

City of El Cerrito

# CLIMATE ACTION PLAN

VOLUME 1: Climate Action Plan. May, 2013

**The City of El Cerrito serves, leads and supports our diverse community by providing exemplary and innovative services, public places and infrastructure, ensuring public safety and creating an economically and environmentally sustainable future.**

Prepared by

**City of El Cerrito**

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City of El Cerrito

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# Executive Summary

The City of El Cerrito is committed to reducing the pollution that causes global warming. Since 2006, the El Cerrito City Council has consistently supported local, regional and state initiatives to cut greenhouse gas (GHG) emissions.\* In February, 2011 the City Council passed Resolution 2011-12 adopting GHG emission reduction targets of 15% below 2005 levels by the year 2020 and 30% below 2005 levels by 2035 for both municipal operations and the El Cerrito community.

The City has developed this Climate Action Plan (CAP) due to concerns that the global and local effects of climate change will have adverse impacts on our way of life for generations to come. In addition to providing leadership on this important issue, development of a CAP helps prepare El Cerrito for a quickly evolving legislative framework set by the State as part of its implementation of Assembly Bill 32† (AB 32), the California Global Warming Solutions Act.

## Purpose and Scope

The purpose of the CAP is to provide a road map for the City in pursuing both community-wide and municipal reductions in GHG emissions. The objectives are to:

- Provide guidance for the City in pursuing reductions in GHG emissions;
- Provide a policy framework for incorporation of a climate or sustainability element into the City's upcoming *General Plan Update*;
- Inspire residents, businesses, and employees to participate in community efforts to reduce GHG emissions; and
- Demonstrate El Cerrito's commitment to helping the State and the Bay Area reach their mandated GHG reduction goals.

## Methodology

Development of the CAP is based on a methodology advanced by ICLEI‡ Local Governments for Sustainability and further refined by the Bay Area Air Quality

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\* Gases that trap heat in the atmosphere are called greenhouse gases. While there are many natural sources of greenhouse gases, the burning of fossil fuels- such as coal, natural gas, and oil) is a common man-made source of greenhouse gases.

† AB 32, signed by Governor Schwarzenegger in 2006, requires California to reduce statewide GHG emissions to 1990 levels by 2020.

‡ ICLEI is the acronym for the International Council for Environmental Initiatives

Management District (BAAQMD). This methodology investigates the potential of reducing local GHG emissions from transportation, energy consumption, water use, and waste generation at the local level. The CAP models GHG emissions from both community and municipal sources using the baseline year of 2005 and projects the growth in these emissions under a Business-As-Usual scenario and under a Reduction Targets Scenario. The CAP also quantifies potential reductions in emissions from actions taken at both the community and municipal levels.

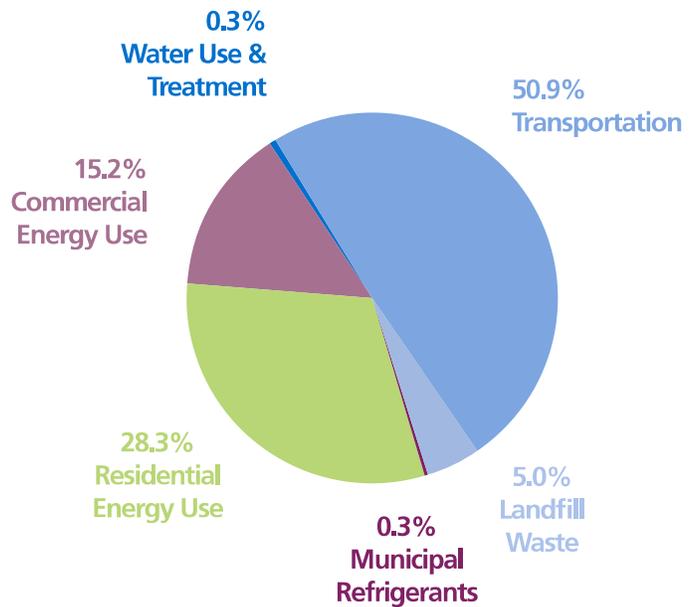
Sources of GHG emissions in the inventory include the following:

- Energy and water use by residents and businesses (including institutions and governmental agencies);
- Vehicle miles traveled on El Cerrito’s streets, including El Cerrito’s portion of San Pablo Avenue;
- The percent of vehicle miles traveled in Contra Costa County on state highways (excluding San Pablo Avenue), interstates, and other county road that are estimated to be attributable to El Cerrito’s residents, businesses, institutions and governmental agencies;
- Tons of waste sent to the landfill by residents and businesses; and
- Use of refrigerants to air condition buildings and vehicles (municipal sector only).

### Baseline Emissions Inventory 2005

The City’s community-wide GHG emissions in 2005 equaled 147,094 tons of “equivalent carbon dioxide” (CO<sub>2</sub>e).<sup>§</sup> Emissions from automobile use constitute the single largest source in El Cerrito at 51%. Energy consumption in both the residential and commercial sectors is the second largest source at 44%, with residential energy use being almost twice as much as commercial energy use. Emissions associated with the decomposition of waste from El Cerrito in landfills constitute 5%. Finally, water use, waste water treatment, and municipal refrigerants combined comprise less than one percent of emissions.

Emissions from El Cerrito’s municipal operations are quantified as a subset of the larger



**Fig. A: El Cerrito Baseline GHG Emissions (147,094 tons CO<sub>2</sub>e in 2005)**

§ “Equivalent carbon dioxide” (CO<sub>2</sub>e) is the common unit of measurement to describe how much global warming a given type of greenhouse gas may cause.

community emissions baseline and are detailed separately in a chapter dedicated to climate action strategies for municipal operations.

It is important to note that this inventory is not a detailed accounting of all GHG emissions resulting from activities in El Cerrito. Rather, it is meant to provide a replicable snapshot of GHG emissions that can be reliably measured over time and over which local government exercises influence.

### Reduction Targets and Emissions Scenarios 2005-2035

Growth in El Cerrito’s GHG emissions have been projected for the years 2020 and 2035 using a “Business-As-Usual” (BAU) trend scenario. This scenario assumes that, absent any new actions to curb GHG emissions, existing growth rates would be representative of

future consumption trends in energy, water, vehicle use, and waste. Based on this methodology, El Cerrito’s GHG emissions are expected to increase by nearly 20,000 tons to 166,995 tons in 2020 and about another 26,000 tons to 192,825 by 2035.

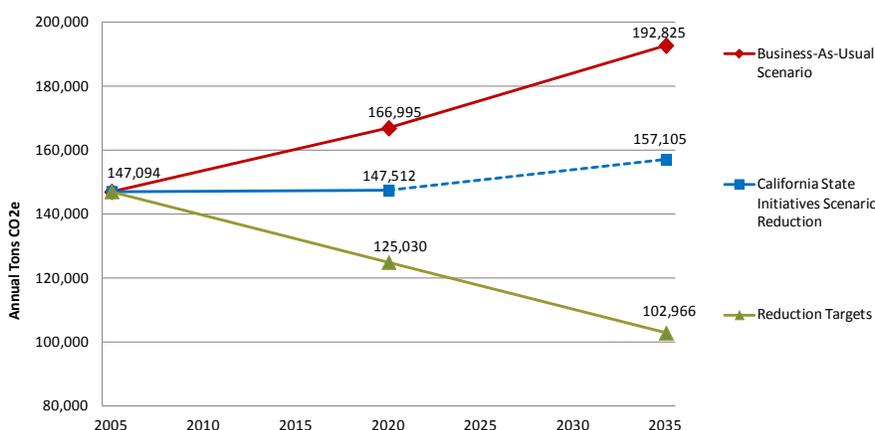
As shown in *Figure B, GHG Emissions Growth Projections and Reduction Targets*, in order to reduce emissions below 2005 levels by the 15% and 30% reduction targets, El Cerrito will need to reduce its overall emissions to 125,030 by 2020 and then to 102,966 tons by 2035. Because the State of California has several initiatives that would help significantly reduce GHG emissions at the local level, El Cerrito will not be shouldering the entire burden of achieving these reductions. These state initiatives are projected to reduce about 19,500 tons of CO<sub>2</sub>e from the BAU projections by 2020 and 36,000 tons by 2035.

Once reductions from state initiatives are subtracted from the projected total growth in emissions, El Cerrito

**Fig. B: GHG Forecast and Reduction Targets (2005-2035)**

	2005	2020	2035
Reduction Targets	Baseline	15%	30%
Reduction Targets in Tons of CO <sub>2</sub> e		41,965	89,860
Business-As-Usual (BAU) Emissions	147,094	166,995	192,826
Reduction Targets in Tons of CO <sub>2</sub> e		41,965	89,860
Tons Reduced from BAU Resulting from State Initiatives		- 19,482	- 35,721
Tons Reduced from BAU Resulting from City Initiatives		- 22,483	- 54,139
Total Emissions After Reductions (Tons CO <sub>2</sub> e)	147,094	125,030	102,966

**Fig. C: GHG Emissions Scenarios (2005-2035)**



will need to reduce an additional 22,488 tons of emissions by 2020 in order to achieve the 15% reduction target. By 2035, El Cerrito would then need to reduce emissions by an additional 54,139 tons in order to continue the annual trend and reduce emissions by 30% by 2035.

## Community Climate Action Strategies

The primary purpose of the CAP is to identify actions the City and community can take to reduce GHG emissions in order to achieve the reduction targets. Under each emission source, the CAP outlines and quantifies CO<sub>2</sub>e reductions from a number of goals, objectives and strategies (collectively called “measures”) that will help achieve the reduction targets. The areas of action are summarized below:

- **Transportation:** Land Use, Community Development and Transportation measures to reduce the vehicle miles traveled in El Cerrito by encouraging higher-density, transit-oriented development; making pedestrian- and bicycle-friendly infrastructure improvements; promoting urban greening; and offering trip reduction programs.
- **Energy and Water:** Resource conservation measures designed to achieve greater energy efficiency, water efficiency, and renewable energy in existing and new buildings through education, incentives, and ordinances.
- **Waste:** Waste reduction and recycling measures to increase participation in waste reduction programs, expand recycling opportunities at the Recycling and Environmental Resource Center, and develop a Zero-Waste 2035 Plan.
- **Municipal Operations:** Cross-sector measures to reduce GHG emissions from municipal operations, particularly those associated with transportation, energy and water use, procurement, and waste generation in municipal operations.
- **Adaptation to Climate Change:** While beyond the scope of this plan, the CAP also identifies issues and measures to begin to integrate the projected impacts of climate change into City planning and emergency preparedness processes.

Figure E at the end of this chapter summarizes all the goals and objectives outlined in the CAP, including the estimated tons of CO<sub>2</sub>e reduced, assuming robust implementation of these measures.



# Implementation

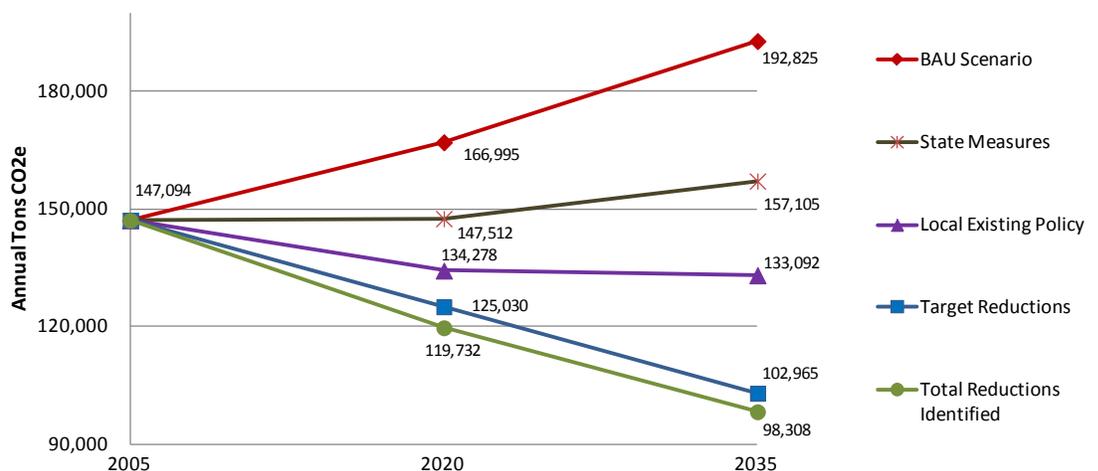
## Can We Achieve Our Reduction Targets?

El Cerrito is already making progress towards implementation of the CAP, especially in relation to the CAP’s Sustainable Communities, Waste Reduction, and Municipal Goals. *Figure D, Reductions from Existing and Proposed Strategies*, compares the CAP’s Emissions BAU and Reduction Scenarios against, first, a scenario involving full implementation of only those measures already enabled by existing City policy, and, second, a scenario where the full list of identified measures in the CAP is implemented. The line labeled “Local Existing Policies” quantifies the potential reductions enabled by existing policies, plans, and/or programs, if robustly implemented. Thus, the differential between potential reductions resulting from strategies that have already been enabled and our 2020 reduction target is about 9,200 tons. If the City and other agencies fully implemented the entire list of strategies included in the CAP, the City has the potential to exceed our 2020 goal by 4%, as depicted by the line labeled “Total Reductions Identified.”

The reduction targets are ambitious but achievable if concerted action is taken. For example, the 2020 15% reduction target would be achieved if *all* households took such actions as insulating the attic, converting to Energy Star appliances, driving 19 miles less per week per household member, and actively participating in the City’s recycling and composting programs. Many households in El Cerrito have already enacted and gone beyond these actions and are well on the way toward helping El Cerrito meet its 2035 target. However, it will be more challenging to achieve reductions equivalent to these actions across the entire community.

El Cerrito’s residential nature represents the main challenge that the City faces in combating growth in emissions: instead of focusing efforts on a few large sources, *El Cerrito’s success will come from the many small, aggregated actions taken by its 24,000 residents and 5,700 people who work in El Cerrito.*

**Fig. D: Reductions from Existing and Proposed Strategies**



## Monitoring and Continuous Improvement

Monitoring progress is a key component to meeting our emissions reduction goals. The City’s Environmental Services Division (ESD) will track emissions reductions, resource savings, and any other effects of each implemented strategy. Every year, the Environmental Services Division will issue a CAP Implementation Report to update the City Council, residents, and other interested stakeholders on the progress towards implementing CAP objectives. The report will, at a minimum, detail activities to date and any lessons learned, and will make recommendations for changes to the implementation strategy or the CAP itself.

Every five years, a full GHG inventory will be conducted to monitor progress toward our targets. The results of the inventory will be reported to Council in a CAP Implementation Report. Based on the results of the 5-Year GHG Inventory, changes may be made to the CAP to reflect new reduction targets and measures that would ensure the City is on track to meeting its goals.

## Financial Considerations and Co-Benefits

Implementing the CAP will require significant investment. The majority of investments will be made by the private sector as developers build projects in El Cerrito, homeowners and businesses improve the energy and water performance of their properties, and people purchase higher efficiency or electric cars and make different choices about their transportation habits. In a majority of cases, these investments will not be made primarily for the purpose of reducing GHG emissions, but rather for their other significant benefits. Many of these strategies will be implemented primarily to increase the quality of life in El Cerrito and/or to create long-term positive outcomes, such as redeveloping under-utilized land along El Cerrito’s commercial strip, upgrading and maintaining the existing building stock, and saving consumer costs for fuel, natural gas, and electricity.

In many of these cases, the City will play a significant role in supporting and creating the conditions for the private sector to make these investments. As such, implementing the Plan will also require sustained, strategic public investment by local, regional, state, and federal agencies. While the City can leverage its policy, permitting and leadership functions to help make climate protection the “new normal” in El Cerrito, robust implementation of the CAP will also require outside funding and public/private partnerships.

**Figure E: Summary of CAP Goals and Objectives**

Goal #	Sustainable Community (SC)	Annual Tons CO <sub>2</sub> e Reduced	
		by 2020	by 2035
	<b>Summary of Goals and Objectives</b>		
SC-1	Encourage higher density TOD and infill development on transportation corridors		
SC-1.1	Update General Plan and other applicable plans and ordinances to support higher densities along major transportation corridors		
SC-1.2	Develop planning mechanisms to encourage development of higher densities in designated areas		
SC-1.3	Develop a parking demand management strategy to encourage high density development and alternatives to driving		
SC-2	Diversify El Cerrito’s economy to increase El Cerrito’s job base, create greater commercial vitality and more pedestrian-friendly economic activity		
SC-2.1	Create a walkable physical environment that invites people to spend time in El Cerrito’s commercial areas		
SC-2.2	Enhance neighborhood-serving commercial nodes and encourage commercial spaces in mixed-use areas.		
SC-2.3	Encourage adoption of green business practices and attract “green economy” businesses to El Cerrito	10,027	20,378
SC-3	Invest in pedestrian-, bicycle-, and transit-friendly infrastructure		
SC-3.1	Create design standards for bicycle and pedestrian friendly design		
SC-3.2	Maintain an active streetscape improvement and maintenance program		
SC-3.3	Continue implementation of the Ohlone Greenway Master Plan		
SC-3.4	Expand and improve the City’s bicycle and pedestrian infrastructure		
SC-3.5	Work with regional agencies to support improvements and greater access to transit facilities in El Cerrito		
SC-4	Increase and enhance urban green and open space		
SC-4.1	Develop a comprehensive Urban Greening Plan		
SC-4.2	Promote Bay Friendly tree planting and landscaping and open and green spaces, including community gardens		
SC-5	Develop alternative transportation outreach and incentive programs to increase the number of trips made by walking, biking or taking transit.		
SC-5.1	Encourage residents and businesses to adopt trip reduction programs		
SC-5.2	Develop education and outreach campaigns and events to promote walking, biking and taking transit	242	443
SC-State	State transportation measures: fuel efficiency & low carbon content	14,189	27,167
	<b>Total Sustainable Community Reductions Identified (Tons CO<sub>2</sub>e)</b>	<b>24,458</b>	<b>47,988</b>

**Figure E: Summary of CAP Goals and Objectives (continued)**

Goal #	Energy and Water Use (EW)	Annual Tons CO <sub>2</sub> e Reduced	
		by 2020	by 2035
	Summary of Goals and Objectives		
EW-1	Reduce energy and water use in existing buildings by 20%		
EW-1.1	Promote and provide energy and water efficiency education & incentive programs in El Cerrito	2,736	10,411
EW-1.2	Promote clean energy financing strategies for property owners	887	1,953
EW-1.3	Utilize existing points of interaction with the City to encourage and/or require cost-effective energy and water efficiency improvements	867	3,503
EW-2	Encourage new construction to build to a higher level of green building and energy efficiency than is required by California code		
EW-2.1	Encourage new construction to be built to green building, energy, and water performance standards	445	1,333
EW-3	Reduce reliance on fossil fuel based energy by increasing renewable energy use in El Cerrito		
EW-3.1	Facilitate greater adoption of renewable energy use	1,061	3,566
EW-3.2	Join a Community Choice Aggregation	4,242	6,868
EW-4	Encourage water conservation and efficiency and diversify the community's water supply.		
EW-4.1	Promote and provide water efficiency education & incentive programs in El Cerrito	63	95
EW-4.2	Encourage adoption of rainwater catchment and gray water irrigation systems		
EW-State	State Electricity Measures: Renewable Energy Standard	5,294	8,553
	<b>Total EW Reductions Identified (Annual Tons CO<sub>2</sub>e)</b>	<b>15,595</b>	<b>36,282</b>

**Figure E: Summary of CAP Goals and Objectives (continued)**

Goal #	Waste Reduction (W)	Annual Tons CO <sub>2</sub> e Reduced		
		<i>existing measures</i>	<i>by 2020</i>	<i>by 2035</i>
	<b>Summary of Goals and Objectives</b>			
<b>W-1</b>	<b>Reduce waste going to landfill to 4,000 tons by 2020 and to 2,000 tons by 2035.</b>			
W-1.1	Maximize participation in curbside waste reduction services in the residential, commercial, multi-family, and educational sectors.	3,288	6,324	8,397
W-1.2	Expand one-stop waste diversion options at the Recycling and Environmental Resource Center			
W-1.3	Reduce landfill waste from Construction and Demolition Projects			
W-1.4	Develop and implement a “Zero-Waste” 2035 Plan for El Cerrito			
	<b>Total Waste Reductions Identified (Tons CO<sub>2</sub>e)</b>		<b>6,324</b>	<b>8,397</b>

Figure E: Summary of CAP Goals and Objectives (continued)

Goal #	Municipal (M) Operations	Annual Tons CO2e Reduced	
		by 2020	by 2035
	<b>Summary of Goals and Objectives</b>		
<b>M-1</b>	<b>Reduce municipal transportation related GHG emissions by 15% by 2020 and 30% by 2035</b>		
M-1.1	Reduce annual VMT associated with employee commutes and field work	100	134
M-1.2	Green the municipal fleet	12	20
M-1.3	Reduce car travel associated with large City-sponsored events	0.63	1
<b>M-2</b>	<b>Reduce reliance on utility provided energy and water in municipal operations by 15% by 2020 and 30% by 2035</b>		
M-2.1	Reduce overall energy and water use in municipal operations	200	334
M-2.2	Install solar energy projects on city buildings	112	140
M-2.3	Use Bay Friendly and Water Smart Irrigation practices and technologies	2	2.4
M-2.4	Convert City landscaped areas to “Bay-Friendly,” drought-tolerant landscapes (includes water, waste to landfill, and fuel savings)	82	113
<b>M-3</b>	<b>Update the City’s project development and procurement practices to ensure the purchase of environmentally preferable projects, equipment, and products</b>		
M-3.1	Update the City’s Environmentally Preferable Purchasing policy and tools	embedded energy, not measured	
M-3.2	Develop a green building ordinance for municipal buildings and projects	embedded energy, not measured	
M-3.3	Maintain an active pavement preservation and management program	embedded energy, not measured	
M-3.4	Reduce refrigerant emissions from City-owned AC units, vehicles, and refrigerators	295	322
<b>SC-4</b>	<b>Make City operations a model of “reduce, reuse, recycle, and compost”</b>		
M-4.1	Institute robust recycling and food waste composting programs in all City facilities	counted in community waste reductions	
M-4.2	Create protocols, tools, and trainings to aid staff in specifying and purchasing recycled-content equipment and materials	embedded energy, not measured	
M-4.3	Institute waste reduction policies and projects for City facilities.	embedded energy, not measured	
<b>State</b>	<b>State Renewable Portfolio and Vehicle Fuel Efficiency Standards</b>	<b>counted in Community Strategy</b>	
	<b>Total Municipal Reductions Identified (Tons CO2e)</b>	<b>803</b>	<b>1,066</b>