

Model Findings for Alameda County Jurisdictions

WHEREAS, the *[City/Town/County]* of *[Jurisdiction]* is proposing to adopt various enumerated changes and modifications to the California Building Standards Code (“Code”), as set forth below, and

WHEREAS, Health and Safety Code Sections 17958, 17958.5 and 17958.7 permit cities and counties to make such changes or modifications in the Code as they determine are reasonably necessary because of “local climatic, geological, or topographical conditions;”

NOW THEREFORE, BE IT RESOLVED, that the *[City Council or Board of Supervisors]* does hereby find and declare that the changes or modifications to the Code listed in Section 2 below are reasonably necessary because of local climatic, geological, or topographical conditions in accordance with Health and Safety Code Sections 17958.5 and 17958.7:

Section 1: Findings Required by California Health & Safety Code Section 17958.5

- a. The *[Jurisdiction]* is located in Climate Zone *[3 or 12]*, which is characterized by periods of extremely hot, dry weather during the summer and fall months. In addition, during the winter, the *[Jurisdiction]* frequently experiences cold days with temperature inversions that trap certain air pollutants near the ground and exacerbate conditions leading to respiratory disease and other health risks. *[Jurisdiction to add details regarding local average temperatures and topographical or geographic features affecting weather patterns and air pollution]*. These local features contribute to the Bay Area’s status as a “nonattainment area” under the federal Clean Air Act for ozone and particulate matter.
- b. In June 2006 ICLEI – Local Governments for Sustainability in partnership with the Alameda County Waste Management Authority & Recycling Board (StopWaste.Org) and the Alameda County Conference of Mayors launched the Alameda County Climate Protection Project. *[Jurisdiction]* committed to the project and embarked on an ongoing, coordinated effort to reduce the emissions that cause global warming, improve air quality, reduce waste, cut energy use and save money. The *[City/Town/County]* of *[Jurisdiction]* is committed to reducing community-wide greenhouse gas emissions by XX% below our *[baseline year]* by *[target year]*.

While climate change is a global problem influenced by an array of interrelated factors, climate change is also a local problem with serious impacts foreseen for California, the Bay Area and *[Jurisdiction]*. Local impacts include:

- i. *[For Climate zone 3] Sea level rise:* According to the Union of Concerned Scientists, the sea level in the State of California is expected to rise up to 12 inches of the next hundred years. The Pew Center on Climate Change has reported that this would result in the erosion of beaches, bay shores and river deltas, marshes and wetlands and increased salinity of estuaries, marshes, rivers and aquifers. This increased salinity has the potential to damage or destroy crops in low-lying farmlands. Infrastructure at or near sea level, such as harbors, bridges, roads and even the San Francisco International and Oakland International Airports are at risk of damage and destruction. The San Francisco

Bay Area Conservation Commission has modeled the impact of a sea level rise of 3 feet (approx 1 meter) on the San Francisco Bay Area. Areas such as the Oakland Airport would be under water as well parts of Alameda, San Leandro, Hayward, Union City, Fremont and Newark, including sections of Interstate 880. *[Jurisdiction to modify to address specific areas w/n its boundaries]*

- ii. **Impacts on water:** Water quality and quantity are at risk as a result of changing temperatures. With warmer average temperatures, more winter precipitation will fall in the form of rain instead of snow, shortening the winter snowfall season and accelerating the rate at which the snowpack melts in the spring. Not only does such snow melt increase the threat for spring flooding, it will decrease the Sierras' capacity as a natural water tower, resulting in decreased water availability for agricultural irrigation, hydro-electric generation and the general needs of a growing population. The Sierra snowpack is the origin of the Mokelumne River, the primary source of water for the jurisdictions within Alameda County.
- iii. **Natural disasters:** Climate models predict a 4°F temperature increase in the next 20 to 40 years, with an increase in the number of long dry spells, as well as a 20-30% increase in precipitation in the spring and fall. More frequent and heavier precipitation cause flooding and mudslides, which would incur considerable costs in damages to property, infrastructure and even human life. In addition, the increase of wildfires due to continued dry periods and high temperatures is another expected impact of continued climate change. In these conditions, fires burn hotter and spread faster.
- iv. **Public health impact:** Warming temperatures and increased precipitation can also encourage mosquito-breeding, thus engendering diseases that come with mosquitoes, such as the West Nile Virus, a disease of growing concern in [Jurisdiction] and the surrounding region. Heat waves are also expected to have a major impact on public health and be a determinant factor of mortality. Increased temperatures also pose a risk to human health when coupled with high concentrations of ground-level ozone and other air pollutants, which may lead to increased rates of asthma and other pulmonary diseases. The incidence of bad air days in California's urban areas has increased, mostly in hot summer days. In the summer of 2006, the Bay Area Air Quality Management District (BAAQMD) registered 11 Spare the Air days for the region and exceeded the California 1-hour standard for ozone (set at 90 ppb) 18 times.
- v. **Impacts on plants and vegetation:** Native plants and animals are also at risk as temperatures rise. Scientists are reporting more species moving to higher elevations or more northerly latitudes in response. Increased temperatures also provide a foothold for invasive species of weeds, insects and other threats to native species. The increased flow and salinity of water resources could also seriously affect the food web and mating conditions for fish that are of both of economic and recreational interest to residents. In addition, the natural cycle of plant's flowering and pollination, as well as the temperature conditions necessary for a thriving locally adapted agriculture could be affected, with perennial crops such as grapes taking years to recover.

- c. Pursuant to the California Integrated Waste Management Act of 1989, the Alameda County Waste Management Authority has adopted a Countywide Integrated Waste Management Plan (“CoIWMP”), which sets a goal to reduce waste generated within the County by seventy-five percent (75%) over 1990 levels. The Alameda County Waste Reduction and Recycling Initiative (also known as “Measure D”) sets a similar 75% waste reduction goal.
- d. [Jurisdiction’s] local climatic, topographic, and geological conditions exacerbate the impacts of global climate change in several ways to make the adoption of additional green building requirements, including construction and demolition (“C&D”) debris diversion requirements, reasonable necessary:
 - i. Increasing summer temperatures increase the need for air conditioning, thereby increasing average load demand and peak load demand for energy within [Jurisdiction]. This heightened demand increases the risk of power outages and power shortages, with associated adverse public safety and economic impacts. Increased energy demand and usage also increases local and regional air pollution impacts. Decreasing energy consumption through energy efficiency and other green building techniques reduces each of these impacts.
 - ii. Increasing summer and year-round temperatures also adversely affect the [jurisdiction’s] water supply, which is already subject to periodic drought conditions and potential water cutback. [Jurisdiction to add any applicable details on local geological or topographical features that affect reservoirs within or adjacent to its borders (e.g., potential salt water intrusion from sea level rise)]. Decreasing water usage through conservation, sustainable landscaping (such as Bay-Friendly Landscaping), use of drought-tolerant and native plants, and other green building techniques reduces these adverse impacts.
 - iii. Alameda County has limited landfill capacity. [Jurisdiction’s] topographic and geological conditions make it difficult, if not impossible; to site new landfill’s within the [Jurisdiction]. Other jurisdictions within Alameda County, including the County, face similar constraints. Moreover, landfill disposing of C&D debris and other solid wastes poses the potential for surface and groundwater contamination, due in part to the particular climactic, topographical and geological conditions of the County’s existing landfills (including underlying soil types, potential for liquefaction during earthquakes, proximity to seismic faults, and annual periods of prolonged rainfall).
- e. [Jurisdiction] finds that the design, construction, and maintenance of buildings and landscapes within the [Jurisdiction] can have a significant impact on the [Jurisdiction’s] environmental sustainability, resource usage and efficiency, waste management, and the health and productivity of residents, workers, and visitors to the [Jurisdiction].
- f. Green buildings play a significant role in reducing the amount of waste sent to landfills. Construction and demolition debris comprise up to 30% of all materials disposed of in

California's landfills, and over 21% of materials disposed of in Alameda County. Many of these materials have green house gas implications once landfilled –from both the process of organic materials breaking down in the landfill and producing methane and other green house gasses, and the energy needed to produce more building materials from raw materials.

- g. This Green Building **[or Construction and Demolition Debris]** Ordinance furthers *[Jurisdiction's]* efforts to enhance the community's social, economic, and environmental well-being and to mitigate the effects of global warming and limited landfill capacity on the *[Jurisdiction's]* weather, water supply, physical infrastructure, ecological diversity, human health and economy.

Section 2: *[City/County to insert Green Building [or Construction and Demolition Debris] Ordinance and other local modifications to the Code here]*

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