5

IMPLEMENTATION AND MONITORING

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Introduction

This chapter outlines how the County of San Diego (County) will implement the Climate Action Plan (CAP) and monitor progress towards achieving the 2020 and 2030 greenhouse gas (GHG) emission reduction targets and long-term 2050 goal. Successful implementation of the reduction measures described in Chapter 3 will ultimately determine whether CAP targets are met.

As a result, measures must be regularly assessed and continuously monitored to ensure:

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

Continuous assessment and monitoring of measures will be necessary to ensure the County is on track to meet its targets.

Implementation Strategy

Implementation of the CAP includes a combination of regulations, programs, incentives, outreach, and educational activities. This includes County initiatives such as the Strategic Energy Plan, Comprehensive Renewable Energy Plan (CREP), Multiple Species Conservation Program, Strategic Plan to Reduce Waste, Purchase of Agricultural Conservation Easement Program, and the Local Coastal Program among others. County efforts complement and build on other federal and State efforts. Regular monitoring will allow the County to track the effectiveness of the CAP strategies and measures, update the emissions inventory, and make adjustments to keep on track towards the emissions reduction targets.

The CAP is not a static document, but a living document. The CAP must be regularly updated to reflect and respond to changing technology, federal and State regulations, demographics, and market conditions to be effective.

Implementation Responsibilities

After adoption, the CAP will continue to be maintained by the County Department of Planning & Development Services (PDS). Key staff in PDS, with active participation and assistance from the Sustainability Task Force, will facilitate and oversee implementation, monitoring, and reporting on the progress of each measure. Staff will track

County staff uses building automation technology to track energy consumption and production at the zero-net energy Alpine Library.

progress against the expected quantified outcome of each GHG reduction measure. Departments responsible for monitoring of each specific measure are shown in Table 5.1.

The Sustainability Task Force, formerly the Internal Working Group, is comprised of representatives from 11 County departments. The Internal Working Group collected data for the GHG emissions baseline inventory and projections, reviewed CAP best practices, defined the GHG reduction measures, and assisted in the overall development of the CAP. The Internal Working Group was transitioned to a Sustainability Task Force by the San Diego County Board of Supervisors (Board) in February 2017 to continue collaboration in implementing the CAP and other sustainability efforts. The goal of the Sustainability Task Force is to implement and monitor the CAP and other sustainability, energy efficiency, and renewable energy plans, policies, and programs.

In addition, the Sustainability Task Force will serve the following functions:

- Implement the CREP Phase One Report Board of Supervisors approved actions:
    - Track community solar and wind initiatives in the county;
    - Research how to increase renewable energy generation, transmission, use, and storage in the county;
    - Develop strategies to address barriers to alternative fuel deployment;
    - Promote vetted renewable energy finance mechanisms, such as Property Assessed Clean Energy Programs, bonds, peer-to-peer lending or crowdfunding;
    - Develop and implement a renewable energy education and outreach strategy; and
    - Develop and implement a strategy to support renewable energy legislation that benefits the county.
- Provide a consolidated resource for the public to learn about the County's sustainability-related efforts including: projects, policies, plans, and programs; finance mechanisms; and training and workforce development opportunities.

Implementation Methods

The County will implement strategies and measures of the CAP through several types of programs and activities that can be grouped into the following categories:

Code Updates: Several of the measures in the CAP are implemented through new or amended regulations as part of County Code updates. The County, for example, will need to incorporate the California Green Building Standards Code Tier 1 into the County Code, along with requiring that new or replacement residential water heating systems be alternatively-fueled and/or electrically powered.

Financing and Incentives: Identifying mechanisms for funding and allocating resources, such as developing incentive programs to ensure that the CAP is successfully implemented.

Program Research and Development: Several supporting efforts are programmatic in nature and will require additional research and development for proper implementation to occur (e.g., developing programs to promote locally grown and raised food). These programs may require future partnerships and financing mechanisms to be in place down the road, but most immediately, County staff will need to integrate program research and development into the context of existing workloads and programs whenever possible.

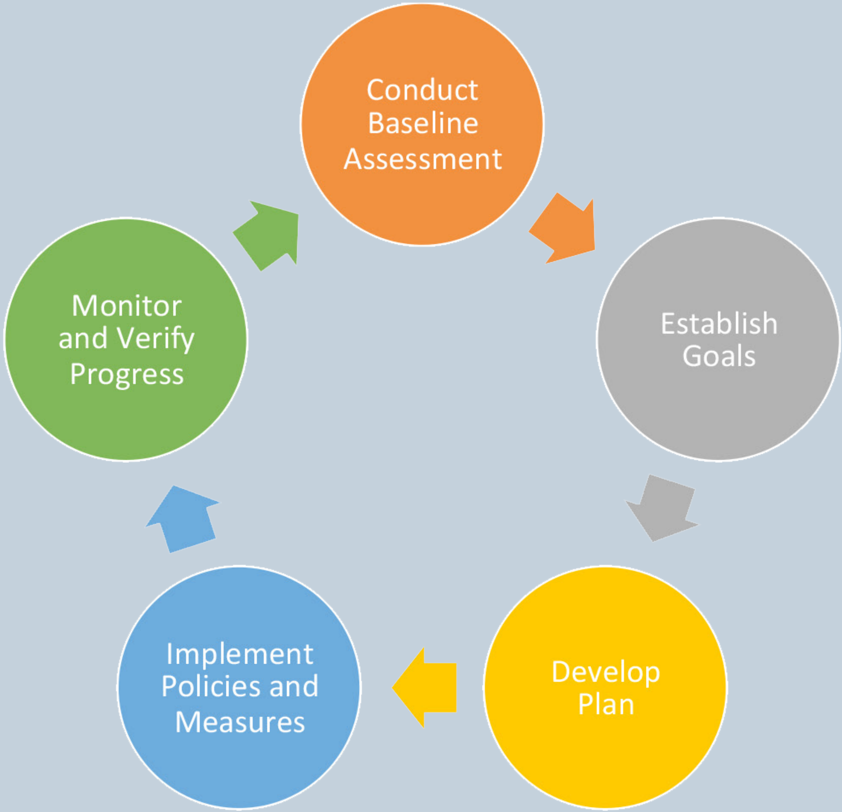
Partnerships: Inter-agency coordination and partnerships with other organizations is critical to ensuring implementation of certain measures.

Education and Outreach: Educational efforts about the objectives of the CAP will create support for the CAP and involve the community in its implementation.

Measure descriptions in the monitoring program (Table 5.1) specify the mechanisms that will be used to implement individual measures.

Implementation Funding Sources

The County will leverage financing sources by monitoring funding opportunities and financing mechanisms to successfully implement CAP measures. Ongoing resource management will be required to maximize efficiency. Program incentives and funding sources will change over time; therefore, the County will stay up-to-date on available resources as GHG reduction measures are implemented. Potential funding sources to support GHG reduction measures are listed in Table 5.2 at the end of the chapter. Funding sources are classified into various categories based on their origin. The applicability of each funding category to individual GHG reduction measures is shown in the monitoring program in Table 5.1.



The CAP is a dynamic document that will be continuously assessed and monitored.

Monitoring and Updates

The CAP presents a broad-based strategy to significantly reduce GHG emissions and improve the sustainability and resilience of the county. However, the CAP will need to be updated and maintained if it is to remain relevant and effective (Figure 5.1). Thus, County staff will need to evaluate and monitor plan performance over time and make recommendations to alter or amend the plan if it is not achieving the proposed reduction targets. This will include conducting periodic GHG emissions inventory updates and analyzing measure performance.

The CAP is a dynamic document that will be continuously assessed and monitored. Regular monitoring and performance measuring of CAP activities will allow the County to make timely adjustments to existing measures; replace ineffective or obsolete actions; or add new measures as technology, federal and State programs, and circumstances change. Adjustments will be made to the CAP if measures fall short of the targets or additional measures become available. As new data and resources, future federal and State legislation and regulations, improvements in energy efficiency and technology, new regional plans, updates to building standards or new GHG emission calculation standards become available, the County may amend the CAP to provide additional flexibility or clarity. The County recognizes that flexibility in implementation is necessary to allow the County to evolve its strategies to achieve the most effective CAP.

Over time, new technology will become available and new federal and State laws will influence how GHG emissions are reduced. The County will need to be flexible to ensure the CAP remains effective and relevant.

Five-year CAP updates will allow the County to add or adjust measures to stay on course.

CAP Annual Monitoring Report

The County will conduct annual monitoring beginning in 2019, which will be one year after the anticipated approval of the CAP, to track progress and identify where further efforts and additional resources may be needed. Monitoring reports will be published annually beginning in year 2019, which will include the status of measure implementation using monitoring metrics and the progress in meeting the reduction targets. The County will conduct ongoing public outreach during CAP implementation through the Sustainability Task Force.

Proper implementation and tracking of CAP performance allows County staff, the Sustainability Task Force, Board, and the public to monitor the progress and effectiveness of each measure in the CAP.

GHG Emissions Inventory Updates

While based on extensive research and analysis, the County's GHG inventory represents a snapshot in time. As technologies and markets change and the County implements the measures in the CAP, new inventories will be prepared to track progress. As a result, the GHG inventory will be updated regularly using current data and assumptions. Under its Regional Framework schedule, the San Diego Association of Governments (SANDAG) will be updating GHG emissions inventories every two years beginning with the year 2016.

To remain consistent with SANDAG's Regional Framework schedule, the County will coordinate updates to the County's GHG inventory every two years beginning with the year 2018, after CAP adoption. The inventory results will be published in 2020 for the 2018 GHG Inventory. The GHG inventory updates will provide information about emission reductions over time, in comparison to the 2014 inventory and 2020, 2030 and 2050 emissions projections identified in this CAP.

CAP Updates

Based on findings from the annual monitoring reports and inventory updates, the County will prepare a CAP update every five years beginning in 2025 (i.e., the first CAP update to be presented to the Board of Supervisors by year 2025). The CAP update will coincide with the County's Strategic Plan, General Management System, and Capital Improvement Program five-year review cycles. The CAP update will include updated inventories, adjustments to reduction measures, as necessary, and any changes to land use projections to achieve consistency with zoning and current General Plan land use designations and policies. Future updates to the CAP will comply with CEQA Guidelines, including Sections 15162, 15163 or 15164.

A number of measures in the CAP rely on adoption of amendments to the County Code and/or Zoning Ordinance. Individual Code and Ordinance updates will be presented to the Board by County staff and their implementation will be dependent upon Board approval. If a particular measure is not adopted by the Board, the County will adjust the amount of reductions needed from Measure T-4.1 related to direct investments in local carbon emission reduction projects or consider additional reduction measures to achieve an equivalent amount of reductions specified for the proposed Code or Ordinances update.

The County will evaluate measure performance through the CAP Annual Monitoring Report. If a particular measure is not performing as expected, adjustments will be made during the next CAP update to compensate for any reduction shortfall. The next CAP update in 2025 will be an opportunity for the County to evaluate progress and course correct to meet the 2030 GHG reduction target.

2018	**CAP Adopted** Board adopts CAP and staff begins to implement CAP measures.
2018-2020	**Initial Set-up** Staff performs initial start-up tasks and implementation of data tracking.
2019	**Annual CAP Monitoring Report** Staff prepares and publishes an annual monitoring report, assessing the CAP's annual performance in achieving targeted goals.
2020	**GHG Emissions Baseline Inventory Update** Staff conducts an update to the emissions inventory every two years starting with the year 2018, consistent with SANDAG's Regional Framework timeline.
2025	**CAP Update** Based on findings from the annual monitoring reports and inventory updates, staff prepares a CAP update every five years. Beginning in 2025 the CAP update is conducted in coordination with the County's Strategic Plan, General Management System, and Capital Improvement Program five-year review cycles.

Figure 5.1 CAP Monitoring and Update Schedule

CEQA Tiering/Streamlining

Implementation of the CAP will require that new development projects attain higher levels of energy efficiency and incorporate more sustainable design standards. New development projects that are consistent with the land use projections and GHG reduction measures in the CAP are eligible for California Environmental Quality Act (CEQA) streamlining, per the provisions of CEQA Guidelines Section 15183.5. General Plan Amendment projects that propose increased densities/intensities beyond that allowed by the General Plan will not be able to use the CAP streamlining provision.

The "qualified" County CAP will allow project-specific environmental documents, if eligible, to tier from and/or incorporate by reference the CAP's programmatic review of GHG impacts in their cumulative impact analysis. The CAP meets the requirements under Section 15183.5 of the CEQA Guidelines as a qualified plan for the reduction of GHG emissions for use in cumulative impact analysis pertaining to development projects. Details on how projects can demonstrate consistency with the CAP are provided in a separate *Guidelines for Determining Significance for Climate Change* document (Guidelines).

The Guidelines will be used as part of the environmental review process to evaluate GHG emissions from individual discretionary projects.

The Guidelines incorporate the following "threshold of significance":

A proposed project would have a less than significant cumulatively considerable contribution to climate change impacts if it is found to be consistent with the County's Climate Action Plan; and, would normally have a cumulatively considerable contribution to climate change impacts if it is found to be inconsistent with the County's Climate Action Plan.

If a project can show consistency with the land use projections and applicable GHG reduction measures in the CAP, the level of environmental review for the project required under CEQA with respect to GHG emissions can be streamlined.

Upon adoption, this will constitute the threshold of significance for general use as part of the County's environmental review process. Consistency with the CAP is determined through the *CAP Consistency Review Checklist* (Checklist), which is provided as Appendix A to the Guidelines. The Checklist, in conjunction with the CAP, provides a streamlined CEQA review process for proposed discretionary development projects.

The Checklist is the mechanism that is used to demonstrate consistency with the CAP and contains GHG reduction measures applicable to development projects that are required to be implemented on a project-by-project basis to ensure that the specified emission targets identified in the CAP are achieved. New development projects will need to incorporate all applicable CAP measures and supporting efforts to demonstrate consistency with the CAP. These measures will be enforced as conditions of approval for ensuring that compliance be confirmed before the project can be implemented.

This CAP has been prepared to be consistent with CEQA Guidelines Section 15183.5 and includes the following components:

- A quantified inventory of GHG emissions, both existing and projected over buildout of the General Plan, resulting from development within the unincorporated county (Chapter 2: Baseline Inventory section);
- A level of emissions, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the General Plan would not be cumulatively considerable (Chapter 2: Reduction Targets section);
- Identification and analysis of GHG emissions anticipated because of development pursuant to the General Plan, as amended (Chapter 2: Emissions Projections section);
- Specific measures or a group of measures, including all feasible GHG reduction actions and performance standards, that will be implemented on a project-by-project basis in the county (Chapter 3: Detailed Strategies, Measures, and Supporting Efforts section);
- An analysis of whether the identified feasible measures would collectively achieve the specified emissions level and reduction targets (Chapter 3: Table 3.1 GHG Reductions by Category from Proposed Reduction Strategies and Measures and Appendix C);
- A mechanism to monitor the CAP's progress toward achieving the level and to require amendment if the CAP is not achieving specified levels (Chapter 5: Monitoring and Updates); and
- Adoption in a public process following environmental review.

The County has prepared a Supplemental Environmental Impact Report (SEIR) to assess the environmental effects

The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5 as well as with CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b). A project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

of the CAP and to meet the requirements of preparing a qualified CAP for CEQA streamlining.

Use of the streamlining provisions of the CAP is anticipated to significantly reduce the level of effort in assessing GHG emissions from new development on a project-by-project basis. The CAP provides a programmatic analysis of GHG emissions in the unincorporated areas and establishes a comprehensive set of strategies and measures the County can use to reduce GHG emissions, both from new development and existing land uses. All CAP measures applicable to new development are included in the Checklist. Individual projects would be required to use the Checklist to demonstrate consistency with these measures.

CEQA Guidelines Section 15183.5 requires that an environmental document that relies on a qualified CAP for a cumulative impacts analysis must identify those requirements specified in the CAP that apply to the project and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. The Checklist will serve to specify the requirements for individual projects and will be conditioned to ensure incorporation and implementation of CAP measures. Therefore, the Guidelines and Checklist will ensure that reductions are achieved on a project-by- project basis.

TABLE 5.1 CAP Monitoring Program

Measure Number	Measure Title & Action(s)	Outcome(s)	Enforcement	Responsibility		Implementation Time Frame	Relative Cost	Potential Funding Source						
				Lead	Support			County	Utilities	GHGRF	State/ MPO	Federal	Private	Loans
Built Environment and Transportation Category														
T-1.1	Acquire Open Space Conservation Land													
	• Implement the South County MSCP and future additional conservation efforts	Program implementation	County Initiative	DPR	PDS	Ongoing	Low	X			X	X		
	• Acquire 2,622 acres of open space conservation lands	2,622 acres of open space conservation lands acquired (equates to offsetting 184 dwelling units)	County Initiative	DPR		2015-2020	Medium	X			X	X		
	• Acquire 437 acres of open space conservation lands per year	4,370 acres of open space conservation lands acquired (equates to offsetting 307 dwelling units)	County Initiative	DPR		2021-2030	Medium	X			X	X		
T-1.2	Acquire Agricultural Easements													
	• Expand the eligibility criteria for the PACE Program	Program expansion	County Initiative	PDS		2020	Low	X						
	• Acquire 443 acres of agricultural easements	443 acres of agricultural easements acquired (equates to offsetting 18 dwelling units)	County Initiative	PDS	DGS	2020	Medium	X						
	• Acquire 443 acres of agricultural easements per year	4,430 acres of agricultural easements acquired (equates to offsetting 180 dwelling units)	County Initiative	PDS	DGS	2021-2030	Medium	X						
T-1.3	Update Community Plans													
	• Update 10 community plans that include villages	10 community plan updates completed	County Initiative	PDS		2030	Medium	X						
	• Update 9 community plans that include villages	9 community plan updates completed	County Initiative	PDS		2031-2040	Medium	X						
T-2.1	Improve Roadway Segments as Multi-modal													
	• Improve 700 centerline miles of roadway segments, including 250 intersections and 210 lane miles of bikeway improvements	700 centerline miles improved, including 250 intersections and 210 lane miles of bikeways	County Initiative	DPW		2030	High	X			X	X		
	• Improve 500 centerline miles of roadway segments, including 250 intersections and 210 lane miles of bikeway improvements	500 centerline miles improved, including 250 intersections and 210 lane miles of bikeways	County Initiative	DPW		2031-2050	High	X			X	X		
T-2.2	Reduce New Non-residential Development Vehicle Miles Traveled													
	• Amend the San Diego County Code of Regulatory Ordinances to include a Transportation Demand Management (TDM) Ordinance	New non-residential commute VMT reduced by 15% by 2030	Requirement	PDS		2020	Low	X					X	
T-2.3	Reduce County Employee Vehicle Miles Traveled													
	• Conduct additional outreach to increase participation in the County's vanpool, carpool, and transit pass subsidy programs, and the GWOW Program	County employee commute VMT reduced by 20% below 2014 levels	County Initiative	DHR	DGS	2030	Medium	X			X			
T-2.4	Shared and Reduced Parking in New Non-residential Development													
	• Amend the San Diego County Zoning Ordinance	New non-residential commute VMT reduced by 10% by 2030	Requirement	PDS		2020	Low	X					X	
T-3.1	Use Alternative Fuels in New Residential and Non-residential Construction Projects													
	• Amend Title 8 of the San Diego County Code of Regulatory Ordinances	25% of construction equipment in-use during new residential and non-residential construction in the unincorporated county utilize alternative fuels by 2030	Requirement	PDS		2020	Low	X					X	

Measure Number	Measure Title & Action(s)	Outcome(s)	Enforcement	Responsibility		Implementation Time Frame	Relative Cost	Potential Funding Source						
				Lead	Support			County	Utilities	GHGRF	State/ MPO	Federal	Private	Loans
T-3.2	Use Alternative Fuels in County Projects													
	• Implement the 2016 Green Fleet Action Plan Implementation Strategy	Plan implementation	County Initiative	DGS		2020	Low	X						
T-3.3	Develop a Local Vehicle Retirement Program													
	• Develop a local vehicle retirement program	Program development	Incentive	SDAPCD		2020	Low	X			X	X	X	
	• Retire 1,600 late-model vehicles (model year 1996 or older)	1,600 late-model vehicles (model year 1996 or older) retired	Incentive	SDAPCD		2030	Medium	X			X	X	X	
T-3.4	Reduce the County's Fleet Emissions													
	• Implement the County's Strategic Energy Plan and the Green Fleet Action Plan Implementation Strategy	County fleet GHG emissions reduced by 10%	County Initiative	DGS		2015-2020	Medium	X						
	• Update the County's Strategic Energy Plan and the Green Fleet Action Plan Implementation Strategy	County fleet GHG emissions reduced by 20% by 2030	County Initiative	DGS		2020	Low	X						
T-3.5	Install Electric Vehicle Charging Stations													
	• Develop a program to install electric vehicle charging stations (EVCS) in priority areas and establish a pilot project to install 100 Level 2 charging stations	Program development	County Initiative	DGS		2020-2025	Low	X	X	X	X			X
	• Install 1,940 Level 2 charging stations	1,940 Level 2 electric vehicle charging stations installed in the unincorporated county	County Initiative	DGS		2025-2030	Medium	X	X	X	X			X
T-4.1	Establish a Local Direct Investment Program													
	• Establish a local direct investment program	Program development	County Initiative	SDAPCD		2020	Low	X						
	• Fund, implement, register, and verify direct investment projects	175,460 $MTCO_2e$ in carbon credits verified and retired	County Initiative	SDAPCD	PDS	2021-2030	High	X						
Energy Category														
E-1.1	Improve Building Energy Efficiency in New Development													
	• Amend Title 9 of the San Diego County Code of Regulatory Ordinances (County Construction Codes) to achieve a 10% greater building energy efficiency in all new non-residential development than required by the 2016 State Energy Code (Title 24 Part 6)	All new non-residential development achieves 10% greater building energy efficiency than required by the 2016 State Energy Code (Title 24 part 6)	Requirement	PDS		2020	Low	X					X	
	• Amend the County Construction Codes to require all new residential development to meet the State's Zero Net Energy (ZNE) standards	All new residential development meets the State's ZNE standards	Requirement	PDS		2020	Low	X					X	
	• Amend the County Construction Codes to require all new non-residential development to meet the State's ZNE standards	All new non-residential development meets the State's ZNE standards	Requirement	PDS		2030	Low	X					X	
E-1.2	Use Alternatively-powered Water Heaters in Residential Development													
	• Amend Title 9 of the San Diego County Code of Regulatory Ordinances (County Construction Codes)	All new and replacement water heaters in residential development are solar, electric or tankless gas	Requirement	PDS		2020	Low	X					X	

Measure Number	Measure Title & Action(s)	Outcome(s)	Enforcement	Responsibility		Implementation Time Frame	Relative Cost	Potential Funding Source						
				Lead	Support			County	Utilities	GHGRF	State/ MPO	Federal	Private	Loans
	Improve Building Energy Efficiency in Existing Development													
E-1.3	• Amend Title 9 of the San Diego County Code of Regulatory Ordinances (County Construction Codes) to require an energy efficient audit prior to building permit issuance for remodels/renovations	1% of the existing building stock in the unincorporated county has implemented the energy efficiency improvements recommended by an energy efficiency audit by 2030 or facilitated by Property Assessed Clean Energy programs by 2030	Requirement	PDS		2020	Low	X					X	
E-1.3	• Continue the County's participation in Property Assessed Clean Energy programs	1% of the existing building stock in the unincorporated county has implemented the energy efficiency improvements recommended by an energy efficiency audit or facilitated by Property Assessed Clean Energy programs by 2030	Requirement	PDS		2020	Low	X					X	
	Reduce Energy Use Intensity at County Facilities													
E-1.4	• Implement the County's Strategic Energy Plan (SEP) to achieve a 10% reduction in energy use intensity at County facilities below 2014 levels	Energy use intensity at County facilities is reduced by 10% below 2014 levels	County Initiative	DGS		2020	Medium	X	X		X			
E-1.4	• Update the County's SEP to incorporate a 15% reduction in energy use intensity at County facilities below 2014 levels	Energy use intensity at County facilities is reduced by 15% below 2014 levels by 2030	County Initiative	DGS		2020	Low	X	X		X			
	Increase Renewable Electricity													
E-2.1	• Establish a Renewable Energy Program	Electricity from renewable sources accounts for 90% of the unincorporated county's electricity consumption by 2030	County Initiative	DGS	PDS	2025	High	X	X				X	X
	Increase Renewable Electricity in Non-residential Development													
E-2.2	• Amend Title 9 of the San Diego County Code of Regulatory Ordinances (County Construction Codes) and the County's Zoning Ordinance	Renewable electricity systems (e.g., solar photovoltaics, wind) installed on all new non-residential development, offsetting 100% of the electricity consumed	Requirement	PDS		2020	Low	X	X		X	X	X	
	Install Solar Photovoltaics in Existing Homes													
E-2.3	• Continue the online solar PV permitting, County innovation initiatives, and the Solar and EV Ready Ordinance	52,273 existing homes with PV electrical systems	Incentive	PDS		2020	Low	X	X		X	X	X	
E-2.3	• Continue the online solar PV permitting, County innovation initiatives, and the Solar and EV Ready Ordinance	77,902 existing homes with PV electrical systems	Incentive	PDS		2021-2030	Low	X	X		X	X	X	
	Increase Use of On-Site Renewable Electricity Generation for County Operations													
E-2.4	• Develop County renewable electricity projects through Power Purchase Agreements and other funding mechanisms that would fund development of on-site renewable electricity systems	10% of the County's operational electricity generated with on-site renewables	County Initiative	DGS		2020	Medium	X	X					
E-2.4	• Develop County renewable electricity projects through Power Purchase Agreements and other funding mechanisms that would fund development of on-site renewable electricity systems	20% of the County's operational electricity generated with on-site renewables	County Initiative	DGS		2030	Medium	X	X					

Measure Number	Measure Title & Action(s)	Outcome(s)	Enforcement	Responsibility		Implementation Time Frame	Relative Cost	Potential Funding Source						
				Lead	Support			County	Utilities	GHGRF	State/ MPO	Federal	Private	Loans
Solid Waste Category														
SW-1.1	Increase Solid Waste Diversion													
	• Implement the County's Strategic Plan to Reduce Waste and increase solid waste diversion	75% of the unincorporated county's solid waste is diverted from landfills	County Initiative	DPW	DGS, PDS, DEH & DPC	2030	High	X			X	X	X	
Water and Wastewater Category														
W-1.1	Increase Water Efficiency in New Residential Development													
	• Amend Title 9 of the San Diego County Code of Regulatory Ordinances (County Construction Codes)	Water-efficient appliances and plumbing fixtures installed in all new residential development pursuant to Tier 1 of the California Green Building Standards Code (CALGreen)	Requirement	PDS		2020	Low	X					X	
W-1.2	Reduce Outdoor Water Use													
	• Amend Title 8 of the San Diego County Code of Regulatory Ordinances (Water Conservation in Landscaping)	40% reduction from 2014 outdoor water use budgets for landscaping in new and existing residential and non-residential development	Requirement	PDS		2020	Low	X					X	
W-1.3	Reduce Potable Water Consumption at County Facilities													
	• Implement the County's Strategic Energy Plan (SEP)	15% reduction in potable water consumption at County facilities below 2014 levels	County Initiative	DGS		2020	Medium	X	X					
	• Implement the County's Strategic Energy Plan (SEP)	20% reduction in potable water consumption at County facilities below 2014 levels	County Initiative	DGS		2030	Medium	X	X					
W-2.1	Increase Rain Barrel Installations													
	• Increase participation in the Metropolitan Water District of Southern California's rain barrel rebate program through outreach, education, and marketing	1,200 rain barrels installed	Incentive	DPW		2020	Low		X				X	
	• Increase participation in the Metropolitan Water District of Southern California's rain barrel rebate program through outreach, education, and marketing	2,000 rain barrels installed	Incentive	DPW		2021-2030	Low		X				X	
Agriculture and Conservation Category														
A-1.1	Convert Farm Equipment to Electric													
	• Convert farm equipment to electric through San Diego County Air Pollution Control District financial incentives	8% of farm equipment converted to electric	Incentive	SDAPCD		2030	Medium	X			X			
A-1.2	Convert Stationary Irrigation Pumps to Electric													
	• Convert stationary petroleum-diesel or gas-powered irrigation pumps to electric through San Diego County Air Pollution Control District financial incentives	Four stationary irrigation pumps converted to electric	Incentive	SDAPCD		2020	Medium	X			X			
	• Convert stationary petroleum-diesel or gas-powered irrigation pumps to electric through San Diego County Air Pollution Control District financial incentives	40 stationary irrigation pumps converted to electric	Incentive	SDAPCD		2021-2030	Medium	X			X			
A-2.1	Increase Residential Tree Planting													
	• Amend Title 8 of the San Diego County Code of Regulatory Ordinances (Water Conservation in Landscaping Ordinance)	35,146 trees planted through new residential development	Requirement	PDS		2030	Low	X					X	
	• Amend Title 8 of the San Diego County Code of Regulatory Ordinances (Water Conservation in Landscaping Ordinance)	28,202 trees planted through new residential development	Requirement	PDS		2031-2050	Low	X					X	

Measure Number	Measure Title & Action(s)	Outcome(s)	Enforcement	Responsibility		Implementation Time Frame	Relative Cost	Potential Funding Source						
				Lead	Support			County	Utilities	GHGRF	State/ MPO	Federal	Private	Loans
A-2.2	Increase County Tree Planting													
	• Plant 3,500 trees annually	49,000 trees planted in the unincorporated county	County Initiative	DPR		2017-2030	Medium	X						
	• Plant 3,500 trees annually	70,000 trees planted in the unincorporated county	County Initiative	DPR		2031-2050	Medium	X						
	• Implement Tree Planting Program	Program implementation	County Initiative	DPR	PDS	2020	Low	X						
	• Conduct a Tree Canopy Assessment	Plan implementation	County Initiative	DPR	PDS	2025	Low	X						

NOTE
This document is a quick reference to track the Climate Action Plan (CAP) greenhouse gas reduction measures, their outcomes, enforcement, responsible party, implementation time frames, relative cost, and possible funding sources, and should not be confused with the separate mitigation and monitoring reporting program (MMRP) adopted as part of the CAP Final Supplemental Environmental Impact Report (EIR) required by CEQA. This CAP Monitoring Program is intended to ensure that all CAP greenhouse gas reduction measures are effective and enforceable, and that the responsible party will undertake their implementation. The CAP Final Supplemental EIR MMRP will set forth the measures required to mitigate the significant impacts from implementation of the GHG reduction measures in the CAP.

Enforcement
County Initiative = Actions for which the County is responsible for measure funding, development, and implementing.
Requirement = Actions required by the Board of Supervisors through codes, ordinances, policies or other mechanisms to ensure measure implementation.
Incentive = Actions implemented by participating in incentive-based activities or programs for which the County or other entities will provide a funding mechanism for measure implementation.

Responsibility (County departments responsible for measure implementation)
DEH = Department of Environmental Health
DGS = Department of General Services
DHR = Department of Human Resources
DPC = Department of Purchasing and Contracting
DPR = Department of Parks and Recreation
DPW = Department of Public Works
PDS = Department of Planning & Development Services
SDAPCD = San Diego County Air Pollution Control District

Acronyms
CEQA = California Environmental Quality Act
EV = Electrical Vehicle
GWOW = Government Without Walls
GHG = Greenhouse Gas
GHGRF = Greenhouse Gas Reduction Fund
MPO = Metropolitan Planning Organization
MSCP = Multiple Species Conservation Program
PACE = Purchase of Agriculture Conservation Easement
PV = Photovoltaic
SEP = Strategic Energy Plan
TDM = Transportation Demand Management
VMT = Vehicle Miles Traveled
ZNE = Zero Net Energy

TABLE 5.2 Potential Funding Sources to Support Greenhouse Gas Reduction Measures

Funding Category	Funding Source or Program	Description
County Funds	General Fund	Provides funding for the County's primary operating accounts except those required to be accounted for in another fund.
	Special Revenue Funds	Provides legally restricted funding for specified purposes (other than for major capital projects) (e.g., roads, library, asset forfeiture, and Proposition 172 funds).
	Capital Project Funds	Provides funding for the acquisition or construction of major capital facilities (other than those financed by proprietary funds and trust funds).
	New Development Impact Fees	Provides funding for proposed programs and projects that offset new development impacts or provide additional services to new development.
Utility Funds	Go Solar Initiative (San Diego Gas & Electric)	Provides a variety of rebates for existing and new homes for projects such as solar photovoltaics, lighting, refrigeration, heating and ventilation, thermal technologies, and solar hot water projects. Single-family homes, commercial development, and affordable housing are eligible. Offers on-Bill Financing (OBF), a no-interest loan that is paid back through the monthly utility bill. SDG&E is one of the utilities participating in the Go Solar initiative.
	Community Choice Energy (CCE) Revenue	If implemented by a local public partnership or through the County, a local CCE program would generate revenue that may be used to fund or incentivize GHG reduction measures.
	Local Government Partnership	Administers funding to promote energy efficiency, demand response and conservation programs, services and resources, and outreach to communities through a partnership between the County and SDG&E.
	On-Bill Financing	Provides 0% interest loans to qualifying businesses for energy-efficient business improvements, with payments added directly to the monthly SDG&E bill.
	Business Rebates and Incentive Programs	Provides rebates and cash incentives for energy-efficient business improvements.

Funding Category	Funding Source or Program	Description
State GHG Reduction Funds	Affordable Housing and Sustainable Communities (AHSC) Program	Distributes California Greenhouse Gas Reduction Fund (GGRF) funds to disadvantaged communities. Eligible projects include providing affordable housing, transit-oriented development (TOD), transit, complete streets, and active transportation projects that reduce GHG emissions and vehicle miles traveled.
	Sustainable Agricultural Lands Conservation (SALC) Program	Provides funding to protect at-risk agricultural lands from conversion to more GHG-intensive land uses, such as urban or rural residential development. This program intends to promote growth within jurisdictions, ensure open space remains available, and support a healthy agricultural economy and resulting food security.
	California Community Services and Development (CSD) Department	Provides funding for energy efficiency and renewable energy projects for single- and multi-family low-income housing units with disadvantaged communities.
	California Department of Food and Agriculture (CDFA) Dairy Digester Research and Development Program (DDRDP)	Provides financial assistance for the installation of dairy digesters in California, which will reduce GHG emissions.
	CDFA's State Water Efficiency and Enhancement Program	Provides grants to implement irrigation systems that reduce GHGs and save water on California agricultural operations.
	California Department of Resources Recycling and Recovery (CalRecycle) GHG reduction Grant and Loan Program	Provides financial incentives for capital investments to composting/digestion infrastructure and recycling manufacturing facilities that will result in reduced GHG emissions.
	California Natural Resources Agency (CNRA) Urban Greening Grant Program	Funds projects that reduce GHGs by sequestering carbon, decreasing energy consumption and reducing vehicle miles traveled, while establishing and enhancing parks and open space, using natural solutions to improve air and water quality and reducing energy consumption, and creating more walkable and bike-able trails.

Funding Category	Funding Source or Program	Description
Other State and MPO Funds	California Air Resources Board (CARB) Programs	CARB offers several grants, incentives, and credit programs to reduce on-road and off-road transportation emissions. Residents, businesses, and fleet operators can receive funds or incentives depending on the program. The following programs can be used to fund local measures: • Air Quality Improvement Program (Assembly Bill [AB] 118) • Loan Incentives Program • California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project • Clean Vehicle Rebate Project • Low Carbon Transportation Program
	California Department of Transportation (Caltrans) Programs	Caltrans offers several programs and grants supporting sustainable transportation initiative, including: • Low Carbon Transit Operations • Active Transportation Program • Active Transportation Grant Program • Transit and Intercity Rail Capital Program • Strategic Partnership Grants • Sustainable Transportation Planning Grant
	San Diego Association of Governments (SANDAG) Programs	SANDAG offers programs and grants supporting sustainable transportation initiative, including: • Smart Growth Incentive Program • TransNet Smart Growth Incentive and Active Transportation Grant Programs

Funding Category	Funding Source or Program	Description
Other State and MPO Funds	California Energy Commission (CEC) and California Public Utilities Commission (CPUC) Programs	CEC and CPUC offer a variety of programs and grants, including: • Multi-Family Affordable Housing Solar Roofs Program (CPUC) • Local Government Challenge Program (CEC) ○ Retrofits California's existing residential, commercial, and public buildings to become high-performing and energy-efficient • Electric Program Investment Challenge (EPIC) Program. (CPUC) (Funds clean energy research, demonstration and deployment projects that support energy policy goals and promote greater electricity reliability, lower costs, and increased safety.) • Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP) (CEC) (Funds gaps in the energy innovation pipeline for the development and deployment of alternative and renewable fuels and advanced transportation technologies.) • Energy Upgrade California Program. (CEC and CPUC, administered by utilities) ○ Funds for energy upgrade rebates, financing, and other incentives.
	Proposition 1: State Coastal Conservancy Grant	Provides funds for multi-benefit ecosystem and watershed protection and restoration projects.
	Proposition 39: California Clean Energy Jobs Act Grants	Funds energy efficiency and clean energy projects at eligible local educational agencies — including county offices of education, school districts, charter schools and state special schools.
	Transformative Climate Communities (TCC) Program	Provides assistance to disadvantaged communities to locate affordable housing near transit and increase energy savings and clean transportation, per AB 2722 (September 2016)
	California Department of Food and Agriculture's Healthy Soils Program	Provides incentives to farmers and ranchers to enhance buildup of soil carbon on agricultural lands.

Funding Category	Funding Source or Program	Description
Other State and MPO Funds	California Department of Forestry and Fire Protection's (CalFire's) Urban and Community Forestry Program	Supports several urban tree planting projects, including jurisdiction wide tree inventory and urban forest mapping, analysis, and long-term management planning; urban wood and biomass utilization projects; and projects to assist local entities purchase and improve unused lots; and projects for urban green infrastructure.

	Strategic Growth Council (SGC) and State Department of Conservation (DOC) Programs	The Strategic Growth Council (SGC) and the State Department of Conservation (DOC) provide grants to fund sustainable community planning, natural resource conservation, and development and adoption. These include:
		• Sustainable Communities Planning Grant and Incentives Program. (SGC)
		  ○ Supports local land use planning related to climate and the State's statutory planning opportunities. These grants will support the development and/or implementation of a specific portion of a land use plan, land protection or management practice, or development project (e.g., Climate Action or Adaptation Plans, GHG inventories).
		• Resource Conservation District Assistance Program
		  ○ Provides assistance to local resource conservation districts to educate landowners and the public about resource conservation.

Federal Funds	Federal Transit Administration (FTA) Programs	FTA has a variety of available grants and programs available for transit agencies and local governments including: • Job Access and Reverse Commute and New Freedom Programs • Buses and Bus Grants Program • Formula Grants for Rural Areas

Funding Category	Funding Source or Program	Description
Federal Funds	Partnership for Sustainable Communities	A multi-agency partnership between U.S. Department of Housing and Urban Development, U.S. Department of Transportation, and the U.S. Environmental Protection Agency that offers grant funding to help build more viable, walkable, and environmentally sustainable communities.
	Federal Income Tax Credits for Energy Efficiency	Provides tax credits for energy efficiency upgrades for homes.
Private Funds	Climate Program Grants	Funds development and implementation of local government action plans and climate preparedness. Funds provided by the San Diego Foundation Climate program.
	Private Funding	Private equity can be used to finance energy improvements, with returns realized as future cost savings.
	Private Funding Peer-to-Peer (P2P) Lending/Crowdfunding	• Net energy cost savings from improved energy efficiency can fund retrofits in households. • Power Purchase Agreements (PPAs) involve a private company that purchases, installs, and maintains a renewable energy technology through a contract that typically lasts 15-25 years. After the contract period, the company would uninstall the technology or sign a new contract. • Crowdfunding and P2P lending organizations offer easy, efficient, and low-cost sources for capital investments, loan repayment, and project funding.
Loan Programs	Municipal Bonds	There are two basic types of municipal bonds: General Obligation Bonds and Revenue Bonds. • General Obligation Bonds often require voter assent and tend to have lower interest rates than Revenue Bonds.

Funding Category	Funding Source or Program	Description
Loan Programs		• With Revenue Bonds, the principal and interest is secured by revenues derived from tolls, charges, or rents from the facility built with the proceeds of the bond issuance.
	Property-Assessed Clean Energy (PACE)	Under AB 811, the State's PACE finance program is intended to finance energy and water improvements within a home or business through a land-secured loan, and funds are repaid through property assessments. This program is administered by a variety of private entities including CaliforniaFIRST, HERO PACE Program, and Ygrene Energy Fund. Municipalities are authorized to designate areas where property owners can enter contractual assessments to receive long-term, low-interest loans for energy and water efficiency improvements, and renewable energy installation on their property.
	Federal Housing Administration's Energy Efficient Mortgages (EEM) Program	Credits a home's energy efficiency features in the mortgage itself. To verify a home's energy efficiency, an EEM typically requires a home energy rating of the house by a home energy rater before financing is approved. EEMs typically are used to purchase a new home that is already energy efficient, such as an ENERGY STAR® qualified home.
	Department of Energy's (DOE) Qualified Energy Conservation Bonds (QECBs)	Enables qualified State, tribal, and local government issuers to borrow money at attractive rates to fund energy conservation projects. QECBs are taxable bonds, but QECBs are issued as direct subsidy bonds and are among the lowest-cost public financing tool.
	DOE's Clean Renewable Energy Bonds (CREBs)	Finances public renewable energy projects. The bondholder receives federal tax credits in lieu of a portion of the traditional bond interest, resulting in lower effective interest rates for the borrower.

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