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California could see lethal heat waves like the 2006 heat wave 2 to 3 times a year by the end of the century

New tool developed under California's Fourth Climate Change Assessment highlights California census tracts most vulnerable and most exposed to extreme heat

August 27th, 2018 – Berkeley, CA -- Four Twenty Seven, a California-based climate risk analytics firm, today announced a new online tool, the California Heat Assessment Tool (CHAT), that projects health impacts of future heat waves by neighborhood. The tool was developed as part of California's Fourth Climate Change Assessment, released today, with funding from the California Department of Natural Resources and Department of Public Health.

Current thresholds for heat alerts are based on temperatures that exceed historical statistical thresholds, rather than temperatures that cause public health impacts. These 'health-neutral' thresholds may underestimate the health risks for the most sensitive populations. This new research establishes local, health-based thresholds for extreme heat that help public officials, health professionals and residents understand what changing conditions mean for them.

"CHAT fills a critical data gap to help predict and mitigate health impacts from extreme heat," said Emilie Mazzacurati, Founder and CEO of Four Twenty Seven. "The tool will help inform emergency planning and long-term public health efforts to prevent heat-related deaths."

Climate change projections show that a typical California summer in 2100 may be 4-5° F warmer than today. Heat waves will also last longer, occurring later into the summer season and in areas less accustomed to heat waves. The new tool developed by Four Twenty Seven helps identify neighborhoods with populations vulnerable to heat and overlays projections for heat events likely to cause health impacts. The elderly or very young, outdoor workers and those with preexisting health conditions or limited resources are most sensitive to the impacts of extreme heat and are disproportionately affected.

Comparing projections to observed temperatures locally during July 2006, Four Twenty Seven found that an event equivalent to the 2006 heat wave has a 50 percent chance of occurring two to three times per year in parts of Monterey County and San Luis Obispo County. Both counties were particularly affected by the 2006 heat wave. In El Dorado and Placer Counties in the Northern Sierra, 2006 heat wave conditions, with daytime temperatures over 110° F, could

occur once every year and remain for up to a week by the end of the century under a business as usual scenario.

“This research shows regional trends, but also allows for an understanding of differing exposure and vulnerability to extreme heat within cities,” said Nik Steinberg, one of the architects of the tool and Director of Analytics for Four Twenty Seven. “Public health officials and planners can use this tool to find where socioeconomic vulnerability overlaps with high projected change in heat events to prioritize planning efforts.”

The associated report outlines the research methodology, highlights key findings and explains CHAT’s functionality. The California Heat Assessment Tool was produced in partnership with Argos Analytics, the Public Health Institute and Habitat Seven, with technical support from the California Department of Public Health. This work was sponsored by the California Natural Resources Agency. It does not necessarily represent the views of the Agency or any of its employees except to the extent, if any that is has been formally been approved by the Agency. Neither the Agency nor the State of California, nor any officer, employer, or any of its contractors or subcontractors makes any warranty, express or implied, or a legal liability whatsoever for the contents of this document

CHAT, the online tool, can be accessed at <http://cal-heat.org>

Reports with detailed findings and methodology can be found at <http://427mt.com/cal-heat>

Other projects of the California Fourth Climate Change Assessment can be found at <http://www.ClimateAssessment.ca.gov>

Nik Steinberg and Emilie Mazzacurati are available for interviews and to answer any relevant questions.

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ABOUT FOUR TWENTY SEVEN:

Four Twenty Seven (427mt.com) is the leading provider of market intelligence on the impacts of climate change for financial markets. We tackle physical risk head on by identifying the locations of corporate production and retail sites around the world and their vulnerability to climate change hazards such as sea level rise, droughts, floods and tropical storms, which pose an immediate threat to investment portfolios.

Four Twenty Seven’s ever-growing database now includes close to one million corporate sites and covers over 2000 publicly-traded companies. We offer subscription products and advisory services to access this unique dataset. Options include data licenses, an interactive analytics

platform, and company scorecards, as well as reporting services, scenario analysis, and real asset portfolio risk assessments.

Four Twenty Seven has won multiple awards for its innovative work on climate risk and resilience and our work has been featured by Bloomberg, the Financial Times and the UNFCCC. Four Twenty Seven was founded in 2012 and is headquartered in Berkeley, California with offices in Washington, DC and Paris, France.

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