



***Cal* OES**

GOVERNOR'S OFFICE  
OF EMERGENCY SERVICES

# Definitions of Terms and Acronyms

Updated November 10, 2023



# CALIFORNIA STATE HAZARD MITIGATION PLAN

**Volume 1**

**Gavin Newsom**

Governor

**Nancy Ward**

Director

California Governor's  
Office of Emergency Services

**2023**

# DEFINITIONS OF TERMS AND ACRONYMS

**0.2% annual chance flood** – a flood that has a 0.2 percent chance of being equaled or exceeded in any given year; often referred to as the 500-year flood (USGS 2018h)

**1% annual chance flood** – a flood with a 1 percent chance of being equaled or exceeded in any given year; often called the 100-year flood (USGS 2018h)

**AB** – see Assembly Bill

**Access or Functional Needs (AFN)** – an individual may have an access or functional need if they have a developmental or intellectual disability, a physical disability, a chronic condition, an injury, limited English proficiency or are non-English speaking, are an older adult, are a child, are a person living in an institutionalized setting, or are low income, experiencing homelessness, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit, or those who are pregnant ([Government Code 8593.3](#)). When referring to individuals, the term is used as “access or functional needs” with lowercase words and without using the acronym. When referring to the entire population, resources, considerations, or department title, the term is used as “Access and Functional Needs” and the acronym AFN may be used

**ARCCA** – Alliance of Regional Collaboratives for Climate Adaptation

**Assembly Bill (AB)** – a draft of a proposed law introduced by a Member of the California State Assembly

**asset** – any human-caused or natural feature that has value, including people; buildings; infrastructure, such as bridges, roads, sewers, and water systems; lifelines, such as electricity and communication resources; and environmental, cultural, or recreational features, such as parks, wetlands, and landmarks

**atmospheric river** – long, narrow regions in the atmosphere that transport water vapor. These columns of vapor move with the weather, carrying an amount of water vapor roughly equivalent to the average flow of water at the mouth of the Mississippi River.

When the atmospheric rivers make landfall, they often release this water vapor in the form of rain or snow (NOAA 2015)

**base flood** – the flood having a 1% chance of being equaled or exceeded in any given year, also known as the “100-year” or “1% annual chance” flood. The base flood is a statistical concept used to ensure that all properties subject to the National Flood Insurance Program (NFIP) are protected to the same degree against flooding (USGS 2018h)

**Base Flood Elevation (BFE)** – the water surface elevation of the base flood (DWR 2020)

**basin** – the area within which all surface water – whether from rainfall, snowmelt, springs, or other sources – flows to a single water body or watercourse. The boundary of a river basin is defined by natural topography, such as hills, mountains, and ridges. Basins are also called “watersheds” (USGS 2019a)

**BCA** – see benefit-cost analysis

**BCDC** – San Francisco Bay Conservation and Development Commission

**BCEGS** – see Building Code Effectiveness Grading Schedule

**BCSH** – California Business, Consumer Services, and Housing Agency

**benefit** – a net project outcome and is usually defined in monetary terms. Benefits may include direct and indirect effects. For benefit-cost analysis of proposed mitigation measures, benefits are limited to specific, measurable risk reduction factors, including a reduction in expected property losses (buildings, contents, and functions) and protection of human life (FEMA 2022b)

**benefit-cost analysis (BCA)** – a systematic, quantitative method of comparing projected benefits to projected costs of a project or policy. It is used to measure cost-effectiveness (FEMA 2022b)

**BFE** – see Base Flood Elevation

**BIPOC** – Black, Indigenous, and People of Color

**BOF** – California Board of Forestry and Fire Protection

**bovine spongiform encephalopathy (BSE)** – a fatal disease in cattle

**BRIC** – see Building Resilient Infrastructure and Communities

**BSE** – see bovine spongiform encephalopathy

**Building Code Effectiveness Grading Schedule (BCEGS)** – a system of rating community building codes and their enforcement (Verisk 2023)

**Building Resilient Infrastructure and Communities (BRIC)** – this program aims to categorically shift the federal focus away from reactive disaster spending and toward research-supported, proactive investment in community resilience. Examples of projects under this program demonstrate innovative approaches to partnerships, such as shared funding mechanisms and/or project design (FEMA 2022a)

**CAISO** – California Independent System Operator

**CAL FIRE** – California Department of Forestry and Fire Protection

**Cal OES** – California Governor's Office of Emergency Services

**Cal OES HMA Branch** – California Governor's Office of Emergency Services (Cal OES) Hazard Mitigation Assistance Branch

**Cal-Adapt** – a state program providing data and tools for climate adaptation planning, building resiliency, and fostering community engagement (Cal-Adapt n.d.)

**Cal-CSIC** – California Cyber Security Integration Center

**CalEPA** – California Environmental Protection Agency

**CalGEM** – California Geologic Energy Management Division

**CALGreen Code** – the California Green Building Standards Code – Part 11, Title 24, California Code of Regulations (CCR) – called CALGreen, is the first-in-the-nation mandatory green building standards code. In 2007, the California Green Building Standards Code developed green building standards to meet the goals of California's landmark initiative Assembly Bill (AB) 32, which established a comprehensive program of cost-effective reductions of greenhouse gases to 1990 levels by 2020 (DGS n.d.)

**California Code of Regulations (CCR)** – the official compilation and publication of the regulations adopted, amended, or repealed by State agencies under the Administrative Procedure Act. Properly adopted regulations have the force of law (OAL 2023)

**California Disaster Assistance Act (CDAA)** – the California Disaster Assistance Act authorizes the Director of the California Governor's Office of Emergency Services (Cal OES) to administer a disaster assistance program that provides financial assistance from the State for costs incurred by local governments as a result of a disaster event. Funding for repairing, restoring, or replacing public real property damaged or destroyed by a disaster is made available when the Cal OES Director concurs with a

local emergency proclamation requesting State disaster assistance. The program also provides for the reimbursement of local government costs associated with certain emergency activities undertaken in response to a state of emergency proclaimed by the Governor. In addition, the program may provide matching fund assistance for cost-sharing required under federal Public Assistance (PA) programs in response to a Presidential Major Disaster or Emergency Declaration (Cal OES 2023b)

**California Emergency Services Act (California ESA)** – passed in 1970, the California Emergency Services Act bolstered emergency mitigation, preparedness, and response by granting emergency powers to the Governor, establishing the California Governor's Office of Emergency Services (Cal OES) and the emergency support functions framework, enabling the State to better facilitate mutual aid (California Government Code Sections 8550-8669.7)

**California Environmental Quality Act (CEQA)** – one of California's fundamental environmental laws. The purposes of this act are to: (1) inform government decision makers and the public about the potential environmental effects of proposed activities; (2) identify the ways that environmental damage can be avoided or significantly reduced; (3) prevent significant, avoidable environmental damage by requiring changes in projects, either by the adoption of alternatives or imposition of mitigation measures; and (4) disclose to the public why a project was approved if that project has significant environmental impacts that cannot be mitigated to a less than significant level (OPR 2022e)

**California ESA** – see California Emergency Services Act

**California Forest Improvement Program (CFIP)** – assistance program for nonindustrial private forest owners providing technical and financial assistance for planning, reforestation, and resource management investments to improve the health and resilience of California's forestland (CAL FIRE n.d.)

**CalRecycle** – California Department of Resources Recycling and Recovery

**CalSTA** – California State Transportation Agency

**Caltrans** – California Department of Transportation

**capability assessment** – an analysis of a community's capacity to address hazard-related threats. The assessment includes two components: an inventory of an agency's mission, programs, and policies and an analysis of its capacity to carry out the mission, programs, and policies (FEMA 2020b)

**CARB** – California Air Resources Board

**CBSC** – California Building Standards Commission

**CCC** – California Conservation Corps

**CCHES** – Climate Change and Health Equity Section of the California Department of Public Health

**CCR** – see California Code of Regulations

**CDA** – see California Disaster Assistance Act

**CDBG** – see Community Development Block Grant

**CDC** – U.S. Centers for Disease Control and Prevention

**CDCR** – California Department of Corrections and Rehabilitation

**CDFA** – California Department of Food and Agriculture

**CDFW** – California Department of Fish and Wildlife

**CDPH** – California Department of Public Health

**CDT** – California Department of Technology

**CEA** – California Earthquake Authority

**CEC** – California Energy Commission

**Central Valley Flood Protection Plan (CVFPP)** – California's strategic blueprint to improve flood risk management in the Central Valley (CVFPB n.d.)

**CEQA** – see California Environmental Quality Act

**CESA** – California Emergency Services Association

**CFIP** – see California Forest Improvement Program

**CFR** – see Code of Federal Regulations

**CFSC** – California Fire Safe Council

**CGS** – California Geological Survey

**CHHS** – California Health and Human Services Agency

**CHP** – California Highway Patrol

**climate change** – a change in global or regional climate patterns, in particular, apparent from the mid to late 20<sup>th</sup> century onwards and attributed mainly to the

increased levels of atmospheric carbon dioxide produced by the use of fossil fuels (National Geographic 2022c)

**climate change adaptation** – the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects (IPCC 2022)

**climate change mitigation** – a human intervention to reduce the human impact on the climate system; it includes strategies to reduce greenhouse gas (GHG) sources and emissions and enhance greenhouse gas sinks, also called carbon sinks (European Environment Agency 2022)

**CMD** – California Military Department

**CNRA** – California Natural Resources Agency

**Code of Federal Regulations (CFR)** – an arrangement of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government (National Archives 2021)

**Community Development Block Grant (CDBG)** – a program offering disaster recovery grants to rebuild affected areas and provide seed money to start the recovery process. These grants help cities, counties, and states recover from Presidentially declared disasters, especially in low-income areas, subject to the availability of supplemental appropriations (HUD 2022)

**community lifeline** – as defined by the Federal Emergency Management Agency (FEMA), a lifeline enables the continuous operation of critical government and business functions and is essential to human health and safety or economic security. There are seven lifeline categories: safety and security; food, water, shelter; health and medical; energy; communications; transportation; and hazardous materials (FEMA 2020)

**Community Rating System (CRS)** – a voluntary program under the National Flood Insurance Program (NFIP) that rewards participating communities through flood insurance premium discounts for exceeding the minimum requirements of the NFIP and completing activities that reduce flood hazard risk (FEMA 2022c)

**Coronavirus Disease 2019 (COVID-19)** – a highly contagious infectious disease caused by the SARS-CoV-2 virus

**COVID-19** – Coronavirus Disease 2019

**CPUC** – California Public Utilities Commission



**critical facilities** – facilities and infrastructure critical to the population's health and welfare. These become especially important after any hazard event occurs. Typical critical facilities include hospitals, fire stations, police stations, storage of critical records, and similar facilities; however, what is identified as a critical facility varies by the community (FEMA 2020e). For the California SHMP, critical facilities included State-owned or -leased facilities (e.g., correctional facilities, development centers, hospitals, migrant centers, special schools), State bridges, State highways, State dams, and State water projects

**CRS** – see Community Rating System

**CSAC** – California State Association of Counties

**CSTI** – California Governor's Office of Emergency Services (Cal OES) California Specialized Training Institute

**CSU** – California State University

**CTC** – California Transportation Commission

**CUPA** – Certified Unified Program Agency

**CVFPB** – Central Valley Flood Protection Board

**CVFPP** – see Central Valley Flood Protection Plan

**dam** – any artificial barrier that has the ability to capture water, wastewater, or any liquid-borne material, for the purpose of storage or control of water (FEMA 2004a)

**dam failure** – an uncontrolled release of captured water due to a partial or complete breach in a dam (or levee) that impacts its integrity (FEMA 2004a)

**DART** – see Deep-Ocean Assessment and Reporting of Tsunami

**debris flow** – a moving mass of loose mud, sand, soil, rock, water, and air that travels down a slope under the influence of gravity. Debris flows (commonly referred to as "mudflows") are a particularly dangerous type of landslide with increased risk to life and property because they move quickly, destroy objects in their paths, and often strike without warning. They occur in a wide variety of environments throughout the world, including the majority of the states and U.S. Territories. Debris flows generally occur during periods of intense rainfall or rapid snow melt and usually start on hillsides or mountains. Debris flows can travel up to and exceeding 35 miles per hour (mph) and may carry large items such as boulders, trees, and cars. If a debris flow enters a steep stream channel, it can travel for several miles, impacting areas unaware of the



hazard. Areas recently burned by a forest fire are especially susceptible to debris flows, including downslope and outside of the burned area (USGS 2022f)

**Deep-Ocean Assessment and Reporting of Tsunami (DART)** – systems to detect, measure, and report tsunamis in the open ocean in real-time

**DFM** – California Department of Water Resources Division of Floodplain Management

**DGS** – California Department of General Services

**DIR** – California Department of Industrial Relations

**Disaster Mitigation Act of 2000 (DMA)** – the latest federal legislation enacted to encourage and promote proactive, pre-disaster planning as a condition of receiving certain federal financial assistance (FEMA 2000)

**diversity** – physical, social, and psychological differences between people and groups with multiple subjectivities, perspectives, experiences, backgrounds, and socially constructed differences, such as varied racialized identities, ethnicities, genders, sexualities, disabilities, and other access or functional needs, mainstream language access, documentation statuses, Tribal Nation populations (federally recognized and non-federally recognized), Native or Indigenous origins, mental health, age ranges, socio-economic levels, countries of origin, cultural backgrounds, marital/parental statuses, thinking and communication styles, etc. (Cal OES internal definition)

**DMA** – see Disaster Mitigation Act of 2000

**DOC** – California Department of Conservation

**DOF** – California Department of Finance

**DR** – see Federal (or Presidential) Major Disaster Declaration

**drought** – based on impacts to water users, drought is a gradual phenomenon occurring slowly over time. Storage, whether in surface water reservoirs or groundwater basins, buffers drought impacts and influences the timing of those impacts. A single dry year is not a drought for most Californians because of the State's extensive system of water infrastructure and groundwater resources that help reduce the impacts (DWR 2022p)

**DSOD** – California Department of Water Resources Division of Safety of Dams

**DTSC** – California Department of Toxic Substances Control

**DWR** – California Department of Water Resources

**EAP** – see emergency action plan

**earthquake** – the shaking of the ground caused by an abrupt shift of rock along a fracture in the earth or a contact zone between tectonic plates (USGS 2022c)

**Earthquake Brace + Bolt Program (EBB)** – a program to support bolting older homes to their foundations and bracing cripple walls to reduce the likelihood that these homes will slide off their foundation during an earthquake. Retrofits must adhere to the California Existing Building Code. Since 2014 when the first EBB retrofit was completed, EBB grants have helped more than 19,000 homeowners retrofit their homes (CRMP n.d.)

**EBB** – see Earthquake Brace + Bolt Program

**ecosystem services** – ecological processes or functions having monetary or non-monetary value to individuals or society at large. These are frequently classified as: (1) supporting services such as productivity or biodiversity maintenance; (2) provisioning services such as food, fiber, or fish; (3) regulating services such as climate regulation or carbon sequestration; and (4) cultural services such as tourism or spiritual and aesthetic appreciation (EPA 2022j)

**EDD** – California Employment Development Department

**EHP** – see environmental and historic preservation

**electromagnetic pulse (EMP)** – an intense pulse of electromagnetic radiation, especially one generated by a nuclear explosion and occurring high above the earth's surface

**EM** – see Federal (or Presidential) Emergency Declaration

**EMAP** – see Emergency Management Accreditation Program

**Emergency Action Plan (EAP)** – a dam Emergency Action Plan is a written document that identifies incidents that can lead to potential emergency conditions at a dam, identifies the areas that can be affected by the loss of a reservoir, and specifies pre-planned actions to be followed to minimize property damage, potential loss of infrastructure and water resource, and potential loss of life because of failure or misoperation of a dam (ASDSO 2023)

**Emergency Management Accreditation Program (EMAP)** – is a voluntary accreditation process based on collaboratively developed national standards. The State will seek accreditation under this program for the 2023 State Hazard Mitigation Plan (SHMP). The benefits of having an accredited plan include: providing opportunities to assess preparedness programs against established national standards; demonstrating discipline and accountability in regularly reviewing, maintaining, and documenting compliance with standards and best practices; providing a common structure for

review and analysis among state and local government programs nationwide; and offering residents evidence of their government's best efforts to comply with national standards and helps standardize the field of emergency management (FEMA 2004)

**Emergency Management Performance Grant (EMPG)** – the Emergency Management Performance Grant, as authorized by the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (42 U.S.C. Section 5121 et seq.) and Section 662 of the Post Katrina Emergency Management Reform Act of 2006, as amended (6 U.S.C. § 762), authorizes funding to assist state, local, Tribal Nation, and territorial emergency management agencies to implement the National Preparedness System and to support the National Preparedness Goal of a secure and resilient nation. EMPG enhances emergency preparedness by providing grants that build, sustain, or close gaps in capability as identified in the relevant Stakeholder Preparedness Review

**emergency planning zone (EPZ)** – a zone identified to facilitate a pre-planned strategy for protective actions during a defined emergency

**EMP** – see electromagnetic pulse

**EMPG** – see Emergency Management Performance Grant

**environmental and historic preservation (EHP)** – an element of the Federal Emergency Management Agency (FEMA) review of sub-applications for Hazard Mitigation Assistance (HMA) grants

**EPA** – U.S. Environmental Protection Agency

**epidemic** – the spread of an infectious disease beyond a local population, reaching people in a wider geographical area. Several factors determine whether an outbreak will become an epidemic, including the ease with which the disease spreads from vectors, such as animals, to people and the ease with which it spreads from person to person (Columbia Mailman School of Public Health 2021)

**EPZ** – see emergency planning zone

**equitable outcomes** – an outcome where every individual from every demographic has the opportunity to reach their full potential resulting in more economic opportunity for everyone (Dunbar 2021)

**equity** – California Governor's Office of Emergency Services (Cal OES) states that "equity means that all people are justly and fairly included in society and that everyone is able to participate, prosper, and achieve their full potential. It recognizes that everyone enjoys different advantages and faces different challenges and that everyone should be treated justly and fairly, according to their circumstances," socio-historical experiences, and structurally imposed barriers. Therefore, Cal OES prioritizes

actions that promote equity, foster community resilience, and protect the most vulnerable and explicitly includes communities that are disproportionately vulnerable to climate impacts

**equity priority actions** – actions with an assigned priority emphasizing equity (Cal OES internal definition)

**equity priority communities** –populations that bear a disproportionate burden of California's emergencies, hazards, and disaster impacts because of a history of being systemically marginalized due to intersecting layers of discrimination, such as structural inequities relating to race, ethnicity, gender, sexuality, access or functional needs, mainstream language access, documentation status, Tribal Nation population experiences (federally recognized and non-federally recognized), Native or Indigenous origins, mental health, age, socio-economic status, countries of origin, religion, disability, etc. (Cal OES internal definition)

**exposure** – the number and dollar value of assets considered to be at risk during the occurrence of a specific hazard

**extent** – the size or location of an area affected by a hazard. For hazards that do not have a clearly defined extent, this definition expands to the hazard's strength or magnitude, also called the severity. For hazards in this Plan that do not have mapping, the severity discussion of the hazard profile addresses the extent

**extreme cold** – temperatures from winter weather associated with freezing rain, sleet, snow, and strong winds that may cause hypothermia or frostbite

**extreme heat** – temperatures that hover 10 °F or more above the average high temperature for a region and last for several days

**Federal (Presidential) Emergency Declaration (EM)** – emergency declarations supplement state and local or Tribal Nation efforts in providing emergency services, such as the protection of lives, property, public health, and safety, or to lessen or avert the threat of a catastrophe in any part of the United States. The total amount of assistance provided for in a single emergency may not exceed \$5 million across the Public Assistance (PA) Categories A and B and Individual Assistance (IA) program for response and immediate recovery needs in an impacted area (FEMA 2022k)

**Federal (Presidential) Major Disaster Declaration (DR)** – declarations for events that cause more damage than state and local governments and resources can handle without federal government assistance. A federal disaster declaration puts into motion long-term federal recovery programs, some of which are matched by state programs, to help disaster victims, businesses, and public entities to jumpstart recovery efforts (FEMA 2022k)

**Federal Fire Management Assistance Declaration (FM)** – declarations for fire management assistance when the Federal Emergency Management Agency (FEMA) determines that a fire or fire complex on public or private forest land or grassland threatens such destruction as would constitute a major disaster (FEMA 2022g)

**federal fire suppression authorization (FS)** – authorization for a fire to qualify for the Fire Suppression Assistance Program; this program has been replaced by the Fire Management Assistance Grant (FMAG) Program and the FS declaration has been replaced by the Federal Fire Management Assistance declaration (FM)

**FEMA** – Federal Emergency Management Agency

**FHSZ** – see Fire Hazard Severity Zone

**Fire and Resource Assessment Program (FRAP)** – housed within the California Department of Forestry and Fire Protection (CAL FIRE), the Fire and Resource Assessment Program assesses the amount and extent of California's forests and rangelands using geographic information system (GIS) mapping, analyzes their conditions using data analytics, and identifies alternative management and policy guidelines through assessment reports. The program also provides Forest Health Research Program grants that support scientific studies that contribute to forest health and management (CAL FIRE 2023)

**fire complex** – two or more individual fire incidents located in the same general area which are assigned to a single incident commander or unified command (USDA 2006) (National Wildfire Coordinating Group 2006)

**Fire Hazard Severity Zone (FHSZ)** – the State Fire Marshal is mandated to classify lands within State Responsibility Areas (SRA) into Fire Hazard Severity Zones. The zones fall into three categories: moderate, high, and very high. The State's seasonally dry Mediterranean climate lends itself to wildfires. To better prepare, the California Department of Forestry and Fire Protection (CAL FIRE) is required to classify the severity of the fire hazard in areas of California. Maps are developed to represent these zones across the State using a science-based and field-tested model that assigns a hazard score based on the factors influencing fire likelihood and behavior (OSFM 2022)

**Fire Management Assistance Grant (FMAG)** – the Fire Management Assistance Grant Program is available to state, local, and Tribal Nation governments for the mitigation, management, and control of fires on publicly or privately owned forests or grasslands, which threaten such destruction as would constitute a major disaster (FEMA 2022e)

**FIRM** – see Flood Insurance Rate Map

**FIS** – see Flood Insurance Study

**fiscal year (FY)** – a set one-year period used for taxing or accounting purposes

**flash flood** – a flood that occurs with little or no warning when water levels rise at an extremely fast rate (National Severe Storms Laboratory 2022)

**flood** – the inundation of normally dry land resulting from the rising and overflowing of a body of water (National Severe Storms Laboratory 2022)

**Flood Insurance Rate Map (FIRM)** – the official map on which the Federal Emergency Management Agency (FEMA) delineates the Special Flood Hazard Area (SFHA). Maps for each county in the State can be accessed online:

<https://msc.fema.gov/portal/advanceSearch>

**Flood Insurance Study (FIS)** – a regulatory mapping product developed by the Federal Emergency Management Agency (FEMA) that produces a detailed written account of a flood hazard mapping study including methodologies used, sources of data, and findings for watercourses, lakes, coastal flood, and localized flooding risks with a community. The FIS report usually includes flood profile charts with detailed Base Flood Elevation (BFE) information. All FIS reports within the State can be accessed online at:

<https://msc.fema.gov/portal/advanceSearch>

**Flood Mitigation Assistance (FMA)** – Flood Mitigation Assistance is a competitive grant program that provides funding to states, local communities, federally recognized Tribal Nations, and territories. Funds can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program (NFIP) (FEMA 2022g)

**floodplain** – the land area along the sides of a river that becomes inundated with water during a flood

**FM** – see Federal Fire Management Assistance Declaration

**FMA** – see Flood Mitigation Assistance

**FMAG** – see Fire Management Assistance Grants

**FRAP** – see Fire and Resource Assessment Program

**freeboard** – an additional height above the Base Flood Elevation (BFE) used as a safety factor in determining the level at which a structure's lowest floor must be elevated or floodproofed to be in accordance with state or local floodplain management regulations (FEMA 2020c)

**frequency** – how often a hazard of specific magnitude, duration, and/or extent is expected to occur on average. Statistically, a hazard with a 100-year frequency is



expected to occur about once every 100 years on average and has a 1 percent chance of occurring in any given year. Frequency reliability varies depending on the type of hazard considered

**frontline communities** – neighborhoods or populations of people directly affected by climate change [and other hazards] and inequity in society at higher rates than people with more power in society. They are on the frontlines of the problem (NAACP 2018)

**FS** – see federal fire suppression authorization

**Fujita tornado intensity scale** – scale for rating tornado wind speeds, estimated based on damage sustained. The scale rates the intensity or severity of tornado events using numeric values from F0 to F5 based on tornado wind speed and damage. An F0 tornado (wind speed less than 73 miles per hour (mph)) indicates minimal damage, such as broken tree limbs; an F5 tornado (wind speeds of 261 to 318 mph) indicates severe damage (Storm Prediction Center 2022)

**FY** – see fiscal year

**g** – the acceleration associated with gravity; %g is an acceleration calculated as a percentage of the acceleration of gravity

**General Plan** – each local government's blueprint for meeting the community's long-term vision for the future (OPR 2022a)

**geographic information system (GIS)** – computer software that relates data regarding physical and other features on the earth to a database for mapping and analysis (ESRI 2022)

**GHG** – see greenhouse gases

**GIS** – see geographic information system

**global positioning system (GPS)** – a space-based radio-navigation system consisting of a constellation of satellites broadcasting navigation signals and a network of ground stations and satellite control stations used for monitoring and control

**goal** – a general guideline that explains what is to be achieved. Goals are usually broad-based, long-term, policy-type statements and represent global visions. Goals help define the benefits that a plan is trying to achieve. The success of a hazard mitigation plan is measured by the degree to which its goals have been met (i.e., by the actual benefits in terms of hazard mitigation)

**GO-Biz** – California Governor's Office of Business and Economic Development



**GPS** – see global positioning system

**green infrastructure** – refers to ecological systems, both natural and engineered, that act as living infrastructure. Green infrastructure elements are planned and managed primarily for stormwater control but exhibit social, economic, and environmental benefits (Environmental Finance Center 2008)

**greenhouse gases (GHG)** – methane, nitrous oxide, and other gases that trap heat and warm the Earth, as a greenhouse traps heat from the sun (Center for Science Education 2022)

**ground shaking** – the result of rapid ground acceleration caused by seismic waves passing beneath buildings, roads, and other structures (USGS 2022g)

**hazard** – a source of potential danger or adverse condition that could harm people and/or cause property damage

**Hazard Groups** – the 2023 State Hazard Mitigation Plan (SHMP) Hazard Groups provided guidance and subject matter expertise for the Plan. In addition, the Hazard Groups focused on specific hazard profiles and mitigation actions

**hazard mitigation** – any sustainable action that reduces or eliminates long-term risk to people, property, and the environment from future disasters. Mitigation planning breaks the cycle of disaster damage, reconstruction, and repeated damage (FEMA 2022h)

**Hazard Mitigation Assistance (HMA)** – a suite of grant programs that the Federal Emergency Management Agency (FEMA) sponsors that can fund proactive hazard mitigation plans and projects. These programs include the Hazard Mitigation Grant Program (HMGP), Building Resilient Infrastructure and Communities (BRIC), and Flood Mitigation Assistance (FMA) (FEMA 2022h)

**Hazard Mitigation Grant Program (HMGP)** – provides funding to state, local, Tribal Nation, and territorial governments so they can develop hazard mitigation plans and rebuild in a way that reduces or mitigates future disaster losses in their communities. When requested by an authorized representative, this grant funding is available after a Presidentially declared disaster (FEMA 2022i)

**hazardous material** – a substance or combination of substances (e.g., biological, chemical, radiological, nuclear, explosive, physical) that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors

**Hazus** – a nationally standardized, geographic information system (GIS) based multi-hazard risk analysis tool developed and distributed by the Federal Emergency Management Agency (FEMA) (FEMA 2022j)

**HCAI** – California Department of Health Care Access and Information

**HCD** – California Department of Housing and Community Development

**HHPD** – see high hazard potential dam

**High Hazard Potential Dam (HHPD)** – High Hazard Potential is a classification standard for any dam whose failure or misoperation will cause loss of human life and significant property destruction (FEMA 2022n)

**high-hazard dam** – a dam whose failure or improper operation can cause loss of human life

**HIRA** – Hazard Identification and Risk Assessment

**HIV/AIDS** – Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome

**HMA** – see Hazard Mitigation Assistance

**HMGP** – see Hazard Mitigation Grant Program

**HUD** – U.S. Department of Housing and Urban Development

**IA** – see Individual Assistance

**IBC** – see International Building Code

**ICARP** – Integrated Climate Adaptation and Resilience Program

**impact rating** – the impact rating performed for the 2023 State Hazard Mitigation Plan (SHMP) is based on the fundamental definition of risk:  $\text{Probability} \times \text{Impact} = \text{Risk}$

**inclusion** – the California Governor's Office of Emergency Services (Cal OES) puts diversity into purposeful and meaningful action and builds a culture of belonging, respect, and connection by actively inviting the contribution and participation of all people

**Individual Assistance (IA)** – the Federal Emergency Management Agency (FEMA) provides assistance to individuals and families who have lost their homes due to a Presidentially declared disaster. It also helps with other needs such as disaster-caused childcare, medical expenses, or clean-up items (FEMA 2022m)

**intensity** – the measure of the effects of a hazard

**International Building Code (IBC)** – the foundation of the complete family of International Codes. It is an essential tool to preserve public health and safety that provides safeguards from hazards associated with the built environment. It addresses designing and installing innovative materials that meet or exceed public health and safety goals (International Code Council 2022)

**inventory** – the assets identified in a planning area. Inventories include assets that could be lost when a disaster occurs and community resources that are at risk. Assets include people, buildings, transportation, and other valued community resources

**LAO** – California Legislative Analyst's Office

**LCP** – see Local Coastal Program

**levee** – a man-made structure, usually an earthen embankment, used to contain, control, or divert the flow of water to try and reduce flooding risk (FEMA n.d.-c)

**levee flood protection zone (LFPZ)** – the maximum area that could be flooded if a levee under federal or state regulation were to fail while conveying flows at the maximum reasonable capacity

**LFPZ** – see levee flood protection zone

**LGBTQIA+** – lesbian, gay, bisexual, transgender, queer or questioning, intersex, asexual, and more identities

**LHMP** – see local hazard mitigation plan

**liquefaction** – loosely packed, water-logged sediment that loses its strength in response to strong shaking, causing major damage during earthquakes (USGS 2022b)

**LMP Unit** – California Governor's Office of Emergency Services (Cal OES) Local Mitigation Planning Unit

**Local Coastal Program (LCP)** – local program for implementing California's Coastal Act policies

**local government** – any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a non-profit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Tribal Nation or authorized Tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity

**local hazard mitigation plan (LHMP)** – a local hazard mitigation plan assesses hazard vulnerabilities and identifies mitigation actions that jurisdictions will pursue to reduce the level of injury, property damage, and community disruption that might otherwise result from such events

**Local Responsibility Area (LRA)** – local responsibility areas are incorporated cities, urban regions, agricultural lands, and portions of the desert where the local government is responsible for wildfire protection. Wildfire protection is typically provided by city fire departments, fire protection districts, counties, and by the California Department of Forestry and Fire Protection (CAL FIRE) under contract (CAL FIRE 2022f)

**LRA** – see Local Responsibility Area

**magnitude** – the measure of the strength of an earthquake

**MARAC** – Mutual Aid Regional Advisory Committee

**mitigation** – a preventive action taken before an event to reduce or eliminate risk to life, property, or the environment

**mitigation actions** – specific actions to achieve goals and objectives that minimize the effects of a disaster and reduce the risk to life, property, and the environment

**moment magnitude scale (Mw)** – scale based on the total movement release of an earthquake. Moment is a product of the distance a fault moved, and the force required to move it. It is derived from modeling recordings of the earthquake at multiple stations. Moment magnitude estimates are similar to Richter magnitudes for small to large earthquakes (Michigan Tech 2022)

**mph** – miles per hour

**Mw** – see Moment Magnitude Scale

**N/A** – not applicable

**NAHC** – Native American Heritage Commission

**NASA** – National Aeronautics and Space Administration

**National Earthquake Hazards Reduction Program (NEHRP)** – a program to develop, disseminate, and promote knowledge, tools, and practices for earthquake risk reduction – through coordinated, multidisciplinary, interagency partnerships among the NEHRP agencies and their stakeholders – that improve the Nation's earthquake resilience in public safety, economic strength, and national security (NEHRP 2022)

**National Fire Danger Rating System (NFDRS)** – a system that allows fire managers to estimate today's or tomorrow's fire danger for a given area. It combines the effects of existing and expected states of selected fire danger factors into one or more qualitative or numeric indices that reflect an area's fire protection needs. The system links an organization's readiness level (or pre-planned fire suppression actions) to the potential fire problems of the day (USFS 2022)

**National Flood Insurance Program (NFIP)** – provides flood insurance to property owners, renters, and businesses. This coverage helps them recover faster when floodwaters recede. The NFIP works with communities required to adopt and enforce floodplain management regulations to help mitigate flooding effects (FEMA 2022f)

**nature-based solutions** – sustainable planning, design, environmental management, and engineering practices that weave natural features or processes into the built environment to promote adaptation and resilience. These solutions use natural features and processes to combat climate change and reduce flood risk (FEMA 2023b)

**NCEI** – National Centers for Environmental Information

**NEHRP** – see National Earthquake Hazards Reduction Program

**NFDRS** – see National Fire Danger Rating System

**NFIP** – see National Flood Insurance Program

**NGO** – see non-governmental organization

**NOAA** – National Oceanic and Atmospheric Administration

**NOFO** – see notice of funding opportunity

**NOI** – see notice of interest

**non-governmental organization (NGO)** – typically non-profit entities that are independent of direct governmental influence

**notice of funding opportunity (NOFO)** – an agency's formally issued announcement that funding through a financial assistance program is available. A NOFO will include a description of activities and entities that are eligible to apply, as well as all other required criteria

**notice of interest (NOI)** – a sub-applicant's response to a notice of funding opportunity (NOFO) indicating an interest in applying for funding

**NWS** – National Weather Service

**OAFN** – California Office of Access and Functional Needs

**OAL** – Office of Administrative Law

**objective** – a measurable step you take to achieve a strategy

**ODEI** – California Office of Diversity, Equity, and Inclusion

**OEHHA** – California Office of Environmental Health Hazard Assessment

**OPC** – California Ocean Protection Council

**OPR** – California Governor's Office of Planning and Research

**OSFM** – California Office of the State Fire Marshal

**OSHPD** – California Office of Statewide Health Planning and Development

**OSPR** – California Office of Spill Prevention and Response

**OTS** – California Office of Traffic Safety

**PA** – see Public Assistance

**pandemic** – an epidemic of infectious disease that has spread through human populations across a large region, multiple continents, or worldwide (Columbia Mailman School of Public Health 2021)

**particulate matter (PM)** – particles of solids or liquids in the air

**peak ground acceleration (PGA)** – a measure of the highest amplitude of ground shaking that accompanies an earthquake, based on a percentage of the force of gravity (USGS 2019b)

**PG&E** – Pacific Gas and Electric Company

**PGA** – see peak ground acceleration

**Plan or the Plan** – used as a reference to the 2023 State Hazard Mitigation Plan (SHMP) within the document

**PM** – see particulate matter

**PM<sub>10</sub>** – particulate matter consisting of fine particles that are 10 micrometers or less in diameter

**PM<sub>2.5</sub>** – particulate matter consisting of fine particles that are 2.5 micrometers or less in diameter

**preparedness** – actions that strengthen the capability of government, people, and communities to respond to disasters

**probability of occurrence** – a statistical measure or estimate of the likelihood that a hazard will occur. This probability is generally based on past hazard events in the area and a forecast of events that could occur in the future. A probability factor based on yearly occurrence values is used to estimate the probability of occurrence (FEMA 2022p)

**PSPS** – see Public Safety Power Shutoff

**Public Assistance (PA)** – provides supplemental grants to state, local, Tribal Nation, and territorial governments and certain types of private non-profits so communities can quickly respond to and recover from major disasters or emergencies (FEMA 2022)

**Public Safety Power Shutoff (PSPS)** – an intentional shutdown of electrical power in an area because of hazardous weather conditions which could contribute to the possibility of wildfires

**recurrence interval** – a measure based on the probability that the given hazard event will be equaled or exceeded in any given year based on past occurrences (sometimes called the return period)

**recovery** – within emergency management, recovery focuses on restoring, redeveloping, and revitalizing the health, social, economic, natural, and environmental fabric of a community and often begins while response to a disaster is still occurring (FEMA n.d.-a)

**redlining** – a discriminatory practice in which services are withheld from potential customers who reside in neighborhoods that have significant numbers of racial and ethnic minorities and low-income residents

**Regional Flood Management Plan (RFMP)** – regional components of the Central Valley Flood Protection Plan (CVFPP) identifying and describing region-specific challenges, priorities, and accomplishments (DWR 2023)

**repetitive loss (RL) property** – any National Flood Insurance Program (NFIP) insured property that, since 1978 and regardless of any changes of ownership during that period, has experienced: four or more paid flood losses in excess of \$1,000; or two paid flood losses in excess of \$1,000 within any 10-year period since 1978; or three or more paid losses that equal or exceed the current value of the insured property (NFIP/CRS 2015)



**request for information (RFI)** – a request from a grant funding review agency to a funding applicant asking for the submittal of any items missing from a grant application

**resilience** – the capacity of people, organizations, or systems to adapt to changing conditions and withstand and/or rapidly recover from disruption due to an emergency

**RFI** – see request for information

**RFMP** – see Regional Flood Management Plan

**risk** – the estimated impact a hazard would have on a community's people, services, facilities, and structures. Risk measures the likelihood of a hazard occurring and resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms, such as a low, moderate, or high likelihood of sustaining damage above a particular threshold due to the occurrence of a specific type of hazard. Risk also can be expressed in terms of potential monetary losses associated with the intensity of the hazard

**risk assessment** – the process of measuring the potential loss of life, personal injury, economic injury, and property damage resulting from hazards. This process assesses the vulnerability of people, buildings, and infrastructure to hazards

**risk ranking** – process to score and rank hazards based on the probability that they will occur and the impact they will have if they do

**riverine** – of or produced by a river. Riverine floodplains have readily identifiable channels

**RL** – see repetitive loss property

**Robert T. Stafford Act (Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 100-707)** – the statutory authority for most federal disaster response activities, especially as they pertain to the Federal Emergency Management Agency (FEMA) and its programs. Signed into law November 23, 1988; amended by the Disaster Relief Act of 1974 (Public Law 93-288)

**SB** – see Senate Bill

**sea-level rise** – the average increase in the water level of the Earth's oceans

**seiche** – a standing wave in an enclosed or partially enclosed body of water, such as a lake, harbor, or reservoir (Pacific Northwest Seismic Network 2022)

**SEMS** – see Standardized Emergency Management System

**Senate Bill (SB)** – a draft of a proposed law introduced by a Member of the California State Senate

**SEP** – see State Emergency Plan

**severe repetitive loss (SRL) property** – any National Flood Insurance Program (NFIP) insured residential building that has incurred flood-related damage for which four or more claims payments have been made, with the amount of each claim exceeding \$5,000 and the cumulative amount exceeding \$20,000; or for which at least two claims payments have been made under NFIP coverage with the cumulative amount exceeding the market value of the building (NFIP/CRS 2015)

**SFHA** – see Special Flood Hazard Area

**SGC** – California Strategic Growth Council

**SHMP** – see State Hazard Mitigation Plan

**significant hazard dam** – a dam that can cause economic loss, environmental damage, or disruption of lifeline facilities or can impact other concerns, but not necessarily the loss of life

**SLC** – California State Lands Commission

**SMGB** – California State Mining and Geology Board

**SMP Unit** – California Governor's Office of Emergency Services (Cal OES) State Mitigation Planning Unit

**SNC** – Sierra Nevada Conservancy

**SoCalGas** – Southern California Gas

**social vulnerability** – as defined by the Federal Emergency Management Agency (FEMA), the susceptibility of social groups to the adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihood (FEMA n.d.-b)

**Social Vulnerability Index (SVI)** – an indicator of areas of vulnerability based on 15 factors ranging across household composition, minority status, and access to transportation (CDC 2022)

**SPC** – National Weather Service Storm Prediction Center

**Special Flood Hazard Area (SFHA)** – areas that will be inundated by the flood event having a 1 percent chance of being equaled or exceeded in any given year (FEMA 2020d)

**Sperry-Piltz Ice Accumulation Index (SPIA)** – a system for predicting the projected footprint, total ice accumulation, and resulting potential damage from incoming ice storms (SPIA Index n.d.)

**SPFC** – see State Plan of Flood Control

**SPIA** – Sperry-Piltz Ice Accumulation index

**SRA** – see State Responsibility Area

**SRL** – see severe repetitive loss property

**SSC** – California Seismic Safety Commission

**stakeholder** – business leaders, civic groups, academia, non-profit organizations, major employers, managers of critical facilities, farmers, developers, special purpose districts, and others whose actions could impact hazard mitigation efforts

**Standardized Emergency Management System (SEMS)** – the cornerstone of California's emergency response system and the fundamental structure for the response phase of emergency management. The system unifies all elements of California's emergency management community into one integrated system and standardizes key elements (Cal OES 2022)

**State Emergency Plan (SEP)** – the plan is a California Emergency Services Act (ESA) requirement and describes methods for conducting emergency operations. The State Emergency Plan details the process for rendering mutual aid and describes the roles and responsibilities of State government agencies during emergencies (Cal OES 2023a)

**State Hazard Mitigation Plan (SHMP)** – identifies hazards and associated vulnerabilities within the State and provides a comprehensive statewide strategy to reduce future disaster losses through sound mitigation projects (FEMA 2023k)

**State Parks** – California Department of Parks and Recreation

**State Plan of Flood Control (SPFC)** – a program of flood control projects developed under the Central Valley Flood Protection Plan (CVFPP)

**State Responsibility Area (SRA)** – State Responsibility Areas are areas where the state has financial responsibility for wildfire protection and prevention. Within these, the

California Department of Forestry and Fire Protection (CAL FIRE) is responsible for fire prevention and suppression (CAL FIRE 2022f)

**subsidence** – the caving in or sinking of an area of land (USGS 2022k)

**surface fault rupture** – an offset of the ground surface when a fault rupture extends to the Earth's surface (Pacific Northwest Seismic Network 2022a)

**sustainability** – refers to an overarching concept within which disaster management takes place. A well-known definition of sustainability comes from the World Commission on Environment and Development, which states that sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Commission 1987). This vision was articulated at a finer level by the National Commission on the Environment, which suggested that sustainability is a strategy for improving the quality of life while preserving the environmental potential for the future, of living off interest rather than consuming natural capital (National Commission on the Environment 1992). For the purpose of this State Hazard Mitigation Plan (SHMP), the Climate Impacts Working group refined the term “sustainability” to include these previous definitions and the idea of preservation of resources, including physical, social, economic, environmental, historical, and cultural, for the benefit of future generations. One of the paths to sustainability is through investment in strong disaster mitigation

**SVI** – see Social Vulnerability Index

**SWPC** – Space Weather Prediction Center

**TAWC** – technical assistance working committee

**THIRA** – see Threat and Hazard Identification and Risk Assessment

**Threat and Hazard Identification and Risk Assessment (THIRA)** – a three-step risk assessment process that helps communities understand their risks and what they need to do to address those risks

**tsunami** – a series of waves in a body of water caused by the displacement of a large volume of water, generally in an ocean or a large lake, often caused by earthquakes or undersea volcanic eruptions

**U.S.** – United States

**U.S. Drought Monitor** – the U.S. Drought Monitor is a map updated each Thursday to show the location and intensity of drought across the country. The monitor uses a five-category system, labeled Abnormally Dry or D0 (a precursor to drought, not actually drought), Moderate (D1), Severe (D2), Extreme (D3), and Exceptional (D4) Drought.

Drought categories show experts' assessments of conditions related to dryness and drought, including observations of how much water is available in streams, lakes, and soils compared to usual for the same time of year (NIDIS 2022)

**UC** – University of California

**UCERF3** – see Uniform California Earthquake Rupture Forecast

**underserved/underrepresented communities** – for the 2023 State Hazard Mitigation Plan (SHMP), this term has been defined to include rural communities, migrant and seasonal agricultural workers, individuals living in group quarters, and individuals living in mobile or manufactured homes

**Uniform California Earthquake Rupture Forecast (UCERF)** – a model providing authoritative estimates of the magnitude, location, and time-averaged frequency of potentially damaging earthquakes in California; UCERF3 is version 3 of the model

**unreinforced masonry building (URM)** – a building where load-bearing walls, non-load-bearing walls, or other structures, such as chimneys, are made of brick, cinderblock, tiles, adobe, or other masonry material that is not braced by reinforcing material, such as rebar in concrete or cinderblock. As these buildings were not constructed according to modern building codes, they are more likely to be damaged or collapse during a hazard event like an earthquake

**URM** – see unreinforced masonry building

**USACE** – U.S. Army Corps of Engineers

**USDA** – U.S. Department of Agriculture

**USGS** – U.S. Geological Survey

**vulnerability** – an assessment of how susceptible an asset is to damage based on its construction, contents, and the economic value of its functions

**watershed** – an area that drains downgradient from areas of higher land to areas of lower land to the lowest point

**Watershed Emergency Response Team (WERT)** – a team deployed to conduct post-fire assessments and identify types and locations of threats to life-safety and property from debris flows, flooding, rockfall, and surface erosion that are elevated due to wildfire

**WCB** – California Wildlife Conservation Board

**WERT** – see Watershed Emergency Response Team

**West Nile Virus (WNV)** – a virus transmitted by mosquitoes, usually between birds, but sometimes causing epidemics of disease (typically fever or encephalitis) in humans and horses

**whole community** – a term coined by the Federal Emergency Management Agency (FEMA) to support its preparedness initiatives. “Whole community” includes individuals and families from all aspects of society such as individuals with access or functional needs including people with disabilities, and people from various businesses, faith-based and community organizations, non-profit groups, schools and academia, media outlets, and all levels of government, including state, local, Tribal Nation, territorial, and federal partners (FEMA 2020a)

**wildland urban interface (WUI)** – the transition zone between unoccupied land and human development. It is the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels (U.S. Fire Administration 2022a)

**WNV** – see West Nile Virus

**Working Groups** – the 2023 State Hazard Mitigation Plan (SHMP) Working Groups provided guidance and subject matter expertise for the Plan. The Working Groups evaluated overarching themes integrated throughout the 2023 SHMP

**WUI** – see wildland urban interface

**Zone X** – area determined to be outside the 1% and 0.2% annual chance floodplains (FEMA 2020d)

**zoning ordinance** – an ordinance that designates allowable land use and intensities for a local jurisdiction

