Attachment B. Glossary of Key Terms

May 23, 2025

King County

Glossary of Key Terms

To support clarity and consistency throughout the 2025 Strategic Climate Action Plan, the glossary below defines key terms that are used across the document. These definitions ensure a shared understanding of important concepts, strategies, and frameworks that guide King County's climate action work. The glossary serves as a reference tool for readers, partners, and stakeholders, helping to align interpretation and support informed action toward our shared climate goals.

Term	Definition
Adaptation	In human systems, the process of adjustment to actual or expected climate and its effects, to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate.[1]
Adaptive capacity	The combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities.[2]
Anthropogenic	Made by people or resulting from human activities. Typically used in the context of emissions that are produced as a result of human activities.[3]
Biogas	Collected from natural decomposition processes of organic waste materials at landfills, wastewater treatment plants, and dairies. With limited or no cleaning, biogas can be used for heating and electricity generation.
Carbon dioxide (CO2)	A naturally occurring gas in the earth's atmosphere. It is also a byproduct of human activities such as burning fossil fuels. Carbon dioxide is the principal greenhouse gas produced by human activity.[4]
Carbon footprint	The total amount of greenhouse gases that are emitted into the atmosphere each year by a person, family, building, organization, or company. A person's carbon footprint includes greenhouse gas emissions from fuel that an individual utilizes directly, such as by heating a home or riding in a car. It also includes greenhouse gases that come from producing the goods or services that the individual uses, including emissions from power plants that make electricity, factories that make products, and landfills where trash gets sent.[5]
Carbon neutral	A process where there is no net release of CO2. For example, growing biomass takes CO2 out of the atmosphere, whereas burning it releases the gas again. The process would be carbon neutral if the amount taken out and the amount released were identical. A company or country can also achieve carbon neutrality by means of carbon offsetting.[6]

Term	Definition
Carbon offsetting	A process that allows individuals, businesses or governments to compensate for their emissions by supporting projects that reduce or remove emissions elsewhere.[7]
Carbon sequestration	The process of storing carbon dioxide. This can happen naturally, as growing trees and plants turn CO2 into biomass (wood, leaves, and so on). It can also refer to the capture and storage of CO2 produced by industry.[8]
Carbon sink	Any process, activity, or mechanism that removes carbon from the atmosphere. The biggest carbon sinks are the world's oceans and forests, which absorb large amounts of carbon dioxide from the earth's atmosphere.[9]
Climate	Climate in a narrow sense is usually defined as the average weather, or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. The classical period for averaging these variables is 30 years, as defined by the World Meteorological Organization. The relevant quantities are most often surface variables such as temperature, precipitation, and wind. Climate in a wider sense is the state, including a statistical description, of the climate system. In various chapters in this report different averaging periods, such as a period of 20 years, are also used.[10]
Climate change	A change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use[11] human activity. Global warming is one aspect of climate change.[12]
Climate equity	Climate equity ensures that all people have access and opportunity to benefit from climate solutions, while not bearing an unequal burden of the impacts of climate change. This requires a holistic approach to equity in climate work that divides the burden of responding to climate change amongst those who contribute the most to the problem, while sharing the opportunities and benefits that equitable climate action presents with those that are most impacted.[13,14]
Climate justice	Climate justice is the application of racial, environmental, social, and economic justice to climate response, which recognizes the continued legacy of systems of oppression and environmental exploitation. This shift in approach widens the focus from reducing greenhouse gases and addressing climate impacts to include, at its heart, the leadership of people and communities most vulnerable to climate impacts.[15] Achieving climate justice means creating a just, healthy, sustainable future for everyone that recognizes economic, political, social, and civil rights.

Term	Definition
Consumption-based emissions	Greenhouse gas emissions associated with goods and services. These include embodied emissions associated with the production, transportation, use and disposal of goods, food, and services.
Disproportionate climate impacts	Individual residents and communities will experience the impacts of climate change differently. Working to advance environmental justice will be important as the impacts of climate change already fall disproportionately on communities of color, immigrants, refugees, people with pre-existing health conditions, and lower income residents.[16]
Embodied carbon	Embodied carbon refers to the greenhouse gas emissions arising from the manufacturing, transportation, installation, maintenance, and disposal of building and infrastructure materials.[17]
Emissions	Greenhouse gases that are put into the atmosphere from human activities. The release of greenhouse gases and/or their precursors and aerosols into the atmosphere over a specified area and time period.[18]
Energy efficiency	Using less energy to provide the same service.[19]
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.[20]
Extreme events	A weather event that is rare at a specific place and time of year, including, for example, heat waves, cold waves, heavy rains, periods of drought and flooding, and severe storms.[21]
Extreme precipitation events	An episode of abnormally high rain or snow. The definition of "extreme" is a statistical concept that varies depending on location, season, and length of the historical record.[22]
Fossil fuels	Natural resources, such as coal, oil, and natural gas, containing hydrocarbons. These fuels are formed in the earth over millions of years and produce carbon dioxide when burned.[23]
Fossil-based natural gas	Comprised mostly of methane and other hydrocarbons, this gas is formed underground through the long decay of organic materials. This is the typical type of natural gas delivered to homes and businesses through an extensive nationwide piping network. Much of this gas is currently extracted through a process called hydraulic fracturing, or “fracking.”

Term	Definition
Frontline communities	Frontline communities are those that are disproportionately impacted by climate change due to existing and historic racial, social, environmental, and economic inequities, and who have limited resources and/or capacity to adapt. These populations often experience the earliest and most acute impacts of climate change, but whose experiences afford unique strengths and insights into climate resilience strategies and practices. Frontline communities include Black, Indigenous, and People of Color (BIPOC) communities, immigrants and refugees, people living with low incomes, communities experiencing disproportionate pollution exposure, women and gender non-conforming people, LGBTQIA people, people who live and/or work outside, those with existing health issues, people with limited English skills, and other climate-vulnerable groups.
Greenhouse gases (GHGs)	Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, which absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, by the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapor (H2O), carbon dioxide (CO2), nitrous oxide (N2O), methane (CH4), and ozone (O3) are the primary greenhouse gases in the Earth's atmosphere.[24]
Greenhouse effect	Trapping and buildup of heat in the atmosphere (troposphere) near the earth's surface. Some of the heat flowing back toward space from the earth's surface is absorbed by water vapor, carbon dioxide, ozone, and several other gases in the atmosphere and then reradiated back toward the earth's surface. If the atmospheric concentrations of these greenhouse gases rise, the average temperature of the lower atmosphere will gradually increase.[25]
Hazard mitigation	Hazard mitigation describes actions taken to help reduce or eliminate long-term risks caused by natural, manmade, or technological hazards, such as flooding, earthquakes, dam failure, or cyber incidents.[26]
Methane	Methane is the second most important man-made greenhouse gas. Sources include both the natural world (wetlands, termites, wildfires) and human activity (agriculture, waste dumps, leaks from coal mining).[27]
Ocean acidification	The process by which ocean waters have become more acidic due to the absorption of human-produced carbon dioxide, which interacts with ocean water to form carbonic acid and lower the ocean's pH. Acidity reduces the capacity of key plankton species and shelled animals to form and maintain shells.[28]

Term	Definition
Ozone	A colorless gas consisting of three atoms of oxygen, readily reacting with many other substances. Ozone in the upper atmosphere protects the earth from harmful levels of ultraviolet radiation from the sun. In the lower atmosphere, ozone is an air pollutant with harmful effects on human health.[29]
Particulate matter (PM)	Very small pieces of solid or liquid matter such as particles of soot, dust, fumes, mists, or aerosols. The physical characteristics of particles, and how they combine with other particles, are part of the feedback mechanisms of the atmosphere.[30]
Pre-industrial levels of carbon dioxide	The levels of carbon dioxide in the atmosphere prior to the start of the Industrial Revolution. These levels are estimated to be about 280 parts per million (ppm) (by volume). The current level is around 420 ppm.[31]
Preparedness	Actions taken to build, apply, and sustain the capabilities necessary to prevent, protect against, and ameliorate negative effects.[32]
Renewable energy	Renewable energy is energy created from sources that can be replenished in a short period of time. The five renewable sources used most often are biomass (such as wood and biogas), the movement of water, geothermal (heat from within the earth), wind, and solar.[33] [34]
Renewable natural gas	The term for biogas from landfills, wastewater treatment plants, dairies, and other anerobic digestion processes that has undergone extensive purification to meet quality standards such that it can be injected into natural gas pipelines as a direct substitute for fossil-based natural gas.
Resilience	Resilience is a broad concept that can apply to individuals, communities, and social, economic, and environmental systems. Resilience is the capacity to cope with a hazardous event or long-term trend in ways that maintain essential identities, functions, and structures while also maintaining the capacity to learn, adapt, and/or transform.[35]
Risk	Risks are threats to life, health and safety, the environment, economic well-being, and other things of value. Risks are often evaluated in terms of how likely they are to occur (probability) and the damages that would result if they did happen (consequences).[36]

Term	Definition
Sea level rise	Sea level rise refers to the increase in average sea level over time, primarily caused by the expansion of ocean waters due to the warming of the Earth's atmosphere and the melting of land-based ice.[37]
Social vulnerability	Every community must prepare for and respond to hazardous events, whether a natural disaster like a tornado or disease outbreak, or a human-made event such as a harmful chemical spill. A number of factors, including poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss in a disaster. These factors are known as "social vulnerability."[38]
Storm surge	The temporary increase, at a particular locality, in the height of the sea due to extreme meteorological conditions (low atmospheric pressure and/or strong winds). The storm surge is defined as being the excess above the level expected from the tidal variation alone at that time and place.[39]
Stressor	Something that affects people and on natural, managed, and socioeconomic systems. Multiple stressors can have compounded effects, such as when economic or market stress combines with drought to negatively impact farmers.[40]
Urban heat island effect	Structures such as buildings, roads, and other infrastructure absorb and re-emit the sun's heat more than natural landscapes such as forests and water bodies. Urban areas, where these structures are highly concentrated and greenery is limited, become "islands" of higher temperatures relative to outlying areas. These pockets of heat are referred to as "heat islands." Heat islands can form under a variety of conditions, including during the day or night, in small or large cities, in suburban areas, in northern or southern climates, and in any season.[41]
Vector-borne diseases	An organism, such as an insect, that transmits disease-causing microorganisms such as viruses or bacteria. Vector-borne diseases include, for example, malaria, dengue fever, and Lyme disease.[42]
Vulnerability	The degree to which physical, biological, and socioeconomic systems are susceptible to, and unable to cope with, adverse impacts of climate change.[43]
Weather	The state of the atmosphere regarding temperature, cloudiness, rainfall, wind, and other meteorological conditions. Weather is not the same as climate, which is the average weather over a much longer period.[44]

[1] Intergovernmental Panel on Climate Change. (2012). Glossary of Terms.
[2] Intergovernmental Panel on Climate Change. (2012). Glossary of Terms.
[3] National Aeronautics and Space Administration. (n.d.). Glossary. Earth Observatory.
[4] U.S. Forest Service. (2014). Climate Change Glossary.
[5] Environmental Protection Agency. (May 2013). Environmental Justice-Related Terms as Defined Across the PSC Agencies.
[6] BBC News. (April 2014). Climate Change Glossary.
[7] Carbon Brief. (September 2023). "Glossary: Carbon Brief's guide to the terminology of carbon offsets." [LINK]
[8] BBC News. (April 2014). Climate Change Glossary.
[9] BBC News. (April 2014). Climate Change Glossary.
[10] Intergovernmental Panel on Climate Change. (2012). Glossary of Terms.
[11] Intergovernmental Panel on Climate Change. (2012). Glossary of Terms.
[12] BBC News. (April 2014). Climate Change Glossary.
[13] ICLEI USA. (2020). Climate Equity.
[14] World Resources Institute. (2020). Climate Equity.
[15] United Nations. (May 2019). Climate Justice. Sustainable Development Goals.
[16] Environmental Protection Agency. (May 2013). Environmental Justice-Related Terms As Defined Across the PSC Agencies.
[17] The Carbon Leadership Forum. (June 2024). Embodied Carbon 101. [LINK]
[18] U.S. Forest Service. (2014). Climate Change Glossary.
[19] Katofsky, R. (Oct 2017). Energy efficiency as a resource: The power of getting more from less. Utility Dive.
[20] Environmental Protection Agency. (May 2013). Environmental Justice-Related Terms as Defined Across the PSC Agencies.
[21] U.S. Global Change Research Program. (n.d.). Glossary.
[22] U.S. Global Change Research Program. (n.d.). Glossary.
[23] BBC News. (April 2014). Climate Change Glossary.
[24] Intergovernmental Panel on Climate Change. (2012). Glossary of Terms.
[25] Heffner, H. (Oct 2016). Climate, Energy, and Society: Glossary. Auburn University.
[26] City of Los Angeles Emergency Management Department. (2020). What is Hazard Mitigation?
[27] BBC News. (April 2014). Climate Change Glossary.
[28] U.S. Global Change Research Program. (n.d.). Glossary.
[29] U.S. Global Change Research Program. (n.d.). Glossary.
[30] National Aeronautics and Space Administration. (n.d.). Glossary. Earth Observatory.
[31] NOAA. (June 2024). "During a year of extremes, carbon dioxide levels surge faster than ever." [LINK]
[32] U.S. Global Change Research Program. (n.d.). Glossary.
[33] U.S. Global Change Research Program. (n.d.). Glossary.
[34] BBC News. (April 2014). Climate Change Glossary.
[35] Intergovernmental Panel on Climate Change. (2014). Climate Change 2014: Synthesis Report.
[36] U.S. Global Change Research Program. (n.d.). Glossary.
[37] Gehrels, R et al. (2021). Chapter 11: Rising sea levels as an indicator of global change. *Climate Change (Third Edition)*. Editor(s): Trevor M. Letcher, Elsevier, pp. 205-217. [LINK]
[38] Centers for Disease Control and Prevention. (2018). CDC's Social Vulnerability Index (SVI).
[39] Intergovernmental Panel on Climate Change. (2012). Glossary of Terms.
[40] U.S. Global Change Research Program. (n.d.). Glossary.
[41] U.S. Environmental Protection Agency. *What Are Heat Islands? | US EPA* (n.d.). [LINK]
[42] U.S. Global Change Research Program. (n.d.). Glossary.
[43] U.S. Global Change Research Program. (n.d.). Glossary.
[44] U.S. Global Change Research Program. (n.d.). Glossary.