

RECENT DEVELOPMENT

More Trees, Please! An Arboreal Solution to New Orleans' Record-Setting Heat

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It's no mystery the Big Easy is getting hotter. Sadly, New Orleans faced record-setting temperatures the summer of 2023. With forty-eight more days of temperatures above the ninetieth percentile than there were fifty years ago,¹ the impacts of climate change currently pose a threat to New Orleanians—a threat that has been acknowledged by several local politicians. In summer of 2023, Mayor LaToya Cantrell signed an Emergency Declaration due to the ongoing, unprecedented extreme heat in New Orleans.² City officials emphasized that in the event of a hurricane, any significant power disruptions while under extreme heat conditions could greatly increase the risk of injury or death.³ Similarly, the risk of heat-related illnesses, such as heat stroke, heat exhaustion, and heat rash increased as temperatures in New Orleans reached record levels.⁴ In 2023, the Louisiana Department of Health reported that twenty-five people died of heat-related illnesses in the summer.⁵ A week later,

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1. Kiara Alfonseca, *One Urban Heat Island Has a Plan to Bring Residents Some Relief*, ABC NEWS (July 29, 2023), <https://abcnews.go.com/US/urban-heat-island-plan-bring-residents-relief/story?id=101606531>.

2. *City of New Orleans Issues Emergency Declaration for Excessive Heat*, CITY OF NEW ORLEANS, OFF. OF HOMELAND SEC. & EMERGENCY PREPAREDNESS, NOLA READY (Aug. 9, 2023, 11:32 AM), <https://ready.nola.gov/incident/summer-heat-2023/city-of-new-orleans-issues-emergency-declaration-f/>.

3. *Id.*

4. *Heat-Related Illnesses and First Aid*, U.S. DEP'T LABOR, OSHA, <https://www.osha.gov/heat-exposure/illness-first-aid> (last visited Dec. 2, 2023).

5. WWL STAFF, *Health Department Says 25 People Have Died Due to Heat-Related Illness*, 4WWL (Aug. 25, 2023), <https://www.wwltv.com/article/news/health/25-people-in-louisiana-have-died-from-heat-related-illness/289-4126f3ce-5ad5-4dfe-a6bf-78d9580256>

Governor John Bel Edwards issued a statewide emergency due to the extreme heat.⁶ Now, the New Orleans community is faced with the challenge of surviving and thriving in the midst of increasingly warmer summers.

It is important to note that many of the effects of New Orleans' heat wave are due to human activity and can be amended by proper urban planning. For example, many urban spaces (including the Crescent City) are so-called heat islands, or areas paved with abundant asphalt or concrete that absorb and retain sunlight, and then slowly radiate heat back into the environment.⁷ These heat islands contribute to the stifling temperatures by keeping the air hotter for longer amounts of time, thereby worsening the heat that already afflicts these regions due to climate change.⁸

In 2021, Climate Central issued its debut national urban heat island report which found that New Orleans was the worst heat island in America.⁹ The average temperature in New Orleans was about nine degrees Fahrenheit hotter than the surrounding rural or undeveloped land, with some areas of the city reaching nearly sixteen degrees Fahrenheit hotter than non-urban areas.¹⁰ Climate Central's model measured the intensity of the heat island effect based on the different forms of land covers and built features within each urban area.¹¹ One of the factors the group considers when estimating the intensity of a heat island is how densely covered the area is with trees compared to pavement or soil, and whether the buildings are tall and constructed closely together, as opposed to being shorter in height with areas of green space in between them.¹²

An underlying cause of the heat island effect that afflicts New Orleans is the severe deforestation of the region, as trees are natural sources of shade and can alleviate the effects of intense sunlight.¹³ Climate

79#:~:text=NEW%20ORLEANS%20%E2%80%94%20The%20Louisiana%20Department,more%20likely%20to%20work%20outdoors.

6. *Id.*

7. Halle Parker, *If You Live in New Orleans, You Probably Live in a "Heat Island," Report Says*, WWNO (July 28, 2023, 9:15 AM), <https://www.wwno.org/coastal-desk/2023-07-28/if-you-live-in-new-orleans-you-probably-live-in-a-heat-island-report-says>.

8. *Id.*

9. *Id.*

10. Halle Parker, *This is Why New Orleans Suffers From the Worst Heat Island Effect in the U.S.*, NOLA.COM (July 26, 2021), https://www.nola.com/news/environment/this-is-why-new-orleans-suffers-from-the-worst-heat-island-effect-in-the-u/article_1aab82ba-ebc9-11eb-b9ca-b326b8b29b89.html.

11. Halle Parker, *supra* note 7.

12. *Id.*

13. *Id.*

Central's report reflected a worrisome trend: comparatively lower-income areas of the city, such as Hollygrove, Tulane Avenue, Arabi, Algiers, and New Orleans East were all extreme hotspots.¹⁴ Despite the popular image of New Orleans as a town shaded by majestic live oaks, cypresses, and magnolia trees, over half of the seventy-two neighborhoods in the city have less than ten percent of tree canopy.¹⁵ The New Orleans Reforestation Plan was created to address this issue and create equitable access to the benefits of trees throughout the city.¹⁶ The plan created a five-year pilot project that focuses on planting trees in five New Orleans neighborhoods.¹⁷ The goal of this project is to create a community where all neighborhoods, regardless of monetary wealth or political power, have access to the benefits of trees.¹⁸

The New Orleans Reforestation Plan is a step in the right direction, especially in a city scarred by centuries of injustice. Discriminatory housing practices like redlining,¹⁹ as well as other socioeconomic factors, restricted many minority communities to areas with fewer trees and parks, thereby increasing their exposure to scorching summer temperatures.²⁰ Another problem associated with the heat wave is higher energy costs for cooling residences and buildings.²¹ These costs could be lessened by increasing the city's tree canopy, especially in low-income neighborhoods where air conditioning expenses are disproportionately high compared to high-income parts of the city.²² By releasing oxygen,²³

14. *Id.*

15. LANDSCAPE ARCHITECTURE MAG., *The New Orleans Reforestation Plan: Equity in the Urban Forest*, AM. SOC'Y OF LANDSCAPE ARCHITECTS (2023), <https://www.asla.org/2023awards/7466.html>.

16. *Id.*

17. *Id.*

18. *Id.*

19. Cornell Law School Legal Information Institute, Redlining definition, October 24, 2023, <https://www.law.cornell.edu/wex/redlining> (defining redlining as a discriminatory practice that consists of the systematic denial of financial services (such as mortgages or insurance loans) to residents of certain areas based on their race or ethnicity. Redlining disregards an individual's qualifications and creditworthiness when making the decision to refuse such services, solely based on the residency of such individuals in minority neighborhoods, which were deemed "hazardous" or "dangerous." Beyond the discriminatory banking practice of excluding certain neighborhoods from financial services, redlining may also refer to the withholding of other crucial services, such as the construction of grocery stores and supermarkets or even healthcare services).

20. LANDSCAPE ARCHITECTURE MAG., *supra* note 15.

21. *Id.*

22. *Id.*

23. Joanna Mounce Stancil, *The Power of One Tree—The Very Air We Breathe*, USDA (Mar. 17, 2015), <https://www.usda.gov/media/blog/2015/03/17/power-one-tree-very-air-we->

trees also counteract the atmospheric effects of human activities that influence the climate and increase the earth's temperature, such as burning fossil fuels, cutting down forests, and farming livestock.²⁴ These practices release carbon dioxide (a greenhouse gas) into the atmosphere.²⁵ However, by adding more green to the scene in the form of trees, we can offset some of the destruction that certain agricultural and industrial procedures may cause.

An added benefit of the Reforestation Plan and other tree-planting initiatives in New Orleans and other coastal communities is the storm protection provided by a robust tree canopy.²⁶ Though trees can cause damage in storms, if they are strategically placed, they can also reduce structural damage by shielding strong winds.²⁷ In a community like New Orleans that faces the constant threat of hurricanes, trees that shield vulnerable communities from damage are a wise economic choice, as well as an aesthetic one. For all these reasons, the Reforestation Plan is a move towards a safer and more equitable New Orleans. It's time New Orleans heeds the call for more canopy!

breathes through a process called photosynthesis, and releases oxygen from the tree.

24. *Causes of Climate Change*, EUR. COMM'N (Oct. 24, 2023), https://climate.ec.europa.eu/climate-change/causes-climate-change_en (last visited Dec. 2, 2023).

25. *Id.*

26. *Id.*

27. *Storm Damage Prevention and Treatment*, UNIV. OF FLA., INST. OF FOOD & AGRIC. SCIS. (Jan. 24, 2020), <https://hort.ifas.ufl.edu/woody/stormy.shtml#:~:text=However%2C%20appropriately%20placed%20and%20maintained,helpful%20in%20avoiding%20some%20damage.>