

REQUESTING THAT THE GOVERNOR OF THE STATE OF HAWAII PROCLAIM A STATE OF EMERGENCY FOR ALL ISLANDS DUE TO DAMAGES AND THE SERIOUS THREAT OF FUTURE CATASTROPHIC DAMAGES TO HAWAII'S INFRASTRUCTURE, ENVIRONMENTAL RESOURCES, AND ECONOMY, AS A RESULT OF THE CLIMATE CRISIS.

Climate Emergency Declaration

OFFICE OF THE GOVERNOR, STATE OF HAWAII

PROCLAMATION

By the authority vested in me as Governor by the Constitution and laws of the State of Hawaii, in order to provide relief for disaster damages, losses, and suffering, and to protect the health, safety, and welfare of the people, I, DAVID Y. IGE, Governor of the State of Hawaii, hereby determine, designate and proclaim as follows:

WHEREAS, global warming has now raised the air temperature about 1°C.¹ Scientists have documented this extra heat is already having a dramatic impact on the environment: larger and stronger hurricanes, increased drought and flooding, shifting rain patterns, more and larger wildfires, a hotter and more acidic ocean, and damaged ecosystems, both marine and terrestrial, across the planet;² and

WHEREAS, some greenhouse gases (e.g., methane) have atmospheric lifetimes of decades or less, whereas others (e.g., carbon dioxide) persist for centuries to millennia. Thus, relative to human time-scales, climate change is essentially permanent, and because we are still emitting greenhouse gases, and are very likely to for many more decades, global warming is very likely to continue;³ and

WHEREAS, greenhouse gases produced from human activities are causing dramatic changes in ecosystems, the ocean, weather patterns, and other climate-dependent aspects of Earth's surface. Critical systems that support life are being pushed to their sustainable limits.⁴ In one day, 110 million tons^a of carbon dioxide are added to the atmosphere (40 billion tons per year), and an average of 84.4 million barrels of oil (1000 barrels per second⁵) are burned. By the end of every day, Earth's fresh water, soil, and ocean are more acidic,^b its natural resources more depleted, and its temperature a little hotter.^c In 2017 over 15,000 scientists published a "Warning to Humanity."⁶ They said humans have "... pushed Earth's ecosystems to their breaking point and are well on the way to ruining the planet."; and

WHEREAS, we are living in the midst of, and are the cause of, a planetary extinction event. Climate change effects have now been documented across every ecosystem on Earth.⁷ Researchers have labeled these ecosystem impacts "biological annihilation," and have determined that a "sixth major mass extinction" is underway as a result of dwindling population sizes and range shrinkages among vertebrates.⁸ Even under moderate warming for Hawaii, 10 of 21 existing native forest bird species are projected to lose over 50% of their range by 2100. Of those, 3 may lose their entire ranges and 3 others are projected to lose more than 90% of their ranges, making them of high

^a See CO2Now.org: "What the World Needs to Watch," <http://co2now.org/Current-CO2/CO2-Now/>

^b The USGS found that mining and burning coal, mining and smelting metal ores, and use of nitrogen fertilizer are the major causes of chemical oxidation processes that generate acid in the environment. These activities have increased carbon dioxide causing increased acidity of oceans and freshwater bodies and soils because of acid rain; increased acidity of freshwater streams and groundwater due to drainage from mines; and increased acidity of soils due to added nitrogen to crop lands. In Rice, K. and Herman, J. (2012) Acidification of Earth: an assessment across mechanisms and scales, *Applied Geochemistry*, 27(1), 1-14.

^c Largest Natural Disaster in US History Declared Today: <http://www.examiner.com/article/largest-natural-disaster-u-s-declared-today>. USDA Announces Streamlined Disaster Designation Process with Lower Emergency Loan Rates and Greater CRP Flexibility in Disaster Areas: <https://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2012/07/0228>

concern for extinction.⁹ Ocean warming and acidification are projected to cause annual coral bleaching in some areas like the central equatorial Pacific Ocean as early as 2030, and in almost all reefs by 2050.¹⁰ This will not only devastate local coral reef ecosystems but will also have profound impacts on ocean ecosystems in general. Ultimately it will threaten the human communities and economies that depend on a healthy ocean;¹¹ and

WHEREAS, these unrelenting impacts to Earth's ecosystems¹² and natural resources have led researchers to conclude that our planet is perched on the edge of a tipping point, a planetary-scale critical transition resulting from human influence.¹³ Scientists are warning that human population growth, widespread destruction of natural ecosystems, and global warming are pushing Earth's ecosystems and resources toward irreversible damage.^d This has been described in terms of damage exceeding a planetary boundary that is not recoverable;¹⁴ and

WHEREAS, reports¹⁵ indicate that warming is likely to accelerate in the next decade and reach 1.5°C by 2030, ten years earlier than projected by the 2014 Intergovernmental Panel on Climate Change (IPCC),¹⁶ and 2°C by 2045. If global temperatures rise 3.6°F (2°C), the combined effect of heat and humidity will turn summer into one long heat wave. Temperatures will exceed 104°F (40°C) every year in many parts of Asia, Australia, Northern Africa, South and North America.¹⁷ Further, stopping warming at the UN target of 1.5°C can only be achieved by overshooting the target and reversing warming with negative emissions (carbon removal from the atmosphere);¹⁸ and

WHEREAS, modeling studies¹⁹ indicate that global warming of 4-5°C will be reached in the 2080s. If global temperatures rise 7.2°F (4°C), a new "superheatwave" will appear with temperatures peaking at above 131°F, making large parts of the planet unlivable, including densely populated areas such as the US east coast, coastal China, large parts of India and South America;²⁰ and

WHEREAS, nine of the ten deadliest heat waves have occurred since 2000, causing 128,885 deaths around the world.²¹ The number of weather disasters is up 14% since 1995-2004, and has doubled since 1985-1994.²² The global occurrence of extreme rainfall has increased 12%.²³ In Hawaii, heavy rainfall events and droughts have become more common, increasing runoff, erosion, flooding, and water shortages;²⁴ and

WHEREAS, in Hawaii, the rate of warming air temperature has increased in recent decades. The year 2016 was the warmest year on record.²⁵ Warming air temperatures lead to heat waves, expanded pathogen ranges and invasive species, thermal stress for native flora and fauna, increased electricity demand, increased wildfire, potential threats to human health, and increased evaporation which both reduces water supply and increases demand. Rapid warming at the highest elevations impedes precipitation, the source of Hawaii's freshwater;²⁶ and

WHEREAS, frequency of intense El Niño events is projected to double in the 21st century, with the likelihood of extreme events occurring roughly once every decade.²⁷ Strong El Niño years in Hawaii bring more hot days, intense rains, windless days, active hurricane seasons, and spikes in sea surface temperature;²⁸ and

WHEREAS, the frequency of high tide flooding in Honolulu since the 1960s, has increased from 6 days per year to 11 per year.²⁹ With 3.2 ft (0.98 m) of sea level rise projected this century, across the state, 25,800 acres will experience chronic flooding, erosion, and/or high wave impacts. One third of this land is designated for urban use. Impacts include the loss of 38 mi (61 km) of major roads, and more than \$19 billion in assets. Further, the \$19 billion in economic loss does not encompass the full loss potential for the State. Monetary losses that will occur from the chronic flooding of roads, utilities and other public infrastructure, including the increase in saltwater intrusion in parts of the aquifer, were not analyzed in the report and may amount to an order of magnitude greater than the potential economic losses from land and structures.³⁰ Under high emission scenarios, a sea level rise exceeding 8 ft (2.4 m) by 2100 is physically possible.³¹ Due to global gravitational effects, estimates of future sea level rise in Hawaii and other Pacific islands are about 20%–30% higher than the global mean;³² and

WHEREAS, across the state of Hawaii, over 6,500 structures located near the shoreline would be compromised or lost in the sea level rise exposure area with 3.2 feet of sea level rise. Some of these vulnerable

^d Biologists Say Half of All Species Could be Extinct by End of the Century:

<https://www.theguardian.com/environment/2017/feb/25/half-all-species-extinct-end-century-vatican-conference>

structures include hotels, shopping malls, and small businesses. The loss of these structures may result in the interruption, relocation, or even closure of those businesses; and

WHEREAS, Indigenous populations will be disproportionately impacted by climate change due to their strong ties to place and greater reliance on natural resources for sustenance.³³ Ocean warming and acidification, sea level rise and coastal erosion, drought, flooding, pollution, increased storminess, and over-development are negatively affecting tourism, fisheries, and forested ecosystems. This directly impacts the livelihood and security of Pacific communities who rely on industrial fisheries and tourism. In Hawaii, between 2011 and 2015, an annual average of 37,386 Native Hawaiians worked in tourism-intensive industries; based on the 2013 U.S. census, this number represents 12.5% of the Native Hawaiian population residing in Hawaii;³⁴ and

WHEREAS, pursuant to section 127A-14, Hawaii Revised Statutes, the Governor is authorized to determine whether an emergency or disaster has occurred, or there is an imminent danger or threat of an emergency or disaster, and authorize actions under chapter 127A, Hawaii Revised Statutes, and the expenditure of funds thereunder; and

WHEREAS, based upon the scientific information and expertise available, Hawaii is in danger of disaster occurrence as a result of the effects of global warming, thereby endangering the health, safety, and welfare of the people;² and

WHEREAS, the danger of disaster is of such a magnitude as to warrant preemptive and protective action in order to provide for the health, safety, and welfare of the people; and

WHEREAS, government divisions in the United Kingdom, Canada, Ireland, Wales, Scotland, and Portugal, and 710 local governments in 16 countries, have already declared a climate emergency and committed to action to drive down emissions at emergency speed³⁵; and

WHEREAS, prompt, expeditious action is necessary to deal with preemptive, emergency, and restorative repairs and improvements to assure public health and safety;

NOW, THEREFORE, I, DAVID Y. IGE, Governor of the State of Hawaii, hereby determine that an emergency or disaster contemplated by section 127A-14, Hawaii Revised Statutes, has occurred in the State of Hawaii, and do hereby proclaim an emergency for the purpose of implementing the emergency management functions as allowed by law, authorizing the expenditure of State monies as appropriated to mobilize state resources accordingly to support the Hawaii Climate Change Mitigation and Adaptation Initiative, and under the direction of the Hawaii Climate Change Mitigation and Adaptation Commission, provide affected agencies and departments of the state and all counties with the necessary resources, communication, and coordination to implement climate change mitigation and adaptation efforts in accordance with the necessary scale and speed to achieve the 2018 IPCC recommendations for greenhouse gas emission reductions, and to monitor and report on progress on climate mitigation and the training and development of adaptation measures;

BE IT FURTHER RESOLVED that these climate mitigation and adaptation efforts shall entail:

- a statewide commitment to a just transition towards a decarbonized economy that invests in and ensures clean energy, quality jobs, and to a climate emergency mobilization effort to reverse the climate crisis, which, with appropriate financial and regulatory assistance from State authorities, will transform the economy to zero emissions, ending all statewide greenhouse gas emissions as quickly as possible and no later than 2030,
- banning any further public or private investment in projects that will make the climate emergency worse, such as coal, oil, gas, and tree-burning projects,
- banning subsidies, including but not limited to tax breaks, to industries, such as coal and other fossil fuels, that will make the climate worse, and redirecting and channeling subsidies towards low climate impact energy projects and workforce retraining,

- facilitating investment in beneficial projects such as zero emissions energy, electric vehicles, energy efficiency, reforestation, afforestation, and climate-friendly land use,
- phasing out existing sources of greenhouse gas emissions,
- mobilizing the required resources and taking effective action at the necessary scale and speed,
- organizing a time-phased implementation plan, assigning state government agencies responsibilities and timetables and establishing task dependencies between departments, with a priority to plan and coordinate, at a state-wide level, all climate and resilience responses, including emergency mitigation of climate change effects, resilience, adaptation, engagement, education, advocacy, research and development programs, beginning with a robust climate emergency public education and stakeholder outreach process,
- tracking and reporting progress, or lack thereof, so that appropriate adjustments can be made to keep efforts moving forward and on track,
- facilitating clean fleet transitions for the State and the various counties; car share programs; and the development and deployment of electric vehicle infrastructure,
- immediate initiatives to sequester carbon from the atmosphere,
- accelerating adaptation and resilience strategies in preparation for intensifying climate impacts, and
- encouraging all other governments around the world to take these same actions.

BE IT FURTHER RESOLVED that Hawaii commits to statewide action that is rooted in equity, self-determination, culture, tradition, deep democracy, and the belief that people locally and around the world have the right to clean, healthy and adequate air, water, land, food, education and shelter; and

BE IT FURTHER RESOLVED that the State of Hawaii recognizes that in order to meet these goals, the State must continue to formulate and implement subsequent phases of mitigation and resiliency plans as soon as practicable, to secure a sustainable environment, infrastructure, commerce, and living conditions for all residents; and

BE IT FURTHER RESOLVED that the State of Hawaii directs the Hawaii Climate Change Mitigation and Adaptation Commission to support ongoing climate action and accountability and create a reporting timeline and process for identifying progress in meeting the implementation plan goals, including adding a Climate Impacts section to all departmental reports that provides meaningful information on how proposed actions will impact GHG reduction efforts; and

BE IT FURTHER RESOLVED that nothing in this proclamation constitutes a declaration of an emergency for purposes of any Act authorizing the exercise, during the period of a state emergency or other type of declared emergency, of any special or extraordinary power.

I FURTHER DECLARE that a disaster emergency relief period shall commence immediately.

Done at the State Capitol this ____ day of _____.

DAVID Y. IGE
Governor of Hawaii

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² Honolulu Climate Change Commission, Climate Change Brief (2018) <https://www.resilientoahu.org/guidance-and-publications>

³ Honolulu Commission (2018)

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