### TEMPLATE/MODEL CLIMATE EMERGENCY RESOLUTION

(long version, with citations embedded)

This Model Resolution is based on a close reading of Climate Emergency Resolutions recently passed by jurisdictions in Northern California and can be modified to reflect local requirements and conditions.

# A RESOLUTION OF THE [XX CITY COUNCIL/XX BOARD OF SUPERVISORS] DECLARING A CLIMATE EMERGENCY AND AN IMMEDIATE MOBILIZATION EFFORT TO RESTORE CLIMATE STABILITY

**WHEREAS**, the effects of global climate disruption are experienced at regional and local levels, as droughts, catastrophic fires, and rising sea levels threaten our communities, our economy, and future generations; and

WHEREAS, [City/County], along with other communities across California, already experiences the impacts of more extreme weather events, including higher temperatures, the threat of increased frequency and magnitude of wildfires and associated air pollution, health outcomes, utility and transportation service interruptions, flooding, economic disruption, property loss and dislocation, housing shortages, school closures, drought and water shortages, compromised agricultural production, food insecurity, and increased demand on public sector resources and emergency response capacity; and

**WHEREAS**, for the last 650,000 years, planetary levels of carbon dioxide (CO<sub>2</sub>), a potent and long-lived inert greenhouse gas, fluctuated between 180 and 290 parts per million (PPM), but never exceeded 300 PPM<sup>1</sup> because natural systems maintained equilibrium over hundreds of thousands of years; and

**WHEREAS**, a stable climate over the last 12,000 years encouraged the development of agriculture and human civilization, and that stability is now threatened as a result of human activity, in particular the increased use of fossil fuels burned for energy and industrial production, and deforestation for increased agricultural production over the last 150 years, leading to unsustainable levels of certain greenhouse gases in the Earth's atmosphere<sup>2</sup>; and

WHEREAS, the dramatic increase in the use of fossil fuels since the Industrial Revolution began in the 1800s has resulted in a 40% increase in heat-trapping greenhouse gases in the Earth's atmosphere, particularly carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>), as well as the gases associated with refrigeration, causing an unsustainable imbalance in natural systems<sup>3</sup>; and

**WHEREAS**, global atmospheric concentrations of CO<sub>2</sub> have increased from 280 PPM in 1870 to 410 PPM in 2020, and are rising at a rate of 2 to 3 parts per million (PPM) annually, which has direct correlation to global warming and climate disruption in the 21<sup>st</sup> century<sup>4</sup>; and

<sup>&</sup>lt;sup>1</sup> NASA, Luthi, D., et al., 2008; Etheridge, D.M., et al., 2010; NOAA Mauna Loa CO<sub>2</sub> record.

<sup>&</sup>lt;sup>2</sup> NASA, Sohn, Emily, Vital Signs of the Planet, "Climate Change and the Rise and Fall of Civilizations", 1.20.14.

<sup>&</sup>lt;sup>3</sup> NASA, Bates, Sophie, Earth Science News Team, "Direct Observations Confirm That Humans Area Throwing Earth's Energy Budget off Balance", March 25, 2021

<sup>4</sup> https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide

**WHEREAS**, global annual average concentrations of CO<sub>2</sub> have risen at a pace that has accelerated over the last 40 years, from ~339 PPM in 1980 to 410 PPM in 2019, an increase of more than 20%, and that increase in CO<sub>2</sub> correlates to an ~84% of the increase in the heat-trapping capacity of the atmosphere over the past decade<sup>5</sup>; and

**WHEREAS**, the natural systems and cycles that remained stable over millennia are now overburdened by excess greenhouse gas emissions, resulting in a global average temperature increase of  $1.1^{\circ}$ C ( $1.98^{\circ}$ F) above pre-industrial levels<sup>6</sup> and, according to the latest projections, is trending to reach a  $1.5^{\circ}$ C ( $2.7^{\circ}$ F) by  $2026^{7}$ ; and

**WHEREAS**, more than a million species may be at risk of future extinction due to climate change, and global warming is projected to cause the extinction of over one-third of the Earth's animal and plant species by 2050 if current greenhouse gas emissions trajectories continue — a catastrophic loss that would irreversibly reduce biodiversity and alter both ecosystems and human societies across the globe<sup>8</sup>; and

WHEREAS, to stabilize global temperatures, atmospheric levels of CO<sub>2</sub> must be reduced to no more than 350 PPM by 2030 if, according to former National Aeronautics and Space Administration climatologist Dr. James Hansen, "humanity wishes to preserve a planet similar to that on which civilizations developed and to which life on Earth is adapted" and, ideally, should be restored to early industrial levels of approximately 300 PPM by mid-century; and

**WHEREAS**, the 2015 Paris Agreement, signed by all the nations of the world, has a stated objective of "...keeping a global temperature rise this century well below 2 Celsius [3.6 F] above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 Celsius [2.7 F]"; and

**WHEREAS**, in October, 2018, the United Nations Intergovernmental Panel on Climate Change (IPCC), the largest collaborative and consensus-based effort among the world's scientific community, issued "Special Report on Global Warming of 1.5 Degrees Celsius", which noted that our "carbon budget" is equal to 10 years of greenhouse gas emissions, and conservatively estimated that global net greenhouse gas emissions must fall by at least 45% below 2010 levels no later than 2030, and reach 'net zero' emissions no later than 2050 in order to stay below a 1.5°C (2.7°F) increase in global temperatures and avoid long-lasting and/or catastrophic and irreversible climate impacts; and

 $<sup>^{5}</sup>$  National Oceanic and Atmospheric Agency, "Atmospheric Carbon Dioxide", https://www.globalchange.gov

<sup>&</sup>lt;sup>6</sup> Hanson, James, et al., Global Temperature in 2017 (January 18, 2018)

<sup>&</sup>lt;sup>7</sup> See, Inter Alia, Henley and King "Trajectories Toward the 1.5° C Paris Target: Modulations by the Interdecadal Pacific Oscillation" (2017), Geophys. Res. Lett., 44, 4256-4262, doi

<sup>&</sup>lt;sup>8</sup> Center for Biological Diversity, "Global Warming and Endangered Species Initiative"; and February 20, 2020, Roman-Palacios, Cristian and John Wiens, "Recent Responses to Climate Change Reveal the Drivers of Species Extinction and Survival", National Academy of Sciences of the United States

<sup>&</sup>lt;sup>9</sup> IPCC, 2018: Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. *World Meteorological Organization, Geneva, Switzerland, 32 pp.* 

WHEREAS, the National Climate and Health Assessment of the United States Global Climate Change Research Program<sup>10</sup> identified climate change as a significant threat to the health of the people of the United States: increased temperature-related deaths and illness, air quality impacts, extreme weather events, vector-borne diseases, waterborne illness, food safety, nutrition, mental health and well-being concerns; and

**WHEREAS**, in 2018, the State of California's "4th Climate Change Assessment" noted that the 2012-2016 drought led to the greatest moisture deficit in the last 1,200 years and the lowest snowpack levels in 500 years, and warned that extreme weather and climate-related events are worsening, predicting increased drought cycles and heat waves, resulting in a three-fold increase in intensity and magnitude of wildfires, diminished water supply and snow pack, increased flooding, impacts to agriculture, as well as substantial harm to human health, and negative impacts to the economy; and

**WHEREAS**, a study conducted by UC Berkeley found that California can expect to lose 1 percent of its annual economic output for every 1.0°C (1.8°F) increase in average temperature, which translates to an annual loss of \$26 billion to the state's gross domestic product<sup>12</sup>; and

**WHEREAS**, the 2017 state report, "Rising Seas in California" conservatively estimated 1.0 - 3.4 feet of sea level rise in the San Francisco Bay by 2100, with the potential of up to 10 feet of sea level rise in the San Francisco Bay by 2100, a scenario consistent with rapid Antarctic ice sheet mass loss that would be catastrophic to the communities, businesses, and economy of the Bay Area, every other coastal community, and the State of California; and

**WHEREAS,** to reach zero greenhouse gas emissions goals across all sectors, and rapidly drawdown or remove "legacy" greenhouse gases from the atmosphere, requires the adoption of 21<sup>st</sup> century climate solutions at every level of government, and across all sectors of business, industry, and community in order to reverse global warming and restore a safe and stable climate; and

WHEREAS, climate change has significant impacts on all community members, but disproportionately impacts those who are most vulnerable: the young, the disabled, the elderly, low-income, and disadvantaged communities, and therefore health, socio-economic, and racial equity must be included in policy considerations and the implementation of climate solutions at all levels and across all sectors; and

**WHEREAS**, the [City/County] has previously enacted proactive climate measures, including:

• Adoption of the following climate-related resolutions:

<sup>&</sup>lt;sup>10</sup> USGCRP, 2016: *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment.* Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, DC, 312 pp. http://dx.doi.org/10.7930/J0R49NQX

<sup>&</sup>lt;sup>11</sup> Ackerly, David, Andrew Jones, Mark Stacey, Bruce Riordan. (University of California, Berkeley). 2018. "San Francisco Bay Area Summary Report". California's Fourth Climate Change Assessment. Publication number: CCCA4-SUM-2018-005

<sup>&</sup>lt;sup>12</sup> "Estimating Economic Damage from Climate Change in the United States", Science Magazine, June 30, 2017 Griggs, G, Árvai, J, Cayan, D, DeConto, R, Fox, J, Fricker, HA, Kopp, RE, Tebaldi, C, Whiteman, EA (California Ocean Protection Council Science Advisory Team Working Group). Rising Seas in California: An Update on Sea-Level Rise Science. California Ocean Science Trust, April 2017.

- List
- Implemented the following climate-related programs and policies:
  - List

**WHEREAS**, while [City/County] supports the State of California's measures to reduce greenhouse gas emissions<sup>14</sup>, there is consensus among climate scientists that the State's emission reduction goals and timeline targets are woefully inadequate given data that indicates rapidly accelerating global warming beyond earlier predictive modeling, requiring that more aggressive efforts must be initiated at the local and regional levels to avoid the worst consequences of a warming planet; and

**WHEREAS**, [City/County] recognizes and acknowledges that the impacts of climate change pose an existential threat to our city/county and the region, now and increasingly in the future, as well as the state, our nation, and all life on the planet.

**NOW, THEREFORE BE IT RESOLVED,** [City/County] declares a climate emergency and joins the climate mobilization effort to stabilize the earth's atmosphere, slow and halt global temperature increases, and reverse global warming, to ensure a just transition and a sustainable, resilient, and healthy future for generations to come; and

**BE IT FURTHER RESOLVED**, [City/County] adopts this Climate Emergency Resolution as a declaration of our commitment to reducing greenhouse gas emissions at speed and scale, setting reduction targets and implementation strategies in accordance with the most recent science and data available, and revising those targets to reflect changing climate scenarios and potential impacts to our community; and

**BE IT FURTHER RESOLVED**, [City/County] will hereby prioritize climate policies supported by commensurate budgets, and the acceleration of measures to achieve net zero emissions by 2030, based on valid data, current research, and best practices; and

**BE IT FURTHER RESOLVED**, that [City/County] will prioritize the implementation of its Climate Action Plan (CAP) to achieve significant greenhouse gas reduction targets, will use the CAP as a lens in considering and adopting policies, will review and report annually on implementation progress, and will include equity and social justice outcomes in climate policies; and

**BE IT FURTHER RESOLVED**, [City/County] will pass ordinances to halt the development of all new fossil fuel infrastructure, rapidly phase out all fossil fuels and the technologies which rely upon them, adopt zero emission vehicle infrastructure measures and low-carbon building codes, support regenerative agriculture and measures to draw down carbon from the atmosphere, and incentivize and support economic and educational workforce transitions; and

**BE IT FURTHER RESOLVED,** [City/County] commits to a collaborative approach that includes neighboring and regional communities and jurisdictions, businesses, community members, and organizations, and further recognizes that partnerships which are diverse, inclusive, and

<sup>&</sup>lt;sup>14</sup> SB 32, 2016: reduce GhG emissions by 40% below 1990 levels by 2030; Executive Order B-55-18, 2018: achieve net carbon neutrality by 2045; SB 100, 2018: 100% of the State's electricity from clean energy sources by 2045.

promote equity are essential to support environmental, economic, and racial justice, and will work with all partners to ensure that efforts respect all community members; and

**BE IT FURTHER RESOLVED**, [City/County] commits to educating residents and businesses about the collective impact of using a collaborative approach to implement solutions, to catalyze a just transition and urgent climate mobilization effort at the local, regional, and state levels; and

BE IT FURTHER RESOLVED that [City/County] shall establish an interdepartmental task force of all Department heads, or their senior deputies, that will focus on urgently implementing the County's Climate Action Plan — as currently adopted and as it may be amended by [City/County]. This task force shall report to the [City/County] on a semi-annual basis starting in [Month/Year] with a written report that shall identify additional actions, policies, and programs the [City/County] can undertake to reduce and adapt to the impacts of a changing climate and to meet the Climate Action Goals.

BE IT FURTHER RESOLVED that [City/County] shall require every staff report include a section similar to "Fiscal Impact" titled "Carbon/Climate Impact". A Carbon/Climate Impact statement is an estimate prepared by [City/County] that predicts how the approval of a decision will affect (or not affect) the [City/County] greenhouse gas emissions. Like a fiscal Impact statement, staff shall assess and address how the decision before the elected body, will increase or decrease greenhouse gas emissions and include any mitigation in place or to be put in place to ensure they are mitigated to ensure minimal impact.

**BE IT FURTHER RESOLVED**, [City/County] directs all departments, staff, and commissions to identify and prioritize climate solutions, and commits to climate emergency mobilization practices that may include, but are not be limited to, strategies, measures, and policies that:

### **ENERGY & the BUILT ENVIRONMENT**

- Incentivize and support zero net energy and energy efficiency in retrofits and new construction
- Incentivize and support energy innovations, such as solar+battery storage, microgrids, virtual energy and community solar programs, etc.
- o Require replacement of "aged-out" appliances with all-electric models
- Require 100% Renewable Energy for both municipal and community electricity service
- Adopt "green" building codes, including low-carbon concrete, "solar and EV ready" wiring, etc.
- Eliminate fluorocarbon gases used in refrigeration and air conditioning
- o Eliminate the use of fossil fuels in the built environment
- Develop policies to require all new construction and remodels to ban natural gas and be fully electric; adopt building codes that reach beyond the minimum California State standards
- Reduce the use of carbon-intensive materials and fossil-fuel based products in construction and manufacturing, including roofing, roads, and cement
- Reduce the use of carbon-intensive practices in industry and manufacturing

### **TRANSPORTATION**

Incentivize and support adoption of zero net energy transportation

- Walkable and bikable "complete streets"
- Zero emission vehicles
- o Expand zero emission vehicle charging, especially at multi-family unit sites
- Public transportation
- Alternative commute programs
- Incentivize zero emission vehicle charging during daylight hours
- Incentivize and support policies that allow property owners to upgrade electrical panels to support the transition to on-site vehicle charging
- Require and incentivize "solar and EV ready" charging infrastructure on all new and remodeled construction
- Eliminate the use of fossil fuels in both public and private transportation
- Purchase ZE heavy-equipment and buses (which can be used as back-up energy during emergencies)

## COMMUNITY ENGAGEMENT, SUPPORT, AND RESILIENCE

- o Prioritize communication and engagement with residents, businesses, and workers
- Prioritize and support the creation of jobs and training for careers that support economic transitions and contribute to a carbon-neutral economy
- o Prioritize underserved, marginalized, low-income, and frontline community members
- o Prioritize community energy resilience and health through building decarbonization
- Support sustainable and affordable housing opportunities
- o Improve disaster and emergency preparedness and response
- Assess and adapt social services and safety-net programs to ensure access to food, , clean water, housing, and mental health services before, during, and after emergency events

# FOOD, AGRICULTURE, AND ZERO WASTE

- Identify and advance farming and ranching practices that reduce greenhouse gas emissions, enhance soil quality conserve water, increase groundwater retention, and sequester carbon
- o Expand and support preservation of agriculture lands and open space
- Enhance biodiversity and restore ecosystem function
- Require water conservation methodologies and practices, including low-water use landscaping, storm water catchments and cisterns
- Support green infrastructure and restorative ecology, including trees, green roofing
- Support the elimination of food waste
- Conserve natural and manufactured resources

**BE IT FURTHER RESOLVED**, [City/County] shall formally endorse legislation proposed at the State level consistent with our legislative priorities, and shall support regional and national legislation that reduces the extraction and processing of fossil fuels, lowers greenhouse gas emissions at speed and scale, improves the energy grid infrastructure, supports energy equity, advances climate solution innovations, and creates economic stability for current industries and their employees and the workforce of the future; and

**BE IT FURTHER RESOLVED**, [City/County] will advocate for a nationwide climate emergency mobilization effort that engages local, regional, state, and national efforts at all levels of government and society, to rapidly catalyze efforts to reverse global warming and the resulting ecological crisis; and

**BE IT FURTHER RESOLVED**, [City/County] calls on the elected leaders at local and regional levels through California, the State of California, both houses of the Congress of the United States, the President of the United States, and all governments and peoples worldwide to declare a climate emergency, commit to sustained effort commensurate with the crisis, and initiate real actions that can, collectively and on a global scale, reverse global warming and provide maximum protection for all people and species of the world.