

Santa Clara County Climate Collaborative

EPA Climate Pollution Reduction Grant (CPRG) Work Group Meeting

July 14, 2025



County of Santa Clara Office of Sustainability

Agenda

- Welcome & Introductions
- CPRG Updates
- CCAP Overview
- Wrap up and Next Steps



Meeting Goals

- Preview the Comprehensive Climate Action Plan (CCAP)



CPRG Updates





CCAP Submitted !

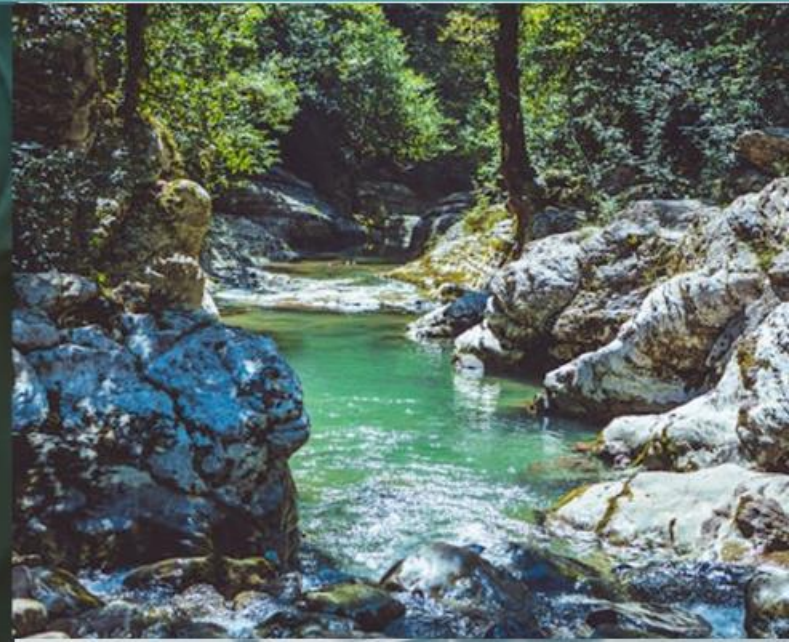


CCAP Timeline 2025

Activity	Tentative Timelines
• Focus groups to provide additional input on the measures specific to each sector	April - May 2025
• Finalize measures and actions to be included in the CCAP	End of May 2025
• Technical analyses	May– July 2025
• Initial draft of CCAP for internal review by SBC and SCC counties	Mid-June 2025
• CCAP submittal to EPA	July 11, 2025
• CPRG WG and public comment and feedback on measures and actions	August/Early September 2025
• Refining of measures and actions based on feedback	Fall 2025
• CCAP submittal to EPA	December 1, 2025

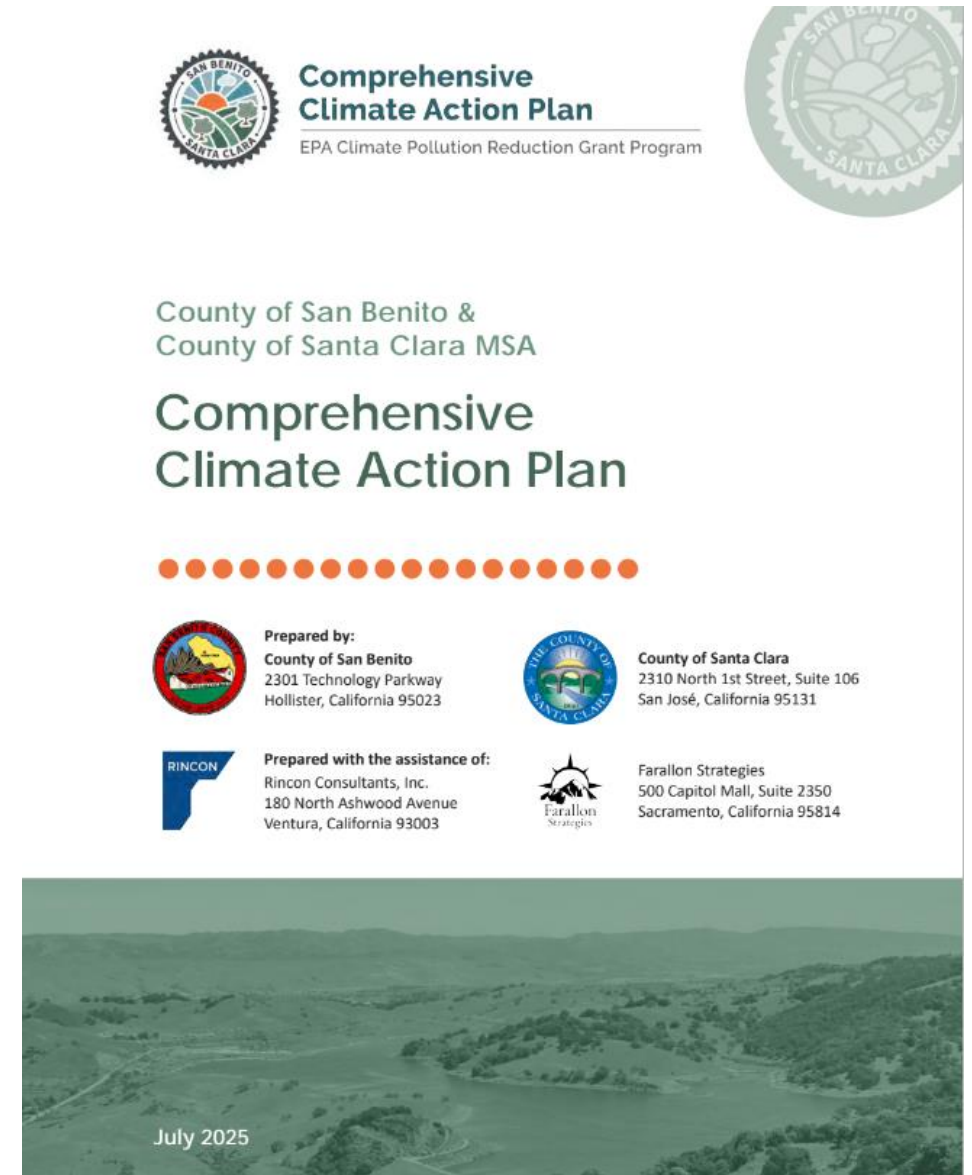


CCAP Preview



CCAP Preview

- CCAP was delivered on July 11
- Major sections include
 - Emissions Inventory
 - Forecasts and Targets
 - Measures and Actions
 - **Including Costs and Funding Analysis**
 - **Natural Working Lands Report**
 - **Community Benefits Analysis**
 - **Workforce Analysis**



CCAP Organization

- Information presented at Measure level
- Measures tie back to emissions reductions required to meet CCAP goals
- Actions aim to function as a “work plan” with steps for implementation

MSA Sector/Strategy/Measure

BE-5: Develop a regional electrification permit streamlining program to align permit processes for water heaters and HVAC across the region

BE-6: Develop a new building electrification ordinance toolkit

Alternative Transportation

Strategy #3: Decrease per capita VMT 7% by 2030 and 8% by 2045

AT-1 Develop a regional network of safe, accessible, clean and equitable multi-modal transportation access points (mobility hubs).

AT-2 Develop Transportation Demand Management (TDM) plan standards for commercial and industrial employers such that 25% of employees are eligible by 2030, and 30% by 2045

AT-3: Collaborate regionally to provide increased opportunities for fast and efficient transit

AT-4: Identify regional bike highway routes and work collaboratively to identify funding and share designs and engagement materials

AT-5: Reduce regional VMT by increasing promotion of mixed-use development in infill priority areas

AT-6: Implement a Transit Signal Priority Program to reduce wait times and idling for public transit

Passenger EV

Strategy #4: Increase Passenger ZEV use to 30% of VMT by 2030 and 100% by 2045

PEV-1 Create a regional multifamily housing charging infrastructure program for the region

PEV-2 Increase the number of EV chargers and adopt consistent EV Charging Permit Streamlining Programs

Commercial EV

Strategy #5: Increase Commercial ZEV use to 35% of VMT by 2030 and 100% by 2045

CEV-1 Create an Agricultural Equipment Decarbonization Program

CEV-2: Increase commercial zero-emission vehicle use and adoption to 35% by 2030 through a regional charging network and development of hydrogen hubs

CEV-3: Develop and implement a Zero Emission Transit and Regional Charger Network

Municipal EV

Strategy #6: Increase Municipal ZEV use to 50% by 2030 and 100% by 2040

MEV-1: Electrify 50% of municipal fleets by 2030 and 100% by 2040

Carbon Sequestration

Strategy #7: Increase Carbon Sequestration

CS-1: Develop a regional tree planting program, supported by regional nurseries and utilizing native and climate smart species.

CS-2: Develop a regional carbon sequestration trading and incentive program tied to organics diversion within the region



Measures and Actions – Summary Tables

- Each Measure included a Summary table with required information
 - Emissions Reductions
 - Geographic Location
 - Funding
 - Metrics
- One of goals for Fall is to identify lead jurisdictions/agencies for measures

Table 32 Measure BE-6 Summary

Develop a new building electrification ordinance toolkit	
GHG Emissions Reductions (2030)	62,568 MT CO ₂ e
GHG Emissions Reductions (2045)	344,092 MT CO ₂ e
Milestones for Obtaining Implementing Authority	Identifying a lead agency and obtaining implementing authority underway and currently under review by the CPRG Work Group
Geographic Location	MSA-wide
Funding Sources	None Identified
Metrics for progress tracking	2030 Metrics <ul style="list-style-type: none">■ 72% all-electric new construction (Residential)■ 83% all-electric new construction (Commercial) 2045 Metrics <ul style="list-style-type: none">■ 72% all-electric new construction (Residential)■ 83% all-electric new construction (Commercial)
Applicable EPA Sector	Electricity Use



Measures and Actions – Costs

- Costing estimated for each measure
- Estimates rely on references of and sources for case studies of similar projects
- Do not necessarily reflect shared costs or incremental costs
- Sample data for costing shown for Measure BE-6 (new building electrification)

The cost for constructing new electrical service is \$0.33 compared to standard minimum construction are then estimated by \$9,771,614, respectively, for 2030 and 2045. The cost for construction will likely be less expensive than conservative. 30

Costs for implementing this measure total \$2.7M (2030) and \$9.8M (2045) based on data in the table

Table 33 Measure BE-6 Cost Inputs

Residential	2022	2030	2045	Unit
Natural Gas Use (2022) ¹	241,358,689			therms
Households (San Benito)	21,121			households
Households (Santa Clara)	713,400			households
MSA NG Use Rate	329			therms/household
New Residential therms Avoided		11,771,337	55,026,110	therms avoided
MSA NG Use Rate		329	329	therms/household
New households electrified		35,823	167,460	households
Cost per household		(\$7,500)	(\$7,500)	dollars
Commercial	2022	2030	2045	Unit
Floor stock ²	2,551,349,000			sq ft
Natural Gas Use	659,200,000			therms
Natural Gas Use Rate	0.258373119			therms/sq ft
New Commercial therms Avoided		2,106,232	9,756,906	therms avoided
Floor Stock electrified		8,151,901	37,762,851	sq ft electrified
Cost per Sq. Ft.		\$0.33	\$0.33	Dollars


Notes:

1. Natural gas use for residential and commercial, and number of households from Appendix A

2. https://www.energy.ca.gov/sites/default/files/2024-02/2022%20CEUS%20Final%20Report_arj.pdf

Measures and Actions – Funding

- Preliminary funding sources identified for July submission
- Investigation of funding will continue for the December submission

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X CLEAR SEARCH TERM(S)

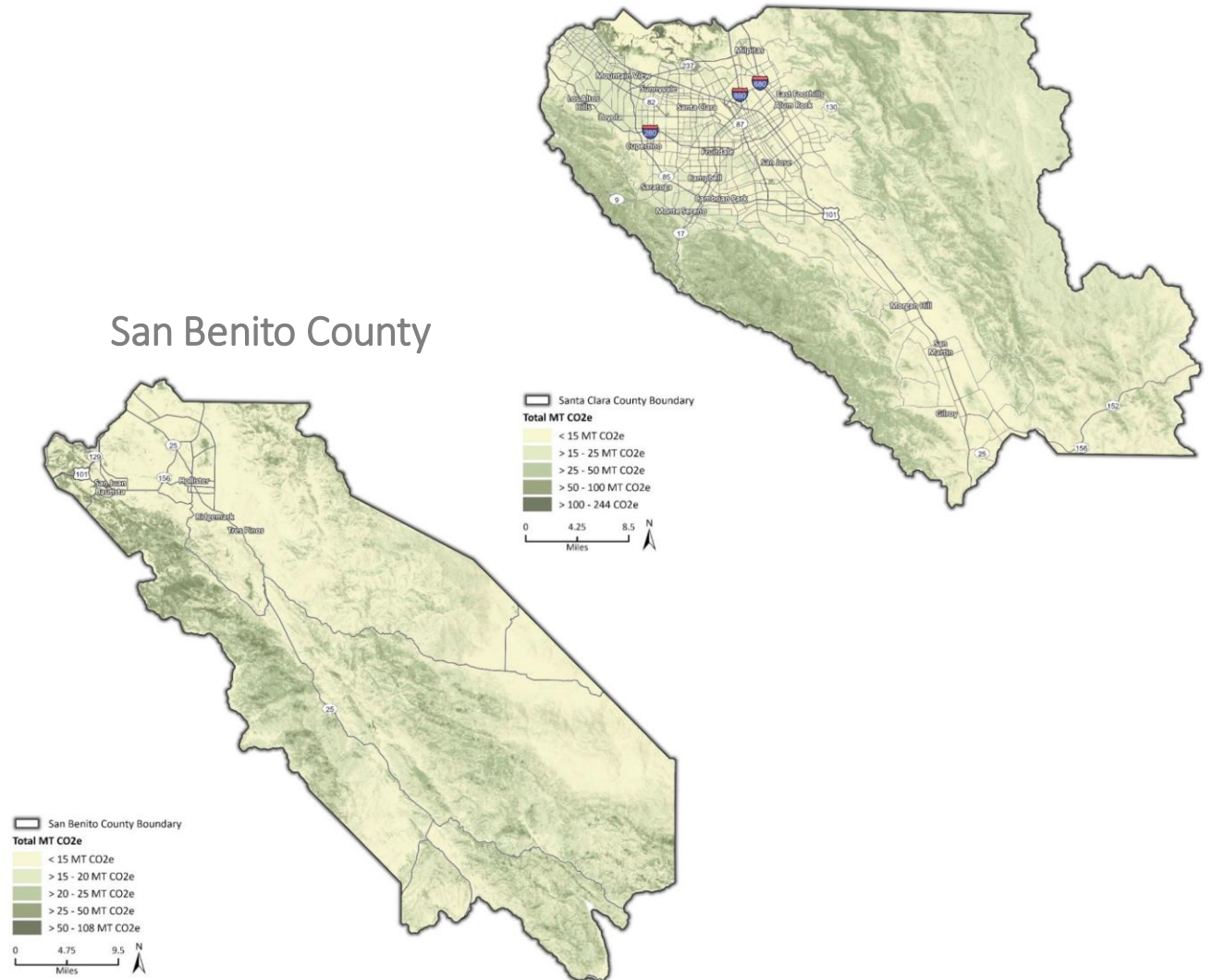
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Deadline	Grant Title	Open Date	State Agency / Department	Match Funding?	Estimated Total Funding	Estimated Low/High	Funds Disbursement
<div>Active</div> <div>7/16/25 17:00</div>	Environmental Enhancement and Mitigation (2025)	May 7, 2025	CA Natural Resources Agency	No	\$8,000,000	\$750,000 - \$1,500,000	Advances & Reimbursement(s)
MORE INFO							
<div>Active</div> <div>7/17/25 11:59</div>	Tire-Derived Aggregate Grant	May 1, 2025	Department of Resources Recycling and	No	\$750,000	\$0 - \$375,000	Reimbursement(s)

Natural and Working Lands Report

Santa Clara County

- Assesses carbon storage and emissions across 1.7 million acres within SCC and SBC
 - Uses 2020 and 2024 data to classify land types like forests, grasslands, and wetlands.
- Follows California's climate planning guidance and was developed in collaboration with county staff.
- Quantifies existing carbon stocks and land-based emissions to enhance carbon sequestration and reduce greenhouse gas emissions.
- Informs carbon sequestration measures



Community Benefits Analysis

- Completed full co-benefits analysis
- These include:
 - Improving air quality (reducing fossil fuel use)
 - Improving public health (reducing fossil fuel use)
 - Lowering VOCs and NOx (solid waste and wastewater)
- Summary table shows annual reductions if all CCAP goals are implemented

Co-Pollutant	2030 Reduction Total (MT)	2045 Reduction Total (MT)
NOx	1,569	6,166
SOx	45	22
PM 2.5	131	242
PM 10	18	93
VOC	58	125
NH3	63	4
Lead	0.03	0.1



Disbenefits and Mitigation Strategies

- Disbenefits assessed for certain sectors
- **Building Energy**
 - Disbenefits: costs for retrofits, grid reliability/upgrades
 - Mitigation: incentive programs, no-cost retrofits for qualifying households, demand planning, retrofit-ready products
- **Electric Vehicles**
 - Disbenefits: costs for charging infrastructure, grid reliability/upgrades
 - Mitigation: community charger access, technical assistance, demand planning
- **Water/Wastewater**
 - Disbenefits: treatment for recycled water if done by fossil fuel-based energy
 - Mitigation: monitoring, engagement/education



Low-Income Community Benefits Analysis

- Completed for all strategies
- Included after guidance and direction change (reworked language)
- Strategies can be implemented in low-income communities for specific benefits

Strategy	Improved Public Health	Job Creation	Improved Climate Resilience	Improved Access to Services	Decreased Energy Costs	Increased Property Value	Improved Water Management
Strategy #1: Clean Electricity	X	X			X		
Strategy #2: Building Electrification	X				X		
Strategy #3: Alternative Transportation	X		X	X			
Strategies #4-6: Increasing Zero-Emission Vehicle (ZEV) Adoption	X	X	X		X		
Strategy #7: Increasing Carbon Sequestration	X	X	X			X	X
Strategy #8: Reducing Solid Waste Emissions	X	X					
Strategy #9: Reducing Water and Wastewater Emissions	X		X				X
Strategy #10: Providing Social and Governance	X	X	X	X			

Workforce Analysis

- Completed workforce analysis for all strategies
- Implementation of strategies leads to
 - Job creation
 - Training programs
- Some positions could be bottlenecks such as
 - Electricians
 - Mechanics
 - Specialized skills such as wastewater treatment engineers, waste engineers



A lack of knowledge within the current workforce



A shortage of employees within the current workforce



Possible retention issues within the current workforce



Recruitment























Partnerships



Training



“High-Road” Jobs

Related Occupation	Workforce Challenges	Workforce Opportunities
Strategy 1: Achieve Carbon-Free Electricity		
Solar Photovoltaic (PV) Installers	 	  
Battery Energy Storage System (BESS) Technicians	  	   
Electrical Engineers (Microgrid Specialization)		 
Electrical Power-Line Workers	 	  



CPRG Work Group

- Implementation of actions and achievement of goals assumes CPRG Work Group continues.
- Social and Governance Strategy #10, and measures and actions outline plan for next steps.

Social and Governance

Strategy #10: Provide Social and Governance support to accomplish CCAP Measures

SG-1: Continue to leverage and expand the CPRG Work Group to work on regional implementation

SG-2: Develop a regional marketing program to share resources and education approaches for decarbonization

SG-3: Develop a workforce training program to equitably grow the number of gainful green jobs in the region



Wrap Up & Next Steps



How BayREN Can Help Achieve Your Sustainability Goals

Review of New and Existing BayREN programs for Santa Clara County!

Learn how can BayREN's energy efficiency, electrification, and decarbonization programs help you serve your communities and meet sustainability and decarbonization goals.

Join County OSR staff, who will review the new BayREN Single Family program (EASE Home) and a new business refrigerant replace (BRR) program, along with BayREN's other Multifamily, Business, and Local Government programs.



August 6, 2025



1:00PM – 2:00PM



Zoom workshop

Register by scanning the code!



Questions, email Elizabeth Harris at Elizabeth.harris@ceo.sccgov.org



Next Steps

- CCAP will be sent to WG members for review in August
- Please join and share the: [SC4 LinkedIn](#) page with your network
- WG Meetings
 - Next CPRG Work Group meeting: September 10. (virtual)
 - To add a colleague, email: sustainability@ceo.sccgov.org

