



County of Sonoma

Climate Resilience Comprehensive Action Plan

Complete Glossary of Terms and Concepts

August 2024



Key Terms and Glossary

ADAPTATION

Adjustment in natural or human systems to a new or changing environment that exploits beneficial opportunities or moderates negative effects.

CARBON DIOXIDE

The most common and most important greenhouse gas. It is released through many processes, and significant amounts are released when we burn fossil fuels like coal, oil, and gas.

CARBON DIOXIDE EQUIVALENTS

A way to measure different greenhouse gases by comparing them to the amount of warming caused by carbon dioxide, expressed as the number of metric tons of CO₂ emissions with the same global warming potential as one metric ton of another greenhouse gas.

CARBON FREE

Not producing carbon dioxide or other greenhouse gases.

CARBON NEUTRAL

Balancing the amount of carbon dioxide released with an equivalent amount removed from the atmosphere.

CARBON SEQUESTRATION/STORAGE

A process by which carbon dioxide is removed from the atmosphere and held in solid or liquid form.

CARBON STOCK

The amount of carbon stored in forests, soils, or oceans.

CIRCULAR ECONOMY

An economic system focused on reusing materials and reducing waste.

CLIMATE ADAPTATION

Actions taken at the individual, local, regional and national levels to reduce risks from today's changed climate conditions and to prepare for impacts from additional changes projected for the future.

CLIMATE CHANGE

Changes in average weather conditions that persist over multiple decades or longer. Climate change encompasses both increases and decreases in temperature, as well as shifts in precipitation, changing risk of certain types of severe weather events and changes to other features of the climate system. Climate change may be caused by natural internal processes or by external forces, such as volcanic eruptions or persistent human actions.



CLIMATE HAZARDS

Dangerous events or conditions caused by climate change, like storms, floods, or heatwaves.

CLIMATE JUSTICE

Links human rights and development in order to achieve a people-centered approach, protecting the rights of those who are most vulnerable to the effects of climate change. The concept also proposes that the burdens, impacts and benefits of climate change be shared in an equitable and fair manner. Climate justice responds to science and also recognizes the need for an equitable distribution of the world's resources.

CLIMATE RESILIENCE

The ability to respond to and recover rapidly from climate-related disruptions, challenges and risks through adaptability, innovation and preparedness.

COMMUNITY RESILIENCE

The ability of a community to recover and adapt to difficult situations, like natural disasters.

CONSERVATION

The protection, preservation, and careful use of natural resources to prevent waste and harm.

CONSERVATION PRACTICE

A structural or vegetative measure, or management activity used to protect or reduce the degradation of soil, water, air, plant, animal, or energy resources.

COST-EFFECTIVENESS

The cost of an action compared to the benefit of the action, measured as the cost in dollars per metric ton of carbon dioxide equivalents reduced.

DECARBONIZATION

Reducing carbon dioxide emissions through changes in energy sources and consumption.

ENERGY AUDIT

An assessment that shows how much energy is used and how to save energy in a building.

ENERGY EFFICIENCY

Using less energy to do the same job or produce the same outcome.

ENERGY JUSTICE

Fair access to clean, affordable, and sustainable energy for all people.

ENERGY TRANSITION

Shifting from fossil fuels to renewable energy sources.

ENVIRONMENTAL JUSTICE

The fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

ENVIRONMENTAL RACISM

The systemic and disproportionate exposure of racial and ethnic communities to environmental hazards, pollutants, and adverse conditions. This can manifest through the placement of hazardous waste sites, landfills, factories, and other sources of pollution in or near these communities, as well as the lack of access to clean air, water, and other natural resources. Additionally, it includes the neglect of these communities in environmental policy-making and enforcement, often resulting in poorer health outcomes, reduced quality of life, and greater vulnerability to environmental disasters.

EQUITY

Equity is an outcome whereby you cannot tell the difference in critical markers of health, well-being, and wealth by race or ethnicity, and a process whereby we explicitly value the voices of people of color, low income, and other communities who identify solutions to achieve that outcome.

FLEET TRANSITION

Changing a group of vehicles to use cleaner, more efficient technologies.

FUEL TREATMENT

Managing and reducing the amount of flammable material to prevent wildfires.

GREENHOUSE GAS (GHG)

Gases in the atmosphere (water vapor, carbon dioxide, nitrous oxide, and methane, etc.) that trap energy from the sun that would otherwise escape back into space.

GRID RELIABILITY

Ensuring the electricity supply is stable and consistent without interruptions.

GROUND-LEVEL OZONE

A colorless gas made up of three oxygen atoms that is harmful to people, plants, and animals when it occurs in the lower atmosphere where people breathe; ground-level ozone is formed when pollutants react in sunlight.

HAZARD MITIGATION

The use of long-term and short-term policies, programs, projects, and other activities to alleviate the death, injury, and property damage that can result from a disaster.

INEQUITY

Unfairness or lack of equal treatment or opportunities.



JUST TRANSITION

A fair shift to a green economy, ensuring workers and communities are protected and benefit from new, sustainable jobs.

LOCAL GOVERNMENT OPERATIONS PROTOCOL

The International Council for Local Environmental Initiatives (ICLEI) rulebook for accounting for GHG emissions associated with local government operated buildings, vehicles, and other operations.

MITIGATION

The process or result of making something less severe, dangerous, painful, harsh, or damaging, specifically used in this Climate Plan in describing actions to reduce emissions of greenhouse gases, and to lessen the harm caused by climate hazards. Mitigation of hazards can include, but is not limited to, community-wide risk reduction projects; efforts to improve the resilience of critical infrastructure and key resource lifelines; risk reduction for specific vulnerabilities from natural hazards; and initiatives to reduce future risks after a disaster has occurred.

NATURAL AND WORKING LANDS

Areas of undeveloped or relatively undeveloped land, or managed lands used for agricultural, forestry, or other productive purposes, including forests and woodlands, grasslands and shrublands, croplands and rangelands, sparsely vegetated lands, coastal and freshwater wetlands, and urban green spaces that provide food, clean air, and water, and support biodiversity.

NATURE-BASED SOLUTIONS

Strategies that utilize natural processes and ecosystem services to address societal challenges such as climate change, food and water security, disaster risk reduction, and biodiversity loss; the strategies aim to deliver environmental, social, and economic benefits by working with and enhancing nature, rather than relying solely on engineered or technological approaches.

NET COSTS

The total cost after subtracting any savings or benefits.

NET SAVINGS

The total amount saved after subtracting any costs.

ORGANIC WASTE

Waste from living things, like food scraps and yard trimmings, which can be composted.

RENEWABLE ENERGY

Energy from sources that are continually replenished, like the sun, wind, or water.

RESILIENCE

The ability to adapt to changing conditions and withstand and rapidly recover from disruption due to emergencies.

RUNOFF

Water that flows over the ground after rain, often carrying pollutants.

SOCIAL COST OF CARBON

The economic harm caused by emitting one ton of carbon dioxide into the atmosphere.

SOLAR GENERATION AND STORAGE

Producing energy from the sun and storing it for later use.

VEGETATION MANAGEMENT

The targeted control and elimination of unwanted vegetation, including the use of fire, timber harvest, tree thinning, rangeland, and wildlife habitat activities, practices, and projects that alter the vegetation to meet vegetation resource management objectives such as reducing the threat of wildfire..

VEHICLE MILES TRAVELED (VMT)

The total distance driven by all vehicles in a specific area over a certain time.

ZERO-EMISSION VEHICLES

Vehicles that do not produce any exhaust emissions, like electric cars.

ZERO WASTE

Aiming to produce no trash by reusing, recycling, and composting everything.

