

CAP Strategy	Implementation Actions	Assumptions			Performance Standards			GHG Reduction								
		2030	2040	2050	2030	2040	2050	2030	2040	2050						
<b>Clean and Efficient Built Environment: Homes, workplaces, and businesses in unincorporated Contra Costa County run efficiently on clean energy.</b>																
1.1	Require new buildings or additions built in unincorporated Contra Costa County, on or after January 1, 2023, to be low-carbon or carbon neutral.	<ul style="list-style-type: none"> <li>- Establish, publicize, and enforce a County building code requiring new single-family, multifamily, affordable housing, hotels, offices, retail, and County facilities to be all-electric, along with other building types as appropriate.</li> <li>- Partner with community groups and MCE to establish an induction cooktop loaner program for county residents as a way to build familiarity with the technology.</li> <li>- Explore establishing a low-carbon concrete requirement for all new construction and retrofit activities and consider additional strategies to reduce embedded carbon in construction materials. This requirement shall support or exceed State requirements for net-zero emissions for cement use by 2045.</li> <li>- Encourage project applicants to incorporate passive solar design features into new developments and significant reconstructions.</li> <li>- Promote additional sustainable building strategies and designs, including small and “tiny homes”, to project applicants as site-appropriate. Consider requiring additional sustainable features as a condition of approval, including reuse of materials to minimize embedded carbon.</li> </ul>	Cumulative % of residential new construction influenced by electric construction incentives:	95%	95%	95%	Number of new all-electric residential units Number of new all-electric commercial buildings	9,230	21,620	36,330	13,460	21,590	17,570			
			Cumulative % of new office construction influenced by electric construction incentives:	80%	85%	95%								400	710	1,090
			Cumulative % of new non-office commercial construction influenced by electric construction requirements/incentives:	75%	80%	90%										
			Cumulative % new non-residential buildings that are office space:	20%	20%	20%										
	Retrofit existing buildings and facilities in unincorporated county, and County infrastructure, to reduce energy use and convert to low-carbon or carbon-neutral fuels.	<ul style="list-style-type: none"> <li>- Create and implement a County policy or program, with building code revisions as needed to support implementation, to ensure existing residential and non-residential buildings are efficient and powered by carbon free energy.</li> <li>- Ensure all County-led and supported energy efficiency and weatherization, renewable energy, and electrification programs incentivize and prioritize conversion of buildings built before 1980 and are targeted to owners of properties that are home to very low-, low-, and moderate- income residents and/or located in Impacted Communities.</li> <li>- Require replacement water heaters and heat pumps to be electric if the building electric panel has sufficient capacity.</li> <li>- Evaluate options to require additions and alterations to existing buildings to be all-electric, including upgrades to the building electric panel.</li> <li>- Require homes and businesses to enact energy-efficient retrofits and electric appliance conversions at time of sale, lease, or retrofits requiring a building permit if retrofits or replacements have not</li> </ul>	Percent of existing homes conducting standard retrofits	20%	30%	40%	Number of housing units undergoing renovation	14,330	21,330	28,650	13,370	20,060	26,750			
			Percent of existing homes upgrading to Title 24 Standards	20%	30%	40%										
			Percent of existing mobile homes conducting standard retrofits	30%	40%	60%	Number of commercial buildings undergoing renovation	530	700	880						
			Percent of businesses conducting standard retrofits (not including fuel switching)	15%	20%	25%										
			Percent of businesses retrofitting to current Title 24 standards (not including fuel switching)	15%	20%	25%					Number of commercial buildings renovated to Title 24 standards	530	700	880		
Total residential electrical panel upgrades	11,030	27,570	66,180													

Attachment 4: Contra Costa County 2022 Climate Action Plan Quantification Results  
DRAFT FOR REVIEW – March 11, 2022

1.2	<p>occurred for at least 10 years.</p> <ul style="list-style-type: none"> <li>- Create a detailed roadmap for electrification of existing homes and businesses by 2024 that includes equitable requirements for electrification, financial incentives for community members with additional compensation for Impacted Communities, and allows for a methodical conversion that does not create a risk of displacement or significant disruptions.</li> <li>- Create and implement a program to provide reduced-cost or free retrofits to local small business and households earning less than the area median income, in support of the Contra Costa County Asthma Initiative and other non-profit partners, as well as other health equity efforts for Impacted Communities. Support the use of low-emitting materials, including paints and carpeting, in retrofits to improve indoor air quality.</li> <li>- In partnership with MCE and BayREN, continue to support voluntary home and business energy efficiency retrofits, including electrification measures.</li> <li>- Facilitate participation by homes and businesses to participate in demand response programs.</li> <li>- Continue to conduct energy and water tracking, audits, and upgrades of County facilities, including conversion of all feasible County facilities to all-electric space and water heating.</li> <li>- Advocate for modifications to the federal Weatherization Assistance Program that expands eligible measures to include whole building clean energy improvements, such as wall insulation, duct sealing, electric panel upgrades, electric heat pumps, and related measures. Advocate for an increase to the income eligibility limits for the Weatherization Assistance Program.</li> <li>- Establish requirements for cool roofs and light-colored, permeable paving materials as part of retrofit, repair, and replacement activities, using recycled materials or other materials with low embedded carbon as feasible.</li> </ul>	Cumulative % existing commercial buildings eligible for electrification	40%	40%	40%	Total commercial electrical panel upgrades	60	400	1,230	45,960	87,900	150,350
		Cumulative % of residential gas equipment reaching end of life replaced with electric due to panel incentive - cooktops and clothes dryers:	10%	25%	60%							
		Cumulative % of residential gas equipment reaching end of life replaced with electric due to panel policy - water and space heaters:	10%	25%	60%							
		Cumulative % of commercial gas equipment reaching end of life replaced with electric due to panel incentive - cooktops:	5%	15%	30%							
		Cumulative % of commercial gas equipment reaching end of life replaced with electric due to panel incentive - water and space heaters:	5%	15%	30%							
		Number of equipment type conversions per electrical panel upgrade	2	2	2							
		Percent of existing homes installing solar energy systems	15%	25%	35%							
Percent of existing homes with solar energy systems and installing battery storage systems	20%	35%	50%	Residential battery systems installed	4,860	19,350	42,060					

Attachment 4: Contra Costa County 2022 Climate Action Plan Quantification Results  
DRAFT FOR REVIEW – March 11, 2022

1.3	<ul style="list-style-type: none"> <li>- Continue to enroll all eligible County facility electricity accounts in MCE territory in the Deep Green tier.</li> <li>- Work with the Contra Costa County Fire Protection District and other organizations that provide fire protection services to promote the Self-Generation Incentive Program and related efforts to provide education and incentives for battery storage programs.</li> <li>- Provide information about battery storage systems to all applications for new home construction and solar panel installations.</li> <li>- Implement recommendations of the 2018 Renewable Resource Potential Study.</li> </ul>	Percent of new homes installing battery storage systems	30%	50%	60%	Non-residential solar systems installed	40	150	320				
		Percent of existing businesses installing solar energy systems	3%	6%	11%	Non-residential battery systems installed	20	60	170				
		Percent of existing businesses with solar energy systems and battery storage systems	15%	30%	45%	Residential electricity supplied by MCE (kWh)	272,314,980	287,508,190	327,249,430	11,180	12,250	0	
		Percent of residents enrolling in MCE	90%	90%	90%	Residential electricity provided at Deep	25,853,360	54,591,570	93,205,290				
		Percent of businesses enrolling in MCE	90%	90%	90%	Non-residential electricity provided by MCE	228,368,680	229,708,700	229,787,640				
		Percent of residents enrolling in 100% renewable tiers	10%	20%	30%	Non-residential electricity provided at Deep	10,963,660	17,644,790	44,126,660				
		Percent of businesses enrolling in 100% renewable tiers	5%	8%	20%								
		Percent of direct access customers switching to MCE	5%	7%	10%								
<b>No Waste Contra Costa: Contra Costa County generates no more solid waste than 2.25 pounds per person per day (PPD)</b>													
2.1	Increase composting of organic waste.	<ul style="list-style-type: none"> <li>- Establish a source-separated organics collection service for all residential and commercial customers in County-controlled franchise areas.</li> <li>- Use franchise negotiations to encourage organics collection service providers to use composting systems that capture most methane produced, as feasible.</li> <li>- Work with wastewater providers to explore the use of organic waste as feedstock for anaerobic digesters to produce electricity or fuel.</li> <li>- Support the siting of composting facilities in the county as</li> </ul>	Current compost diversion rate	77%	77%	77%	Number of households with composting service	63,040	78,930	93,630			
											1,830	3,330	4,220

Attachment 4: Contra Costa County 2022 Climate Action Plan Quantification Results  
DRAFT FOR REVIEW – March 11, 2022

		<p>appropriate with community characteristics.</p> <ul style="list-style-type: none"> <li>- Encourage local restaurants, grocery stores, and other entities that process large quantities of food to partner with food rescue organizations to divert food that would be otherwise thrown away to non-profit organizations for distribution to those in need.</li> <li>- Leverage Food recovery programs and the Community Wellness &amp; Prevent Program nutrition program to decrease food waste and address hunger.</li> </ul>	Target diversion rate	90%	95%	95%	Number of businesses with composting service	3,160	3,690	4,090			
2.2	Reduce waste from County operations.	<ul style="list-style-type: none"> <li>- Establish a source-separated organics collection service at all County facilities.</li> <li>- Implement 3-stream recycling (trash, recycling, and compost) at all County facilities.</li> <li>- Conduct regular waste audits of County facilities, including assessing the volume and composition of all waste streams, to identify challenges with waste activities and develop educational or operational changes to address issues and reduce waste generation.</li> <li>- Source material for capital projects from local and low-carbon sources to the greatest extent feasible, including allocating additional funds to allow for such materials, and integrate appropriate standards into the County's Environmentally Preferred Purchasing (EPP) program.</li> <li>- Require vendors to comply with updated Environmentally Preferable Purchasing Program (EPP program) and associated recovery organic material requirements, including requirements under SB 1383.</li> <li>- Continue to reduce paper use in County operations.</li> <li>- Encourage medical facilities and medical waste recycling companies to enhance their ability to increase the amount of medical waste recycled or reprocessed.</li> <li>- Enact Bay-friendly landscaping practices at County facilities.</li> <li>- Explore opportunities to reuse wood from County tree maintenance activities as an alternative to chipping.</li> </ul>	Target composting diversion rate	85%	95%	95%	Weekly average cubic yards of composted organics (uncompacted)	1,050	1,140	1,140	900	1,370	1,450
			Target recycling diversion rate	85%	95%	95%	Weekly average cubic yards of recycled materials (uncompacted)	270	300	300			
2.3	Increase community-wide recycling and waste minimization programs	<ul style="list-style-type: none"> <li>- Create a source-reduction program in partnership with regional agencies to promote the rethinking, refusing, reducing, reusing, regenerating, recycling, and recovering of materials.</li> <li>- Improve educational efforts to promote better waste sorting among community members.</li> <li>- Work with waste haulers to expand the types of materials accepted by recycling programs as economic conditions allow.</li> <li>- Work with waste haulers to expand availability of curbside pickup recycling services.</li> <li>- Ban single-use plastics and encourage the use of reusable items over disposable materials.</li> </ul>	Target diversion rate	77%	80%	85%	Reduction in landfilled recyclables (tons)	0	490	1,560	520	1,470	4,300
			Decrease in non-organic and non-recycleable waste tonnage from waste minimization programs	20%	35%	50%	Decrease in non compostable/recyclable tonnage (tons)	5,640	11,020	18,810			
							Pounds of waste per person per day	2.08	1.91	1.81			

**Reduce Water Use and Increase Drought Resilience: Contra Costa County uses less water and communities are prepared for drought**

3.1	Reduce indoor and outdoor water use.	<ul style="list-style-type: none"> <li>- Offer BayREN water bill savings programs through community water providers.</li> <li>- Encourage the installation of greywater and rainwater catchment systems, particularly for new construction, as feasible for wastewater infrastructure. Reduce regulatory barriers for these systems and explore creating incentives to install these systems in new and existing buildings.</li> <li>- Continue to enforce the Water Efficient Landscaping Ordinance and encourage the use of drought-tolerant landscaping for exempt residential and commercial landscapes through partnership with EBMUD and other organizations.</li> <li>- Require homes and businesses to install water-efficient fixtures at time of retrofit activities.</li> <li>- Update the Model Water Efficient Landscaping Ordinance (MWELO) to be specific to Contra Costa County.</li> <li>- Identify opportunities for greywater use in public spaces and implement as feasible</li> <li>- Promote the installation of composting toilets at appropriate County facilities in locations without wastewater service.</li> </ul>	Percent of existing homes with greywater systems	5%	10%	20%	Number of residential greywater system	3,990	10,580	25,450			
			Percent of existing businesses with greywater systems	2%	5%	10%	Number of commercial greywater	90	240	560			
			Percent of existing homes retrofitting water fixtures	60%	80%	90%	Number of nonresidential buildings receiving water efficiency	1,790	2,380	2,680	970	1,310	1,480
			Percent of existing businesses retrofitting water fixtures	60%	80%	90%	Number of residential buildings receiving water	36,190	48,260	54,290			
			Percent of new homes with greywater systems	10%	20%	35%							
			Percent of new businesses with greywater systems	5%	10%	20%							
3.2	Ensure sustainable and diverse water supplies.	<ul style="list-style-type: none"> <li>- Work with groundwater sustainability agencies to ensure that new and existing wells pump water at or below sustainable levels.</li> <li>- Discourage new development that may reasonably lead to groundwater overdraft, subsidence, or other negative impacts, or which may reasonably depend on the import of unsustainable quantities of water from location outside the county.</li> <li>- Require the use of permeable surfaces for new or reconstructed hardscaped areas.</li> <li>- In coordination with Groundwater Sustainability Agencies, expand opportunities for groundwater recharge.</li> <li>- Work with water suppliers to expand recycled water systems as feasible, including considering additional treatment to allow for additional recycled water uses.</li> </ul>	Supportive (no assumptions)			Supportive (no performance standards)			Supportive (no GHG reductions)				

**Clean Transportation Network: Contra Costa County's transportation network provides safe and accessible options for walking, biking, and transit. If residents and workers are driving, they are in zero-**

	Improve the viability of walking, biking, zero carbon commuting, and using public transit for travel within, to, and from the county.	<ul style="list-style-type: none"> <li>- Continue to implement strategies to support Complete Streets, Vision Zero commitments, and the Active Transportation Plan.</li> <li>- Work with CCTA to establish and expand a countywide bicycle network connecting incorporated and unincorporated communities, including providing access for Impacted Communities.</li> <li>- Explore establishing or joining a bikeshare program that provides access to both conventional bikes and e-bikes.</li> </ul>	Miles of bike lanes	40	80	132	lanes	40	80	130			
			Average round trip length for bike trips (miles)	8	8	8	Bicycle mode share	0.010	0.011	0.013			
			Is bike parking provided in most non-residential locations?	Yes	Yes	Yes	Bus ridership (commute share)	0.02	0.04	0.05			

Attachment 4: Contra Costa County 2022 Climate Action Plan Quantification Results  
DRAFT FOR REVIEW – March 11, 2022

4.1	<ul style="list-style-type: none"> <li>- Support efforts to expand the service area and frequency of regional transit agencies, including AC Transit, BART, County Connection, Tri Delta Transit, the San Francisco Bay Ferry, and WestCAT.</li> <li>- Maximize development of jobs and housing, supportive of achieving a jobs-housing balance, near high-quality transit service.</li> <li>- Require large nonresidential and mixed-use developments to participate in Transportation Demand Management strategies, including providing shuttle services between employment centers and key transit centers, offering telecommuting, and encouraging use of pre-tax commute benefits.</li> <li>- Explore adopting a Vulnerable Road User Law.</li> <li>- Develop and adopt through the Capital Road Improvement and Preservation Plan (CRIPP) process an updated list of transportation projects that reduce vehicle miles traveled.</li> <li>- Secure additional funding for the maintenance and expansion of bicycle, pedestrian, and public transit infrastructure.</li> <li>- Improve safety and comfort of bicycle, pedestrian, and public transit facilities.</li> <li>- Work with local and regional transit agencies to provide “last mile” transportation connections and options.</li> <li>- Encourage and support increased regional integration of transit systems to promote more equitable fare structures, easier transfers, and improved information sharing.</li> </ul>	% increase in combined housing units/acre due to TOD	16%	38%	63%	BART ridership (passenger miles)	17,473,620	21,841,610	27,276,920			
		% increase in jobs/acre due to TOD	18%	31%	45%	% increase in housing units/acre	16%	38%	63%			
		Target bus ridership	2%	4%	5%	% increase in jobs/acre	18%	31%	45%	9,600	24,250	48,350
		Percent increase in BART ridership over baseline projection for that year	5%	10%	15%	VMT reduction from TDM programs	1,705,370	7,858,900	28,130,740			
		Percent of employers participating in TDM	5%	10%	20%							
		Average trip reduction from voluntary TDM participation	15%	30%	45%							
		Percent of county with expanded sidewalks	5%	10%	15%							
4.2	<ul style="list-style-type: none"> <li>- Require new County vehicles to be zero-emission to the extent a viable vehicle is available on the market, with a goal of all County vehicles to be zero-emission by 2030.</li> <li>- Provide incentives for zero-emission vehicles, in partnership with MCE, BAAQMD, and other agencies.</li> <li>- Work with property owners to install electric vehicle charging stations in and near multifamily dwelling units.</li> <li>- Increase installation of electric vehicle charging stations at public facilities, emphasizing increased installation in Impacted Communities.</li> <li>- In partnership with regional agencies, explore providing subsidies for households making below the area median income to purchase or lease zero-emission vehicles.</li> <li>- Pursue fees and regulatory efforts to convert TNC, taxi, and similar car-hire services to zero-emission vehicles.</li> <li>- Work with the BAAQMD and other regional agencies to convert off-</li> </ul>	Percent of county vehicles that are zero-emission	80%	85%	95%	New VMT from electric vehicles, community-wide	208,555,930	480,723,730	1,053,461,930			
		Percent of community fleet that is zero-emission (light duty)	25%	45%	75%	Reduction in municipal vehicle gasoline use	230,120	222,520	247,340			
		Target % of total community TNC VMT from electric vehicles	75%	80%	90%	New VMT from electric vehicles, TNC	91,983,130	114,895,920	155,608,280			
		Percent of community fleet that is zero-emission (heavy duty)	10%	30%	60%	Reduction in offroad gasoline use (gallons)	2,773,260	2,953,500	3,082,210			
		Target % total commercial Natural Gas VMT replaced by biomethane:	10%	15%	20%	Reducton in offroad diesel use (gallons)	3,658,270	3,931,740	4,128,050	97,350	168,010	335,200

Attachment 4: Contra Costa County 2022 Climate Action Plan Quantification Results  
DRAFT FOR REVIEW – March 11, 2022

	road equipment to zero-emission clean fuels. - Work with contractors, fleet operations, logistics companies, and other operators of heavy-duty vehicles to accelerate the transition to zero-emission heavy-duty vehicles. - Continue to require all new and significantly retrofitted logistics facilities to install charging stations for heavy-duty electric vehicles at loading docks and staging areas. - Work with Public Works to use renewable natural gas (sourced from recovered organic waste) for transportation fuel, electricity, or heating applications in cases where battery-electric, hybrid-electric, and sustainably sourced hydrogen fuel-cell sources are not available. - Encourage efforts to maximize EV charging during solar peak hours.	Target % total commercial Diesel VMT replaced by biomethane:	10%	15%	20%	Increase in biomethane VMT	#####	9,029,270.00	13,763,020.00			
		Percent of lawn and garden fuel use converted to electric	30%	50%	65%							
		Percent construction equipment fuel use converted to electric	30%	45%	60%							
		Percent industrial and light commercial fuel use converted to electric	20%	40%	55%							

**Resilience Communities and Natural Infrastructure: Contra Costa County will increase resilience to climate hazards and foster community health**

5.1	Protect against and adapt to changes in sea levels and other shoreline flooding conditions.	<ul style="list-style-type: none"> <li>- Establish requirements for new development to locate habitable areas of buildings above the highest water level expected for the lifetime of the project, or to construct a levee to provide adequate protection during the lifetime of the project.</li> <li>- Support the use of natural infrastructure, including ecosystem restoration, to protect against sea level rise and associated shoreline flooding.</li> <li>- Coordinate with state and regional agencies, neighboring jurisdictions, property owners, utilities, and others to prepare a Sea Level Rise Adaptation Plan and fund and implement wetland restoration and other sea level rise adaptation efforts.</li> <li>- Convene a working group of local shoreline communities and community-based organizations to collaborate on shoreline</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
-----	---	--	-----------------------------	---------------------------------------	--------------------------------

Attachment 4: Contra Costa County 2022 Climate Action Plan Quantification Results  
DRAFT FOR REVIEW – March 11, 2022

5.2	Protect against and adapt to increases in the frequency and intensity of wildfire events.	<ul style="list-style-type: none"> <li>- Prohibit new residential subdivisions in Very High Fire Hazard Zones and limit development in High Fire Hazard Severity Zones.</li> <li>- Require any new development in a Very High Fire Hazard Severity Zone, Wildland-Urban Interface, or State Responsibility Area to include fire-safe designs and materials, and to prepare, maintain, and regularly implement a fire protection plan. Such development shall meet or exceed State requirements for developments in fire-prone areas, including for ingress and egress, water supply, and firefighting equipment access.</li> <li>- In coordination with property owners, establish and maintain fire breaks and defensible space, fuel-clearing activities, and firefighting infrastructure.</li> <li>- Support undergrounding of utility lines, especially in the Wildland-Urban interface and fire hazard severity zones.</li> <li>- Work with community organizations to ensure Impacted Communities have access to financing and other resources to reduce the fire risk on their property, prepare for wildfire events, and allow for a safe and speedy recovery.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
5.3	Establish and maintain community resilience hubs.	<ul style="list-style-type: none"> <li>- Identify existing community facilities that can serve as resilience hubs and support affected populations during hazard events. Such facilities shall be distributed equitably throughout the county, with an emphasis on easy access for Impacted Communities. Where appropriate existing facilities are not present, develop plans for construction of new resilience hubs.</li> <li>- Retrofit selected facilities to act as resilience hubs, including adding solar panels, battery backup systems, water resources, and supplies to meet basic community and emergency medical needs.</li> <li>- Create a virtual resilience hub that connects County resources to the community through virtual community networks to provide detailed, up-to-date information about preparing for natural disasters, notifications and alerts related to public safety, space for virtual gathering and information-sharing, and other appropriate uses. Materials shall be accessible in multiple languages.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)

Attachment 4: Contra Costa County 2022 Climate Action Plan Quantification Results  
DRAFT FOR REVIEW – March 11, 2022

5.4	Sequester carbon on natural and working lands in Contra Costa County.	<ul style="list-style-type: none"> <li>- Implement recommendations from ongoing carbon sequestration feasibility study, Healthy Lands, Healthy People.</li> <li>- Establish pilot programs for carbon sequestration on agricultural land.</li> <li>- Explore ways to increase carbon sequestration on County-owned facilities.</li> <li>- Partner with regional landowners and agencies to establish carbon sequestration programs and incentives.</li> <li>- Use offset protocols and guidance to promote sequestration on natural and developed lands.</li> <li>- Require any carbon sequestration program that the County provide benefits to communities that face environmental justice issues and actively and meaningfully engages with Impacted communities.</li> <li>- Explore the potential for citizen scientists to support tree inventories, tree planting, and maintenance of existing trees.</li> <li>- Establish a fund to support expanded tree planting and maintenance activities.</li> <li>- Continue to ensure that natural lands and other open space, including wetlands, native grasslands, and riparian areas, remain protected and are restored as needed.</li> <li>- Explore opportunities to integrate traditional fire management practices into forest management policies and programs.</li> <li>- Coordinate with farming groups, ranchers, and the University of California Cooperative Extension to identify and promote varieties of feedstock, livestock, and crops that are resilient to rising temperatures and changing precipitation patterns and increase carbon sequestration.</li> </ul>	Percent increase in hectares of broadleaf forest	10%	15%	20%	Increase in hectares of broadleaf forest	2,330	3,500	4,670	5,950	9,000	12,050
			Percent increase in hectares of Conifer forest	10%	15%	20%	Increase in hectares of conifer forest	100	150	190			
5.5	Minimize heat island effects through the use of cool roofs and green infrastructure	<ul style="list-style-type: none"> <li>- Require new and retrofitted large hardscaped areas to include mature trees, swales, native and drought-tolerant landscaping, and other green infrastructure features consistent with current and future climate conditions and other guidelines.</li> <li>- Increase tree planting in urbanized areas and open spaces, emphasizing areas with limited existing tree cover and using low-maintenance native tree species.</li> <li>- Prepare and implement a Tree Master Plan for the unincorporated county.</li> <li>- Provide shade trees or shade structures at parks, transit stops, plazas, and other outdoor spaces.</li> <li>- Support efforts to develop incentive programs for home and</li> </ul>	Supportive (no assumptions)				Supportive (no performance standards)				Supportive (no GHG reductions)		

5.6	Protect the community against additional hazards created or exacerbated by climate change	<ul style="list-style-type: none"> <li>- Require all new below market-rate housing to be located outside of mapped hazardous areas to the great extent possible, and require all development located in hazard zones that is not otherwise prohibited to be sited and designed to remain safe and habitable immediately following a natural disaster.</li> <li>- Treat susceptibility to hazards and threats to human health and life as primary considerations when reviewing all development proposals and changes to land uses.</li> <li>- Partner with community-based organizations to provide information to community members about how to prepare for projected climate change hazards.</li> <li>- Promote, and as necessary develop, available funding sources to incentivize residents and business to prepare for natural disasters, particularly members of Impacted Communities.</li> <li>- Consider projected impacts of climate change when siting, designing, and identifying the construction and maintenance costs of capital investment projects.</li> <li>- Actively promote and grow participation in Community Emergency Response Team (CERT) programs throughout the county.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
-----	---	--	-----------------------------	---------------------------------------	--------------------------------

**Climate Equity: The Climate Action Plan will mitigate environmental factors leading to health disparities, promote safe and livable communities, and promote investments that improve neighborhood**

6.1	Provide access to affordable, clean, safe, and healthy housing and jobs.	<ul style="list-style-type: none"> <li>- In partnership with community-based organizations, work to reverse community deterioration and blight, and improve person and property safety, in neighborhoods throughout Contra Costa County.</li> <li>- Require that new housing for households making less than Area Median Income or other impacted Communities be located outside of hazard-prone areas, including wildfires, landslides, floods, and sea-level level rise.</li> <li>- Establish a program to provide low-cost or free air conditioning and filtration, improved insulation, low emitting materials, and indoor ventilation in homes, emphasizing buildings that are home to Impacted populations.</li> <li>- Partner with schools, community-based organizations, labor unions, Workforce Development Board and other appropriate groups to provide green jobs training for residents. Prioritize training for people currently or recently working in polluting or extractive activities.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
-----	--	---	-----------------------------	---------------------------------------	--------------------------------

6.2	Invest in solutions to support climate equity.	<ul style="list-style-type: none"> <li>- Evaluate and adjust County budgeting and spending as needed to ensure equitable investment in Impacted Communities. Incorporate addressing climate change, providing climate solutions, and enhancing community equity into the mission of all County departments.</li> <li>- Include environmental justice and climate issues in the County Racial Equity Action Plan and in the responsibilities of the County Office of Racial Equity and Social Justice.</li> <li>- As part of CAP and General Plan implementation, consider whether the strategy provides equitable benefits for Impacted Communities as a criterion for prioritization.</li> <li>- Continually engage communities most affected by climate change in developing and implementing climate solutions and ensure that such solutions provide benefits to Impacted Communities.</li> <li>- Advocate for the Contra Costa Employees Retirement Association to use Environmental, Social, and Governance criteria in its investment policies, and to offer socially responsible investment options for its members.</li> <li>- Amend the County investment policy to divest from fossil fuels, require the use of Environmental, Social, and Governance criteria, and prohibit investment in all securities issued by fossil fuel companies.</li> <li>- Work with schools, county library, and community-based organizations to provide environmental education.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
6.3	Increase access to parks and open space.	<ul style="list-style-type: none"> <li>- Establish a target of all residents being located within a half-mile of a park or other green space.</li> <li>- In partnership with regional agencies, support land acquisition for new parks and open space areas and protect such lands through conservation easements.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
6.4	Ensure residents have equitable, year-round access to affordable local fresh food.	<ul style="list-style-type: none"> <li>- Facilitate establishment of year-round farmers markets in all communities, prioritizing Impacted Communities.</li> <li>- Work with community groups to establish and maintain urban gardens, particularly in Impacted Communities and on vacant land.</li> <li>- Encourage major supermarkets to locate in Impacted Areas.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
6.5	Ensure that large industrial facilities act as good neighbors.	<ul style="list-style-type: none"> <li>- Provide recommendations to responsible permit agencies regarding permits for fossil fuel-based industries and point sources.</li> <li>- Regularly track data on fossil fuel production and transportation in Contra Costa County.</li> <li>- As economic conditions change, support efforts to phase out heavily polluting and extractive industries and replace them with businesses that contribute to a regenerative and circular economy.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)

**Leadership: Contra Costa County is a model for how local government can take action on climate issues**

7.1	<p>Establish Contra Costa as a leader among local governments for addressing climate issues.</p>	<ul style="list-style-type: none"> <li>- Continue to publicize and support the operations of the County's Interdepartmental Climate Action Task Force.</li> <li>- Work with all County departments to encourage adoption of best practices from the County's Green Business Program and participation in the EBMUD Water Smart Business Program (where appropriate).</li> <li>- Encourage development of new policies and initiatives that support the County's climate goals.</li> <li>- Explore the creation of funding mechanisms, including a carbon impact fee, to support the County's Sustainability Fund if additional financial resources are needed.</li> <li>- Ensure that all funding mechanisms minimize or avoid financial impacts to Impacted Communities and do not exacerbate economic inequities.</li> <li>- Facilitate trainings for County staff on climate change (including the results of the Vulnerability Assessment and CAP technical work) and how they can support climate action through their work with the County and at home.</li> <li>- Encourage County employees to explore innovative technologies and programs that address climate change.</li> <li>- Incorporate pest prevention principles into new construction and retrofit programs on County properties.</li> <li>- Require businesses to ensure compliance with the County's Environmentally Preferred Purchasing policy as a condition of obtaining County contracts to the extent feasible.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
7.2	<p>Continue to recognize the climate crisis as an emergency for Contra Costa County and make deep decarbonization a top County priority.</p>	<ul style="list-style-type: none"> <li>- Integrate additional efforts from the Climate Emergency Resolution into County department work plans.</li> <li>- Consider climate and equity effects and vulnerabilities as a factor in County budgeting and decision-making, integrating climate adaptation and GHG reduction features as necessary to increase resilience and GHG reductions countywide.</li> <li>- Assess County programs, policies, operations, and projects (excluding stationary sources) for their contribution to achievement of County's GHG reduction targets and consistency with the CAP.</li> <li>- Disclose GHG emissions to a registry such as the Carbon Disclosure Project (CDP).</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)

**Implementation Strategies**

Attachment 4: Contra Costa County 2022 Climate Action Plan Quantification Results  
DRAFT FOR REVIEW – March 11, 2022

8.1	Monitor and report progress toward achieving Climate Action Plan targets on an annual basis.	<ul style="list-style-type: none"> <li>- Assign responsibility for facilitating and supporting CAP implementation to the County's Conservation and Development Department.</li> <li>- Identify key staff from each department responsible for supporting CAP implementation and updates for annual reporting and monitoring.</li> <li>- Continue to involve community-based organizations and other key stakeholders in reviewing and recommending CAP action items</li> <li>- Prepare an annual progress report on implementation of the recommended GHG reduction strategies and progress toward CAP targets. When information is available, provide updates on estimated GHG emissions reductions and current GHG emissions levels.</li> <li>- Monitor implementation of the Sustainability Fund for projects in county facilities</li> <li>- Use the CAP implementation and monitoring tool to track GHG benefits from CAP implementation and identify progress toward the CAP reduction targets.</li> <li>- Improve the County permitting system and other systems as needed to support collecting CAP implementation data.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
8.2	Continue collaborative partnership with agencies and community groups that support Climate Action Plan implementation with an emphasis on residents and community-based organizations from Impacted Communities.	<ul style="list-style-type: none"> <li>- Participate in local and regional organizations that provide tools and support for energy efficiency, energy conservation, GHG emissions reductions, adaptation, public information, and implementation of this CAP.</li> <li>- Commit to formal membership through joint powers authorities or other partnerships to implement high priority strategies from the CAP</li> <li>- Provide policy input to partner agencies on policy barriers that need to be addressed at the State level.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
8.3	Secure necessary funding to implement the Climate Action Plan.	<ul style="list-style-type: none"> <li>- Identify funding sources and levels for reduction strategies as part of annual reporting.</li> <li>- Include emissions reduction strategies in department work plans, the capital improvement program, and other plans as appropriate.</li> <li>- Pursue local, regional, State, and federal grants to support implementation.</li> <li>- Explore dedicated funding sources for CAP implementation, including from the Sustainability Fund or other revenue sources as needed.</li> <li>- Explore opportunities to allocate a portion of revenues from revenue-generating strategies to CAP allocation.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)

Attachment 4: Contra Costa County 2022 Climate Action Plan Quantification Results  
DRAFT FOR REVIEW – March 11, 2022

8.4	Continue to update the baseline emissions inventory and Climate Action Plan every five years.	<ul style="list-style-type: none"> <li>- Prepare a GHG emissions inventory that shows GHG emissions after emergency conditions created by the COVID-19 pandemic are expected to have ended.</li> <li>- Update the CAP to incorporate new technology, practices, and other options to further reduce emissions.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)
8.5	Maintain and update the Climate Action Plan to allow for greater resilience.	<ul style="list-style-type: none"> <li>- Coordinate where possible updates of the Climate Action Plan, General Plan Safety Element, and Local Hazard Mitigation Plan cycle to ensure plan alignment and coordination of climate mitigation and adaptation efforts.</li> <li>- Assess the implementation status and effectiveness of adaptation strategies.</li> </ul>	Supportive (no assumptions)	Supportive (no performance standards)	Supportive (no GHG reductions)