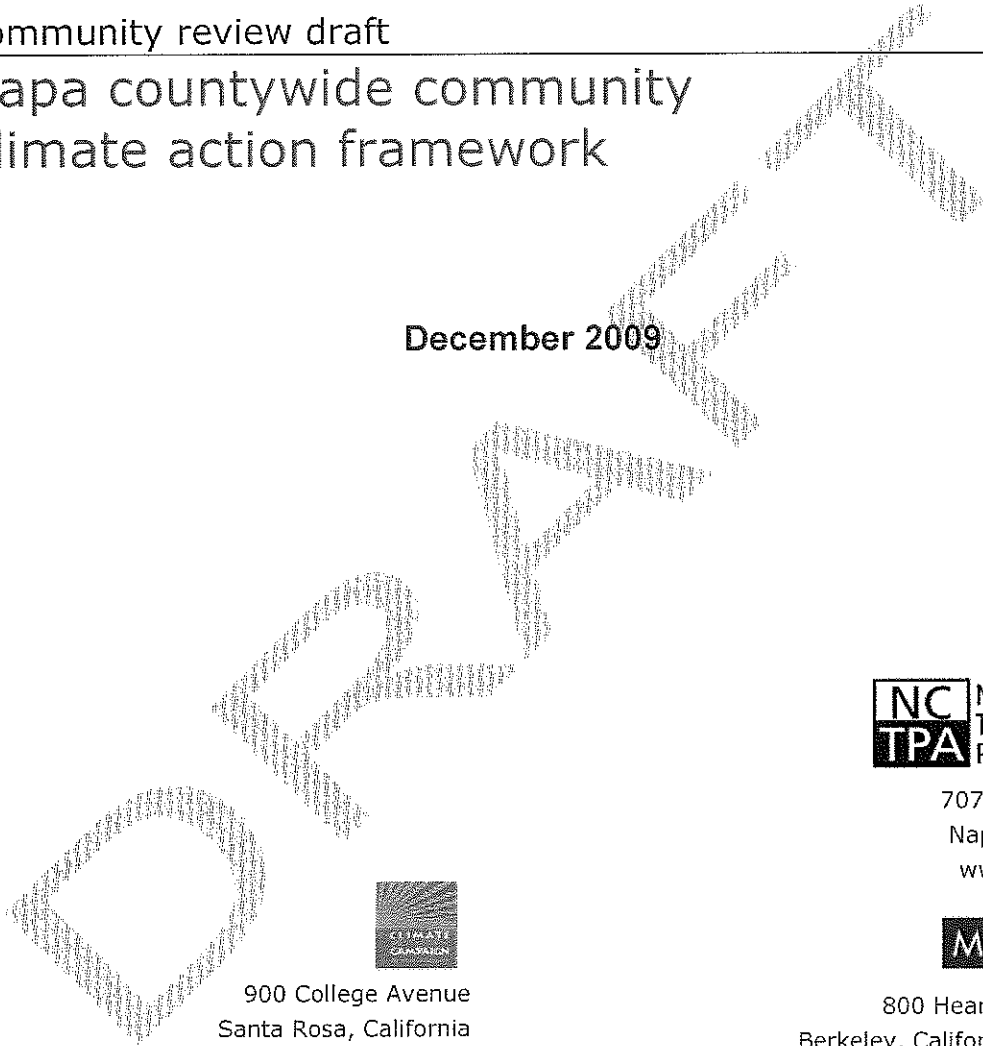


community review draft

napa countywide community climate action framework

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900 College Avenue
Santa Rosa, California
707-525-1665
www.coolplan.org



707 Randolph St
Napa, California
www.nctpa.net



800 Hearst Avenue
Berkeley, California 94710
510-845-7549
www.migcom.com

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Executive Summary

Our community, our future: the challenge of climate change

Climate change is a major challenge for the 21st century. Scientific evidence increasingly shows that climate protection targets considered bold even a few years ago may now be inadequate: climate change is happening faster and on a broader scale than the world's scientists predicted just two years ago. Millions of people may experience the effects of climate change on public health, national and local economies, sea level rise and changing food, water and energy supplies.

No action—business as usual—is not an option under current State law. Although the regulatory environment is changing rapidly, it is likely that actions will be required by State Law at all levels of government.

This Community Climate Action Framework provides a consensus-based context for further more detailed planning efforts. It outlines a package of 53 actions that, when translated into locally specific programs and projects countywide, will help meet climate protection targets. This Policy Framework will be followed by locally appropriate implementation plans, designed for each jurisdiction, focusing on specific programs and projects.

Transforming our energy infrastructure from fossil fuels to renewables, using less energy overall, and generating less waste and fewer emissions will require a unity of purpose, innovation and commitment.

This Framework is based on a sound analytic process, uses internationally accepted greenhouse gas emissions (GHG) modeling, incorporates input from each of Napa's Cities, Town and the County, and is geared for swift implementation. Every action included met four criteria:

1. It is under local control
2. It will result in significant GHG emission reductions
3. It is cost-effective
4. It is politically feasible

Actions proposed in the Framework will pay for themselves in energy cost and other savings and are designed to promote an economy powered by more local, reliable energy; a healthier environment; healthier people; and a preserved natural environment. Attention has been given to the financial implications of the proposed actions, recognizing the significant fiscal challenges facing California communities today. This Framework has been developed to assist stakeholders in moving from planning to action, which will require the combined effort of residents, businesses, local government staff and elected officials in Napa County. These efforts will work along with vigorous actions, based on new and aggressive state legislation, being planned and underway statewide and in the Bay Area region. Communities across California are now assessing the impact of local emissions and creating similar action plans and frameworks to address this urgent issue. The Napa County Community Climate Action Framework recognizes our connection to the larger community and our responsibility to our constituents.

Background

The principle underlying GHG emission reduction targets—and climate protection in general—is meeting the goal dictated by current scientific evidence to ensure that human societies remain in balance with the abilities of natural systems to sustain them. The amount of carbon dioxide in the atmosphere is the best single indicator of the climate crisis—the higher the concentration of carbon dioxide, the more dire the climate crisis. The concentration is now 390 parts per million and must return to 350, according to leading scientists.

Prior to 2005, California communities had a harder task setting GHG emission reduction targets than they do now. In 2005 Governor Schwarzenegger established GHG emission reduction targets for the state. In 2006 the Governor reinforced the 1990 level by 2020 target by signing into law AB 32, the Global Warming Solutions Act.

GHG emissions inventories for Napa cities and the County, completed in March 2009 in cooperation with ICLEI staff, used 2005 as the baseline year. Also shown are 2020 emissions projections if we do nothing and simply continue business as usual. The next column in the table shows the amount of emissions Napa cities and the County need to reduce from projected “do nothing” levels to meet a 2020 GHG emissions target that matches the target established by the State. The last column gives the percentage reduction required to meet AB 32 goals: a 30% countywide reduction.

GHG Emissions: 30% Reduction Countywide

	2005 Baseline	1990 Level (metric tons)	2020 “Do Nothing” forecast	Reduction Needed (tons)	% Reduction Needed
A. Canyon	91,449	77,732	152,393	74,662	49%
Calistoga	28,427	24,163	31,480	7,317	23%
City of Napa	455,062	386,803	544,572	157,769	29%
St. Helena	46,052	39,144	49,541	10,397	21%
Yountville	28,305	24,059	31,924	7,865	25%
Unincorporated	550,986	468,338	656,989	188,651	29%
Total	1,200,281	1,020,239	1,466,900	446,661	30%

*Note that the relatively high % reduction indicated for American Canyon is based on projected increases in GHG emissions due to increased traffic **through** the city as well as increased growth that balances reduced growth elsewhere in the County and the region. Specific local reduction goals, not mandated by state regulation, will be addressed by State and Regional regulations and plans being developed now.*

Climate change is primarily a global problem influenced by an array of interrelated factors, many of which are beyond the control of local communities. Climate change is also a local problem with serious local effects foreseen for the cities and County of Napa. Local communities can also make changes that will contribute to the necessary global reduction of GHGs. Some of the possible local effects of climate change are described below.

Sea Level Rise: According to the San Francisco Bay Conservation and Development Commission (BCDC), the sea level in the Bay Area is expected to rise up to 55 inches

during the next hundred years. BCDC's models illustrate that portions of Napa County, particularly along the Napa River, may be subject to increased flooding with just 16 inches of sea level rise.

Agriculture: Climate change is projected to have significant impacts on conditions affecting agriculture, including temperature, carbon dioxide, snow pack run-off, precipitation and the interaction of these elements.

Native Plants and Wildlife: Napa County is home to a particularly diverse population of plants. Native plants and animals are also at risk as temperatures rise.

Water: With warmer average temperatures, more winter precipitation will fall in the form of rain instead of snow, shortening the winter snowfall season and accelerating the rate at which the snowpack melts in the spring. The Sierra snowpack provides approximately 80% of California's annual water supply.

Local Climate Protection Efforts

In response to the threat of climate change, local communities worldwide are voluntarily reducing greenhouse gas emissions even while national and international agreements are under development. By April 2008, all six local governments in Napa County committed to this process. Over the last several years, local governments and organizations in Napa County have taken actions to reduce GHG emissions and improve energy efficiency in the County. Examples of these include:

- Napa County has pioneered a pattern of "urban-centered growth," with powerful protection for agricultural lands and open space, sharply reducing the "sprawl" development pattern that is a principal contributor to vehicle-based GHG emissions
- Napa County has one of the highest levels of alternative energy generation per capita in the State of California
- Napa County has one of the highest landfill diversion rates in the state
- Additional efforts are included in the body of the report.

Climate Protection Co-Benefits

More than just reducing carbon emissions, climate protection will yield other important benefits for Napa County residents.

- Support the Local Economy
- Save Money
- Support a Healthy Living Environment
- Develop Local Energy Resilience
- Improve Air Quality

Napa's Carbon Footprint and Forecast

Staff from all six Napa County jurisdictions participated in the development of a baseline Napa countywide community carbon footprint. The purpose of the baseline emissions inventory is to determine the levels of greenhouse gas emissions emitted in Napa County in 2005, the established base year for analysis and forecasting.

The community-scale Napa County inventory is based on the year 2005. When calculating the emissions inventory, all energy consumed in Napa County was included. This means that, even though the electricity used by local residents is produced elsewhere, this energy and emissions associated with it is accounted for in this inventory. The decision to calculate emissions in this manner reflects the general philosophy that a community should take full ownership of the impacts associated with its energy consumption, regardless of whether the generation occurs within the geographical limits of the community.

2005 Napa Countywide Community Emissions by Jurisdiction

Jurisdiction	2005 Emissions (metric tons of CO2 equivalents)	% of Total
Yountville	28,305	2%
Calistoga	28,427	2%
St. Helena	46,052	4%
American Canyon	91,449	8%
City of Napa	455,062	38%
Unincorporated Napa County	550,986	46%
TOTAL 2005 NAPA COUNTYWIDE EMISSIONS	1,200,281	

Together Unincorporated Napa County and the City of Napa comprise 84% of countywide GHG emissions.

2005 Napa Countywide Per Capita Emissions by Jurisdiction

Jurisdiction	2005 Emissions (metric tons of CO2 equivalents)	2005 Population	Per Capita Emissions
Yountville	28,305	3,400	8.33
Calistoga	28,427	5,200	5.47
St. Helena	46,052	6,100	7.55
American Canyon	91,449	14,200	6.44
City of Napa	455,062	76,600	5.94
Unincorporated Napa County*	550,986	28,600	19.27
TOTAL	1,200,281	134,100	8.95

* The relatively high Unincorporated Napa County per capita emissions result from an ICLEI inventory methodology that attributes regional transportation emissions based on where they occur rather than where the trip originates or ends. This methodology is consistent for all jurisdictions but impacts the unincorporated area most due to the fact that the majority of road miles in Napa are in the unincorporated area.

2005 Napa Countywide Community Emissions by Sector

Sector	2005 Emissions (metric tons of CO2 equivalents)	% of Total
Residential Buildings	196,350	16%
Commercial & Industrial Buildings	226,661	19%
Transportation	636,724	53%
Lawn & Garden Equipment	3,616	0%
Construction & Industrial/Commercial Equipment	49,675	4%
Agriculture/Farming	33,046	3%
Solid Waste	54,209	5%
TOTAL 2005 NAPA COUNTYWIDE EMISSIONS	1,200,281	

The greatest opportunities for reduction are in the transportation and building sectors, because they constitute 53% and 35% of the countywide GHG emissions.

2005 Napa Countywide Community Emissions by Source

Source	2005 Emissions (metric tons of CO2 equivalents)	% of Total
Electricity	207,962	19%
Natural Gas	190,513	17%
Transportation Fuels	636,724	57%
Agriculture/Farming	33,046	3%
Solid Waste	54,209	5%
TOTAL 2005 NAPA COUNTYWIDE EMISSIONS*	1,122,454	

* Source total is different than sector and jurisdiction total, because it does not include data from lawn and garden equipment, construction & industrial/commercial equipment and electricity and natural gas use from suppliers other than PG&E.

2020 GHG Emissions Forecast

Forecasting emissions to a projected target year (most often 2020) is done to create a more accurate picture of the emission reductions necessary to meet desired targets. Because of population increase, as well as growth in the jobs and transportation sectors, emissions will experience a background change not related to policy changes made by the local government. When creating an emissions reduction target, it is therefore important to consider not only emissions in the base year, but projected emissions in the target year, as these will need to be accounted for in the policies and measures taken to reduce GHG emissions in Napa County.

Please note the forecasted growth in GHG emissions assumes that **no actions** are taken to reduce emissions. In other words, this forecast considers neither the reduction impacts from the actions contained in this Framework nor benefits of increased mileage standards or changes to vehicle fleet mix.

2020 Napa Countywide Community Emissions Forecast by Jurisdiction

Jurisdiction	2005 Emissions (metric tons)	2020 Emissions (metric tons)	% Increase 2005 to 2020
Yountville	28,305	31,924	13%
Calistoga	28,427	31,480	11%
St. Helena	46,052	49,541	8%
American Canyon*	91,449	152,393	67%
City of Napa	455,062	544,572	20%
Unincorporated Napa County	550,986	656,989	19%
TOTAL	1,200,281	1,466,900	22%

* The relatively high growth in GHG emissions for American Canyon is the result of ABAG projections that show high anticipated growth in the number of jobs and households between 2005 and 2020.

2020 Napa Countywide Community Emissions Forecast by Sector

Sector	2005 Emissions (metric tons)	2020 Emissions (metric tons)	% Increase 2005 to 2020
Residential Buildings	196,350	219,924	12%
Commercial & Industrial Buildings	226,661	292,783	29%
Transportation	636,724	797,054	25%
Lawn & Garden Equipment	3,616	4,053	12%
Construction & Industrial/Commercial Equipment	49,675	59,839	20%
Agriculture/Farming	33,046	33,046	0%
Solid Waste	54,209	60,201	11%
TOTAL	1,200,281	1,466,900	22%

The full report contains the breakdown of these tables by jurisdiction.