

# IT'S GETTING HOT IN HERE!

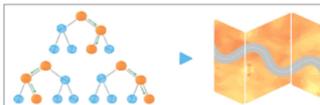
## Omaha Urban Heat Watch Project\*

### Omaha Heat Campaign Report

After months of collaboration, local organizers and volunteers collected thousands of temperature and humidity data points on August 6, 2022.

Resulting from a data-collection campaign over three time points (morning, afternoon and evening) on a hot summer day, measurements summarized in this report are a snapshot of how temperature and humidity vary across neighborhoods in an urban environment based on the landscape.

Thanks to all the participants and organizers of the Urban Heat Watch Project in Omaha, NE.



We combined heat and land cover data to predict temperatures in each time period. However, due to technical issues with temperature sensors and possible field issues, data could not be retrieved from several regions.



Temperature changes are indicated in color on the maps below. Warmer areas are more red and cooler areas are more blue.

<b>Aug. 6, 2022</b>	<b>80 mi<sup>2</sup></b>	<b>68</b>	<b>8</b>	<b>43,714</b>	<b>102.9°</b>	<b>9.4°</b>
Study Date	Study Area	Volunteers	Routes	Measurements	Max Temp.	Temperature Differential



**Morning Routes (6–7 a.m.)**  
Over 14,000 unique temperature measurements are displayed on this portion of our study area. Temperatures vary from coolest (77.4°F) to warmest (81.4°F).



**Afternoon Routes (1–2 p.m.)**  
Over 13,000 unique temperature measurements are displayed on this portion of our study area. Temperatures vary from coolest (94.8°F) to warmest (102.9°F).



**Evening Routes (7 – 8 p.m.)**  
Over 15,000 unique temperature measurements are displayed on this portion of our study area. Temperatures vary from coolest (93.8°F) to warmest (102.9°F).

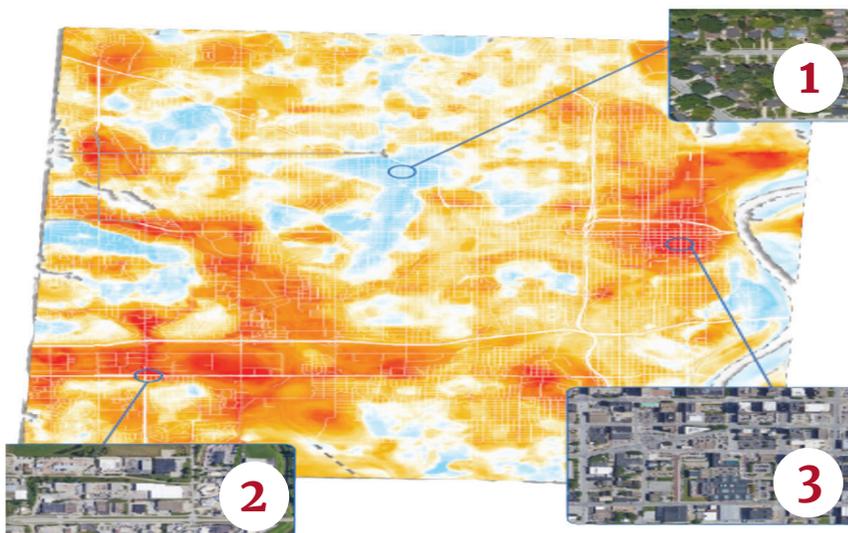
Contact: Abdoulaziz Abdoulaye at [Abdoulaye.abdoulaziz@unmc.edu](mailto:Abdoulaye.abdoulaziz@unmc.edu)

# IT'S GETTING HOT IN HERE!

## Omaha Urban Heat Watch Project\*

### Conclusions

The distribution of heat across a region often varies by the way land is used. Below are some examples of how changes in land use are impacting urban temperatures.



**1.** Residential areas with a high tree cover retain less heat throughout the day and have cooler temperatures.

**2.** Areas with a high density of industrial land use can retain more heat.

**3.** Large swaths of asphalt in commercial areas can retain more heat and result in higher temperatures.

### Next Steps

The Urban Heat Watch Project is the first step to better understanding temperature distribution in Omaha. As extreme heat exposure poses a risk to human health, we can use this information to make informed decisions to reduce risks in our community. Opportunities to mitigate heat exposure include:

- Prioritize health equity
- Community engagement and empowerment
- Invest in urban parks and interactive water features
- Transform small areas into green spaces
- Convert recreational areas into greener spaces
- Invest in tree canopies along contiguous streets and in parks
- Leverage existing cool spaces through joint-use agreements

### Learn More

Please visit [the UNMC Water, Climate and Health Program website](https://www.unmc.edu/water-climate-and-health-program) to learn more about this project.



\*We acknowledge Umo'ho Nation People.

Contact: Abdoulaziz Abdoulaye at [Abdoulaze.abdoulaziz@unmc.edu](mailto:Abdoulaze.abdoulaziz@unmc.edu)