWh/mile)	1.032823455	1.019320272
EV electricity usage from increased EV adoption (kWh)	9,997,327	22,572,330
Weighted electricity EF (MT CO_2e/kWh)	0.000004593	0.000000000
Emissions from electricity usage for EV's	46	-
Total Reductions (MT CO_2e)	**10,898**	**24,237**
Electric Vehicle Charger Count Calculations		
Population[70]	143,866	151,793
Total registered vehicles	116,266	122,673
Registered ZEVs goal	29,067	110,406
Additional public EV chargers needed to support ZEV goal	**375**	**2,754**

[69] Total is 18.2% + 5%= 23.2%

[70] Appendix A

Measure TR-2: Increase affordable housing and mobility options

	Metric/Action #	Metric/Action	Anticipated Reduction by Year (MT CO_2e)
Metric	**TR-2.a**	Decrease vehicles miles travelled by 14% by 2030 and 28% by 2045 by increasing public transit mode share, increasing bike mode share, and implementing land use/development strategies consistent with the Connected 2050 RTP/SCS.	2030: 90,473 2045: 169,106
Actions	TR-2.1	Accelerate the production of affordable housing by updating and adopting the Housing Element and Zoning Code; by exploring alternative strategies to create and preserve affordable housing, such as co-ops, housing or land trusts and available County-owned land; and by streamlining project review with objective design standards.	Supportive
	TR-2.2	Prioritize and implement the programs and projects from the Active Transportation Plan with the highest VMT reduction potential. Identify areas for road diets and complete streets along roadways in urban areas and repurpose the additional lanes for active transportation infrastructure including sidewalks and bike lanes.	Supportive
	TR-2.3	Reduce trips and trip lengths of food distributors by supporting local businesses that enhance access, equity, and resilience in the regional food system, such as cooperative food kitchens. Reduce trips and trip lengths of food consumers by leading or supporting efforts to obtain external funding to increase local food cultivation and access through community gardens, food forests, home gardening, community farming, and more.	Supportive
	TR-2.4	Lead or support the establishment of a regional transportation VMT bank to identify and direct funding to unfunded transportation infrastructure and programs.	Supportive
	TR-2.5	Partner with SBCAG and cities to obtain an annual subscription for travel data analytics to inform traffic management, long-range planning, and emission reduction strategies.	Supportive
	TR-2.6	Partner with stakeholders to solicit shared use mobility services to facilitate connectivity and equitable access to mobility and transit services in the region, including personal mobility devices and shared-use mobility services.	Supportive
	TR-2.7	Partner with transit providers to increase transit service and provide subsidized or discounted transit passes for low-income commuters.	Supportive
	TR-2.8	Work with the LOSSAN Rail Corridor Agency to increase commuter rider services.	Supportive
	TR-2.9	Convert underutilized County parking facilities to support commuter park and-ride and electric bike share.	Supportive
	TR-2.10	Develop an ordinance that requires large employers, including the County, to meet vehicle trip and emission reduction goals, or pay non-compliance fees to expand transit and commuter services and resources. Partner with	Supportive

	SBCAG to work with large employers within the unincorporated County achieve a 50-80% telework participation rate by eligible employees able to work remotely consistent with Connected 2050 RTP/SCS.	
TR-2.11	Incentivize County employees to reduce the number of car trips by increasing rewards for carpooling, transit, and non-vehicular commuting. Conduct a feasibility study to implement employee parking fees. Partner with CalVans to promote use of the Vanpool Program to employers and employees, including the County. Consider offering incentives to increase rider participation for CalVans and transit.	Supportive
TR-2.12	Work with SBCAG to increase internet access and speed to support telecommuting and remote workforce participation, especially in rural areas of the County.	Supportive

Metric TR-2.a Decrease Vehicles Miles Travelled

Effective implementation of actions under Measure TR-2 is aligned with the RTP/SCS programs. The Connected 2050 plan is the County's guiding long range regional planning document when it comes to RTP/SCS implementation with listed projects focused on active transportation and mode share shifts.[71] Consistent with the RTP/SCS a majority of VMT reductions will come from changes to land use and growth policies. In order to achieve these reductions, the County will need to implement the county specific projects found in the RTP/SCS and work collaboratively with the cities to complete their projects as well. Many of the zoning and land use policies are implemented through the General Plan. The RTP/SCS modeling results provide additional evidence for the ability of the region to reduce VMT through improved land use and growth management.

Transit and Active Transportation Mode Shift Evidence

Calculations for these metrics align with the Connected 2050 plan and relevant projects to Santa Barbara County in other counties suggests that significant investment in public transit can increase public transit mode share. The City of San Francisco leads the state with 26% transit mode share in 2017 (pre-COVID).[72, 73] The City of Seattle has documented significant increases in public transit mode share to 48% in 2017 (pre-COVID).[74] Key strategies employed by these cities include significant expansions of transit service lines, designated streets or lanes for bus lines to decrease headways, implementation of taxes to support transit, reduced parking availability, and user taxes. Santa Barbara County will follow the lead of San Francisco and Seattle and implement all of these strategies in under Measure TR-2. Quantification estimates that given full implementation of the public transit improvement actions, the average of Seattle and San Francisco's public transit mode share (29%) is more aggressive for Santa Barbara County by 2030, given the barriers to public transit that Santa Barbara County currently faces. More realistic goal set forth by this measure is public transit mode share of 1% by 2030.

[71] For a full list of the projects please see the Connected 2050 plan. Accessed here: http://www.sbcag.org/uploads/2/4/5/4/24540302/connected_2050_final.pdf

[72] San Francisco Municipal Transportation Agency (SFMTA). December 2021. Sustainable Transportation Mode Share. Accessed at: https://www.sfmta.com/reports/sustainable-transportation-mode-share

[73] Pre-COVID numbers are referenced here with the understanding that public transit usage during the COVID pandemic were lower than normal and are likely to increase again assuming a return to pre-COVID conditions.

[74] Commute Seattle. December 2021. 2019 Mode Split Study Report. Accessed at: https://www.commuteseattle.com/resource/2019-mode-split-study/

In general, increases and improvements to public transportation systems reduce a jurisdiction's dependence on fossil fuels and reduce VMT. The best ways to improve a transit system and reduce driving is to expand its geographical reach and increase the frequency and reliability of transit service. Each new mile of transit usage reduces VMT on much more than a 1:1 basis. Approximately 1% increase in transit frequency saves 0.5% in VMT.[75] Further, improving transit access has the potential to shift trips from cars to transit, which may reduce vehicle trips, VMT, and greenhouse gas emissions, with time spent getting to a transit stop being the key indicator of transit access.[76]

Walking, bikes, e-bikes, scootering, and other active transportation modes can have a strong impact on cities' GHG emissions, with the potential to cut urban transportation emissions up to 11% in cities that make a strong commitment to promoting bicycle travel.[77] Nationally, 16.4% of vehicle trips were one mile or less in 2017, a distance easily travelled on foot or by bicycle.[78] The County's existing Connected 2050 Plan identifies a number of programs and projects, such as 50 added miles of bike lane buildout, sidewalk buildouts, intersection improvements, Safe Routes to School program expansion, and education programs, that will make the active transportation network in the County more connected, accessible, and safe.

Land Use and Growth Policy Evidence

The bulk of the emissions reductions that can be attributed to Connected 2050 projects are sourced to growth management and land use within the SCS.[79] A very small amount of VMT reduction within the RTP/SCS is attributable to alternative transportation or mode share shifts. The Connected 2050 plan forecasts a sprawl-type of development pattern to 2050, including in the unincorporated areas of the County. When the growth policies in the SCS are applied including more compact development in urban areas, more housing on the South Coast, more commercial development in the urban north county – VMT is drastically reduced, especially in the unincorporated area. The implementation of and evidence for these reductions is backed by Santa Barbara County General Plan commitments outlined in the Circulation and Land Use Elements.[80] The previous General Plan had no mention of the Connected 2050 RTP/SCS projects specifically as the RTP/SCS was released in 2021. The current General Plan is being updated to reflect the RTP/SCS strategies, including land use and zoning updates.

The methods and assumptions used to calculate the GHG emissions reductions associated with this metric are explained further here and shown in the table below. In order to estimate the mode shift potential associated metrics TR-2.a, quantification was done in line with the Connected 2050 calculations based on mode shift to active transportation, public transit, VMT reduction associated with land use development changes/growth policies. Due to these changes planned for in Connected 2050, SBCAG has calculated a 14% decrease in VMT by 2030 and a 28% VMT by 2045.

[75] Todd Litman. Victoria Transport Policy Institute. August 2021. Evaluating Public Transit Benefits and Costs Best Practices Guidebook. Accessed at: https://www.vtpi.org/tranben.pdf

[76] California Air Resources Board (CARB). August 2017. Methods to Assess Co-Benefits of California Climate Investments: Vehicle Miles Travelled. Accessed at: http://ww2.arb.ca.gov/sites/default/files/auction-proceeds/carb_vehicle_miles_traveled.pdf

[77] Jacob Mason et al. Institute for Transportation & Development Policy and the University of California, Davis. November 2015. A Global High Shift Cycling Scenario. Accessed at: https://itdpdotorg.wpengine.com/wp-content/uploads/2015/11/A-Global-High-Shift-Cycling-Scenario_Nov-2015.pdf

[78] National Household Travel Survey. December 2021. Population Vehicle Trips Statistics. Accessed at: https://nhts.ornl.gov/vehicle-trips

[79] Outlined in Appendix B and C of the Connected 2050 plan are the projects and projected emissions reductions along with methodologies. http://www.sbcag.org/uploads/2/4/5/4/24540302/connected_2050_appendices_final.pdf

[80] Per the Circulation Element: transportation planning shall be coordinated with the land use planning and policies of the region. Local regional transportation systems shall be designed to maintain and enhance the quality of life in the region. https://www.countyofsb.org/954/Comprehensive-Plan

Therefore, these percent reductions were made from the projected VMT for 2030 and 2045 to calculate the reductions in emissions. The implementation of RTP/SCS projects is essential to these emissions reductions and growth management and land use.

Table 10 GHG Emissions Reductions from Metric TR-2.a (RTP/SCS Projects)

Inputs and Assumptions		
2050 Connected Baseline Year	2015[81]	
RTP/SCS 2050 Reduction target	28%[82]	
GHG Emissions Reductions Calculations		
Year	**2030**	**2045**
RTP/SCS VMT Reduction Target[83]	14%	28%
Baseline VMT (miles)	1,870,933,739	2,165,431,149
Combined EF (MT CO2e/VMT) [84]	0.000345	0.000279
VMT reduced with RTP/SCS implementation (miles)	261,930,723	606,320,722
Total Reductions (MT CO2e)	**90,473.35**	**169,106.18**

Measure TR-3: Decarbonize off-road equipment

	Metric/Action #	Metric/Action	Anticipated Reduction by Year (MT CO_2e)
Metric	TR-3.a	Decarbonize 21% of off-road equipment by 2030 and 38% by 2045	2030: 15,396 2045: 27,619
Actions	TR-3.1	Conduct a study to determine the feasibility of reducing emissions from major off-road equipment fleet operators.	Supportive
	TR-3.2	Develop an ordinance to phase out light duty gasoline and diesel-powered off-road equipment, including the County's, at time of replacement where feasible.	Supportive
	TR-3.3	Support the expansion of programs such as the SBCAPCD Carl Moyer Program and CCCE's Agricultural Electrification Program to incentivize replacement of older, polluting equipment. Partner with Electric Drive 805, Central Coast Clean Cities Coalition, and other organizations to implement an outreach campaign to provide information to residents, businesses, and fleet operators about alternatives to fossil-fueled off-road equipment, public health and safety benefits of alternative equipment technology, and available funding opportunities.	Supportive

[81] Baseline Year. http://www.sbcag.org/uploads/2/4/5/4/24540302/connected_2050_final.pdf

[82] Target. http://www.sbcag.org/uploads/2/4/5/4/24540302/connected_2050_final.pdf

[83] Based on RTP/SCS Connected 2050 (Table 3-10) indicating that implementation of preferred scenario would result in 27.6% reduction from baseline scenario in 2050

[84] Adjusted emissions for passenger and commercial VMT divided by total passenger and commercial VMT therefore accounts for some VMT being EV

Metric TR-3.a Off-road Equipment Decarbonization

Off-road equipment in Santa Barbara County accounts for 5% of the community's GHG emissions. While only a small part of GHG emissions in the County, getting to carbon neutrality will involve decarbonizing most of the off-road equipment, which currently runs on gasoline, diesel, and natural gas. To support a gasoline and diesel phase-out ordinance for off-road equipment, Action TR-6.1 commits the County to conducting a study to determine the feasibility of reducing emission from major off-road equipment fleets in the County (Action TR-3.1). The study will help the County better understand what types of commercial off-road equipment exists, how old it is, and how much potential there is for electrification or decarbonization.

Action TR-3.2 commits the County to introducing a ban on the operation of gasoline and diesel-powered off-road equipment by 2035. The County expects that this action may be supported by future CARB regulations for off-road equipment that may ban their sale in the region by 2035.[85] While some off-road equipment does not have market-ready zero-emissions alternatives, lawn and garden equipment, light-duty off-road equipment, and portable off-road equipment can generally be electrified or use biodiesel today. Off-road emissions accounted for approximately 11% of the total transportation emissions in 2018. A majority of off-road emissions (63%) are associated with gasoline and diesel-powered agricultural equipment. Another 19% of off-road emissions come from gasoline and diesel emissions in the recreational, lawn and garden, light commercial, and pleasure craft sectors. By targeting these five sectors at a minimum, the county could impact over 80% of off-road emissions. Therefore, a 21% reduction in overall offroad emissions is feasible through the implementation of an off-road electrification ordinance that targets these sectors.

Actions TR-3.3 support Metric TR-3.a promoting more likely implementation through increased funding and equity considerations. These partnerships can ensure that vulnerable communities receive needed resources as well as funding to make the switch.

The methods and assumptions used to calculate the GHG emissions reductions associated with this metric are explained further here and shown in the table below. The GHG reductions were quantified by taking the off-road equipment emissions from diesel, gasoline and natural gas in 2018 and comparing the BAU forecast to decarbonized percentages of 21% by 2030 and 38% by 2045 to determine the total reductions. Off-road diesel, gasoline, and natural gas emissions were acquired through EMFAC fuel usage data and multiplied by respective emissions factors.[86]

Table 11 GHG Emissions Reductions from Metric TR-3.a

Inputs and Assumptions		
Off-Road Emissions from Diesel, Gasoline and Natural Gas 2018	73,314	
BAU Adjusted Offroad Emissions from Diesel, Gasoline and Natural Gas 2045	72,481	
GHG Emissions Reductions Calculations		
Year	**2030**	**2045**
Decarbonized Percentage	21%	38%
Off-Road - Diesel Emissions (MT CO_2e)	57,214	54,791
Off-Road - Gasoline Emissions (MT CO_2e)	14,061	15,665
Off-Road - LPG (MT CO_2e)	2,040	2,024

[85] See: https://ww2.arb.ca.gov/rulemaking/2021/sore2021

[86] See: https://arb.ca.gov/emfac/emissions-inventory/c58cfe3d0072dfc3ea8eae4234049042e52ed4df

Total Off-Road Emissions (MT CO_2e)	*73,314*	*72,481*
Total Reductions (MT CO_2e)	**15,396**	**27,619**

4 Waste, Water, and Wastewater Measures

The County of Santa Barbara's waste measures focus on reducing solid waste generation and increasing diversion from the landfill. Emphasis is placed on reduction of organic waste sent to landfills, as landfilled organic waste is the major source of waste-related greenhouse gas emissions. The measures in this section also support the County's overall goal of working toward zero wasted resources. The actions that address inorganic waste have relatively smaller impacts in meeting the County's communitywide greenhouse gas emissions reduction goals.

Working toward zero waste of resources requires that the County address two factors: 1) waste generation (reducing the amount of waste generated regardless of its destination—e.g., landfilling, recycling, composting); and 2) waste diversion (i.e., recycling the waste that is generated through available facilities). Measure W-1 focuses on both waste generation and diversion.

Actions for reducing organic waste are underpinned by SB 1383 requirements, which lay out specific programs, policies, and objectives for the County to support the state's goal of a 75% reduction in organics waste by 2025. Actions that address inorganic waste are not quantified in this analysis due to their very minimal impact on communitywide greenhouse gas emission reduction goals.

Water and wastewater account only for a small portion of a community's GHG emissions. Wastewater GHG emissions accounted for 4% of the community's GHG emissions in 2018 and GHG emissions from water accounted for 1% of the community's GHG emissions. While only a small part of the County's GHG emissions, water conservation and decarbonized wastewater treatment are important aspects of a community's overall sustainability and resilience.

The CAP's waste, water, and wastewater measures consist of the following:

Measures

- W-1: Reduce food waste and increase use of recycled organic materials
- W-2: Reduce use of non-recyclable and non-compostable single-use items
- W-3: Increase energy- and carbon-efficiency of the water systems

Metrics

- W-1.a Reduce landfilled organics 80% by 2030 and 100% by 2045[87]
- W-1.b Meet SB 1383 compost procurement requirements for the County of 0.08 tons per capita
- W-2.a Reduce landfilled inorganic waste 35% by 2030 and 90% by 2045 – Supportive
- W-3.a Establish a baseline and set a regional target to reduce emissions as well as improve water and energy efficiency essential for water system operations, including water treatment, pumping, and conveyance by 2024

[87] Compared to 2014 levels. SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025.

Measure W-1: Reduce food waste and increase use of recycled organic materials

	Metric/Action #	Metric/Action	Anticipated Reduction by Year (MT CO_2e)
Metric	W-1.a	Reduce landfilled organics 80% by 2030 and 100% by 2045[88]	2030: 43,513 2045: 57,171
	W-1.b	Meet SB 1383 compost procurement requirements for the County[89] of 0.08 tons per capita	2030: 2,250 2045: 2,793
Actions	W-1.1	Support the expansion of the Santa Barbara County Food Rescue Program through participation of all County facilities that provide food or food services.	Supportive
	W-1.2	Develop a program to support local residential and commercial composting by providing compost made from recycled organics at Tajiguas Landfill, in compliance under SB 1383.	Supportive

Metric W-1.a. Landfilled Organics Reductions

Emission reductions in the waste sector will be driven by Santa Barbara County's compliance with SB 1383, which sets a statewide target to reduce organic waste disposal 75 percent relative to 2014 levels and recover 20 percent of edible food by 2025. CalRecycle has provided a suite of activities that jurisdictions are required to complete to achieve this target, including the following:

- Provide organic waste collection services for all residents and businesses and monitor contamination.
- Implement an edible food recovery program for commercial edible food generators, with compliance beginning between 2022 and 2024.
- Procure organic waste to meet organic waste product procurement targets, as notified by CalRecycle by 2022.
- Conduct education and outreach to businesses, residents, and commercial edible food generators by 2022 and annually thereafter.
- Ensure there is adequate capacity and collection services to comply with SB 1383 requirements.
- Adopt enforceable ordinances prior to 2022 encompassing requirements for organics and edible food generators in the County.
- Monitor compliance beginning in 2022, conduct enforcement beginning in 2024, and maintain records of implementation.

Completing these activities is expected to provide the level of composting and food donation that will reduce Santa Barbara County's organic waste disposal by 75% by 2025, aligning with the SB 1383 state target. By 2030 Actions W-1.1 and W-1.2 can achieve and surpass the 80% reduction goal of landfilled organics. Landfilled organics are a large source of methane emissions and the majority of anerobic waste emissions which is why an 80% reduction equals and 80% reduction in

[88] Compared to 2014 levels

[89] Unincorporated County

emissions.[90] While Action W-1.1 will not lead to direct GHG emission reductions, it is an important component of the strategy behind SB 1383 implementation. For example, education around composting and food waste reduction can provide the information needed by residents to start a home compost pile and/or reduce their overall waste. Providing these materials in multiple languages in a culturally appropriate manner will further the impacts of this action. Action W-1.2 will directly support implementation of SB 1383. Action W-1.2 is included in the scope of SB 1383 and will support its emission reduction target by ensuring that there is adequate capacity for compost procurement. This action will also support inorganic waste diversion, but this is not as significant for reducing emissions.The County already has a food recovery program implemented per SB 1383 requirements. Compliance with this program was required locally starting January 1, 2022. Reductions associated with this measure with inputs and assumption are provided in Table 12.

The methods and assumptions used to calculate the GHG emissions reductions associated with metrics W-1.a and W-1.b are explained further here and shown in the table below. The GHG emissions reduction benefits associated with waste reductions were quantified through multiplying the target procurement standard as well as landfilled organic and inorganic reductions based on Santa Barbara County's population. The result was emissions avoided from mixed organics compost application as well as a reduction of solid waste emissions.

Table 12 GHG Emissions Reductions from Metric W-1.a and W-1.b

Inputs and Assumptions		
Unincorporated County procurement requirement in 2022 (tons)	10,668	
Unincorporated County population procurement requirement based on	133,351	
Procurement requirement per capita	0.0800	
Emissions avoided from mixed organics compost application (MT CO2e/ton)	0.23	
Calculations		
Year	**2030**	**2045**
Population	143,866	151,793
Waste Emissions	54,391	57,171
Organic Waste Target Achievement (%)	80%	100%
Reduce Organic Waste (MT CO2e)	43,513	2,744
Compost Procurement Target Achievement (%)	85%	100%
Achieve Compost procurement requirements of SB 1383 (MT CO2e)	2,250	2,793
Total Reductions (MT CO_2e)	**45,763**	**59,963**

[90] See: https://calrecycle.ca.gov/climate/organics/#:~:text=Anaerobic%20decomposition%20of%20organic%20materials,a%2020%2Dyear%20time%20period.

Measure W-3: Increase energy- and carbon-efficiency of the water systems

	Metric/Action #	Metric/Action	Anticipated Reductions by Year (MT CO_2e)
Metric	W-3.a	Reduce water use 15% by 2030 and 35% by 2045	2030: 393 2045: 964
Actions	W-3.1	Develop and adopt an ordinance requiring greywater systems in new construction of large commercial and multifamily buildings.	Supportive
	W-3.2	Partner with local water agencies to measure and track energy intensity of public water system operations and adopt long-term carbon reduction goals.	Supportive
	W-3.3	Conduct a feasibility study to assess options for the expansion of renewable energy at Laguna County Sanitary District water treatment plant.	Supportive

Metric W-3.a Water Efficiency

Action W-3.a commits the County to implementing a water efficiency ordinance to facilitate installation of more greywater systems throughout the community. Greywater systems filter wastewater from washing machines, bathtubs, and showers for garden irrigation. Homeowners that install greywater systems can save up to 40,000 gallons of water per year, resulting in much lower water bills.[91] Greywater systems have the added benefit of sending wastewater from homes to the ground, rather than through the sewage system, more closely mimicking the earth's natural water cycle and improving the local ecosystem.

Supporting this metric through engagement, and education, Action 3.2, commits the County to working with local water agencies to engage with the community, including low-income and fixed-income people, communities of color, elders, and disabled individuals with access needs, about the benefits and opportunities associated with more efficient water consumption. Engagement on these topics has been shown to improve the efficacy of structural changes to water systems and build community wide trust and stewardship.[92]

Actions W-3.1a provides commitment for integrating more of these systems into Santa Barbara County with Action W-3.3 focuses on wastewater treatment plant renewable energy.[93]

The methods and assumptions used to calculate the GHG emissions reductions associated with this metric are explained further here and shown in the table below. The GHG emissions reduction benefits associated with water efficiency were quantified through the energy intensity of water with a targeted 15% increase in efficiency by 2030 and 35% by 2045 supported by the W-3 actions. These efficiency gains are claimed through enhanced community outreach, home water efficiency,

[91] Water Wise Group. December 2021. Greywater System Benefits. Accessed at: https://waterwisegroup.com/greywater-education/greywater-benefits/

[92] Dean AJ, Fielding KS, Ross H and Newton F. (2016) Community Engagement in the Water Sector: An outcome-focused review of different engagement approaches. Melbourne, Australia: Cooperative Research Centre for Water Sensitive Cities. Accessed here: https://watersensitivecities.org.au/wp-content/uploads/2016/05/TMR_A2-3_CommunityEngagementWaterSector-1.pdf

[93] Fu, Xiaotian. March 2017. Wastewater: The Best Hidden Energy Source You've Never Heard Of Accessed here: https://www.wri.org/insights/wastewater-best-hidden-energy-source-youve-never-heard#:~:text=Since%20sewage%20treatment%20plants%20can,interrupted%20by%20surrounding%20power%20outages.

Infrastructure projects around water reuse, groundwater recharge, water quality, and water delivery. All of these actions have demonstrated success in reducing water consumption and water energy intensity in line with the County Targets.[94] The supportive actions in Measure W-3 work towards a total saved water use of 1,143 MG by 2030 and 2,804 MG by 2045 based on projected water use from 2018 to 2045. The saved water from normal use attributed to these actions is what drives emissions reductions through decreased electricity use to process water deliveries. Including the assumption of a decreasing electricity emissions factor in line with County targets of carbon-free electricity, the County expects a 393 MT CO2e reduction by 2030 and 964 MT CO2e reduction by 2045.

[94] Office of Energy Efficiency and Renewable Energy. Best Management Practices for Water Efficiency. Accessed here: https://www.energy.gov/eere/femp/best-management-practices-water-efficiency

Table 13 GHG Emissions Reductions from Metric W-3.a

Inputs and Assumptions		
2018 water consumption (MG)	7,310	
Service Population (2018)	200,968	
Water use per SP(MG/SP)	0.0364	
Average Energy Intensity of Water (kWh/MG)	5993.9503	
Calculations		
Year	**2030**	**2045**
Target % Reduction	15%	35%
Target per Capita Reduction	0.030919932	0.023644654
Forecasted Water Use (MG)	7,622	8,012
Targeted Water Use (MG)	6,479	5,207
Saved Water (MG)	1,143	2,804
Electricity Saved (kwh)	6,852,941	16,807,253
Baseline Electricity EF (MT CO2e/kwh)	0.0002119	0.0002119
Baseline Emissions from Electricity (MT CO2e)	1,452	3,562
Electricity EF with CCA (MT CO2e/kwh)	0.00015	0.00015
Electricity Emissions with Measure	1,059.02145	2,597.31420
Total Reductions (MT CO_2e)	***393***	***964***

5 Nature-Based Solutions Measure

Nature-based Solutions are actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature. One considerable benefit of implementing nature-based solutions is the way sequester carbon. Carbon sequestration describes the process in which plants and water-based algae take carbon from the atmosphere and store it in their biomass via photosynthesis. Plants also release carbon, in the form of carbohydrates and other molecules (collectively called exudates), into the soil through their roots, where they increase soil organic carbon and support a diversity of soil microbes and fungi, which facilitate soil carbon sequestration. Natural lands act as a carbon sink by sequestering carbon from the atmosphere and storing it in vegetation and soils, which means they play an increasingly important role in pursuing state carbon neutrality goals. Maintaining healthy natural and working lands is key to human well-being as they are responsible for our water supply and quality, air quality, and biodiversity which in turn influences socioeconomics and social equity.

Measure NBS-1: Promote and support land management practices that sequester carbon

	Metric/Action #	Metric/Action	Anticipated Reductions by Year (MT CO_2e)
Metric	W-1.a	Plant 3,000 trees by 2030	2030: 159
Actions	NBS-1.1	Partner with the Cachuma Resource Conservation District, Santa Barbara County Farm Bureau, and other stakeholders to provide outreach and education to farmers and ranchers on conservation practices that contribute to climate mitigation and increase resilience, and incentives available to adopt these practices. Provide resources in both English and Spanish and focus outreach to socially disadvantaged farmers and ranchers.	Supportive
	NBS-1.2	Develop a restoration plan to implement natural land restoration projects including riparian, native grassland, oak woodland restoration, and wetland restoration.	Supportive
	NBS-1.3	Conduct a pilot project to study the application of food safe compost on rangeland and orchards for improved vegetation, soil health, and carbon storage.	Supportive
	NBS-1.4	Educate residents regarding the climate impact of their food choices, food waste, food storage methods, and correct disposal methods.	Supportive
	NBS-1.5	Continue to support the Williamson Act Program while exploring the expansion of tax incentives to conserve agricultural lands.	Supportive
	NBS-1.6	Address policy barriers that prohibit or discourage the voluntary creation or restoration of habitats and ecosystems by coordinating with local, State,	Supportive

	Metric/Action #	Metric/Action	Anticipated Reductions by Year (MT CO_2e)
Metric	W-1.a	Plant 3,000 trees by 2030	2030: 159
		and Federal agencies. Consider development of a Voluntary Local Program to provide a permitting solution for impacts to species listed under the California Endangered Species Act.	
	NBS-1.7	Lead or support efforts to obtain external funding, through programs like the Sustainable Land Initiative, to support land managers in implementing carbon farm plans and sustainable agricultural practices that reduce emissions and/or sequester carbon. Example practices include: cover crops, composting/compost application, mulching, hedgerow planting, and improved nitrogen fertilizer management.	Supportive
	NBS-1.8	Lead and support efforts to obtain external funding to support the transition away from fossil fuel-based pesticides.	Supportive
	NBS-1.9	Plant new drought tolerant trees at County facilities, parks, and in rights-of-way, focusing on areas that are at risk from extreme heat. Secure additional funding to maintain existing trees. Apply to Tree City USA to become a recognized jurisdiction expanding benefits of trees and committing to the four-step framework outlined by the Arbor Day Foundation.	Supportive
	NBS-1.10	Direct County departments to procure food and supplies from local producers and vendors, giving preference to regenerative agriculture and low-carbon foods.	Supportive

The County has many opportunities to enhance and protect its natural and working lands due to it's extensive landscape and effective agency, NGO, and other stakeholder partners. Carbon sequestration quantification and tracking, however, is a relatively newer field of study with extensive science to be done. Therefore, even though carbon sequestration will play large role in meeting state and the County's carbon neutrality goals, communities are beginning to take a conservative approach to carbon sequestration quantification as a starting point while the state develops more specific goals and guidance. Passed in 2022, AB 1757 directs the California Natural Resource Agency to determine carbon sequestration reduction targets by 2024 and develop a methodology to track them by 2025. Once that is completed, the County will integrate those goals and tracking methods within these measures and actions and update them as needed.

Emission reduction calculations associated with Metric NBS-1.a assumes that 3,000 trees will be planted by 2030 due to action NBS-1.9. The carbon sequestration potential for seedlings averaged over 40 years is about 0.058 MT CO_2e per tree per year. Emission reduction calculations are shown below in **Error! Reference source not found.**.

Table 14 GHG Emissions Reductions from Metric NBS-1.a

Calculation Factor	2030
Newly Planted Trees	3,000
Tree Sequestration Factor (MT CO_2e/tree/year)[1]	0.0354
Total GHG Emissions Reductions (MT CO_2e)	**159**

Notes: MT CO_2e = metric tons of carbon dioxide; kWh =-kilowatt-hour

Values may not add up due to rounding

[1] Default annual CO_2e sequestration per tree per year with a maximum lifespan of 20 years per tree is 0.0354 MT CO_2e/tree/year was obtained from CAPCOA. 2010. Quantifying Greenhouse Gas Mitigation Measures.