

Tuolumne County Climate Action Plan Frequently Asked Questions – July 2022

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Why is Tuolumne County developing a CAP?

The Tuolumne County Climate Action Plan (CAP) is a roadmap for our local government to help guide actions that could reduce local greenhouse (GHG) emissions and help adapt our community and infrastructure to the effects of climate change. This plan is a guiding policy document and does not establish new local regulations or mandates for the public. **The CAP creates a set of goals for the community to reference when making decisions about how Tuolumne County handles climate related events including drought, wildfire and extreme heat.** The policies in the CAP are supported by a menu of implementation measures which are flexible to respond to future climate priorities, availability of funding, financial implications to homeowners, and community support.

Development of a CAP is driven by Policy 18.A.1 in the County's 2018 General Plan. The County's CAP identifies existing and projected GHG emissions, sets GHG reduction targets, establishes policies and actions to reduce GHG emissions, integrates climate adaptation and resilience strategies, engages the community, and provides an implementation program.

Additionally, under SB 379, the State of California requires local governments to proactively plan for adapting to climate change. Adopted in 2015, **SB 379 requires cities and counties within California to integrate climate change vulnerability, adaptation strategies, and emergency response strategies into the Safety Element of their General Plans.** The bill requires the preparation of a vulnerability assessment, which must identify the risks that climate change poses to the local jurisdiction and the geographic areas at risk from climate change impacts, using federal, state, regional, and local climate vulnerability documentation. Hence, the CAP also includes data, information, and policies to comply with SB 379.



How to Read the Climate Action Plan

This CAP is divided into five main chapters. **Chapter 1** introduces the county, outlines the objectives and organization of the CAP, and describes existing legislation and efforts aimed at addressing climate change. **Chapter 2** summarizes the county's baseline GHG emissions, presents a forecast of future emissions, and identifies the County's emissions reduction targets. An overview of the climate adaptation planning process and a summary of the county's climate change vulnerability assessment are included in **Chapter 3**. The core of the CAP – the GHG reduction and adaptation strategies and measures – are included in **Chapter 4**, organized into five focus areas: Health and Safety, Conservation and Recreation, Buildings, Infrastructure, and Agriculture and Forestry. Each focus area contains strategies and measures that the County will implement to reduce GHG emissions and strengthen community resilience to climate change impacts. **Chapter 5** provides a framework for implementing, monitoring, and updating the CAP in the future.

Each focus area in **Chapter 4** presents strategies that serve as the foundation to help the County achieve its climate change goals. Within each strategy are one or more measures that represent specific expressions of the broad strategies. Climate change mitigation and adaptation objectives are intertwined throughout the strategies and measures. **Chapter 5** includes actions associated with each measure that define the activities, projects, programs, or policies that the County will implement or support to advance its GHG reduction and adaptation goals. These actions have been identified as priorities and are intended to be implemented within the first 3 to 5 years after CAP adoption.

Each CAP action was evaluated qualitatively for its GHG reduction potential and climate resilience benefit. Actions were assigned a score of 1, 2, or 3 for each metric, which correspond to a low, medium, or high GHG reduction potential and low, medium, or high climate resilience benefit. The icons shown below are used throughout the CAP to indicate the score for GHG reduction potential and climate resilience benefit. Additional information regarding the scoring can be found in Chapter 5.



Does the Climate Action Plan require me to remove my wood-burning stove?

The Climate Action Plan will not require residents to remove wood stoves or wood-burning appliances.

Residential building energy emissions, a component of the overall emission sources (which also includes emissions from transportation, solid waste, water supply, and non-residential building emissions [e.g., commercial use of propane, diesel, and electricity]), are associated with the consumption of electricity, propane, fuel wood, and heating oil in homes within the county.

The combustion of fossil fuels in vehicles and equipment produces particulate matter, which degrades local air quality and has negative health consequences. Wood burned in homes and businesses for heating creates the same effects. Replacing wood-burning appliances positively impacts local air quality, improves quality of life, and reduces emissions.

Measure 2.4 of the CAP states “Improve indoor air quality by replacing wood-burning fireplaces and other wood-burning appliances.” The CAP specifically states, “Actions that could be taken under this measure include developing and implementing a wood-burning stove and fireplace change-out program and continuing to enforce emissions standards for wood-burning appliance installations.”

The CAP does not require the removal of wood stoves; the CAP only identifies that wood stoves are a source of particulate matter that may degrade indoor air quality. If, in the future, the County desired to sponsor a change-out program available to residents, this would be a benefit to individuals, as newer stoves are more efficient (resulting in a cost savings) and reduce the impact on indoor air quality.

For example, in 2018, the Tuolumne County Air Pollution Control District (APCD) organized a Woodsmoke Reduction Pilot Program, designed to help Tuolumne County households replace uncertified wood-burning stoves and other wood-burning appliances that were used as a primary source of heat, with a cleaner-burning and more efficient heating alternative. The Program was a part of California Climate Investments, a statewide program that puts “Cap-and-Trade” dollars to work reducing GHG emissions, strengthening the economy, and improving public health and the environment. Vouchers were issued between \$1,000 and \$3,500. The most recent program offered by APCD was in 2020.

The purpose of Measure 2.4 is to suggest ways that residents *could* benefit from a change-out program, not to require the removal of existing wood stoves. Further, all new wood stoves and other wood-burning appliances are regulated by the California Air Resources Board, and this measure recognizes that new wood-burning appliances are subject to emission standards.



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Will the CAP ban backyard burning?

The CAP is a policy document, not an ordinance or local regulation, and **its adoption would not result in a ban on backyard burning.**

Measure 4.1 of the CAP states “Reduce open burning (eg. agricultural burning, backyard burning). Open burning refers to agricultural and non-agricultural burning of vegetative matter, hazard reduction and ditch/road maintenance burning, and other burn activities that are permitted by the Tuolumne County Air Pollution



Control District. The CAP explains Measure 4.1 further by suggesting that a local pick up-delivery program of biomass could be implemented for residents in lieu of backyard burning, a program be established to require the reuse of usable lumber removed due to land conversion and promoting the development of value-added alternatives such as composting and energy generation. The County recently approved a new biomass facility on Camage Avenue and is processing a permit for another biomass facility on O’Byrnes Ferry Road. Biomass projects such as these provide alternatives to open burning from fuel removal activities. The CAP does not ban open burning; in reality, it promotes establishing alternatives that can be used as options in lieu of burning. Co-Benefits from reducing open burning include improved air quality, which improves the quality of life in residential neighborhoods, improved economic diversity as biomass projects are established and create new jobs, and improved energy reliability resulting from the operation of the new biomass projects.

Why aren’t estimates of GHG emissions associated with wildfires included in the CAP?

The CAP has not included wildfire emissions in the agriculture and forestry sector of the inventory. The County’s inventory is focused on what the U.S. Community Protocol (developed by ICLEI–Local Governments for Sustainability) recommends and aligns with the how the California Air Resources Board accounts for the State’s GHG inventory. **The U.S. Community Protocol currently does not include methodologies for wildfire related GHG emissions and the State does not include wildfire emissions in the statewide inventory.**

To review the Climate Action Plan and the documents related to the development of this project, please visit <https://www.tuolumnecounty.ca.gov/1332/Climate-Action-Plan>. Additionally, on the County of Tuolumne Homepage, type “Climate Action Plan” into the search bar, and the project page can easily be found.

To provide feedback or obtain additional information, please contact Quincy Yaley, Director of the Community Development Department at 209-533-5961 or qyaley@co.tuolumne.ca.us.

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Quantifying emissions from fires and forest management is an evolving area of science and it is possible that future State inventories will include these sources of emissions. For the first time, the California Air Resources Board and CAL FIRE developed a draft report (released in December 2020) that presents statewide estimates of GHG emissions associated with wildfires and prescribed burning activities for 2000-2019, but these estimates are not yet available for the local level. Therefore, because of lack of available methods to quantify wildfire emissions locally and predict future wildfire occurrences in an accurate manner, these emissions are not included in the County's inventory. **However, wildfire is still addressed in the CAP under the "Fire-Adapted Community" Strategy and in Appendix B of the CAP, "Adaptation and Resilience Report."**

Does the CAP address water supply/drought and the shrinking snowpack?

The CAP identifies the effects of climate change and seeks ways to respond to expected concerns like reduced snowpack. The vulnerability assessment that is part of the CAP process directly address these issues and can be found in Appendix B of the CAP.

Does the CAP address the benefits of forest resiliency on reducing climate change?

Healthy forests provide direct benefits to the community, including wildfire and drought resiliency, and they also play a role in mitigating climate change. **Building the long-term resilience of forests in the county boosts public safety, improves local air quality, enhances water quality and supply, and increases carbon sequestration.** The CAP identifies the importance of forest health in Strategy 6, "Forest Resilience," and under the "Agricultural and Forestry" strategies in Chapter 4. The Yosemite Stanislaus Solutions forest collaborative (YSS) is specifically identified in Section 2.3.3, "Adaptive Efforts Related to Increased Wildfire Risk," which recognizes the important and collaborative work that YSS in partnership with Tuolumne County is leading by enhancing forest management actions to aggressively reduce forest fuels and restore forests to conditions that are resilient to wildfire.

Why isn't there a cost/benefit analysis of the CAP – how much will this cost to implement?

While there may be a cost to implementing the suggested measures in the CAP, climate action provides many additional benefits to individuals, households, businesses, and communities. These "co-benefits" include social, economic, and environmental benefits. **Cost effectiveness was not part of scope of the CAP, but will be considered during implementation of specific measures identified in the plan.** Like other long-range planning efforts, the County has undertaken, the General Plan did not require a



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cost-benefit analysis. However, if the County desires in the future to assess the financial cost and benefits from a measure, the California Air Resources Board has suggested methodologies on quantifying costs and co-benefits of climate action policies.

For example, the California Air Resources Board provides guidance on the following:

- **Jobs:** Methods to prospectively estimate the number of jobs supported by California Climate Investments projects.
- **Travel Costs:** Methods to estimate changes in travel costs as a result of switching travel modes (e.g., switching from driving a car to riding mass transit, biking, or walking).
- **Energy and Fuel Cost Savings:** Methods to estimate changes in energy and fuel costs as a result of changing the quantity of energy or fuel used, conversion to an alternative energy or fuel source, and renewable energy or fuel generation.
- **Water Savings:** Methods to estimate changes in water use as a result of a change in agricultural irrigation; efficiency measures in residential, commercial, or institutional facilities; green infrastructure intended for water capture and infiltration; and tree or vegetation planting requiring more irrigation.
- **Climate Adaptation:** Methods to qualitatively assess changes in resiliency and vulnerability to the effects of climate change, including extreme heat, drought, sea level rise and inland flooding, agricultural productivity, species habitat, and wildfire.
- **Heart and Lung Health:** Methods to estimate expected changes in the incidence of premature cardiopulmonary mortality, hospitalizations for cardiovascular and respiratory illness, and emergency room visits for respiratory illness and asthma as a result of changes in emissions of criteria and toxic air pollutants.



As County staff conduct evaluations of the effectiveness of the CAP in the future, cost-benefit information can be incorporated into these monitoring reports provided to the public and to the Board of Supervisors, should it be desired.

If approved, will the CAP ban off road vehicles?

Measure 2.3 states “Reduce air pollution from off-road vehicles and equipment”. Off-road emissions are associated with gasoline and diesel fuel use from construction and mining, entertainment, industrial, lawn and garden, commercial, and recreational equipment, as well as pleasure craft, railyard operations, transportation refrigeration units, and boating enforcement units. Emissions associated with the off-road vehicles and equipment are estimated to account for 3 percent of countywide GHG emissions. Actions that could be taken under this measure include enforcing existing regulations, encouraging the use of electric- or alternatively-fueled off-road vehicles and equipment, creating incentives for fuel switching, and installing sufficient outdoor electrical outlets in



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new development. **The CAP does not contain any direction or regulations to eliminate off road vehicle use. Banning off road vehicle use, for the type of off-road vehicles analyzed in the CAP, would not be possible.** This CAP is a guiding policy document, not an ordinance or local regulation, and its adoption would not result in a ban of off-road vehicle use.



Will approval of the CAP ban gasoline engines?

Similarly, the CAP does not require the elimination of gasoline engines – such a requirement would not be possible. Measure 4.1 states “Transition to 100 percent clean electricity”. This measure would result in the greatest GHG reduction potential and the greatest benefit to climate resiliency. **Actions that could be taken under this measure**

include increasing the development of renewable energy systems suitable for the county, incentivizing local clean energy production and infrastructure projects, and prioritizing climate resilience in energy and transmission systems planning. Efforts to facilitate the transition to cleaner fuel and power sources will reduce emissions and improve local air quality. The CAP also addresses the use of fossil fuels in agricultural practices. The CAP identifies that transitioning to low-carbon equipment, increasing energy efficiency, and installing renewable energy systems improves energy independence and saves farmers money, bolstering the resilience of agricultural operations. **However, the CAP does not require that agricultural practices eliminate the use of fossil fuels – the CAP identifies potential actions that if implemented, would result in improved climate resiliency. This CAP is a policy document, not an ordinance or local regulation, and its adoption would not result in a ban of use of gasoline engines.**

Does the CAP include the City of Sonora or area in the County under federal jurisdiction?

This CAP covers only the unincorporated areas of Tuolumne County, so the City of Sonora is not included. **The CAP only covers unincorporated county where the County has land use authority** (not US Forest Service or other federally or state managed lands).

What are greenhouse gases?

Greenhouse gases are atmospheric gases, which consist mainly of water vapor, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons. Three primary greenhouse gases are quantified in the County’s CAP: carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Emissions are reported in metric tons of CO₂e (MTCO₂e).



What makes up the County's GHG inventory?



A GHG emissions inventory is a snapshot reference of the annual emissions associated with a jurisdiction's community-wide activities. GHG emissions inventories are a critical component of the CAP process used to establish reduction targets/goals and monitor emissions over time. Local government greenhouse gas inventories are based on activities taking place within its boundaries that a jurisdiction has control over.

Tuolumne County's 2019 inventory shows an overwhelming majority of emissions are from on-road vehicles, which is consistent with other rural counties throughout the state, followed by agriculture and forestry, and building energy use (both residential and nonresidential).

What is a Co-Benefit?

Co-benefits result from the implementation of CAP actions and are additional valuable outcomes that are not the primary intent of climate change mitigation or adaptation actions. For example, implementation of an action to weatherize older buildings to improve energy efficiency will reduce GHG emissions and strengthen resilience to extreme weather conditions, but it will also provide the co-benefit of financial savings to building owners money through reduced energy costs.

The CAP identifies emission reduction targets. What happens if the County doesn't meet the targets?

The emissions reduction targets in this CAP are consistent with statewide GHG emission reduction targets. The State's 2030 and 2050 targets are in line with the scientifically established levels needed to limit the rise in global temperature to no more than 2 degrees Celsius (°C), the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected. The County aims to reduce GHG emissions in proportion with the State's targets.

The CAP is a broad policy planning document that is used like the General Plan – it is a road map to give County staff, the Board of Supervisors, and the community a toolbox of actions to build a more resilient community. This type of planning document also sets the County up to receive funding to continue its implementation over time, and the reduction targets are helpful in tracking how efficient the measures in the plan really are over the planning horizon. **If the programs in the CAP are not implemented or completed, there are no local consequences, however, as a policy document it identifies potential programs that could be implemented to work towards the CAP goals, which are a component of the County's adopted General Plan.**

