

Inequitable Impacts from Extreme Heat in the Portland Metro Region

Air temperature anomaly ($^{\circ}\text{C}$)

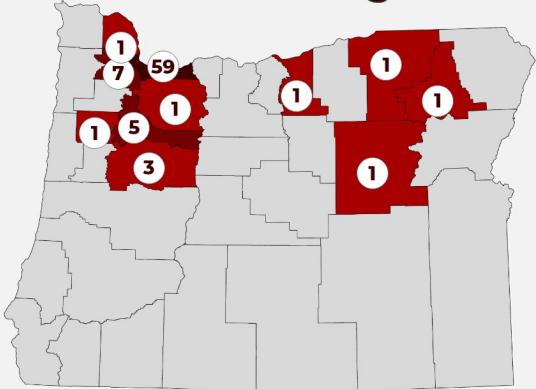
-15	-10	-5	0	5	10	15	20
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Vivek Shandas, PhD

2021 Oregon Heatwave Death Toll

Confirmed Hyperthermia Deaths between June 24th to July 13th

Heat Fatality Records Across Oregon

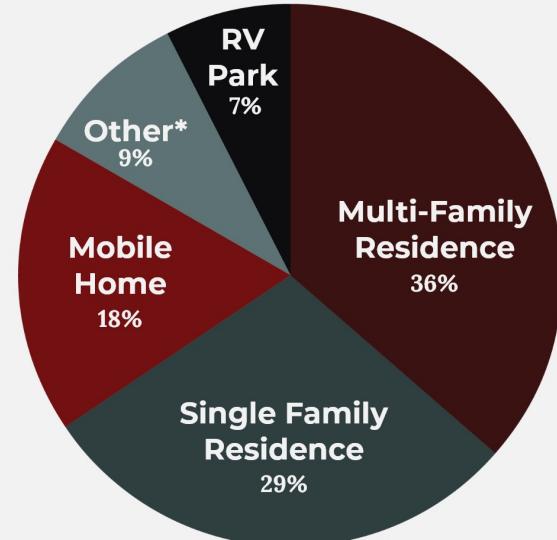


RV Park



Mobile Homes

Residence Types of Victims



*Other Includes:
Transient, Parking Lot, Hotel, & Unknown

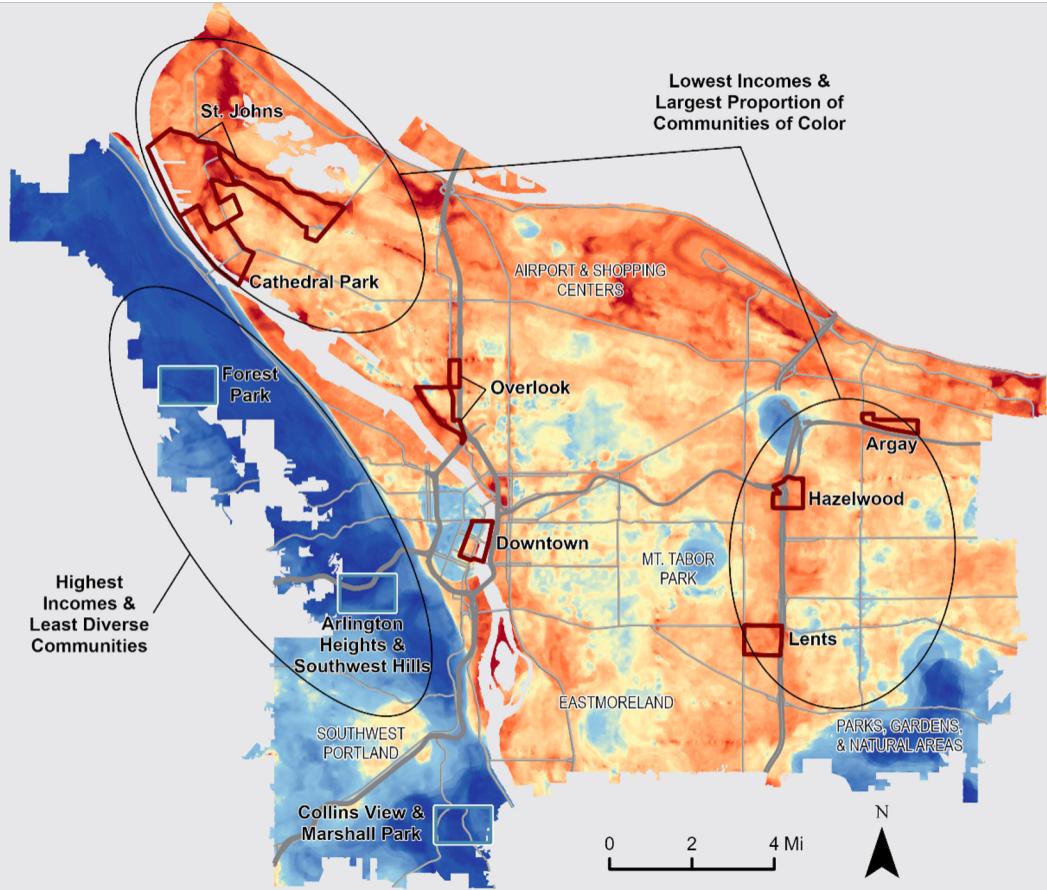


Multi-Family Residence



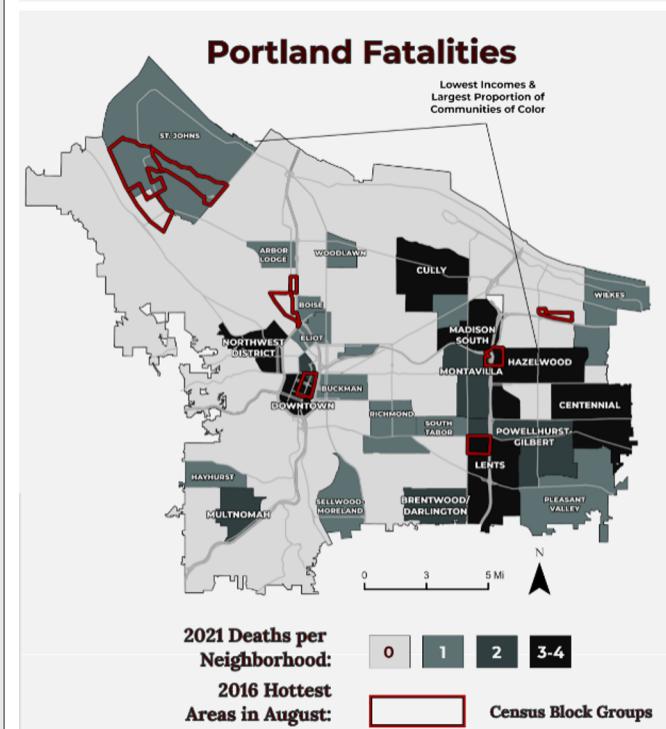
Single Family Residence

Disproportionate Impacts of Heat on Communities

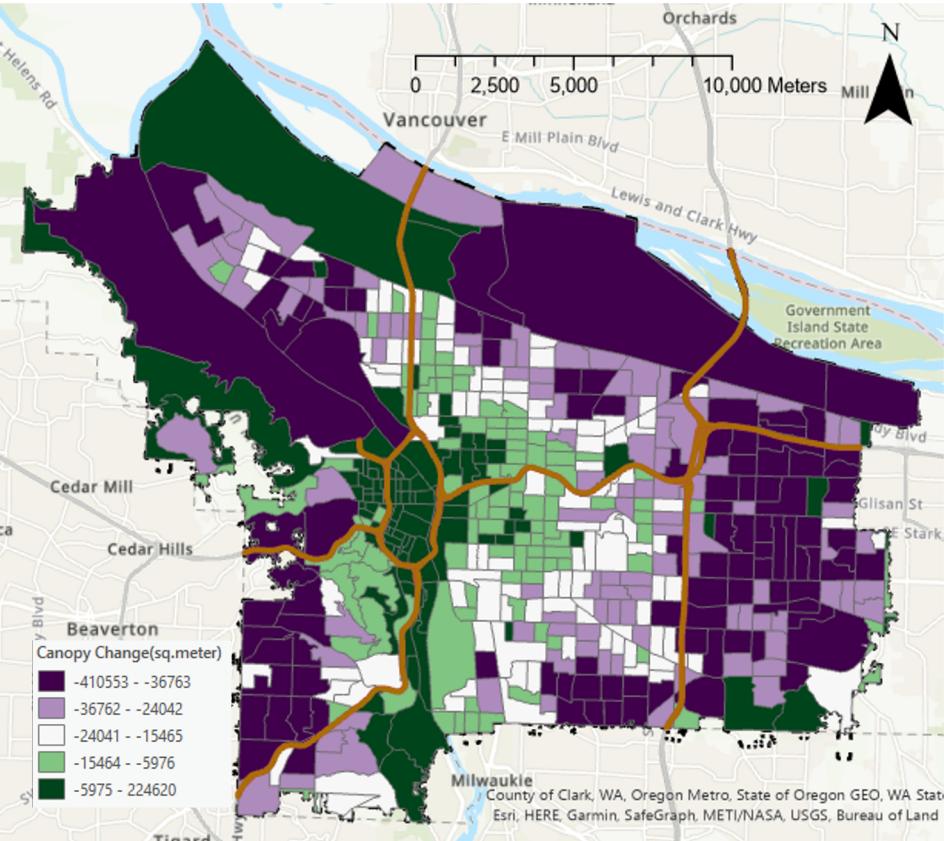


2021 Oregon Heatwave Death Toll

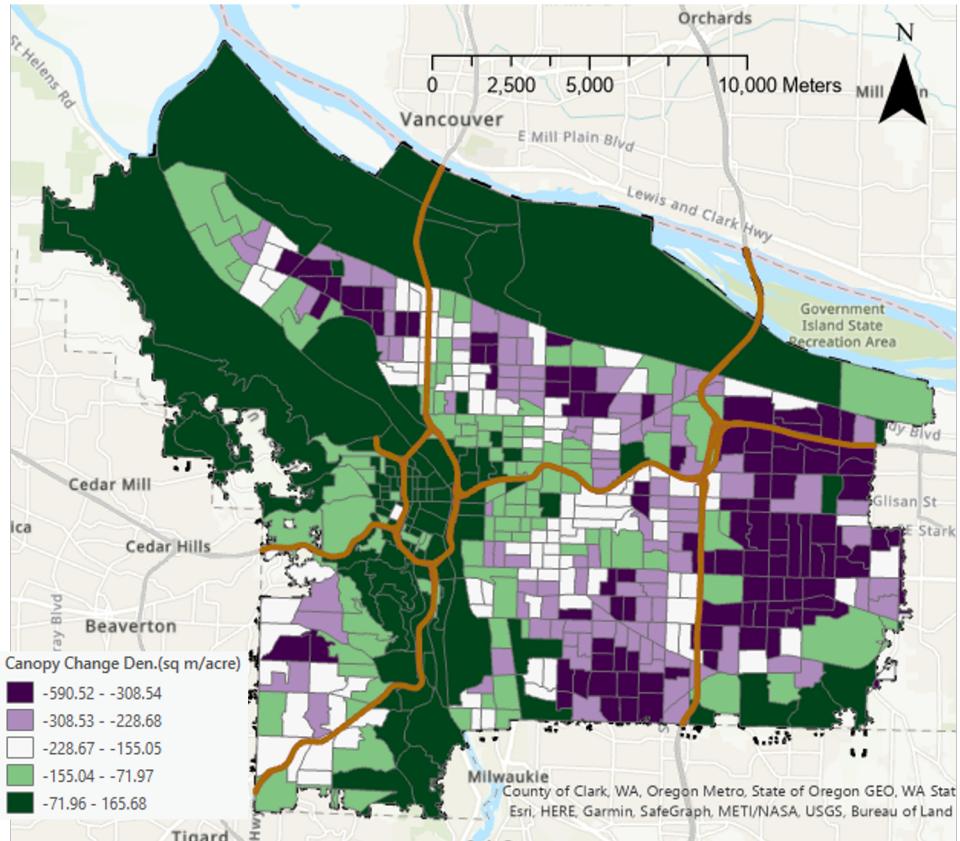
Confirmed Hyperthermia Deaths between June 24th to July 13th



Gain and Loss of Canopy: City of Portland ('14-'20)



Canopy Change(Gain - Loss) (square meter)



Canopy Change Density (square meter / acre)

Canopy Change ('14-20) by [populous] Neighborhood

1,500,000

1,000,000

500,000

0

Area (m²)

ST. JOHNS

PORLTAND DOWNTWN

NORTHWEST HEIGHTS

CENTENNIAL COMMUNITY ASSN./PLEASANT VALLEY

SOUTH PORTLAND

PLEASANT VALLEY/POWLHURST-GILBERT

BUCKMAN COMMUNITY ASSOCIATION

NORTHWEST DISTRICT

HOSFORD-ABERNETHY NEIGHBORHOOD DISTRICT ASSOCIATION

CRESTON-KENILWORTH

MT. TABOR

MADISON SOUTH

ROSE CITY PARK

FOSTER-POWELL

RICHMOND

SELLWOOD-MORELAND IMPROVEMENT LEAGUE

MULTNOMAH

PORTSMOUTH

CONCORDIA

WOODSTOCK

MILL PARK

PLEASANT VALLEY

CULLY ASSOCIATION OF NEIGHBORS

MONTAVILLA

BRENTWOOD-DARLINGTON

LENTS

WILKS COMMUNITY GROUP

CENTENNIAL COMMUNITY ASSOCIATION

POWLHURST-GILBERT

HAZELWOOD

■ gain area ■ loss area ■ net

Access to Air Conditioning and Extreme Heat

Primary Takeaways

- AC installations are not random in Portland – largely predictable by level of income in an area
- Higher levels of AC in the cooler NW/SW parts of the city, Beaumont/Grant Park, Mt. Tabor, Argay Terrace, and Pleasant Valley
- Lower levels of AC in Roseway, Sumner, Woodlawn, Kenton, Piedmont, Humboldt, Vernon, Eliot, Brentwood-Darlington
- Spatial analysis highlights inequities in access to cooling on a city-scale
- Urban-scale resilient cooling strategies* are needed