



# Contra Costa County Board of Supervisors

## Subcommittee Report

### SUSTAINABILITY COMMITTEE

**Meeting Date:** 03/28/2022

**Subject:** RECEIVE UPDATE and PROVIDE GUIDANCE on the Proposed Draft Strategies and Recommended Targets for the 2022 Update to the Climate Action Plan.

**Submitted For:** Jody London, Sustainability Coordinator

**Department:** Conservation & Development

**Referral No.:** N/A

**Referral Name:** RECEIVE UPDATE and PROVIDE GUIDANCE on the Proposed Draft Strategies and Recommended Targets for the 2022 Update to the Climate Action Plan.

**Presenter:** Jody London, DCD

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### Referral History:

Since 2018, the Department of Conservation and Development (DCD) has been working on Envision Contra Costa 2040, the update to the County General Plan, Zoning Code, and 2022 Climate Action Plan (CAP). The General Plan will provide the County's long-term sustainability and resiliency vision and framework of goals, policies, and actions to achieve the 2040 vision. The 2022 CAP will provide the County's strategic plan of specific County-led and supported strategies and actions to reduce greenhouse gas (GHG) emissions in support of the State's emission reduction targets for 2030 and beyond, and to support climate adaptation and increased resilience to climate hazards and their impacts.

### Referral Update:

This report provides information on greenhouse gas (GHG) emissions in the unincorporated areas of Contra Costa County and provides recommendations on targets for reducing GHG emissions. There are several attachments to this report that provide more detail on current and forecast emissions, as well as draft goals and strategies for reducing them.

- Attachment 1: Community-Wide GHG Inventories - Summary of Results
- Attachment 2: Greenhouse Gas Forecast, Existing Reductions, and Target Setting
- Attachment 3: Strategy Matrix and Implementation Details
- Attachment 4: Quantification Results and Assumptions

Staff recommends that the 2022 CAP include GHG emission reduction targets that are consistent with State guidance and for which there are demonstrable paths to achieving the necessary reductions. These recommended targets should be no greater than 6.0 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>, a common unit for measuring GHGs that addresses the different warming potentials of different gases, equal to 1,000 kilograms or approximately 2,205 pounds) per-capita by 2030, 4.0 MTCO<sub>2e</sub> per-capita by 2040, and 2.0 MTCO<sub>2e</sub> per-capita by 2050. Staff additionally recommends that the 2022 CAP include an aspirational target of achieving net carbon neutrality by 2040 or 2045, consistent with the State's aspirational target.

### **About the 2022 CAP**

The 2022 CAP will address climate mitigation and adaptation. It will include an assessment of the County's current and projected future GHG emissions, targets to reduce the County's GHG emissions in accordance with State and regional guidance, and a set of strategies to achieve these reductions. The CAP also includes strategies to improve community resilience to climate change-related hazards, consistent with the findings of the County's Vulnerability Assessment and the in-progress Health and Safety Element of the General Plan.

The 2022 CAP will meet the requirements laid out for a Qualified GHG Reduction Strategy for the purposes of the California Environmental Quality Act (CEQA) as written in the California Code of Regulations Section 15183.5(b). This will allow future project applicants to use the 2022 CAP and the Envision 2040 EIR to streamline environmental review related to climate change and GHG emissions if those projects are consistent with Envision 2040 and the CAP's GHG reduction targets and

strategies. These requirements are:

- Quantify GHG emissions, both existing and projected over a specified period, from activities within a defined geographic area. (This work is complete and summarized in Attachment 1)
- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable. (This work is in progress. Attachment 2 provides more details)
- Identify and analyze the GHG emissions from the specific actions or categories of actions anticipated within the geographic area. (This work is in progress. Attachment 2 provides more details)
- Specify measures or a group of measures, including performance standards that substantial evidence demonstrates would collectively achieve the specified emissions level if implemented on a project-by-project basis. (This work is in progress. Attachments 3 and 4 provide more details)
- Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels. (This work is in progress)
- Be adopted in a public process following environmental review. (This work is forthcoming)

### **Current and Historic GHG Emissions**

The Board of Supervisors adopted the County's current CAP in 2015. As part of preparation of the 2022 CAP, County staff have revised the 2005 and 2013 GHG inventories included in the 2015 CAP, updating them to be consistent with current guidance and best practices. County staff have also prepared two additional inventories, for the calendar years 2017 and 2019. These inventories identify the sources and volumes of GHG emissions attributed to the unincorporated areas of Contra Costa County.

In 2005, the baseline year for the County's GHG analyses, GHG emissions for the unincorporated areas of Contra Costa County totaled 1,291,580 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>). By 2019, these emissions fell to 1,010,590 MTCO<sub>2e</sub>, a decline of 22 percent. This puts the County on track to exceed its goal to reduce emissions 15 percent below 2005 levels by 2020.

The County also translated these GHG emissions to a per-resident value, known as a per-capita level. In 2005 the per-capita emissions for the unincorporated areas of Contra Costa County were 8.37 MTCO<sub>2e</sub> per-capita, falling to 5.80 MTCO<sub>2e</sub> per capita by 2019, a decline of 31 percent.

Although the inventories assessed GHG emissions for 11 different sources, or sectors, approximately half of all GHG emissions came from gasoline and diesel use in cars, trucks, and other on-road vehicles. Approximately 30 percent of emissions came from energy use in homes and nonresidential buildings (electricity, natural gas, and other home heating fuels), while approximately 20 percent of emissions were associated with solid waste generation. The remaining sources comprised approximately 10 percent of GHG emissions in the unincorporated area. Attachment 1 provides additional details on the inventories' methods and results.

### **Future GHG Emissions**

County staff projected GHG emissions for future years using expected demographic growth in the unincorporated area, consistent with the demographic projections for Envision Contra Costa and the Association of Bay Area Governments/Metropolitan Transportation Commission. This forecast assumes that 2019 activities and resulting GHG emissions remain mostly constant per-person, and so changes in activities and emissions are driven by changes in demographics. If no new actions beyond those in place in 2019 are taken to reduce GHG emissions in the unincorporated area, emissions are projected to increase to 1,552,910 MTCO<sub>2e</sub> by 2050, an increase of 54 percent above 2019 levels. At a per-capita level, the demographic growth in the unincorporated area causes GHG emissions to fall to 5.29 MTCO<sub>2e</sub> per-capita, a decline of 9 percent below 2019 levels.

However, State and regional agencies are already taking regulatory actions and establishing new programs to reduce future GHG emissions, which will help to reduce emissions in the unincorporated areas of Contra Costa County. These actions include increasing supplies of renewable electricity, requiring higher energy efficiency performance and less natural gas use in new developments, and greater fuel efficiency and zero emission vehicle adoption for new vehicles. When these existing and planned efforts are factored in, GHG emissions in unincorporated Contra Costa County are expected to increase to 1,115,090 MTCO<sub>2e</sub> by 2050 (10 percent above 2019 levels), or to fall to 3.80 MTCO<sub>2e</sub> per-capita (35 percent below 2019 levels). Attachment 2 provides further details on the results and methods of future GHG emission projections.

### **Reduction Targets**

The 2022 CAP will include GHG emission reduction targets for the unincorporated areas of Contra Costa County. The County has flexibility to adopt targets that best meet its needs. For the 2022 CAP to be considered a Qualified GHG Reduction

Strategy and to provide the most benefits to the community, it should at a minimum include targets that are consistent with (i.e., meet or exceed) the targets that the State has adopted, known as regulatory targets. The County may also adopt targets that meet or exceed targets that the State aims to achieve but are not enforced by adopted regulation. We refer to these as aspirational targets.

The Legislature adopted two regulatory targets:

- Reduce emissions to 1990 levels (15 percent below 2005 levels) by 2020.
- Reduce emissions 40 percent below 1990 levels by 2030 (or for local governments, reduce emissions to 6.0 MTCO<sub>2</sub>e per-capita).

In addition, State agencies work toward aspirational goals established through executive orders:

- Achieve net carbon neutral GHG emissions by 2045, as set forth in Executive Order B-55-18.
- Reduce emissions 80 percent below 1990 levels by 2050 (or for local governments, reduce emissions to 2.0 MTCO<sub>2</sub>e per-capita), as set forth in Executive Order S-03-05.

The State's guidance for local governments, per the 2017 Climate Change Scoping Plan, supports local agencies' use of per-capita targets of 6.0 MTCO<sub>2</sub>e per-capita by 2030 and 2.0 MTCO<sub>2</sub>e per-capita by 2050 for community-wide plans. These are the equivalent of the state-level targets of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

The Bay Area Air Quality Management District (BAAQMD) is in the process of developing guidelines for determining the significance of GHG emissions from a plan or project. BAAQMD released draft guidelines in February 2022. Under these guidelines, a Qualified GHG Reduction Strategy must either:

- Reduce emissions to 40 percent below 1990 levels by 2030 and achieve net carbon neutrality by 2045; or
- Be consistent with the requirement in the California Code of Regulations Section 15183.5(b), mentioned above, stating that targets must reduce emissions below a level that would not be considered cumulatively significant.

As currently written, these draft guidelines do not provide any increased clarity or actionable guidance on appropriate targets for the 2022 CAP. The State is currently developing an update to the Climate Change Scoping Plan, which may provide greater certainty on the State's GHG reduction targets and the details of the State's pathway to achieve carbon neutrality. The State expects to release a draft version of the updated Climate Change Scoping Plan in May 2022 and adopt it before the end of the year.

In addition to including targets for 2030 and 2045 or 2050, the 2022 CAP will include an interim target for 2040 to support consistency with the horizon year of Envision Contra Costa. This interim target would be an interpolation between the 2030 and 2050 targets.

### **Goals and Strategy Development Process**

County staff have prepared a set of draft GHG emission reduction strategies that provide a pathway for the County to achieve the targets that it selects. These draft goals and strategies are based on several sources. The County Sustainability Commission spent a significant amount of time in 2019 developing recommendations for CAP goals and strategies. These goals and strategies were discussed with community members in a series of four workshops held at different locations across the County in September and October 2019. Sustainability staff also relied on strategies in the 2015 CAP, consulted and collaborated with other key County staff, and considered new and emerging opportunities and regional best practices. The Sustainability Commission reviewed the draft goals and strategies again in October 2021.

- Clean and Efficient Built Environment
- No Waste Contra Costa
- Reduce Water Use and Increase Drought Resilience
- Clean Transportation Network
- Resilient Communities and Natural Infrastructure
- Climate Equity
- Leadership
- Implementation Strategies.

Of the 28 draft strategies, ten have quantifiable GHG emission reductions. The remaining draft strategies support climate and sustainability actions but do not directly reduce GHG emissions, or there is not a feasible method for assessing the GHG emission reduction potential. Attachment 3 shows specific language and implementation details of the draft strategies.

## GHG Reductions from Draft Strategies

Staff calculated the GHG emission reduction potential of the ten quantifiable draft strategies using state-recommended methods and other transparent and accessible approaches. Each of these draft strategies assumes a particular level of community participation in one or more key performance metrics, such as number of water-efficiency retrofits, number of homes retrofitted to be all-electric, or acres of land used for carbon farming. In general, the higher level of participation in these metrics, the higher the GHG emission reduction of the draft strategy. Staff have selected a level of participation that seem reasonable and feasible given anticipated staffing and resource availability and needs.

As currently quantified, these draft GHG emission reduction strategies reduce emissions by 187,720 MTCO<sub>2</sub>e in 2030, 330,480 MTCO<sub>2</sub>e in 2040, and 574,970 MTCO<sub>2</sub>e in 2050. When translated to per-capita levels, these GHG emission reduction strategies reduce emissions by 0.94 MTCO<sub>2</sub>e per-capita in 2030, 1.37 MTCO<sub>2</sub>e per-capita in 2040, and 1.96 MTCO<sub>2</sub>e per-capita in 2050. The table below shows the level of GHG emission reductions achieved by the GHG emission reduction strategies relative to the recommended targets.

	2030	2040 *	2050
<b>Absolute emissions</b>			
Minimum regulatory target	40% below 1990 levels 658,700	60% below 1990 levels 439,140	80% below 1990 levels 219,570
Emissions with existing/ planned reductions and draft CAP strategies	26% below 1990 levels 809,450	44% below 1990 levels 725,340	51% below 1990 levels 540,120
Gap to target	150,750	286,200	320,550
<b>Per-capita emissions</b>			
Minimum regulatory target	6.00	4.00	2.00
Emissions with existing/ planned reductions and draft CAP strategies	4.06	3.00	1.84
Gap to target	--	--	--
* The 2040 targets are a linear interpolation between the State guidance for 2030 and 2050 targets. Due to rounding, totals may not equal the sum of the individual values.			

As currently quantified, the draft GHG emission reduction strategies achieve the state-recommended per-capita target for 2030 and 2050, as well as the interim 2040 level. The GHG emission reduction strategies do not meet the absolute emission targets that the State has adopted and proposed for itself. Achieving those targets will require increased levels of participation for some or all the strategies and/or development of additional draft strategies. Attachment 3 summarizes the GHG emission reduction potential from the draft strategies, while Attachment 4 provides greater detail about these potential GHG emission reductions and the level of community participation necessary to achieve them.

### Requested Action

Staff recommends that the 2022 CAP include GHG emission reduction targets that are consistent with State guidance and for which there are demonstrable paths to achieving the necessary reductions. These recommended targets should be no greater than 6.0 MTCO<sub>2</sub>e per-capita by 2030, 4.0 MTCO<sub>2</sub>e per-capita by 2040, and 2.0 MTCO<sub>2</sub>e per-capita by 2050. Staff additionally recommends that the 2022 CAP include an aspirational target of achieving net carbon neutrality by 2040 or 2045, consistent with the State's aspirational target.

### Recommendation(s)/Next Step(s):

RECEIVE UPDATE and PROVIDE GUIDANCE on the proposed draft strategies and levels of participation and recommended targets, including direction on opportunities to achieve further GHG emission reductions should the Sustainability Committee suggest targets that exceed State guidance.

### Fiscal Impact (if any):

The fiscal impact of the Climate Action Plan will be evaluated as this project proceeds. While there are costs associated with the different goals and actions outlined in the draft goals and strategies, there are benefits as well. Some of these benefits are less easily quantified, for example, improved public health, better air quality.

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## **Attachments**

Attachment 1: Community-Wide GHG Inventories - Summary of Results

Attachment 2: Greenhouse Gas Forecast, Existing Reductions, and Target Setting

Attachment 3: Strategy Matrix and Implementation Details

Attachment 4: Quantification Results and Assumptions

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