

Louisville Data Exploration

2024

Data from the city for 2015 and 2019:

https://drive.google.com/drive/folders/1wC-NelbyhiX3Y_eYwhW7ojdXQ5Mvvh8?usp=drive_link

Includes:

- Boundaries like council districts, neighborhoods, block and tracts, etc
- Tree canopy for 2015, 2019, and change in tree canopy
 - Acres, % tree canopy

Whole County Neighborhoods

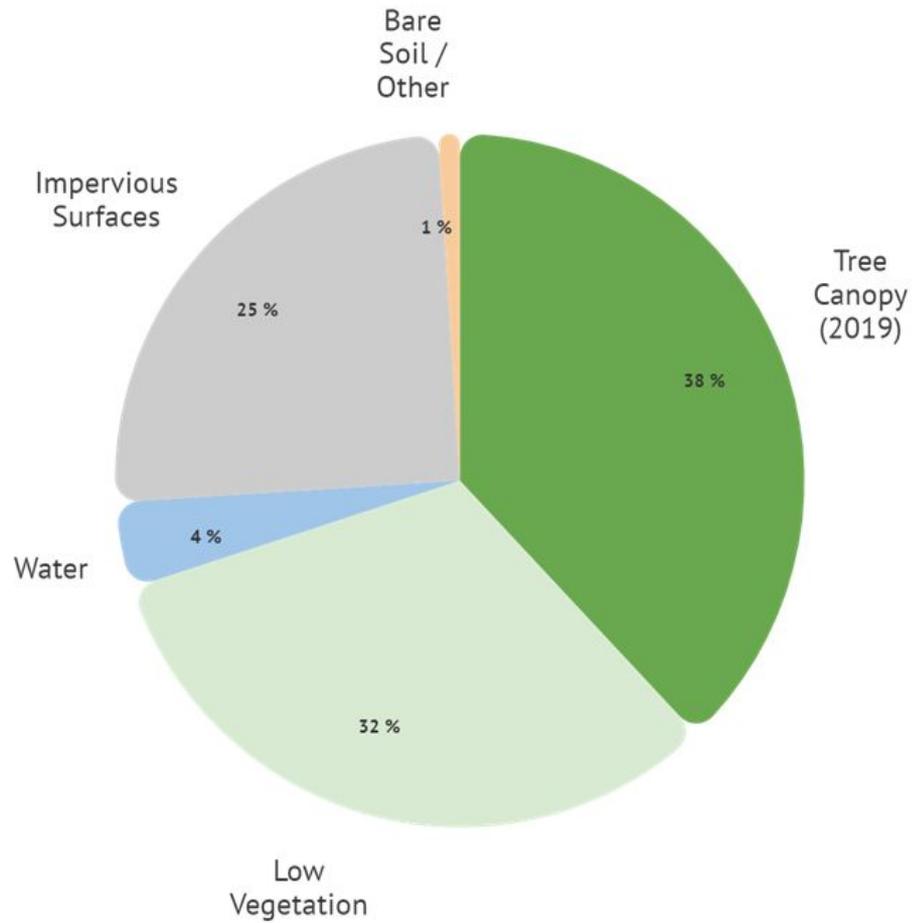
Whole County Neighborhood Land Cover

https://docs.google.com/spreadsheets/d/1Rmy_nyga8ssj4acYd42v8UtREwb8syw5XX_hMp5Wu_8/edit#gid=326067429

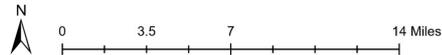
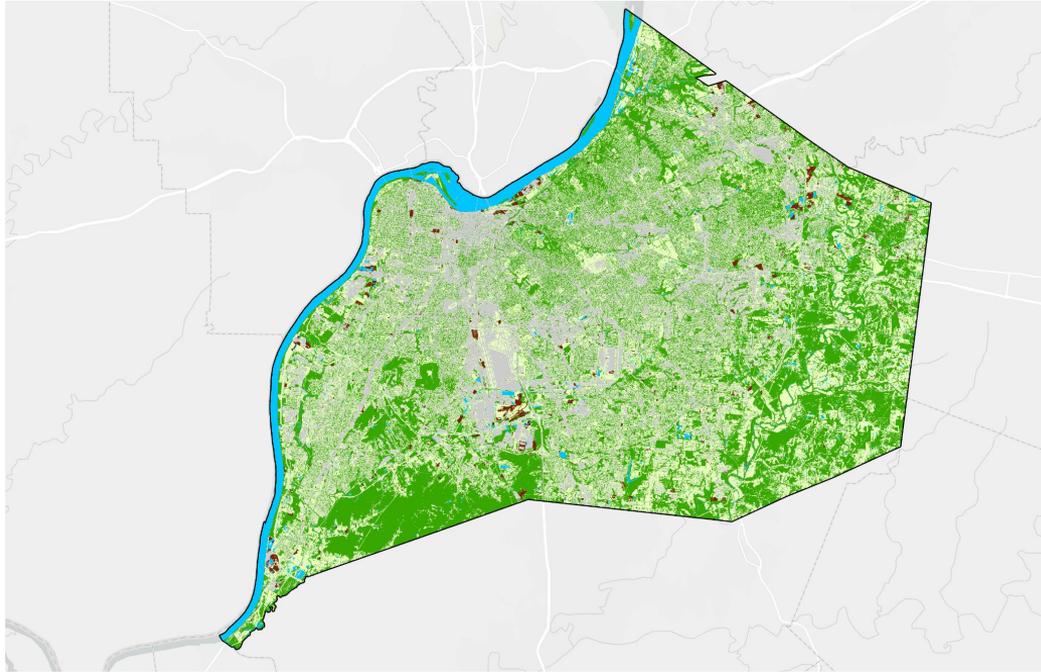
| Whole County Neighborhood | Tree Canopy 2012 (ac) | Tree Canopy 2019 (ac) | Change 2012-2019 (ac) | Percent Change 2012-2019 |
|--|-----------------------|-----------------------|-----------------------|--------------------------|
| Airport | 266.87 | 222.86 | -44.01 | -16.49% |
| Algonquin - Park Hill - Park Duvalle | 268.92 | 322.46 | 53.54 | 16.60% |
| Buechel - Newburg - Indian Trail | 1,608.65 | 1,602.56 | -6.09 | -0.38% |
| Butchertown - Clifton - Crescent Hill | 1,481.31 | 1,415.03 | -66.28 | -4.47% |
| California Parkland | 263.54 | 291.65 | 28.11 | 9.64% |
| Chicksaw-Shawnee | 819.57 | 778.60 | -40.97 | -5.00% |
| Downtown - Old Louisville - University | 309.34 | 310.07 | 0.73 | 0.24% |
| Fairdale | 13,373.02 | 13,263.00 | -110.02 | -0.82% |
| Fern Creek | 1,575.56 | 1,681.66 | 106.10 | 6.31% |
| Floyd's Fork | 26,400.08 | 26,801.77 | 401.69 | 1.50% |
| Germantown | 337.94 | 360.46 | 22.52 | 6.25% |
| Highlands | 1,587.03 | 1,612.48 | 25.45 | 1.58% |
| Highview Okolona | 4,435.31 | 4,622.38 | 187.07 | 4.05% |
| J-Town | 4,544.09 | 4,512.51 | -31.58 | -0.69% |
| Northeast Jefferson | 17,677.94 | 18,038.28 | 360.34 | 2.00% |
| Phoenix Hill - Smoketown - Shelby Park | 182.81 | 181.07 | -1.74 | -0.95% |
| Pleasure Ridge Park | 4,124.58 | 4,023.58 | -101.00 | -2.45% |
| Portland | 501.49 | 483.02 | -18.47 | -3.68% |
| Russell | 230.26 | 224.43 | -5.83 | -2.53% |
| Shively | 2,460.45 | 2,469.50 | 9.05 | 0.37% |
| South Central Louisville | 615.98 | 649.11 | 33.13 | 5.10% |
| South Louisville | 3,938.81 | 4,119.03 | 180.22 | 4.38% |
| Southeast Louisville | 2,475.97 | 2,591.19 | 115.22 | 4.45% |
| St. Matthews | 1,216.76 | 1,270.37 | 53.61 | 4.22% |
| Valley Station | 3,728.60 | 3,612.81 | -115.79 | -3.11% |
| | | | | |
| Total County | 94,424.88 | 95,459.88 | 1,035.00 | 1.08% |

HOW MUCH TREE CANOPY IS IN MY NEIGHBORHOOD?

| Whole County Neighborhood | | Neighborhood Size | | Tree Canopy (2019) | | | Low Vegetation | | Impervious Surfaces | | Bare Soil / Other | | Water | | Tree Canopy (2012) | | Change in Tree Canopy Acreage over 7 years |
|--|---------|-------------------|--------|--------------------|-------------------|--------|----------------|--------|---------------------|--------|-------------------|-------|-----------|--------|--------------------|--------|--|
| Map Key | Acres | % of LVL | Acres | % of NBHD | % of Total Canopy | Acres | % of NBHD | Acres | % of NBHD | Acres | % of NBHD | Acres | % of NBHD | Acres | % of NBHD | | |
| Airport | AIR | 4,395.31 | 1.73% | 222.86 | 5.07% | 0.23% | 1,294.44 | 29.45% | 2,432.99 | 55.35% | 351.46 | 8.00% | 93.56 | 2.13% | 266.87 | 6.07% | -44.01 |
| Algonquin - Park Hill - Park Duvalle | A-PH-PD | 1,680.74 | 0.66% | 322.46 | 19.19% | 0.34% | 407.62 | 24.25% | 941.53 | 56.02% | 7.54 | 0.45% | 1.59 | 0.09% | 268.92 | 16.00% | 53.54 |
| Buechel - Newburg - Indian Trail | B-N-IT | 8,720.47 | 3.43% | 1,602.56 | 18.38% | 1.68% | 2,737.92 | 31.40% | 4,220.13 | 48.39% | 73.80 | 0.85% | 86.07 | 0.99% | 1,608.65 | 18.44% | -6.09 |
| Butchertown - Clifton - Crescent Hill | B-C-CH | 4,604.30 | 1.81% | 1,415.03 | 30.73% | 1.48% | 932.45 | 20.25% | 1,428.72 | 31.03% | 149.13 | 3.24% | 678.96 | 14.75% | 1,481.31 | 32.30% | -66.28 |
| California Parkland | CP | 1,600.22 | 0.63% | 291.65 | 18.23% | 0.31% | 317.13 | 19.82% | 958.52 | 59.90% | 32.81 | 2.05% | 0.12 | 0.01% | 263.54 | 16.47% | 28.11 |
| Chicksaw-Shawnee | C-S | 3,311.41 | 1.30% | 778.60 | 23.51% | 0.82% | 858.99 | 25.94% | 880.03 | 26.58% | 22.08 | 0.67% | 771.70 | 23.30% | 819.57 | 24.75% | -40.97 |
| Downtown - Old Louisville - University | D-OL-U | 2,373.02 | 0.93% | 310.07 | 13.07% | 0.32% | 229.26 | 9.66% | 1,259.78 | 53.09% | 18.26 | 0.77% | 555.65 | 23.42% | 309.34 | 13.03% | 0.73 |
| Fairdale | FD | 20,005.40 | 7.86% | 13,263.00 | 66.30% | 13.89% | 4,268.81 | 21.34% | 1,928.60 | 9.64% | 335.06 | 1.67% | 209.93 | 1.05% | 13,373.02 | 66.84% | -110.02 |
| Fern Creek | FC | 4,994.01 | 1.96% | 1,681.66 | 33.67% | 1.76% | 1,806.00 | 36.16% | 1,477.53 | 29.59% | 17.18 | 0.34% | 11.64 | 0.23% | 1,575.56 | 31.55% | 106.10 |
| Floyd's Fork | FF | 54,208.85 | 21.31% | 26,801.77 | 49.44% | 28.08% | 21,469.81 | 39.61% | 4,859.05 | 8.96% | 311.40 | 0.57% | 766.82 | 1.41% | 26,400.08 | 48.70% | 401.69 |
| Germantown | GT | 2,373.81 | 0.93% | 360.46 | 15.18% | 0.38% | 568.10 | 23.93% | 1,418.37 | 59.75% | 21.57 | 0.91% | 5.31 | 0.22% | 337.94 | 14.23% | 22.52 |
| Highlands | HL | 4,019.87 | 1.58% | 1,612.48 | 40.11% | 1.69% | 1,250.29 | 31.10% | 1,140.60 | 28.37% | 2.73 | 0.07% | 13.77 | 0.34% | 1,587.03 | 39.48% | 25.45 |
| Highview Okolona | HO | 14,762.93 | 5.80% | 4,622.38 | 31.31% | 4.84% | 5,662.35 | 38.36% | 4,216.37 | 28.56% | 122.39 | 0.83% | 139.44 | 0.94% | 4,435.31 | 30.04% | 187.07 |
| J-Town | JT | 15,178.52 | 5.97% | 4,512.51 | 29.73% | 4.73% | 5,232.52 | 34.47% | 5,268.37 | 34.71% | 78.82 | 0.52% | 86.30 | 0.57% | 4,544.09 | 29.93% | -31.58 |
| Northeast Jefferson | NEJ | 46,735.12 | 18.37% | 18,038.28 | 38.60% | 18.90% | 14,741.16 | 31.54% | 10,516.83 | 22.50% | 619.97 | 1.33% | 2,818.88 | 6.03% | 17,677.94 | 37.85% | 360.34 |
| Phoenix Hill - Smoketown - Shelby Park | PH-S-SP | 1,274.99 | 0.50% | 181.07 | 14.20% | 0.19% | 200.78 | 15.75% | 854.17 | 66.99% | 37.35 | 2.93% | 1.62 | 0.13% | 182.81 | 14.34% | -1.74 |
| Pleasure Ridge Park | PRP | 12,926.51 | 5.08% | 4,023.58 | 31.13% | 4.21% | 4,229.13 | 32.72% | 3,564.94 | 27.58% | 120.10 | 0.93% | 988.76 | 7.65% | 4,124.58 | 31.91% | -101.00 |
| Portland | PL | 2,524.77 | 0.99% | 483.02 | 19.13% | 0.51% | 360.25 | 14.27% | 752.67 | 29.81% | 14.47 | 0.57% | 914.36 | 36.22% | 501.49 | 19.86% | -18.47 |
| Russell | RUS | 1,094.04 | 0.43% | 224.43 | 20.51% | 0.24% | 212.90 | 19.46% | 623.89 | 57.03% | 32.71 | 2.99% | 0.10 | 0.01% | 230.26 | 21.05% | -5.83 |
| Shively | SH | 9,337.26 | 3.67% | 2,469.50 | 26.45% | 2.59% | 2,809.17 | 30.09% | 3,043.70 | 32.60% | 163.36 | 1.75% | 851.53 | 9.12% | 2,460.45 | 26.35% | 9.05 |
| South Central Louisville | SCLVL | 2,917.81 | 1.15% | 649.11 | 22.25% | 0.68% | 750.59 | 25.72% | 1,506.75 | 51.64% | 6.39 | 0.22% | 4.96 | 0.17% | 615.98 | 21.11% | 33.13 |
| South Louisville | SLVL | 10,788.59 | 4.24% | 4,119.03 | 38.18% | 4.31% | 3,044.62 | 28.22% | 3,463.70 | 32.11% | 76.80 | 0.71% | 84.44 | 0.78% | 3,938.81 | 36.50% | 180.22 |
| Southeast Louisville | SELVL | 8,147.26 | 3.20% | 2,591.19 | 31.80% | 2.71% | 2,479.27 | 30.43% | 3,052.94 | 37.47% | 13.78 | 0.17% | 10.08 | 0.12% | 2,475.97 | 30.39% | 115.22 |
| St. Matthews | STM | 4,003.62 | 1.57% | 1,270.37 | 31.73% | 1.33% | 1,057.08 | 26.40% | 1,659.54 | 41.45% | 3.38 | 0.08% | 13.26 | 0.33% | 1,216.76 | 30.39% | 53.61 |
| Valley Station | VS | 12,406.17 | 4.88% | 3,612.81 | 29.12% | 3.78% | 4,615.33 | 37.20% | 2,171.22 | 17.50% | 242.19 | 1.95% | 1,764.62 | 14.22% | 3,728.60 | 30.06% | -115.79 |



Map of land cover in Louisville 2019



Downtown 2019



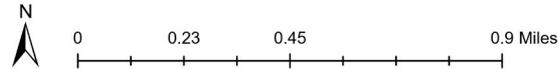
- Tree Canopy
- Grass/Low-Lying Vegetation
- Impervious Surfaces
- Bare Soil
- Open Water



California Neighborhood 2019



- Tree Canopy
- Grass/Low-Lying Vegetation
- Impervious Surfaces
- Bare Soil
- Open Water



Rubbertown 2019



- Tree Canopy
- Grass/Low-Lying Vegetation
- Impervious Surfaces
- Bare Soil
- Open Water



0 0.42 0.85 1.7 Miles



No Change

Gain

Loss



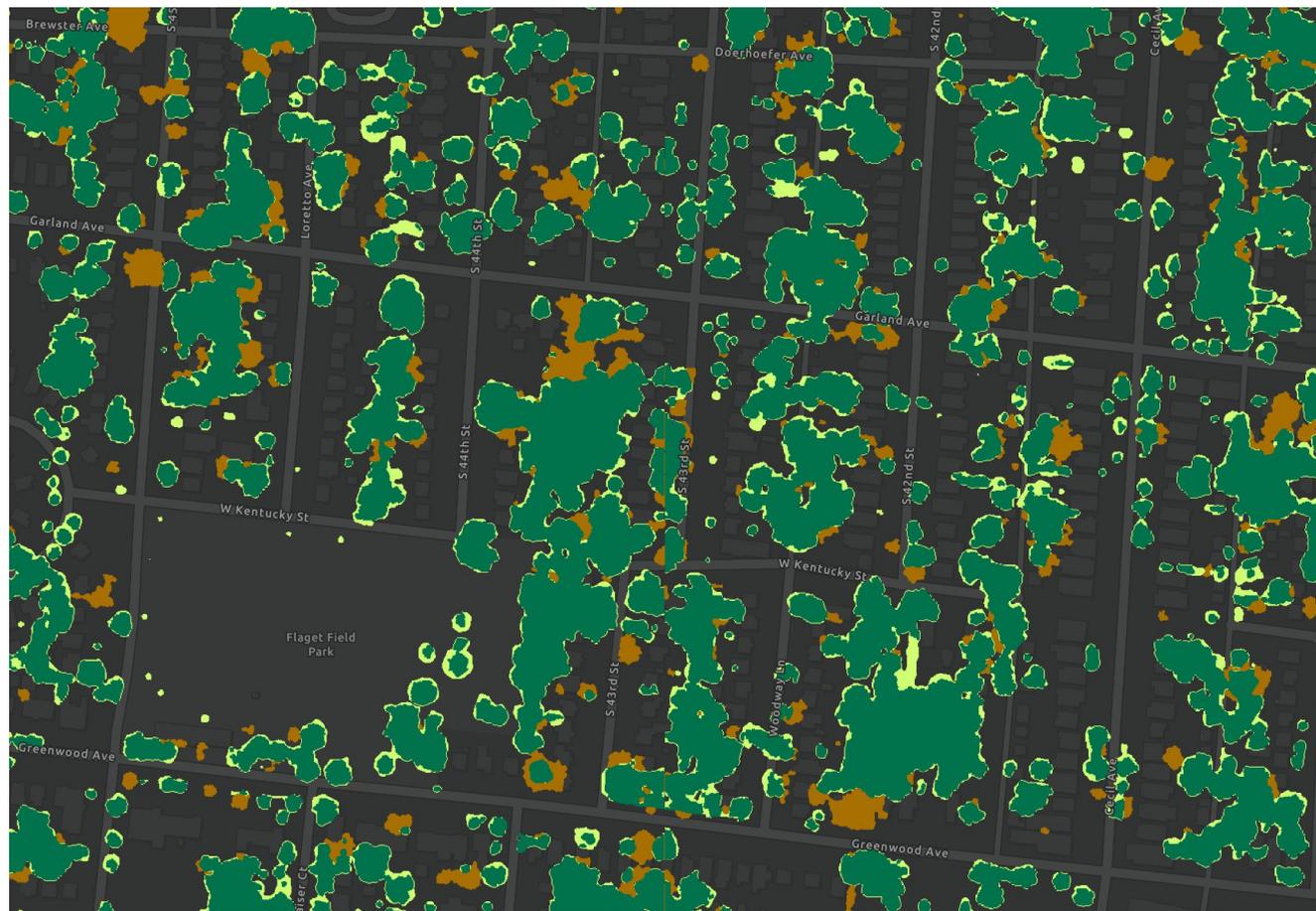
0 0.05 0.1 0.2 Miles



■ No Change ■ Gain ■ Loss



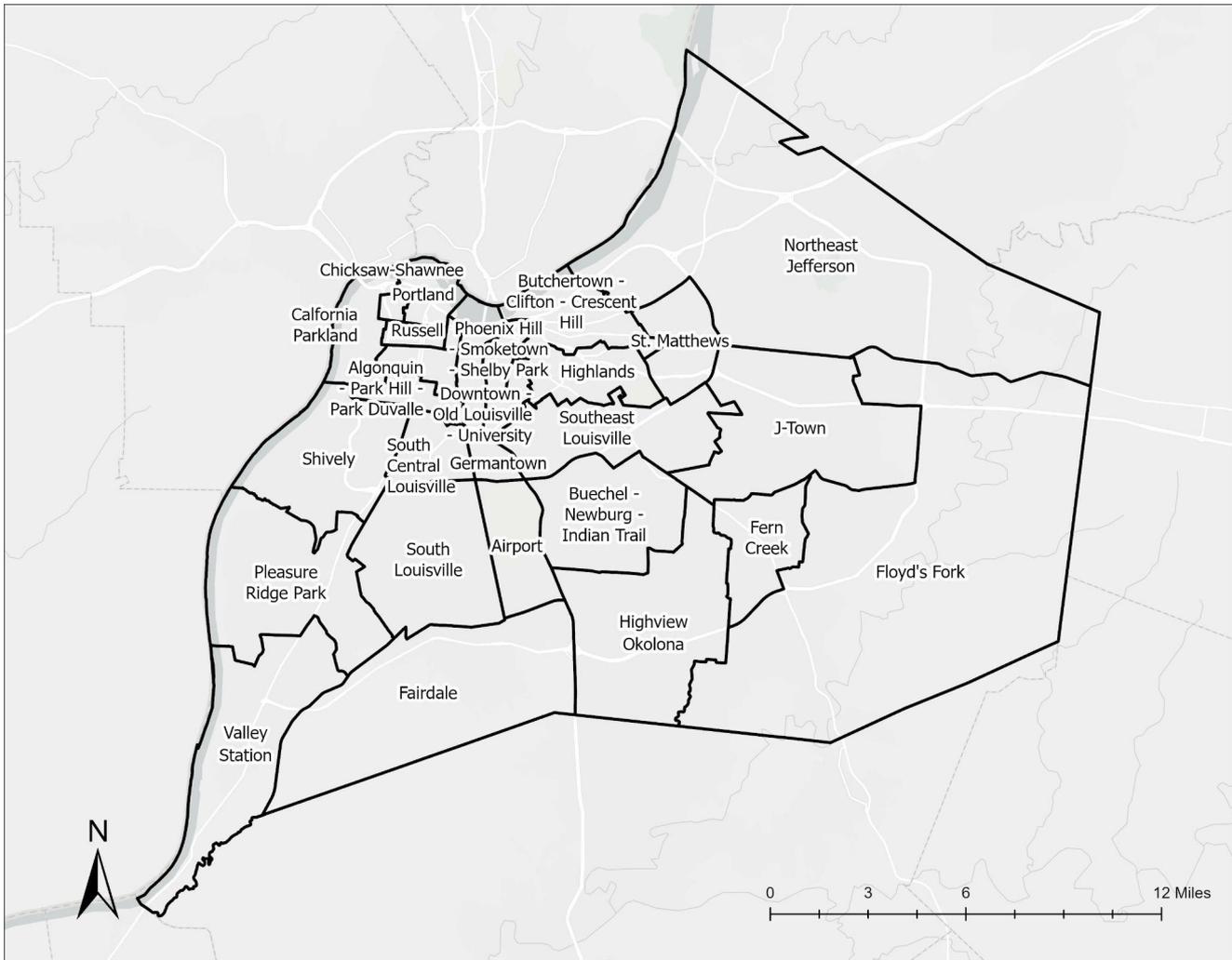
0 0.04 0.07 0.15 Miles

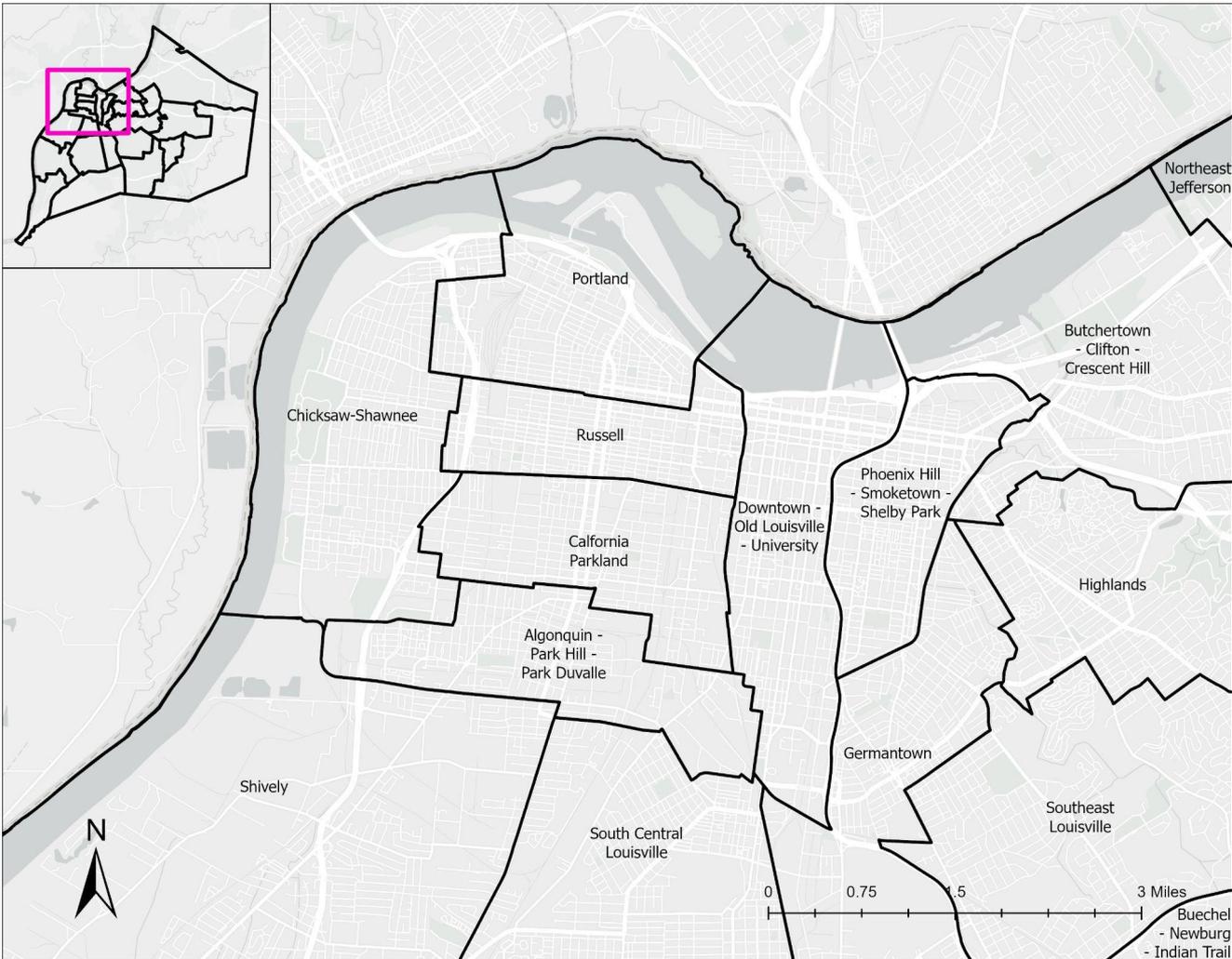


■ No Change ■ Gain ■ Loss



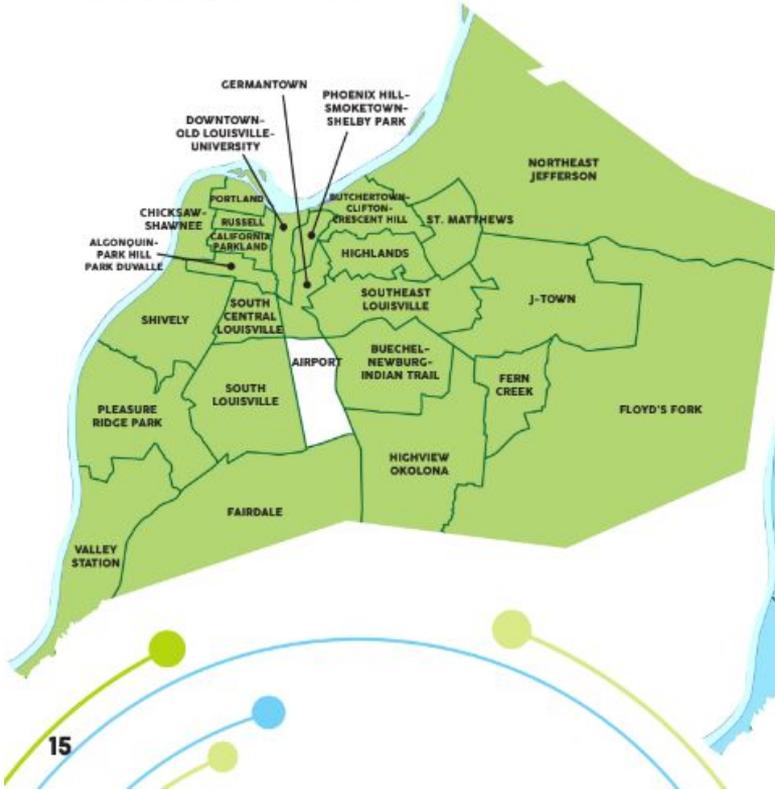
0 0.04 0.07 0.15 Miles





NEIGHBORHOODS

Health Equity Report 2011, 2014



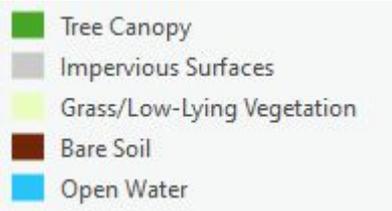
COMMUNITY AREAS

Health Equity Report 2017



Source: Health Equity Plan document

Land Cover 2012



Land Cover 2019



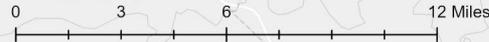
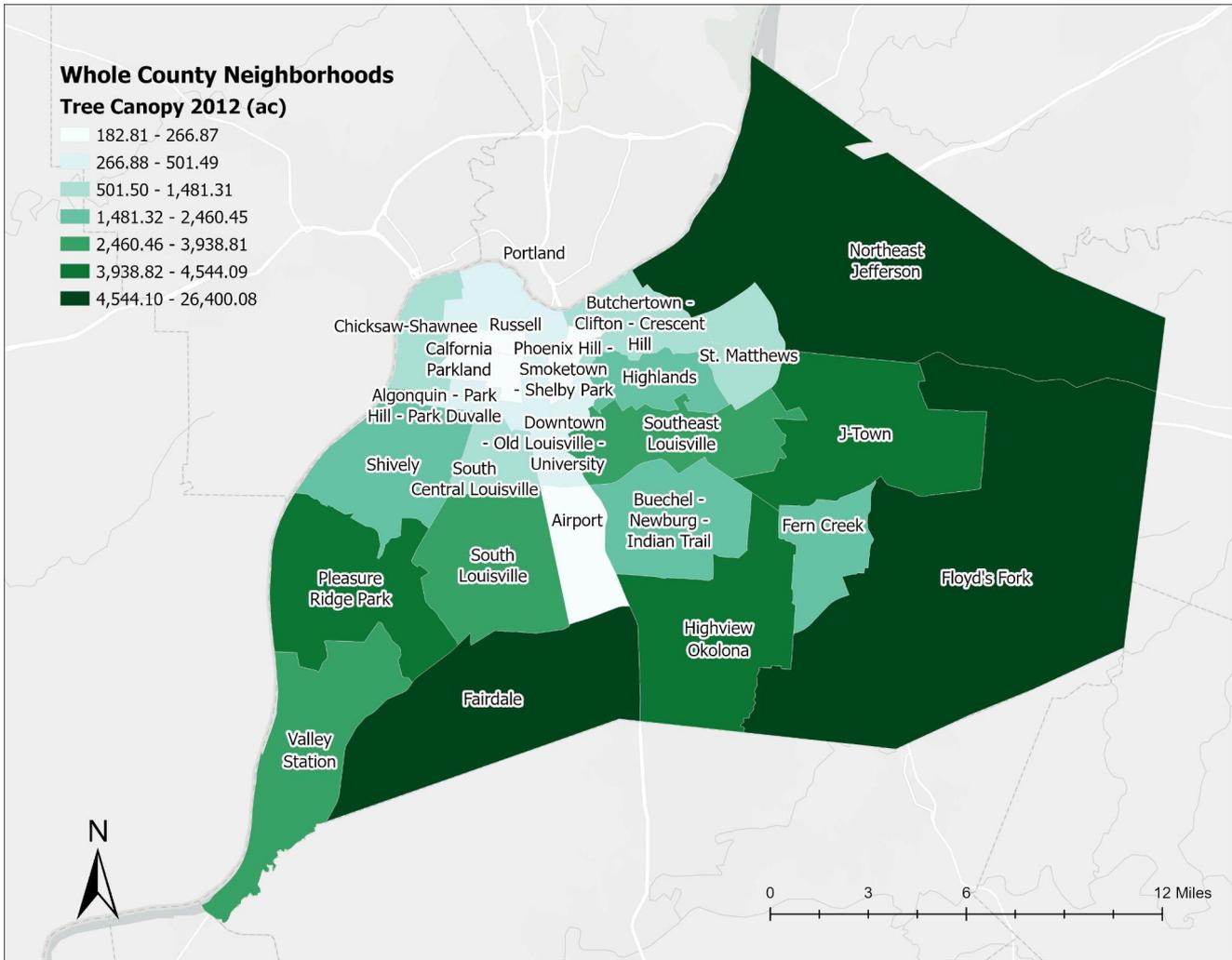
- Tree Canopy
- Impervious Surfaces
- Grass/Low-Lying Vegetation
- Bare Soil
- Open Water

Algonquin -
Park Hill -
Park Duvalle

0.07 0.15 0.3 Miles

Whole County Neighborhoods

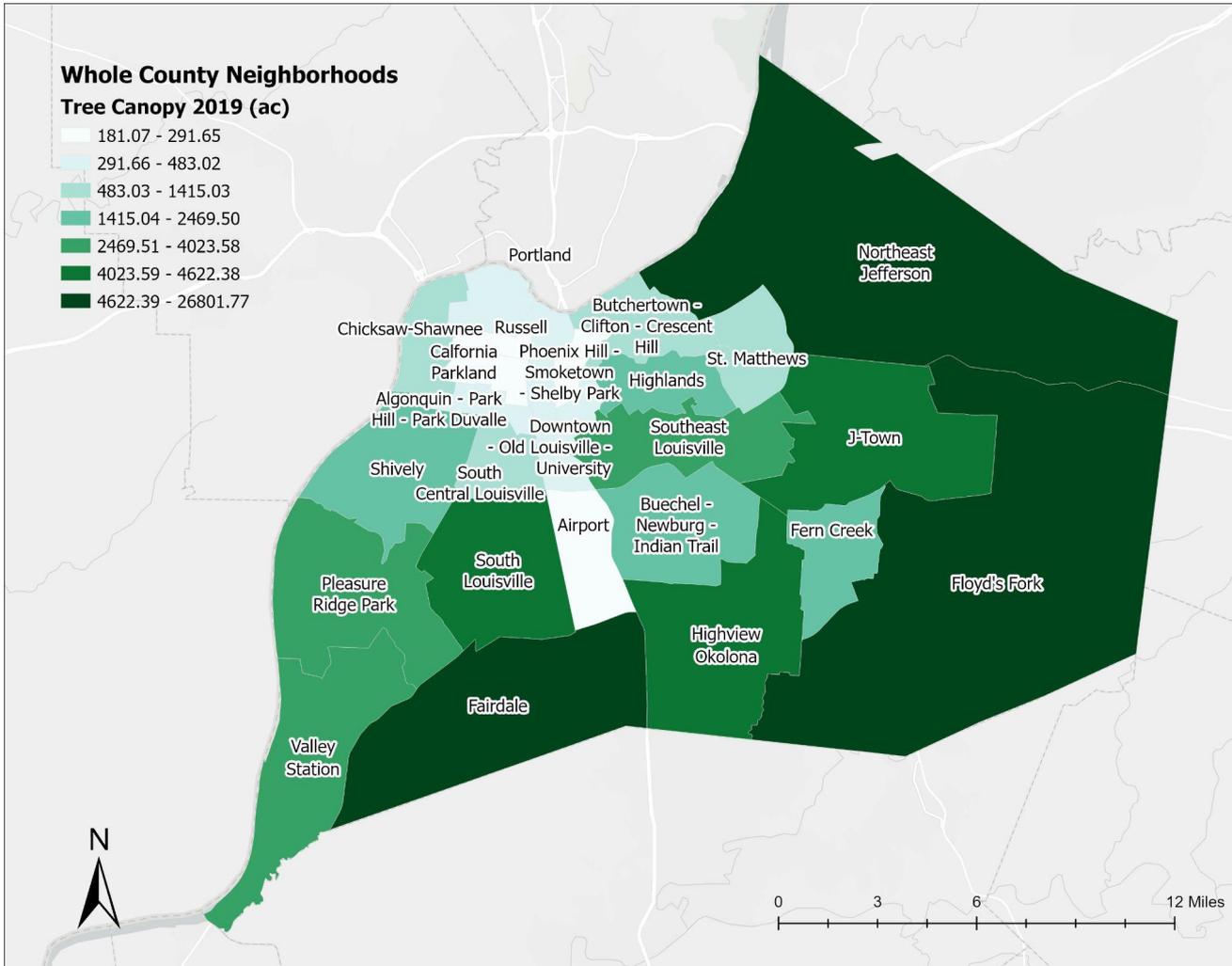
Tree Canopy 2012 (ac)



Using the land cover layer

Whole County Neighborhoods

Tree Canopy 2019 (ac)



Using the land cover layer

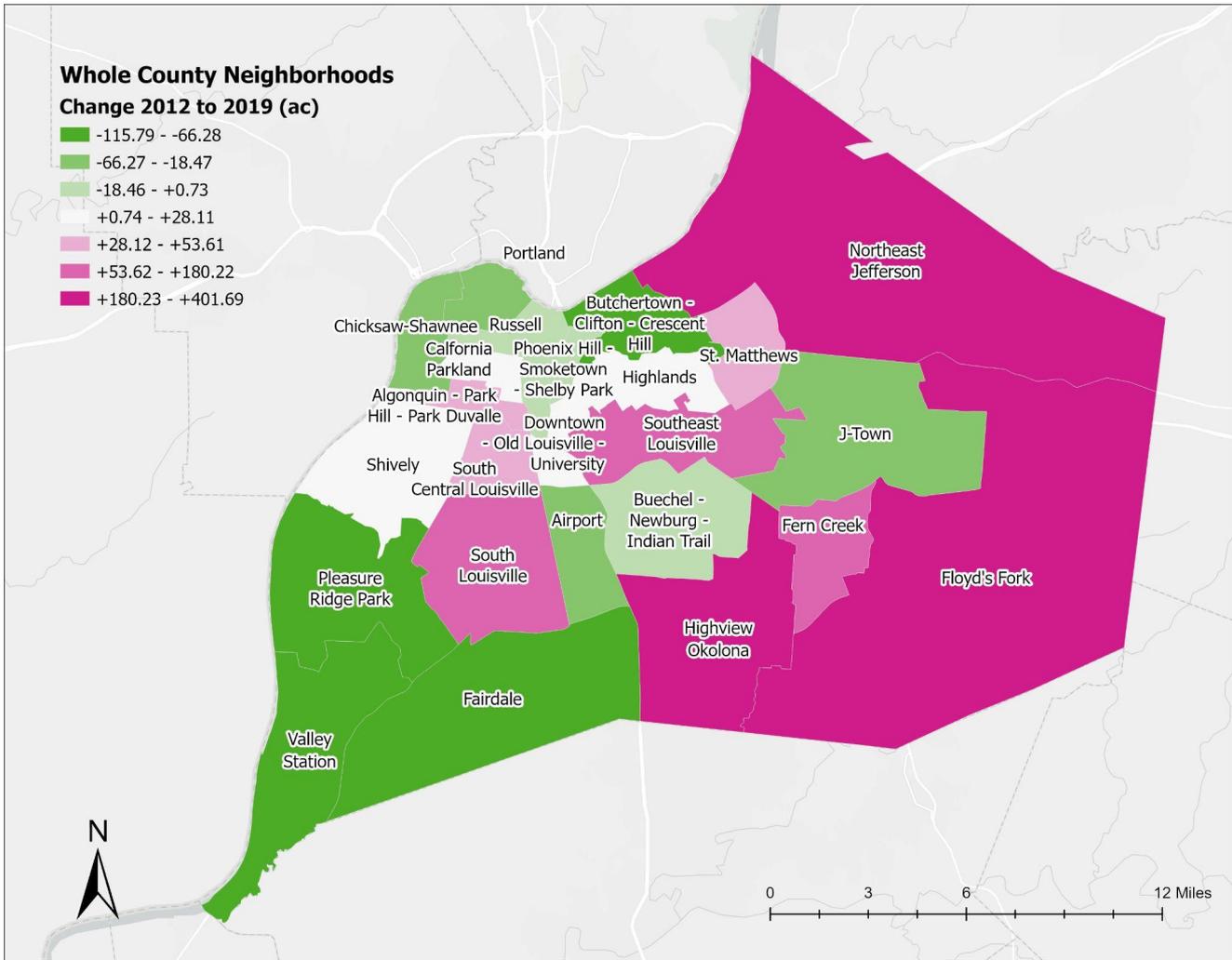
Gloria - Couple things

1. Change title to Louisville Tree Canopy Cover by Neighborhood (2019)

No one will understand the term "whole county neighborhoods" but us :-).

2. Use percentage canopy instead of acres.
Acres will always be more in larger areas, so percentage is telling more accurate story of conditions.
3. Use whole numbers everywhere (no decimals), no matter whether % or acres. Easier for people to read/grasp. And if you can, make them close to rounded number groups in the legend - also easier to grasp.

Whole County Neighborhoods Change 2012 to 2019 (ac)



Using the land cover layer

Gloria - Couple things

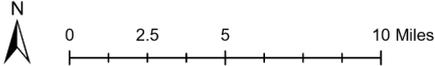
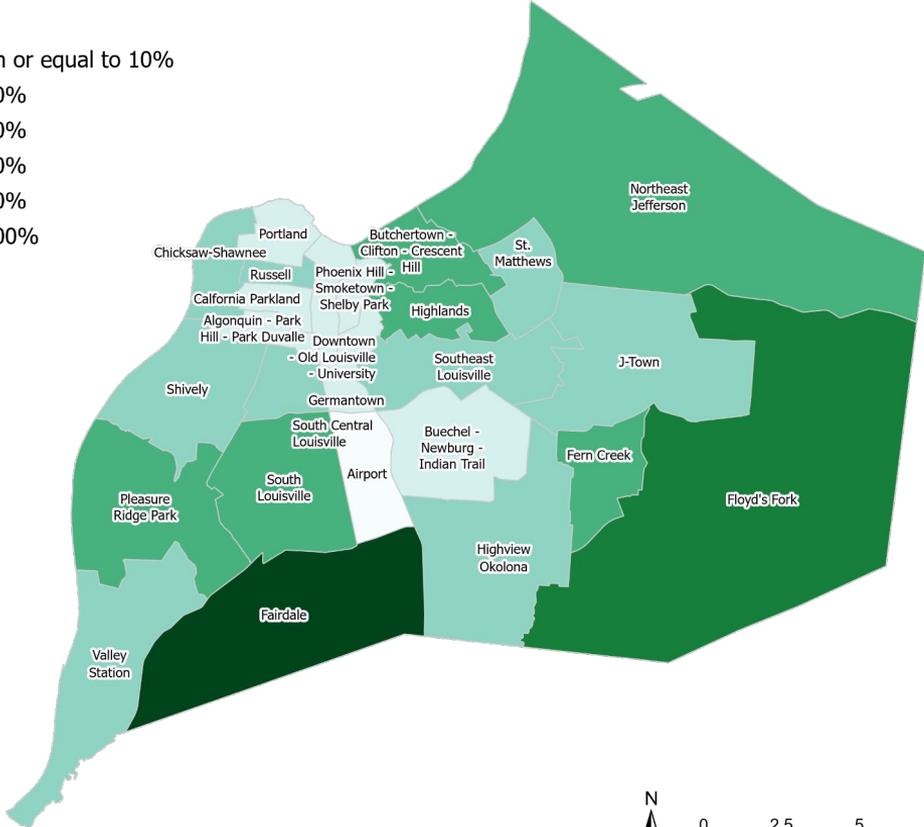
1. Change title to Change in Louisville Tree Canopy Cover by Neighborhood (2012 to 2019)
2. Use canopy %, not acres and note decimals thing again (see prior slide)
3. Can you make colors so that gain is greens (dark for most gain) and losses are red (dark red for most loss)

Updated Tree Canopy Cover maps by
neighborhood
2012, 2019, change 2012 to 2019

4/23/2024

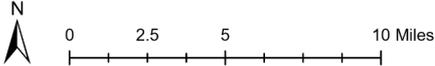
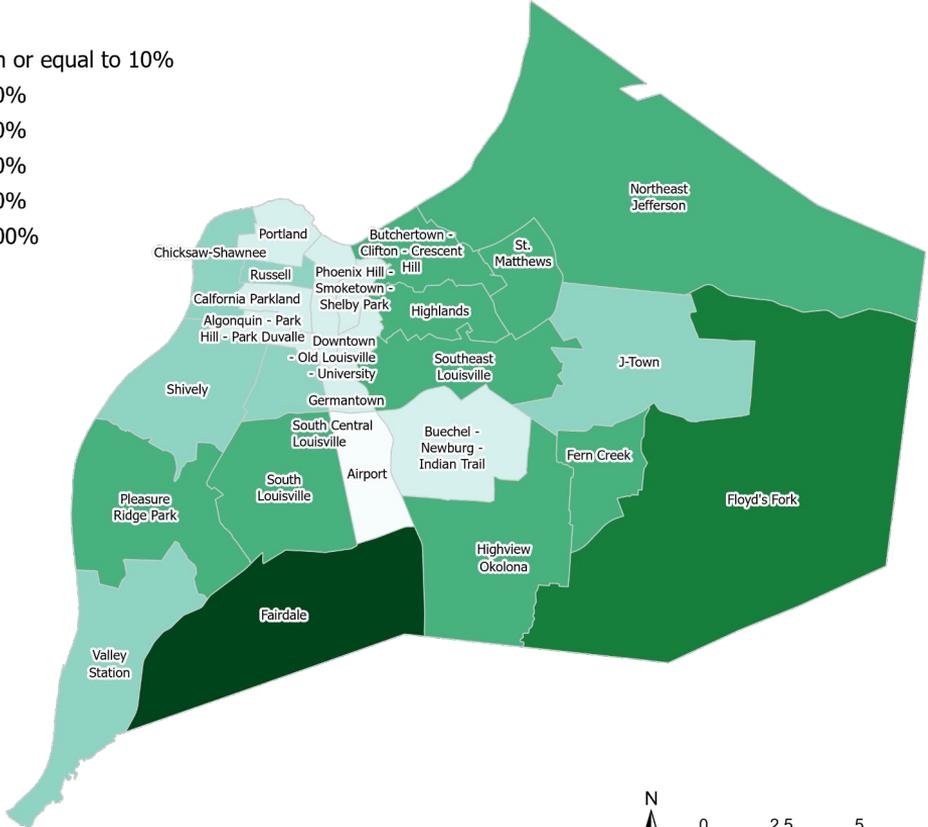
Louisville Tree Canopy Cover by Neighborhood (2012)

- Less than or equal to 10%
- 11% - 20%
- 21% - 30%
- 31% - 40%
- 41% - 50%
- 51% - 100%



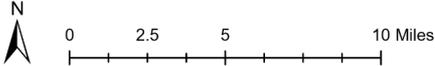
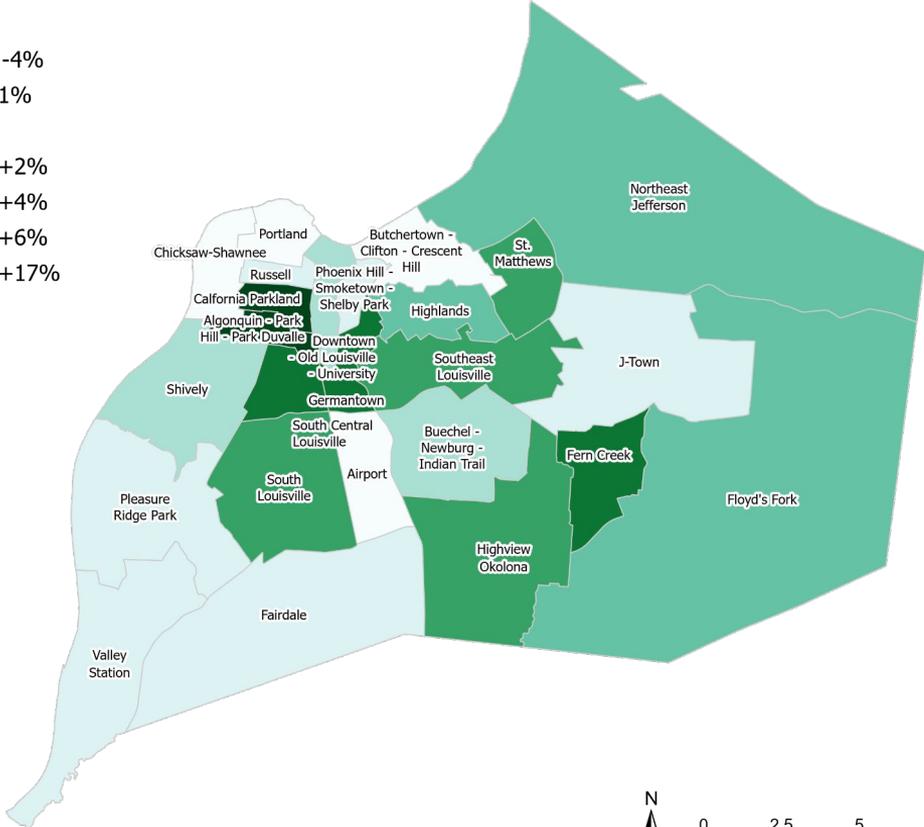
Louisville Tree Canopy Cover by Neighborhood (2019)

- Less than or equal to 10%
- 11% - 20%
- 21% - 30%
- 31% - 40%
- 41% - 50%
- 51% - 100%

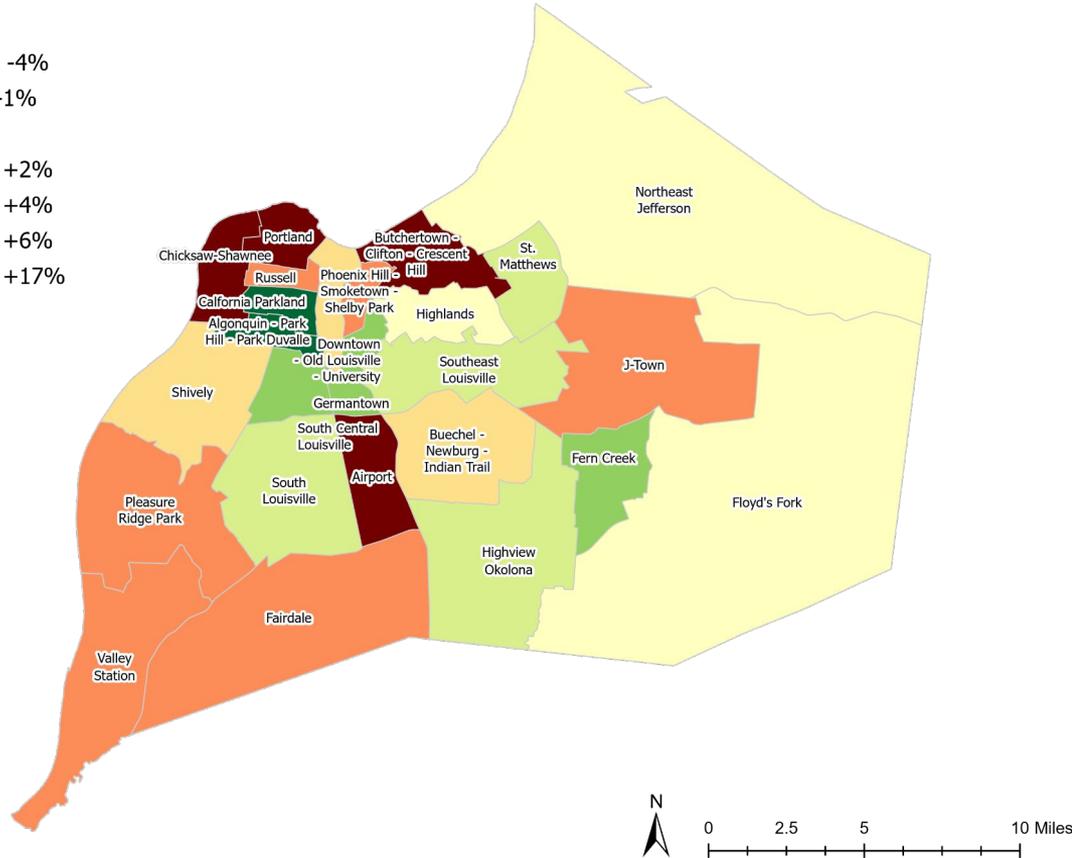
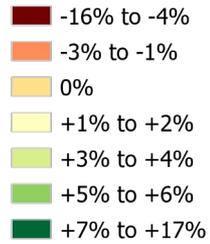


Louisville Tree Canopy Change by Neighborhood (2012 to 2019)

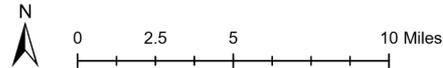
- 16% to -4%
- 3% to -1%
- 0%
- +1% to +2%
- +3% to +4%
- +5% to +6%
- +7% to +17%



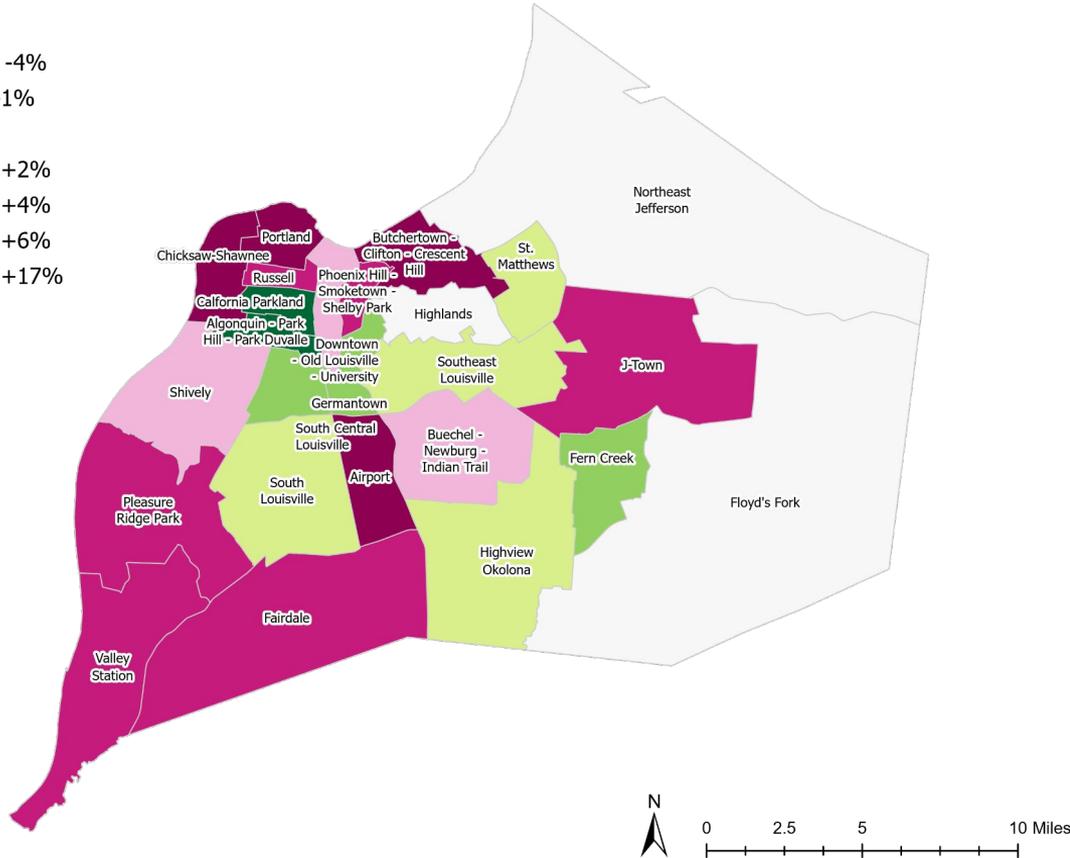
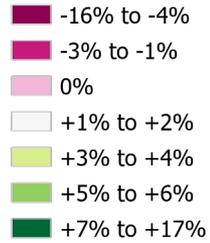
Change in Louisville Tree Canopy by Neighborhood (2012 to 2019)



Red to green color palette - not accessible for deuteranopia



Change in Louisville Tree Canopy by Neighborhood (2012 to 2019)



Pink to green color palette works a bit better



Tree canopy from the tree canopy change raster is slightly off from the tree canopy in the land cover layer

Pink - Tree canopy change layer

Green - Tree canopy in land cover layer

double check with findings to make sure numbers match up

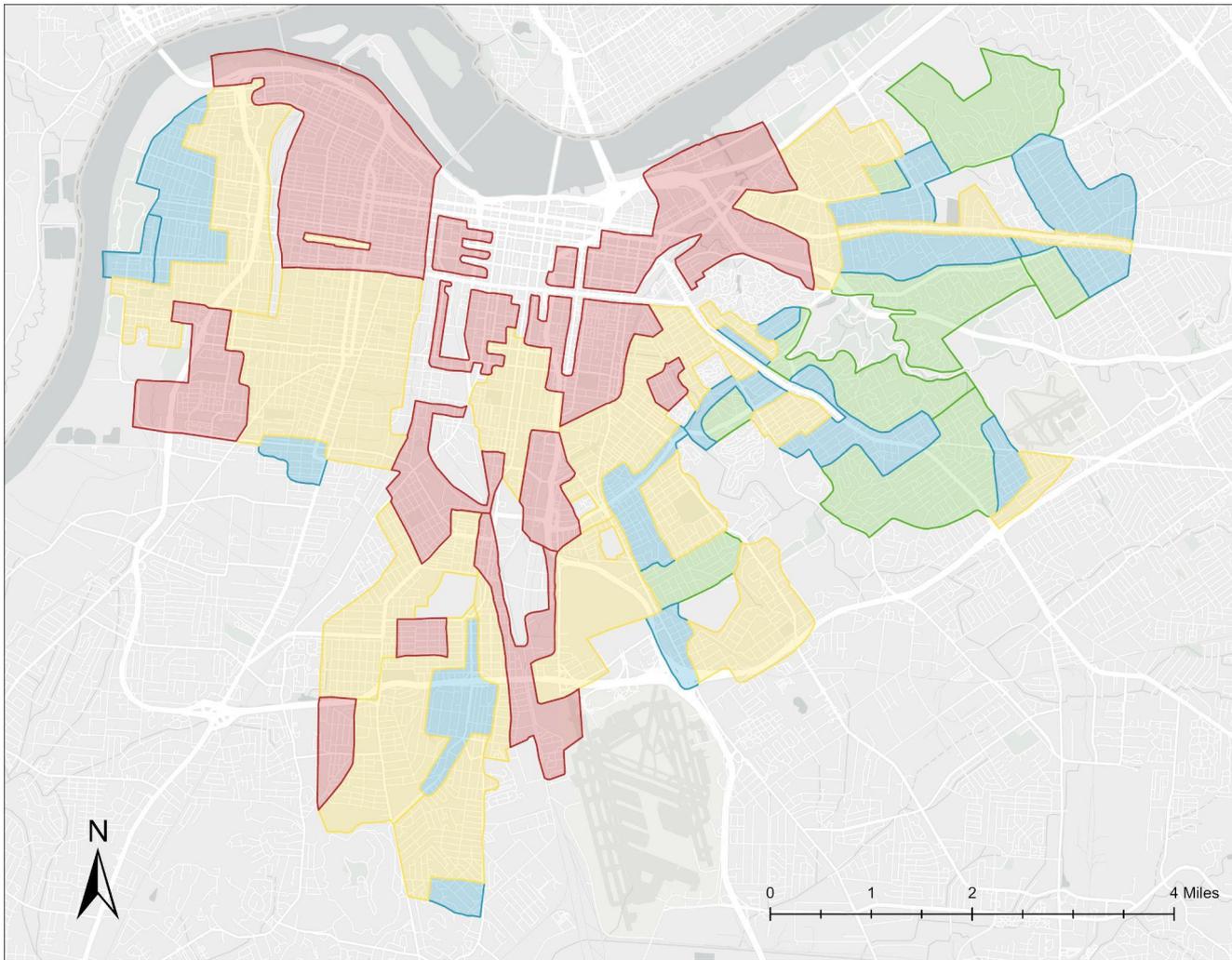
Redlining

Louisville's lojic website on redlining: <https://www.lojic.org/redlining-louisville-2017>

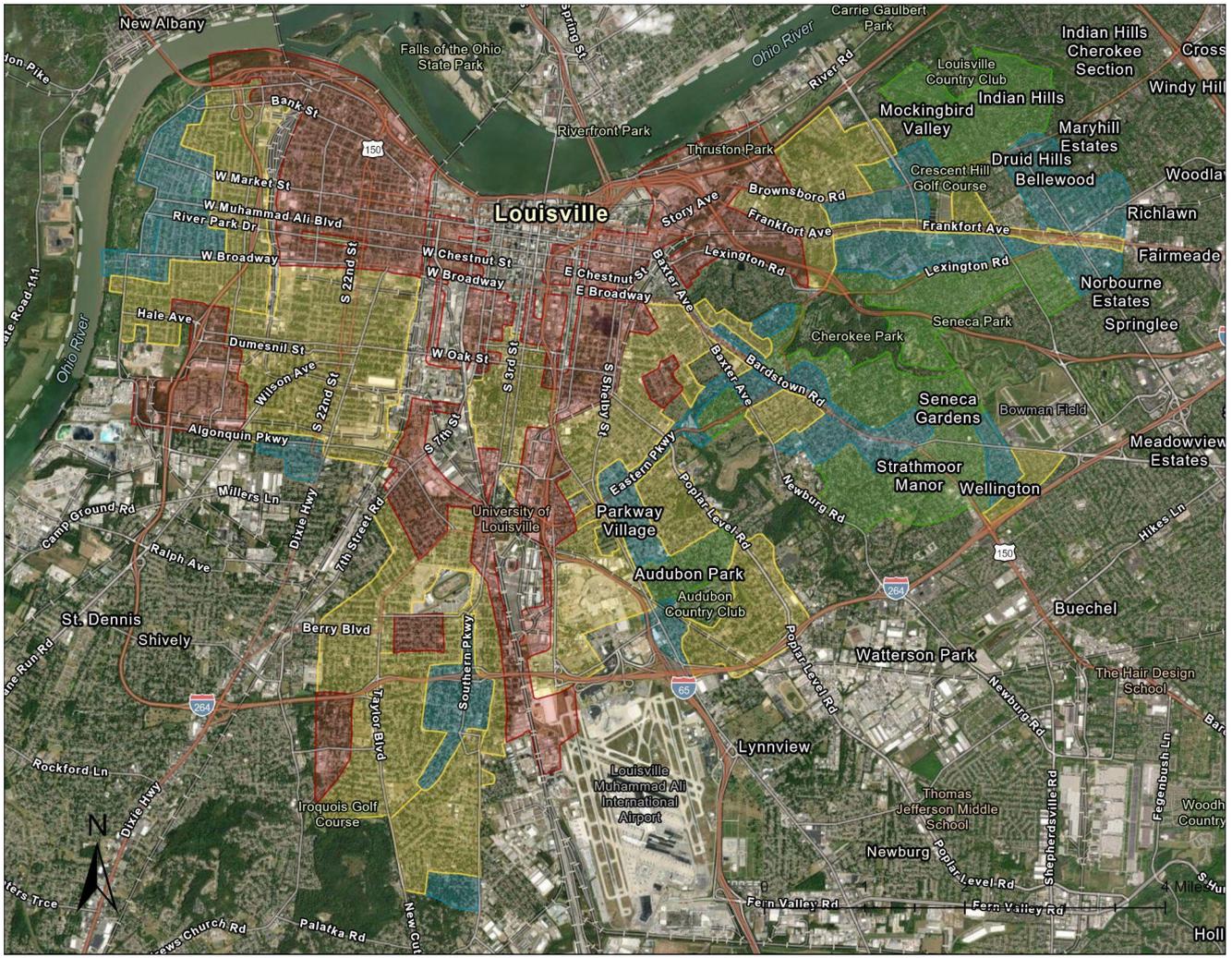
- Lots of Louisville specific information on redlining and HOLC grades

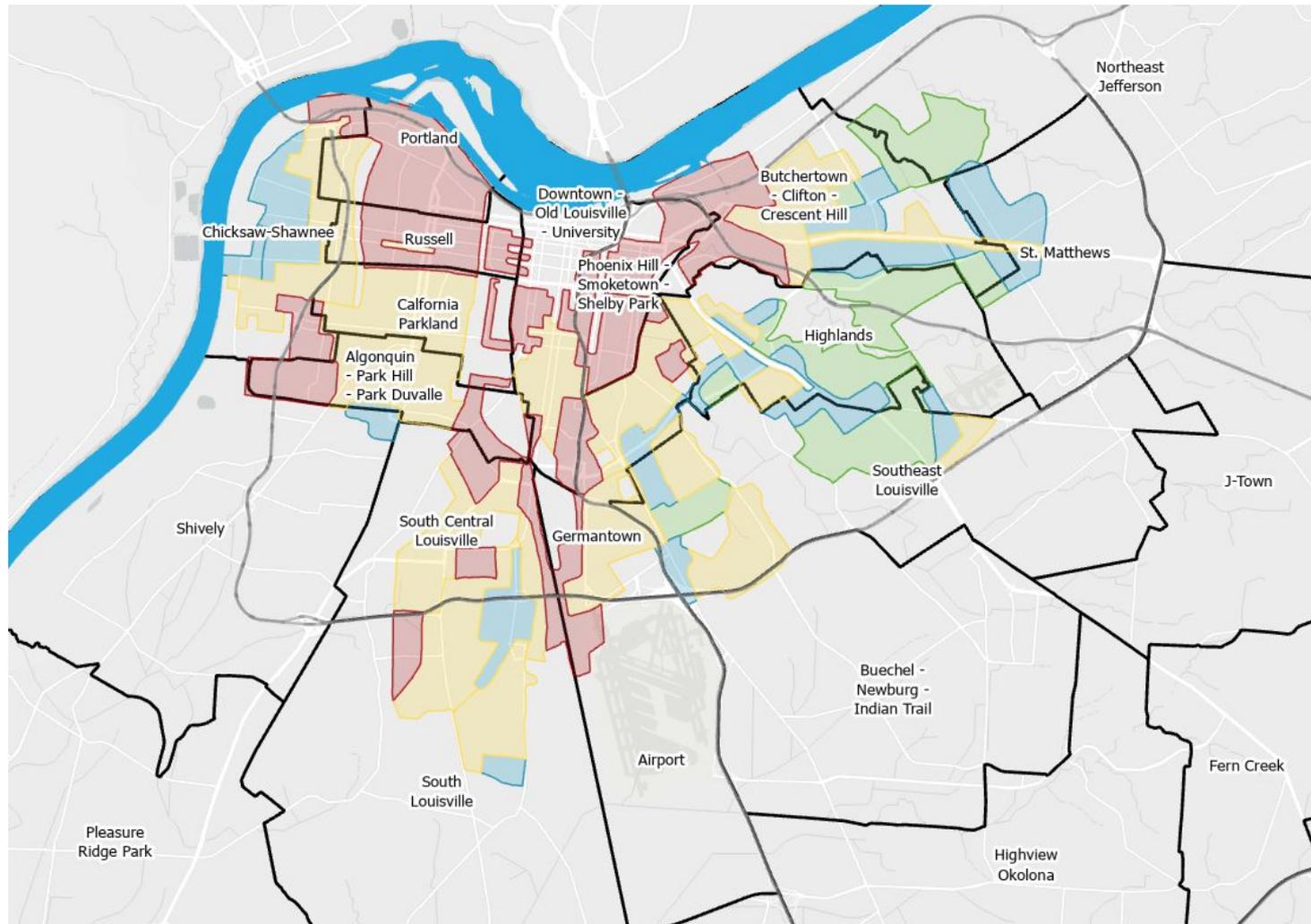
National HOLC layer:

<https://www.arcgis.com/home/item.html?id=ef0f926eb1b146d082c38cc35b53c947&sublayer=0>



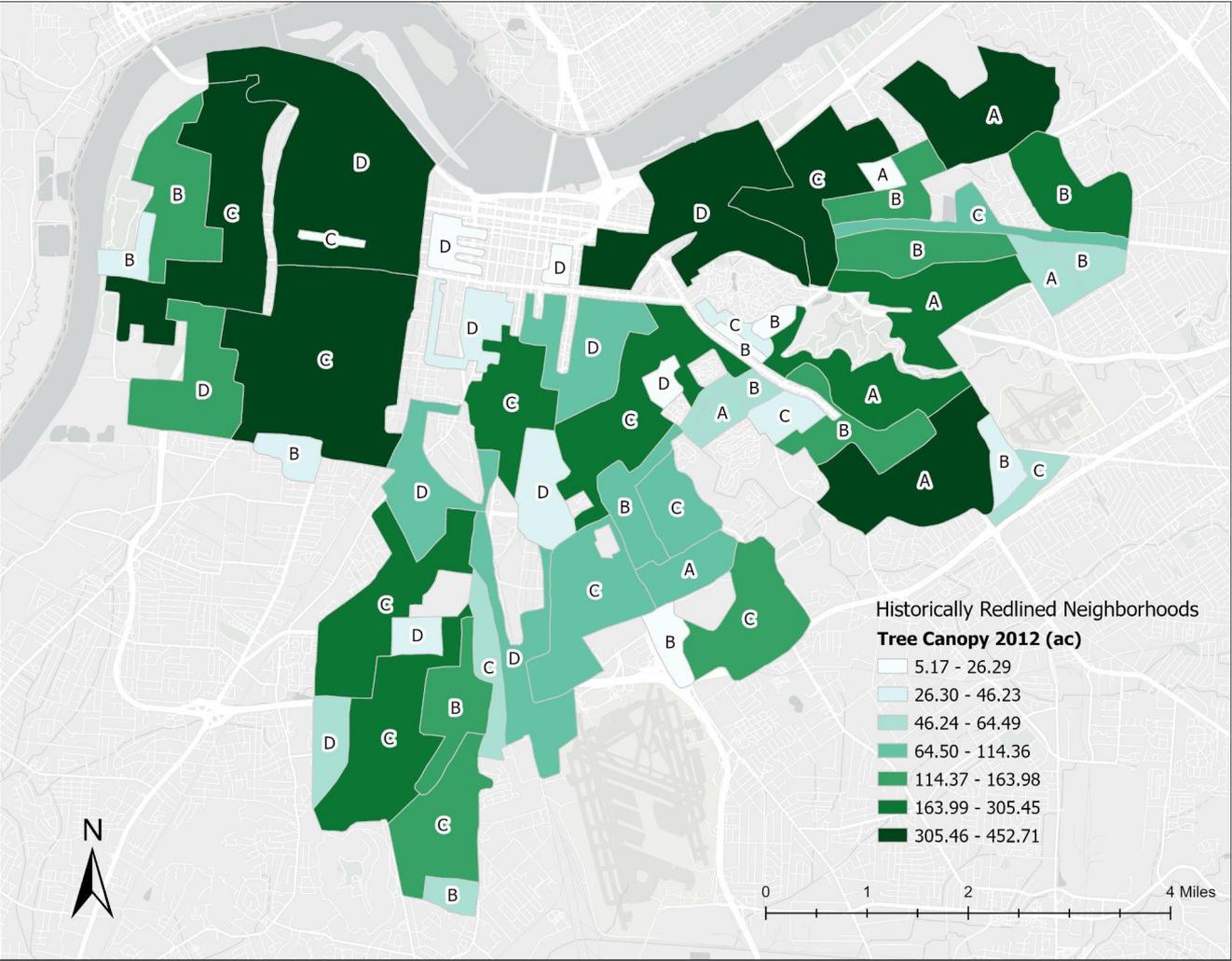
- A (Best)
- B (Still Desirable)
- C (Declining)
- D (Hazardous)



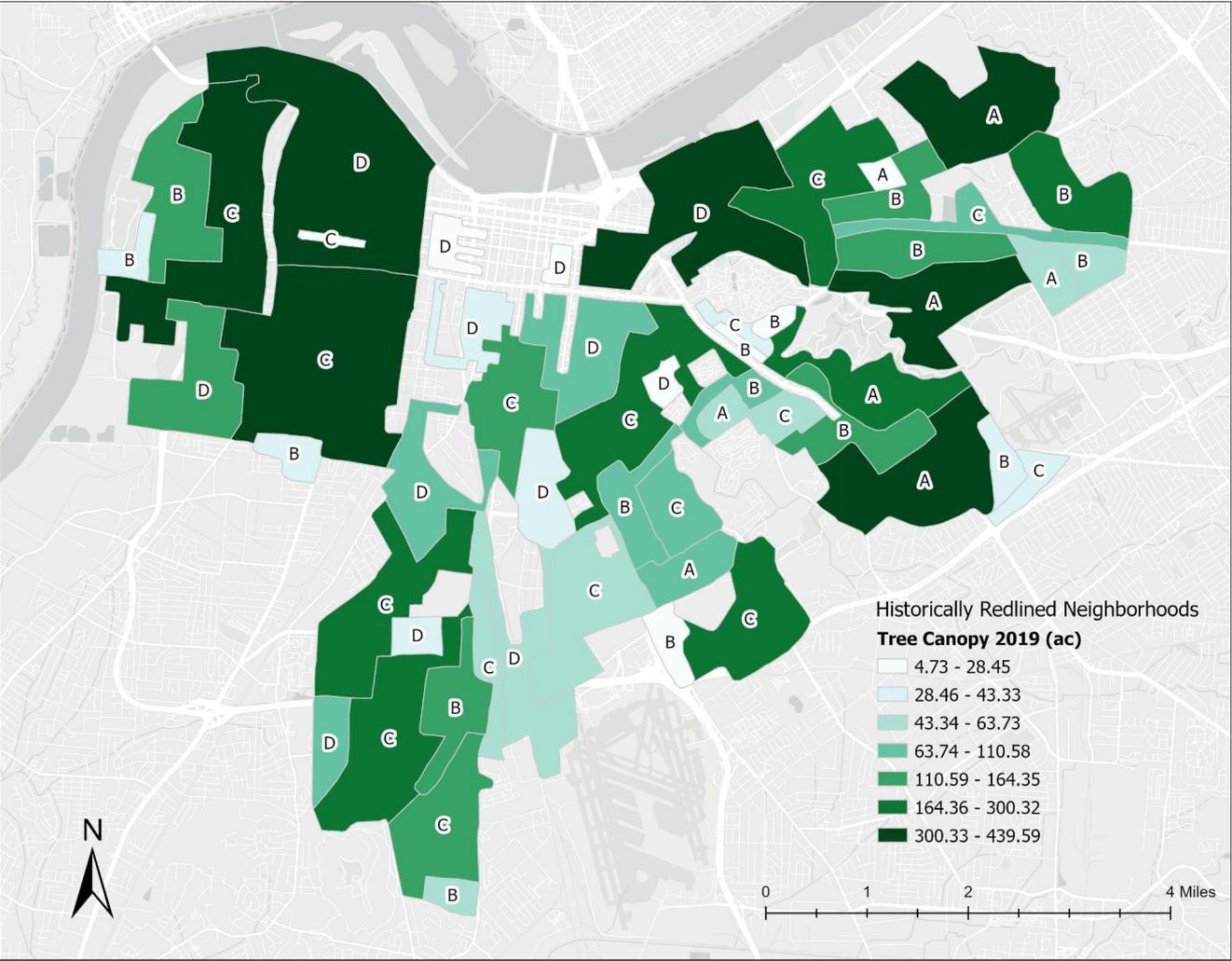


Whole County Neighborhoods and Redlining

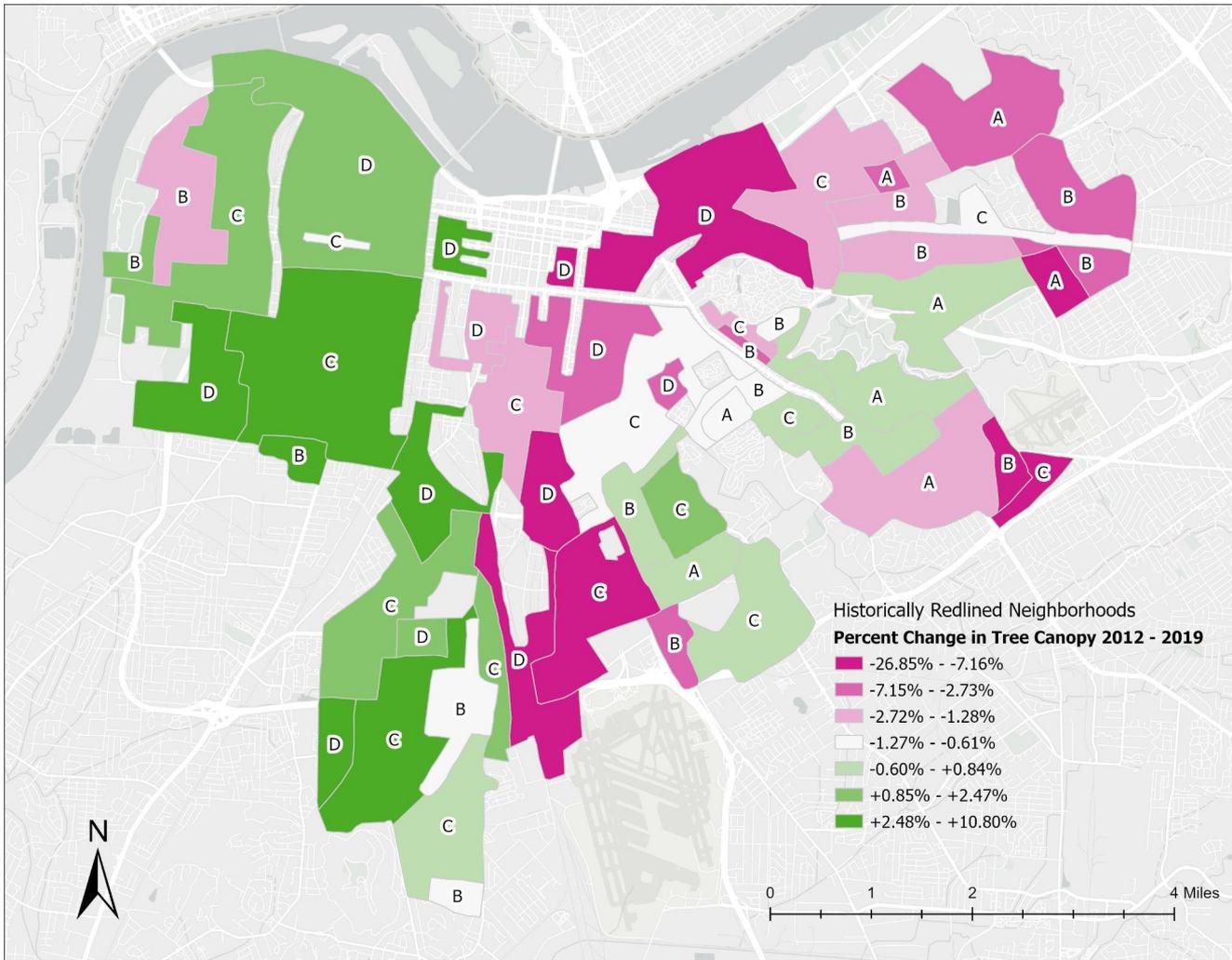
Using the tree canopy raster



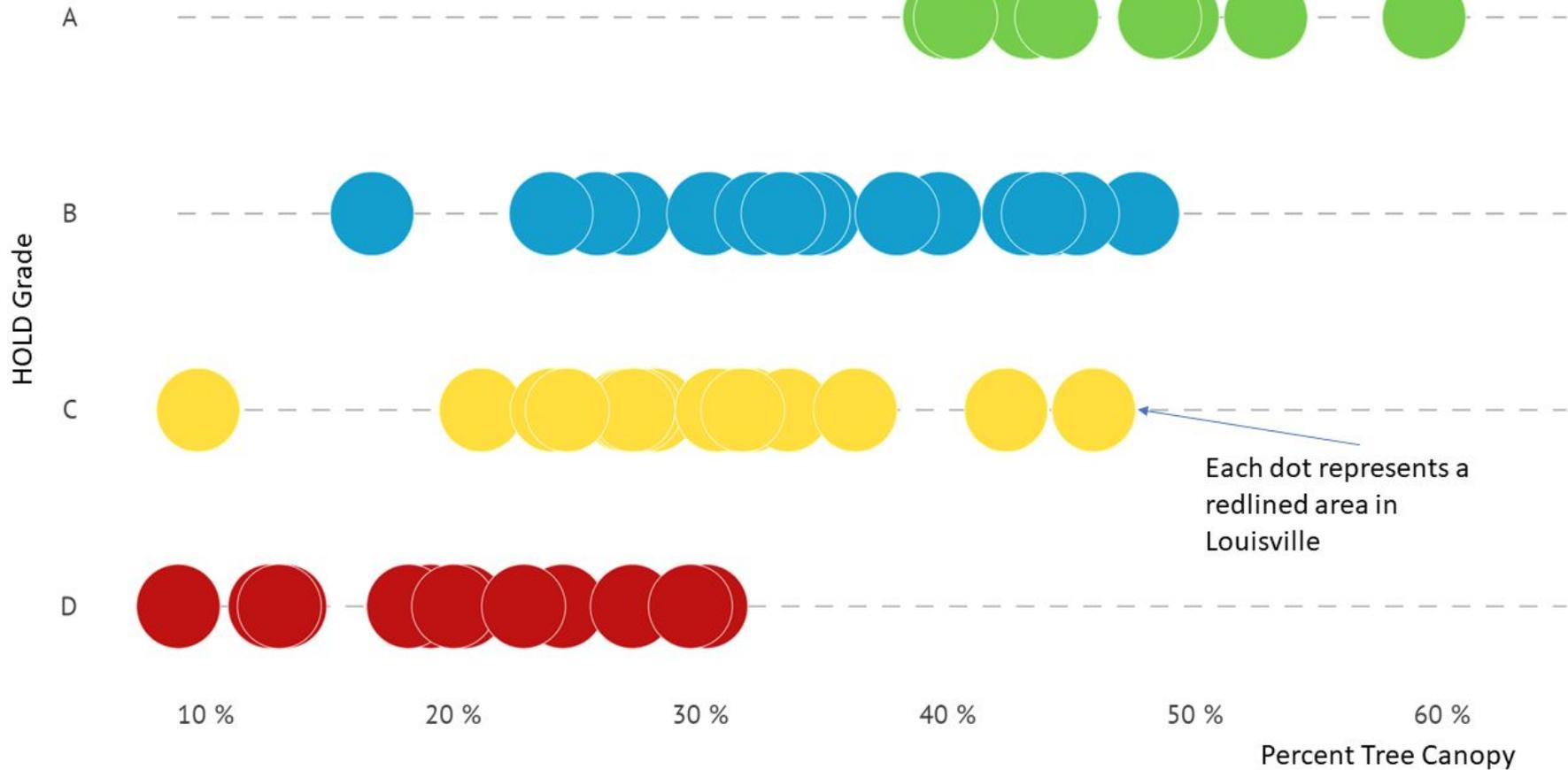
Using the tree canopy raster



Using the tree canopy raster

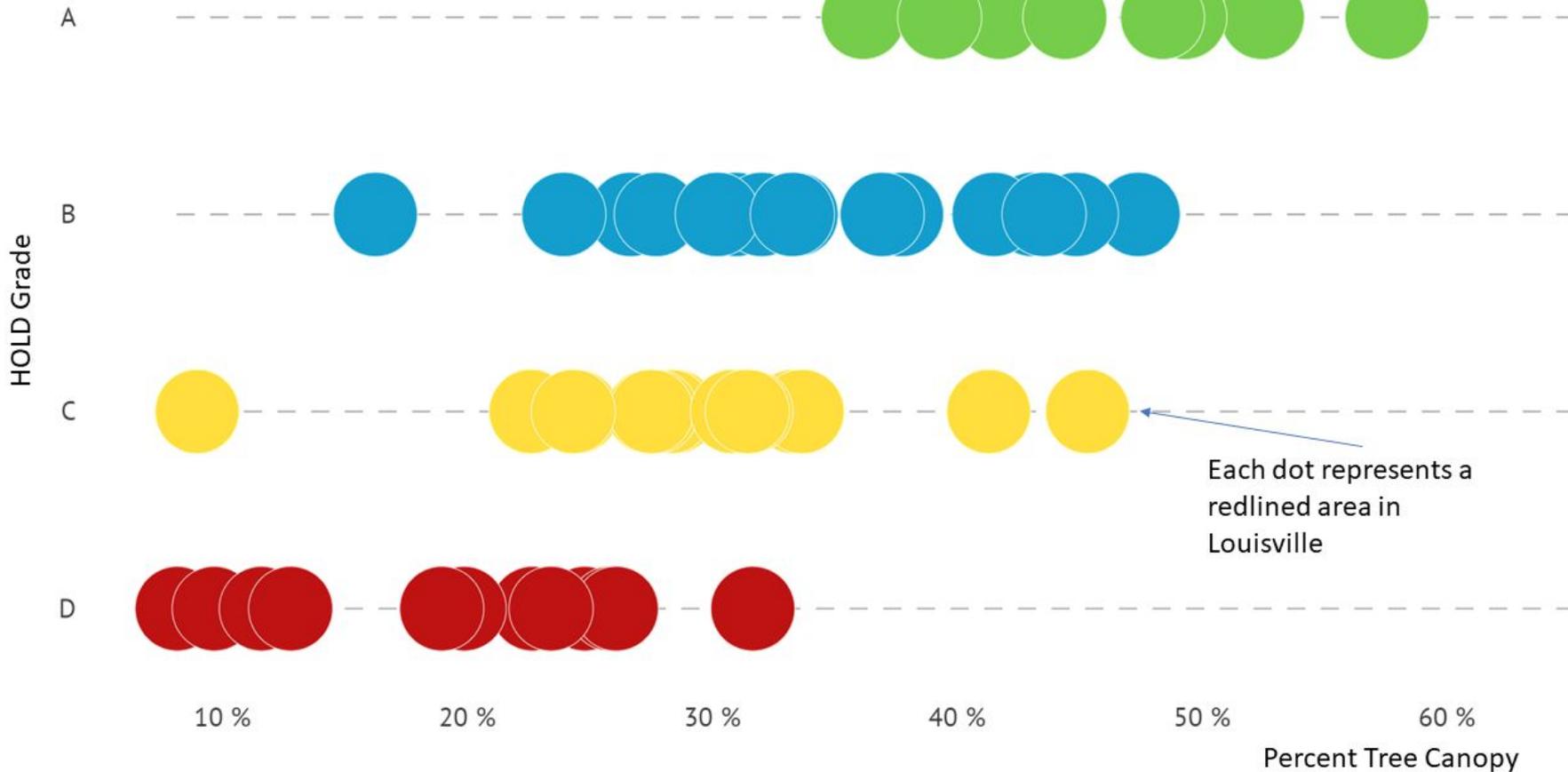


2012 Percent Tree Canopy for each redlined area in Louisville

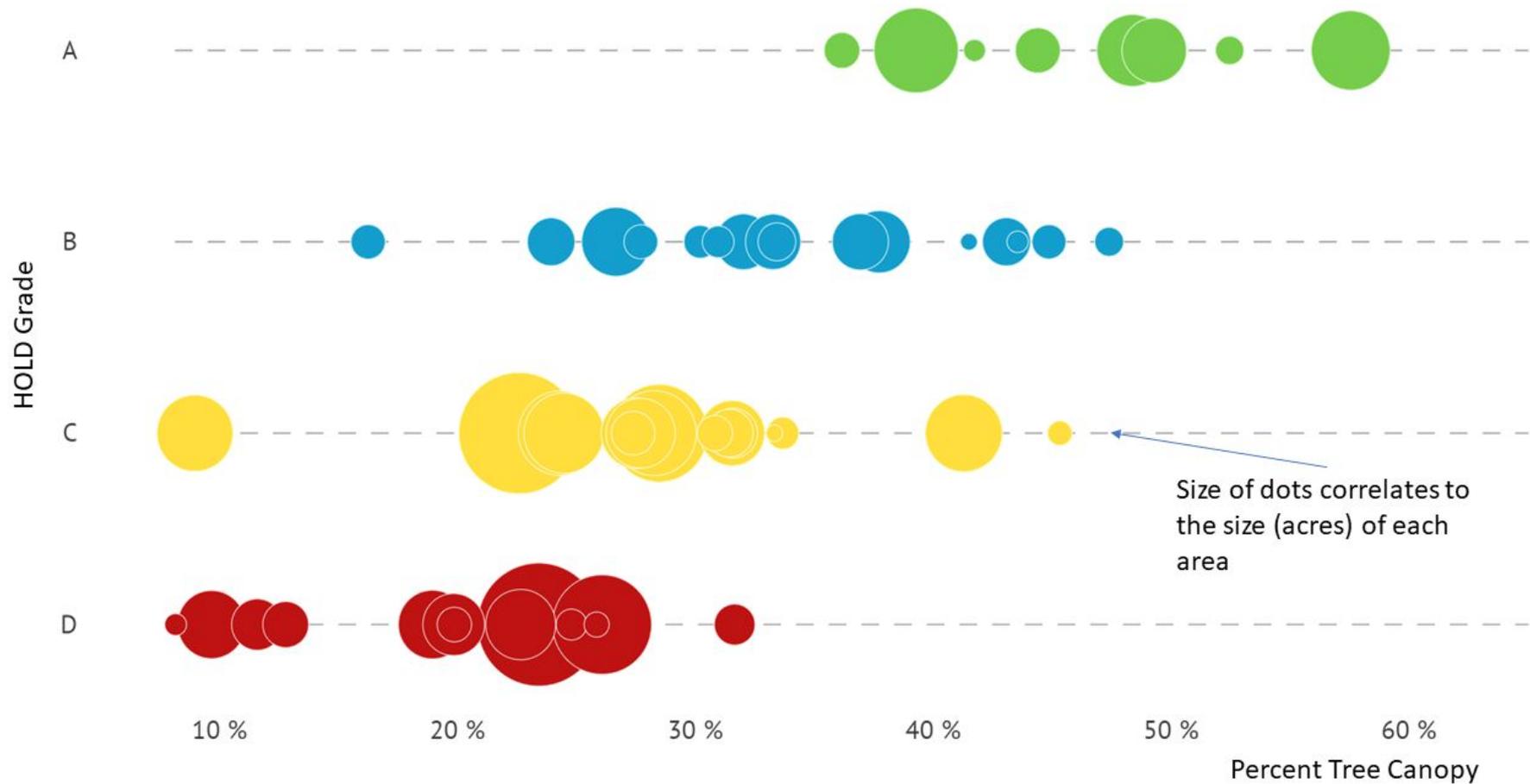


2019 Percent Tree Canopy for each redlined area in Louisville

Minimal change in tree canopy in these areas in 2012 and 2019 numbers



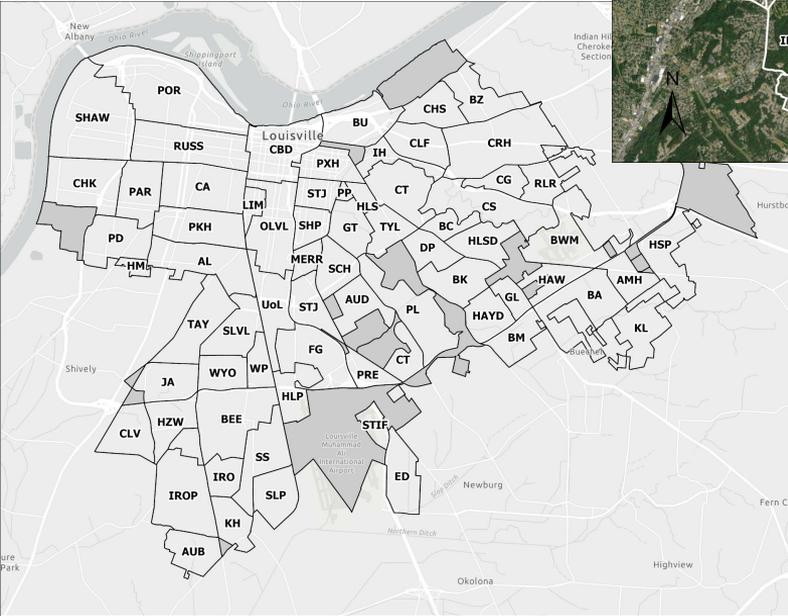
2019 Percent Tree Canopy for each redlined area in Louisville

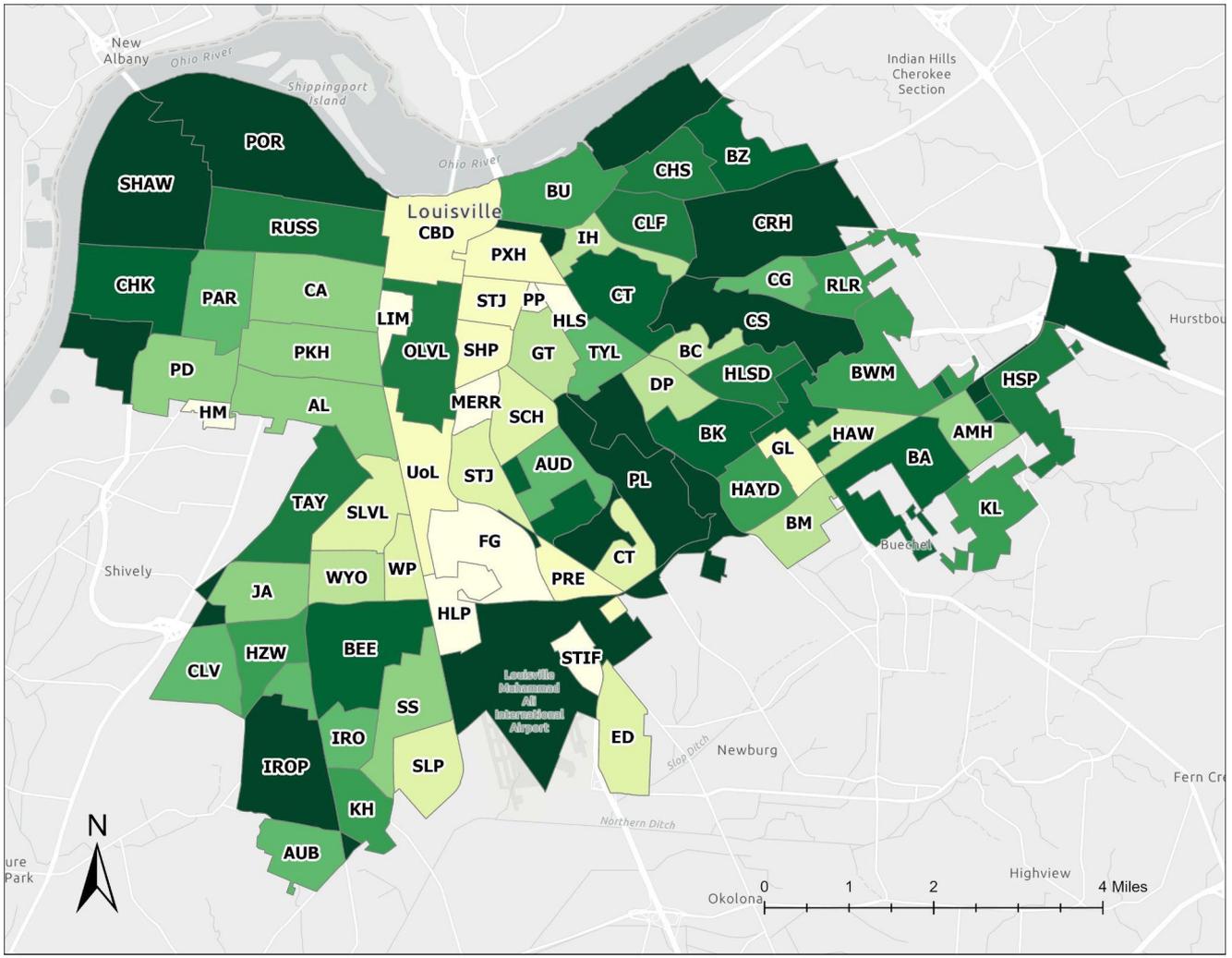


(map of all three projects)

Urban Neighborhoods

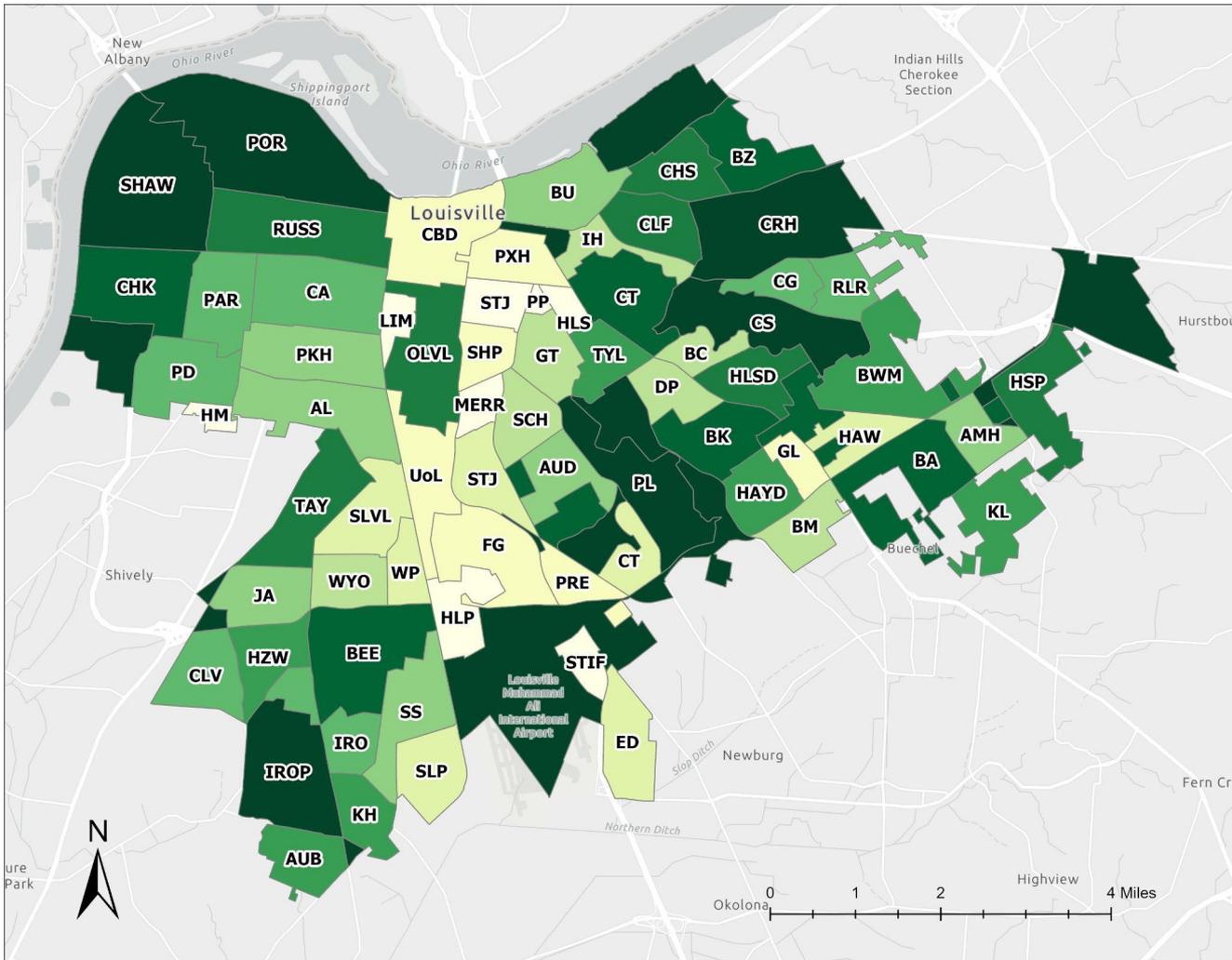
Urban Neighborhoods Boundary





Urban Canopy Area by Neighborhood (2012)

Acres

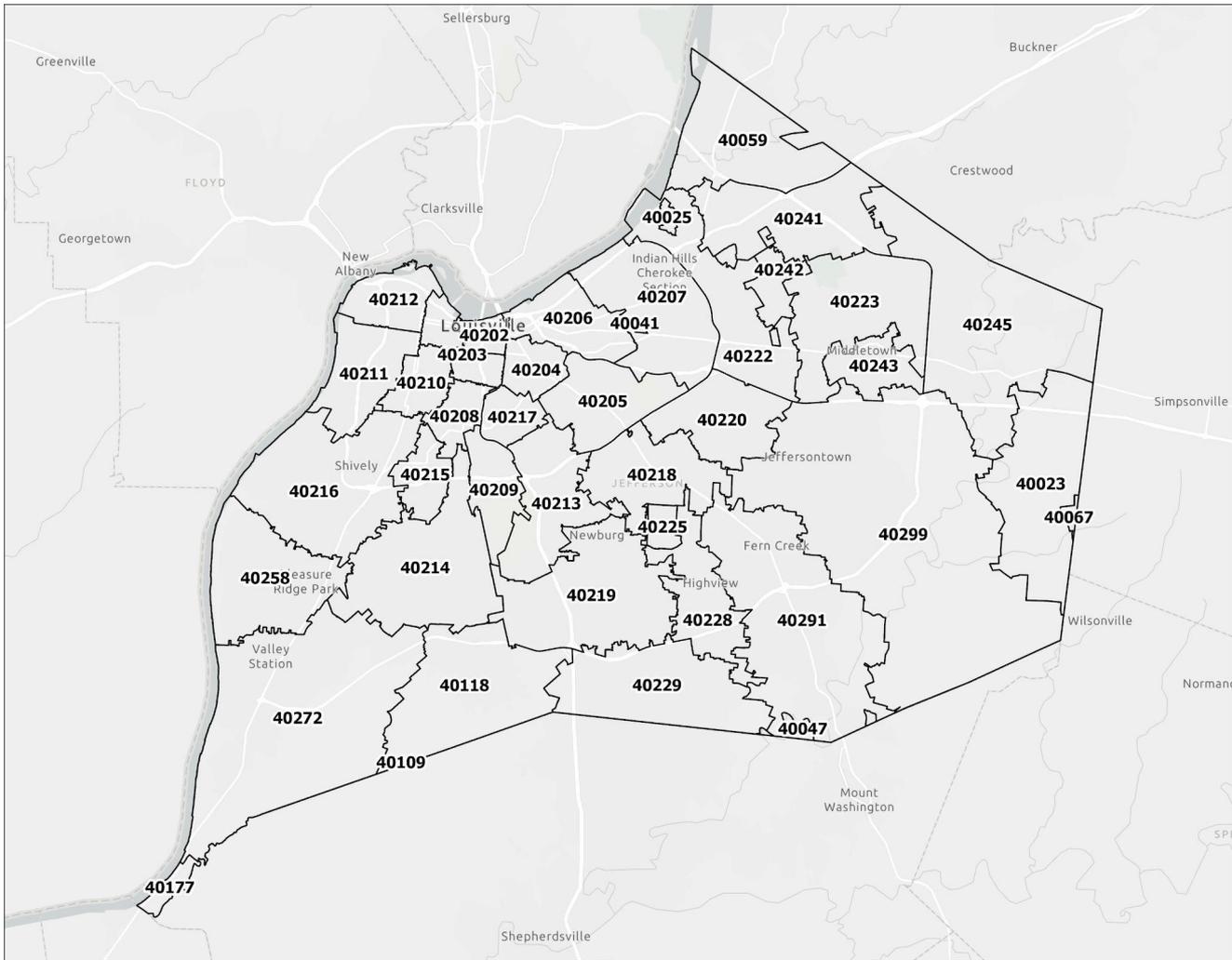


Urban Canopy Area by Neighborhood (2019)

Acres



Zipcodes



Zipcodes

40177

40272

40258
Leasure
Ridge Park

40216

40214

40118

40109

40212

40211

40210

40208

40215

40209

40202

40203

40204

40217

40213

40219

40229

40206

40041

40205

40218

40225

40228

40047

40025

40059

40241

40242

40223

40222

40220

40218

40299

40291

40228

Crestwood

40245

Jeffersonton

40023

40067

Wilsonville

Simpsonville

Norman

Mount
Washington

SPE

Shepherdsville

Clarksville

New
Albany

Louisville

Indian Hills
Cherokee
Section
40207

Midletown
40243

Newburg

Fern Creek

Highview

Greenville

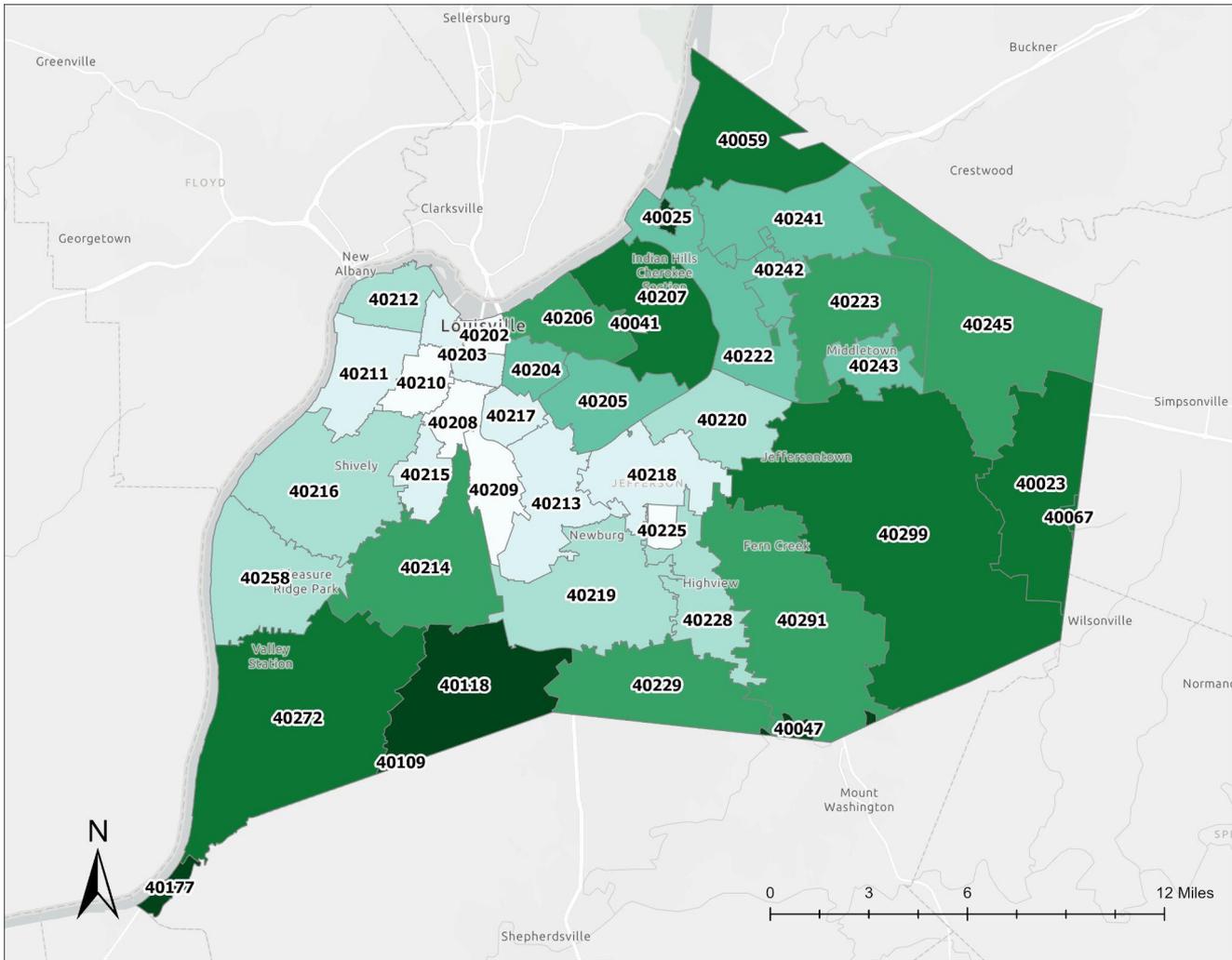
FLOYD

Georgetown

Buckner

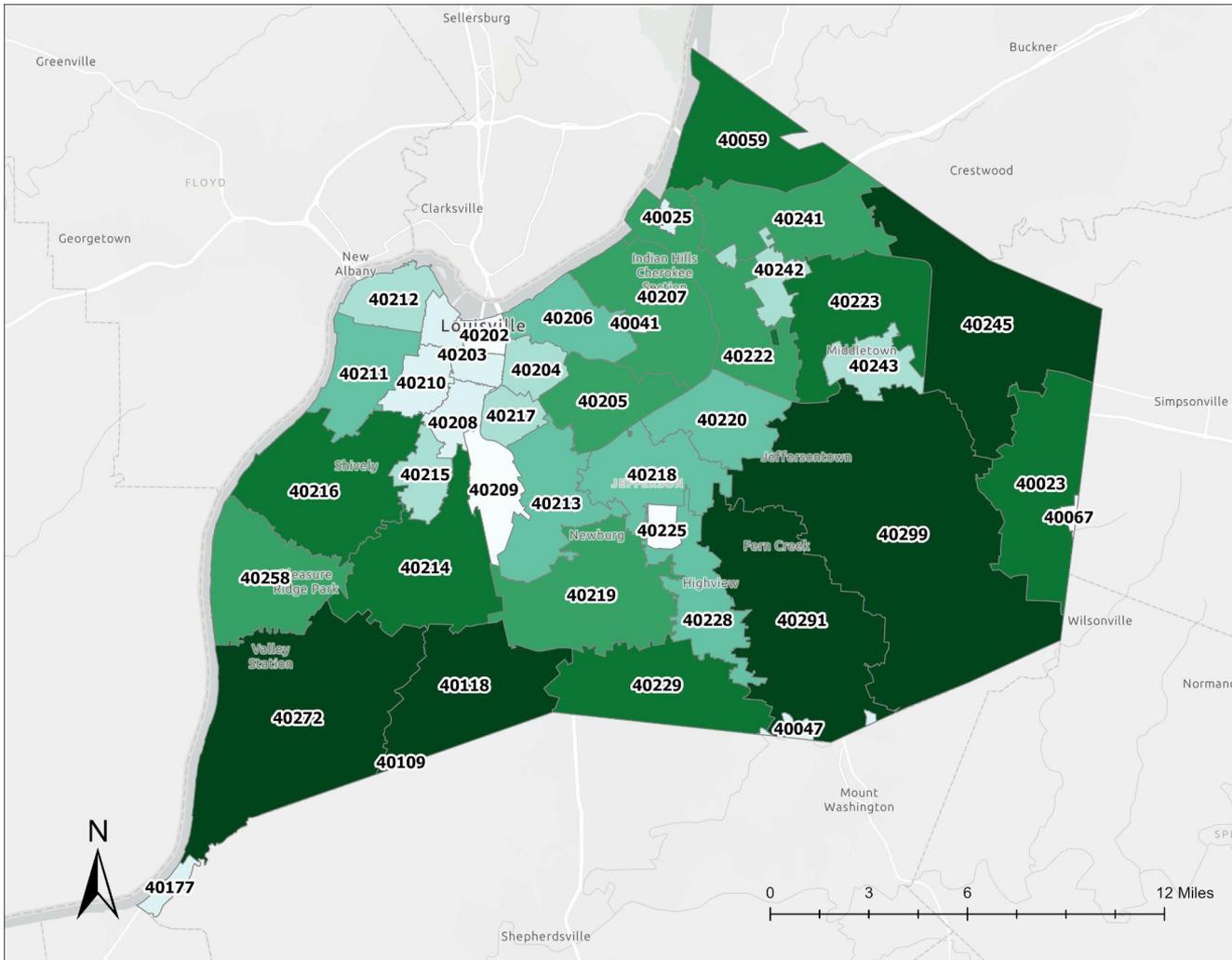
Sellersburg

Greenville



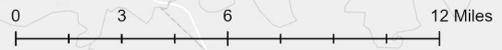
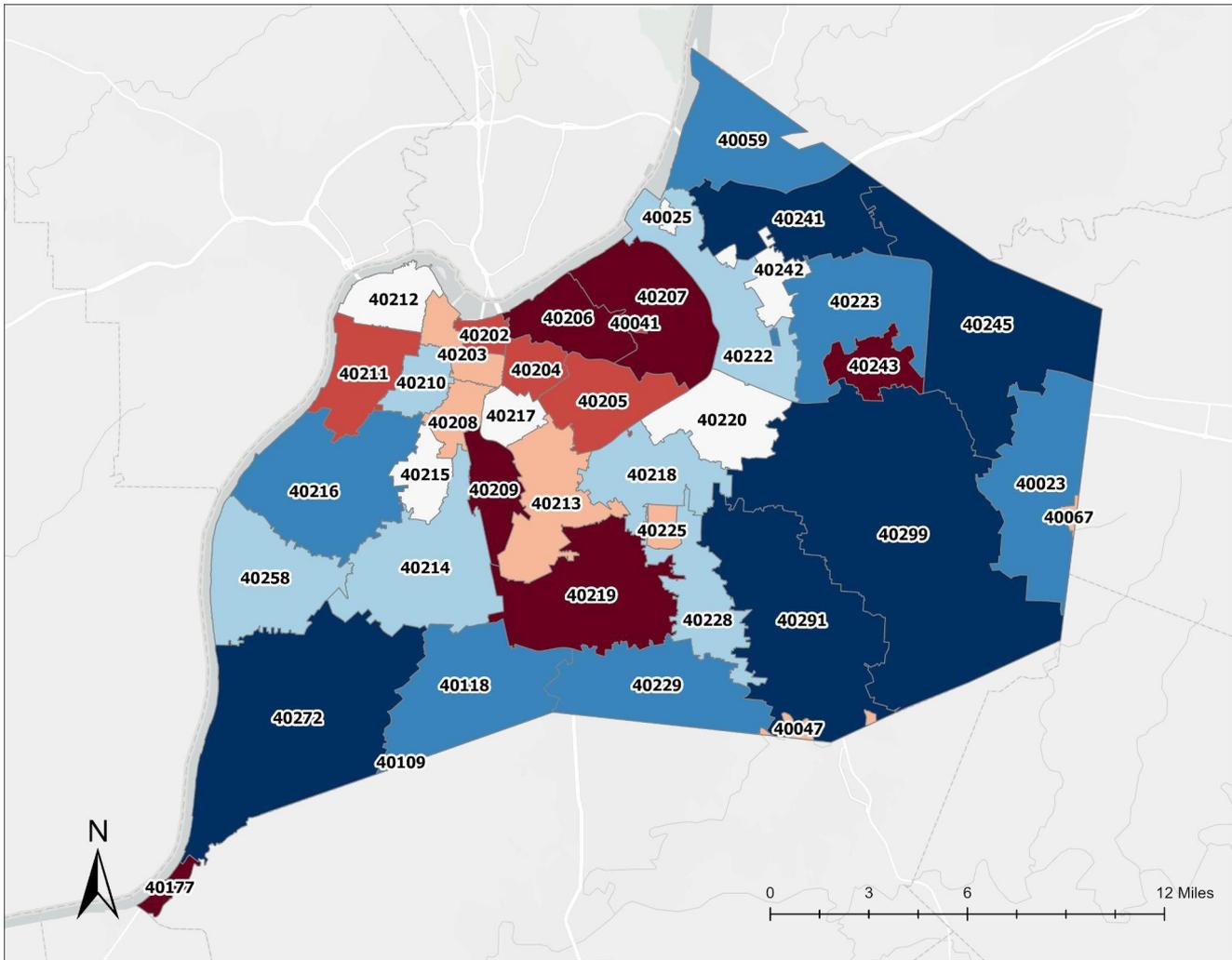
Urban Canopy Area by Zip Code (2012)

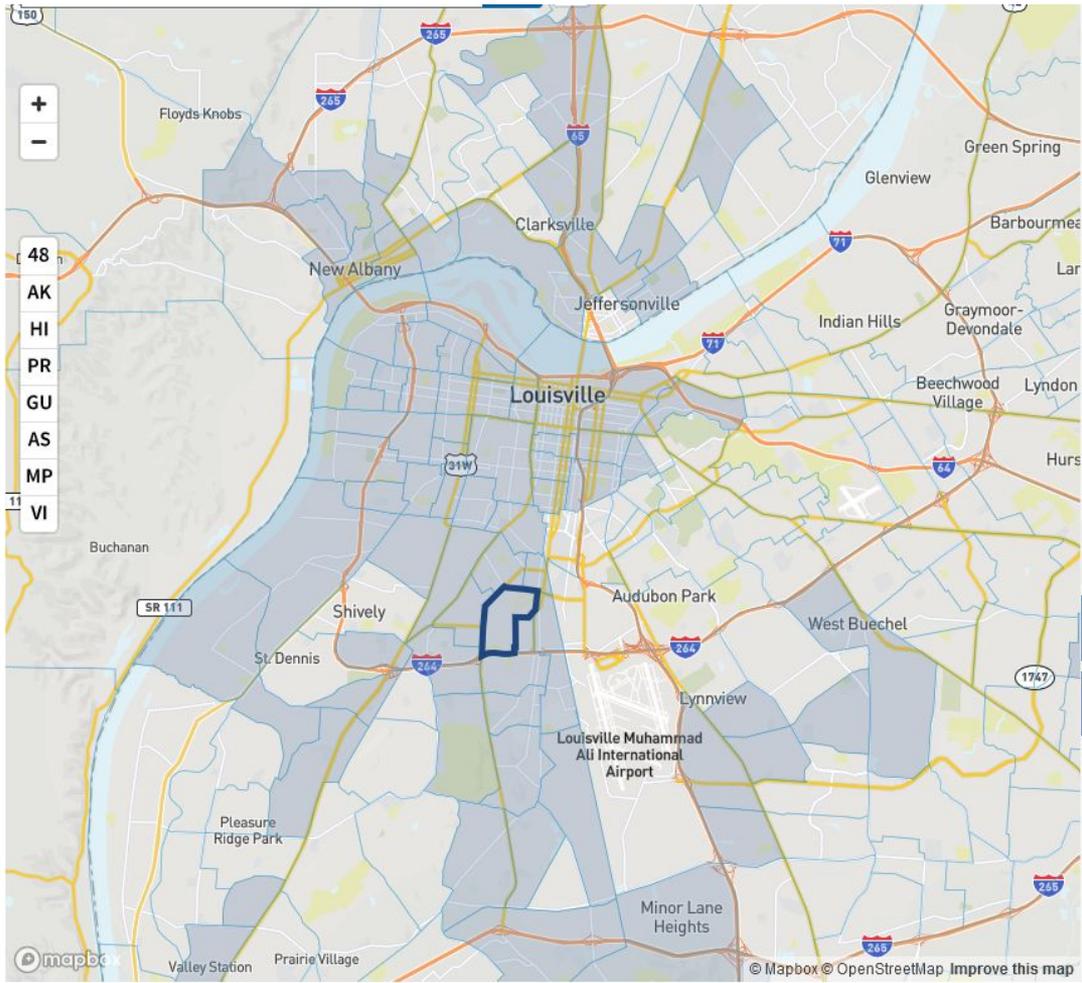
Percent



Urban Canopy Area by Zip Code (2019)

Acres





County: Jefferson County
 State: Kentucky
 Population: 3,617

Tract demographics

Race / Ethnicity ([Show](#) v)
 Age ([Show](#) v)

Identified as disadvantaged?

YES

This tract is considered disadvantaged because it meets more than 1 burden threshold AND the associated socioeconomic threshold.

[Send feedback](#) ↗

Climate change +

Energy +

Health -

Asthma
 Share of people who have been told they have asthma
89th
 not above 90th percentile

Diabetes
 Share of people ages 18 years and older who have diabetes other than diabetes during
82nd
 not above 90th percentile

<https://screeningtool.geoplatform.gov/en/#10.77/38.2385/-85.76>

Areas in green heart health and tree planting with TNC
<https://greenheartlouisville.com/>

TO DO:

~~Still need to do, calculate 2012 and 2019 tree canopy area and percent in HOLC areas~~

Charts to make

~~— Circle chart showing tree canopy per HOLC area~~

Justice 40 (tract) and tree canopy per tract

- Tracts overlay with neighborhoods (internal)
- Show where the \$12m will be spent

Green Heart (NIH and TNC) tree planting: <https://greenheartlouisville.com/learn/>

- Add outline to a map and compare to Justice40

<https://www.nature.org/en-us/about-us/where-we-work/united-states/kentucky/stories-in-kentucky/green-heart-project/>

- Using <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5> to determine where to plant trees

All projects use different boundaries..

Barry (Louisville Metro) - grant based on CJEST map

- What census tracts or areas is grant money being used on?

Posters:

- ~~— Neighborhood table using new boundary shapefile~~
- ~~— Tree canopy, TC change, and land cover and land use (land use not by neighborhood boundary yet)~~
 - Take another look at knoxville master data sheet
https://docs.google.com/spreadsheets/d/1uVxxZQDBV9NuFogA7t5ragR_vQoi70X2XhJUAGkl_pQ/edit#gid=1517668799
 - UTC Overall

Canopy gain/loss areas map using 'TreeCanopyChange_20122019_Louisville'

~~Schedule meeting with Geoffrey and add Rachel as optional~~

Justice40

Justice40 Tracts

Data download:

<https://www.esri.com/arcgis-blog/products/arcgis-living-atlas/local-government/justice40/>

Justice40 Initiative delivers 40 percent of the overall benefits of certain federal investments to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution.

Additionally, this layer can be used in spatial analysis to answer many types of questions. Typical questions that grant writers often need to answer are:

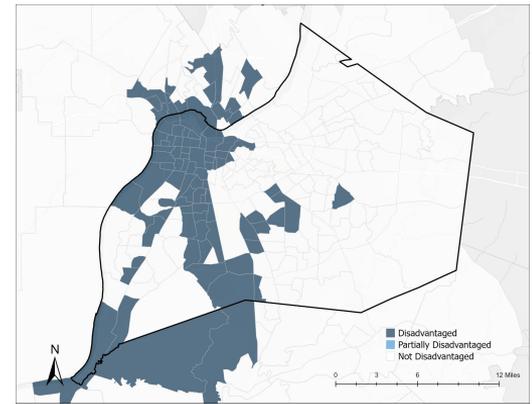
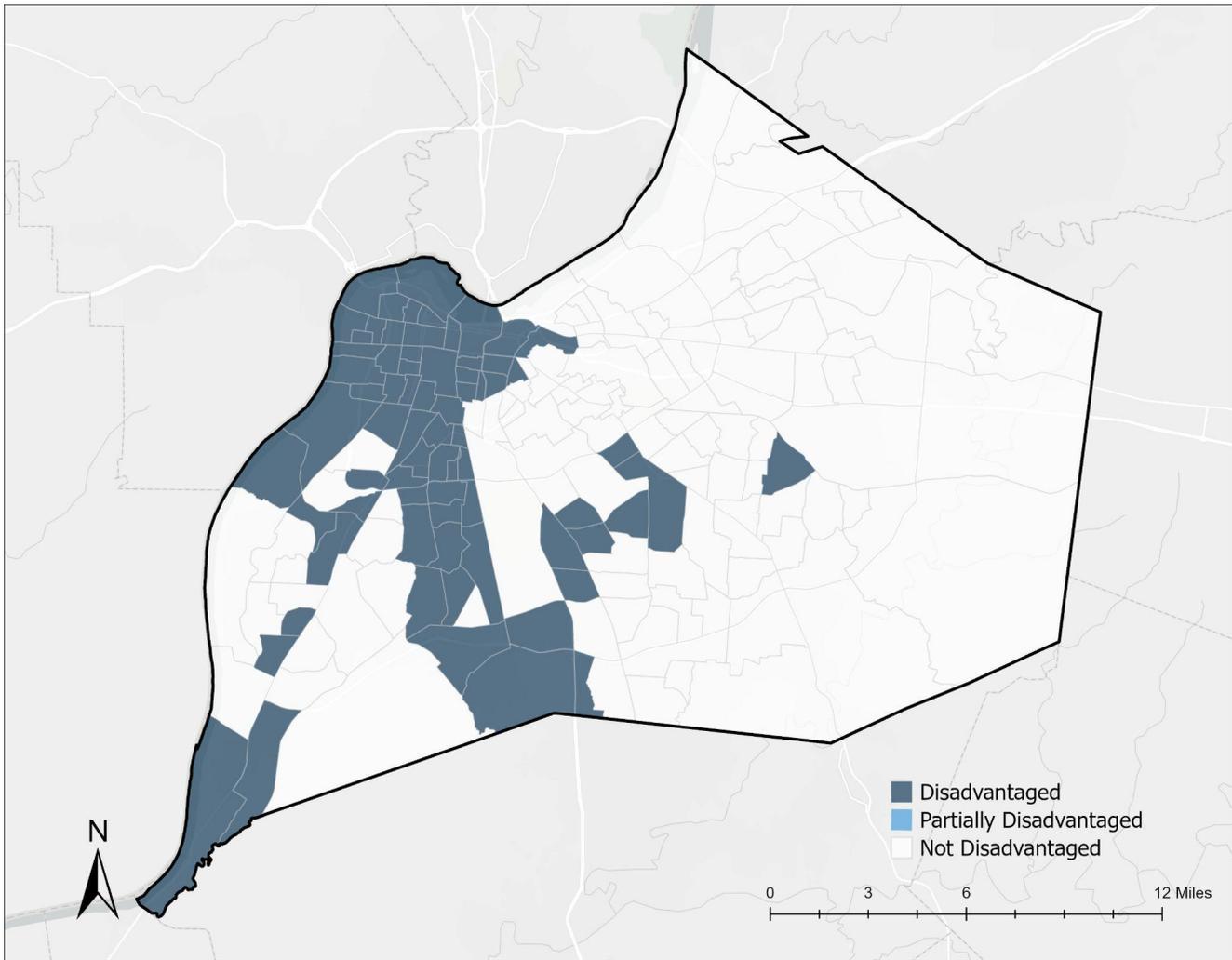
- **What percent of our service area's/attendance area's population live in tracts that are identified as disadvantaged?** (Use the [Summarize Within](#) tool.)
- **Which of our sites/locations are in tracts that are identified as disadvantaged?** (Use [Join Features](#) based on spatial relationship.)
- **What is the top category that tracts in my community are disadvantaged in?** (Filter to tracts in your community. Then from the [Attribute Table](#), get statistics on each of the eight categories and check Sum of Values to see the counts of tracts in each category.)

Maps made with this important data help anyone see maps of communities that are disadvantaged according to [Justice40 Initiative criteria](#) in the U.S. and its territories. Tracts have been identified as disadvantaged across eight different categories:

- Climate change
- Clean energy and energy efficiency
- Clean transit
- Affordable and sustainable housing
- Reduction and remediation of legacy pollution
- Critical clean water and wastewater infrastructure
- Health burdens
- Training and workforce development

<https://www.thejustice40.com/#read-the-report>

<https://www.whitehouse.gov/environmentaljustice/justice40/>



Justice40 Funding in Louisville, KY

<https://www.epa.gov/newsreleases/media-advisory-epa-highlight-ira-funding-environmental-justice-projects-communities>

\$1,500,500 EPA funding for 2 projects in Rubbertown and California Neighborhood areas of Louisville, KY to advance environmental justice as part of [Biden's Investing in America Agenda](#).

EPA has selected through its Environmental Justice Collaborative Problem Solving Cooperative Agreement and Environmental Justice Government-to-Government programs

The funds will ensure disadvantaged communities that have historically suffered from underinvestment have **access to clean air and water and climate resilience solutions** in alignment with the [Biden-Harris administration's Justice40 Initiative](#).

- “mobilizing historic levels of private sector investments in the United States, bringing manufacturing back to America after decades of offshoring, and creating new, good-paying jobs, including union jobs and jobs that don’t require a college degree”
- “using Made in America materials, built by American workers”

<https://www.epa.gov/newsreleases/biden-harris-administration-announces-more-24-million-environmental-justice-projects>

\$2,468,200 to fund 3 projects (outlined on next slide) in Kentucky that advance environmental justice as part of President Biden’s Investing in America agenda.

2 projects in Jefferson County/Louisville

Environmental Justice Collaborative Problem Solving (EJCPS) grant:

- 1) Parks Alliance of Louisville - \$472,700 - People-Powered Parks: Building a Healthy and Resilient West Louisville Neighborhood
 - This project will actively engage residents of Louisville's California Neighborhood in the planning, programming, and stewardship of the new 20-acre Alberta O. Jones Park.

Environmental Justice Government-to-Government (EJG2G) grant:

- 2) Louisville-Jefferson County Metro Government - \$1,000,000 - Ambient Air Toxics and Health Action for the Rubbertown Area
 - The Ambient Air Toxics and Health Action for the Rubbertown Area project seeks to collect ambient air toxics data and identify potential health conditions/diseases that west Louisville residents may be experiencing or for which they are at higher risk based on past and current chemical exposures from ambient air pollution in certain zip codes.
- 3) City of Paducah - \$995,500 - Breathing Easier in the Southside Community of Paducah
 - The proposed project will have three primary components – capacity building and community engagement, reducing indoor toxins and air pollution, and improving community health for the eight neighborhoods of the Southside Community.

Alberta O Jones Park

in California Neighborhood

<https://www.parksalliancelou.org/albertajonespark>



1. Nature Discovery
2. Decomposed Granite Walkway
3. Flagstone Walking Path
4. Fitness Stations
5. Shelter/Performance Stage
6. Outdoor Classroom
7. Picnic Shelter
8. Shady Grove
9. Bathroom/Bike Rack
10. Lawn
11. Nature Playground
12. Permeable Paver Entryway
13. Great Lawn



 Custom music-inspired **nature playground** designed by Earthscape

 Performance pavilion featuring a giant **photomosaic mural** honoring Alberta O. Jones

 Walking paths and fitness stations

 Multi-purpose great lawn for sports, events, markets, and more!

 Picnic pavilion with grills for group gatherings & cookouts

 Outdoor classroom for people of all ages to learn and engage with nature

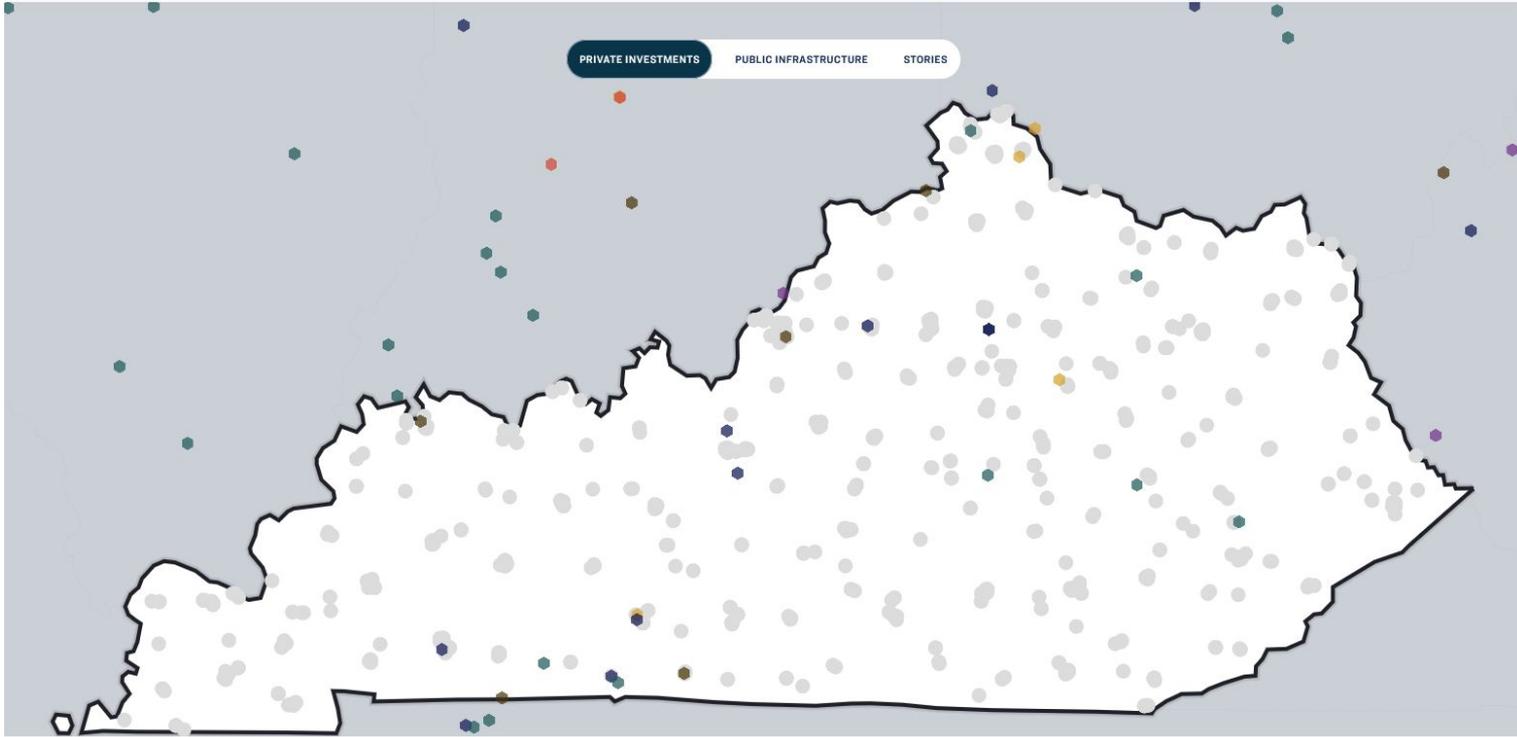
 Free 5G Wi-Fi

Biden's Investing in America Agenda

THE WHITE HOUSE



[Administration](#) [Priorities](#) [The Record](#) [Briefing Room](#) [Español](#) [MENU](#)



● Semiconductors ● Clean Energy Manufacturing ● Batteries/EVs ● Biomufacturing ● Heavy Industry ● Clean Power

PRESIDENT JOE BIDEN

INVESTING IN AMERICA

INVEST.GOV

SELECT A STATE OR TERRITORY

Kentucky

MANUFACTURING THE FUTURE

Under the Biden-Harris Administration, private companies have announced

\$15 Billion

so far in commitments to invest in 21st century industries like:

-  \$11B
EVs & Batteries
-  \$750M
Biomufacturing
-  \$2B
Heavy Industry
-  \$2B
Clean Power

All data was sourced from public press releases, industry associations, and news articles.

INVESTING IN AMERICA

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INVESTING IN AMERICA

\$7.1 Billion

in public infrastructure and clean energy investments in Kentucky under the Biden Administration, including:



\$3.8B announced for transportation investments in roads, bridges, public transit, ports and airports, as well as electric school and transit buses, EV charging, and more.



\$871.8M announced for grants, rebates, and other initiatives to accelerate the deployment of clean energy, clean buildings, and clean manufacturing. This is not inclusive of the clean energy tax incentives from the Inflation Reduction Act.



\$576.6M announced to make our communities more resilient to climate change and other threats.



\$229.9M announced to provide clean water across Kentucky and improve water infrastructure. This includes \$75.4M dedicated to lead pipe and service line replacement.

These funds represent announced funding and allocations

INVESTING IN AMERICA

INVEST.GOV

INTERNET FOR ALL

The Biden-Harris Administration is committed to connecting everyone in America to affordable, reliable high-speed internet.



\$1.7B in funding from the Biden Administration to provide affordable, reliable high-speed internet to everyone in Kentucky.



455.7K households in Kentucky are saving \$30-75 per month on high-speed internet through the Affordable Connectivity Program under the Biden Administration.

Funding figures represent compilations of relevant programs from the Bipartisan Infrastructure Law, American Rescue Plan, Consolidated Appropriations Act, and annual budgets.

BRINGING JOBS BACK TO AMERICA

4.3%

unemployment rate in Kentucky, with 150.1K new jobs created under the Biden Administration including 2K jobs in clean energy.



150.4K applications to start new businesses.

INVESTING IN AMERICA

INVEST.GOV

BRINGING JOBS BACK TO AMERICA

4.3%

unemployment rate in Kentucky, with 150.1K new jobs created under the Biden Administration including 2K jobs in clean energy.



150.4K applications to start new businesses.



1.7K childcare programs kept open because of President Biden's American Rescue Plan.



809 restaurants and bars kept open under President Biden's leadership.

LOWERING COSTS



\$134.2M in home energy rebates to help hardworking families cut their energy costs by weatherizing their homes and replacing old appliances with more efficient models.



952.2K seniors and other Medicare beneficiaries will save money on prescription drug costs because of President Biden's \$2,000 yearly cap on out-of-pocket prescription drug

INVESTING IN AMERICA

INVEST.GOV

more efficient models.

952.2K seniors and other Medicare beneficiaries will save money on prescription drug costs because of President Biden's \$2,000 yearly cap on out-of-pocket prescription drug costs, a \$35 monthly cap per insulin prescription, free vaccines, inflation rebates, and a drug price negotiation program.



62.8K individuals in Kentucky signed up for health insurance through the Affordable Care Act Marketplaces during the Open Enrollment Period for 2023 and will benefit from average savings of about \$800/year from lower health care premiums because of the Inflation Reduction Act and American Rescue Plan.



INVESTMENT SPOTLIGHTS

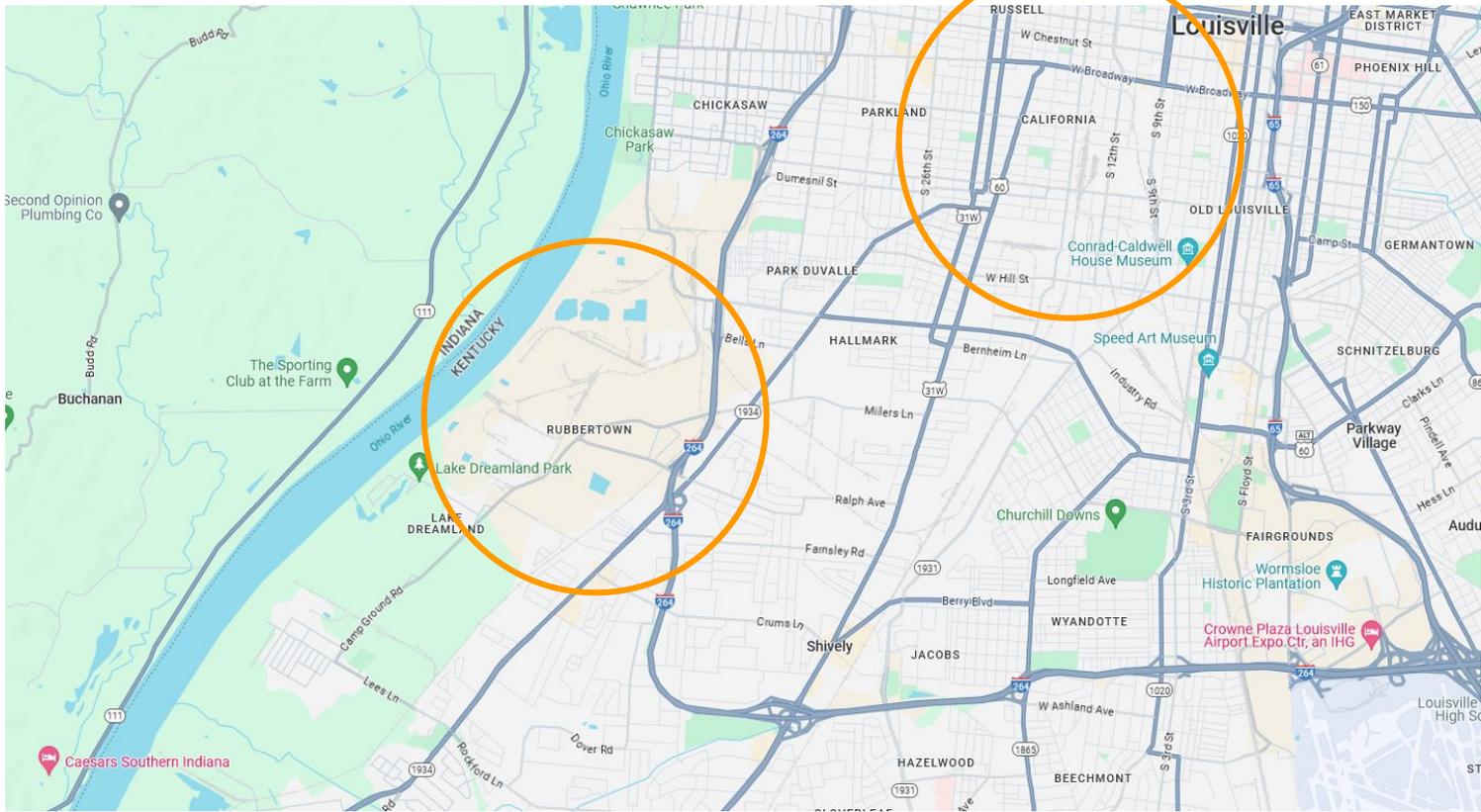
- Ford and SK Innovation are partnering on BlueOval SK, a \$5.8 billion mega-campus in Glendale that will employ an expected 5,000 new workers and produce batteries for the next generation of electric Ford and Lincoln vehicles.
- Envision AESC broke ground on a \$2 billion state-of-the-art electric vehicle battery gigafactory in Bowling Green, bringing in an

INVESTING IN AMERICA

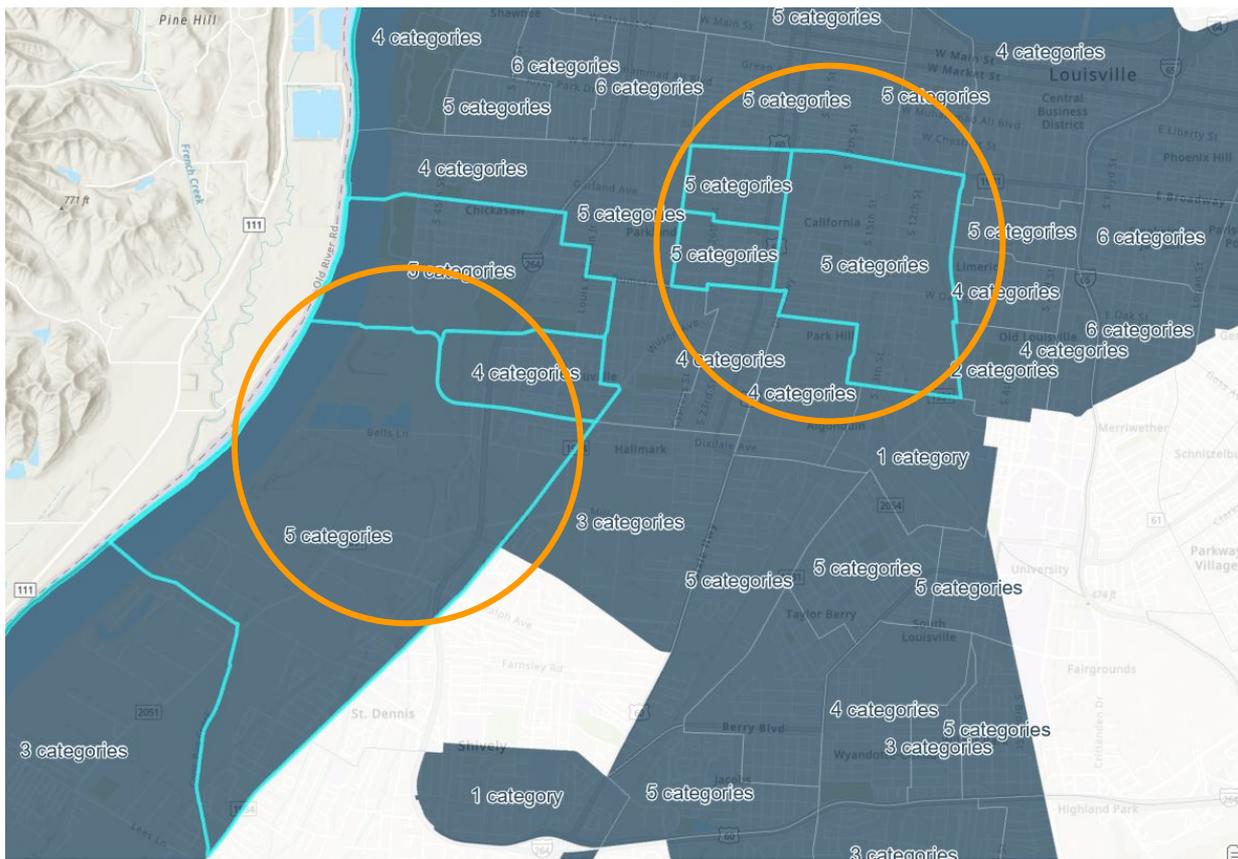
INVEST.GOV

- Envision AESC broke ground on a \$2 billion state-of-the-art electric vehicle battery gigafactory in Bowling Green, bringing in an expected 2,000 new jobs.
- Ascend Elements is investing up to \$1 billion in a new battery materials processing facility that will produce enough inputs to equip 250,000 electric vehicles per year, the single largest investment in Western Kentucky history.
- The U.S. Department of Transportation has awarded over \$1.6 billion to upgrade the Brent-Spence Bridge, which connects Covington, Kentucky and Cincinnati, Ohio to improve interstate and local traffic flow. The current bridge is the second-worst bottleneck for trucks in the nation and carries more than \$400 billion in freight per year.
- The Green River Area Development District is receiving \$17.3 million to rehabilitate Rockport Railroad Bridge, which is a 100-year-old freight line bridge.
- Ascend Elements will receive up to \$316 million to build a battery recycling facility on an existing greenfield site in Hopkinsville, a disadvantaged community in southwestern Kentucky.
- The Paducah & Louisville Railway, Inc. was awarded nearly \$29.6 million for various track improvements in a rail yard, upgrades to multiple bridges along PAL's 280-mile main line, and rehabilitation of locomotives

- The Paducah & Louisville Railway, Inc. was awarded nearly \$29.6 million for various track improvements in a rail yard, upgrades to multiple bridges along PAL's 280-mile main line, and rehabilitation of locomotives. The project will help improve operations by reducing delays and increase the safety and resiliency with reduced chance of derailments on a rail line that transports hazardous chemicals.



Is Rubbertown an official neighborhood? It's not in the urban neighborhood shapefile or other boundary layers...
California is in the urban neighborhood layer



Multiple Justice40 tracts overlap with the California and Rubbertown neighborhoods. Is funding distributed within these neighborhoods by tracts?

Greenheart

Green Heart Louisville

<https://greenheartlouisville.com/learn/>

if increasing greenness in an urban community reduces the levels of air pollution in the neighborhood, decreases the risk of heart disease, and increases outdoor activity and relationships between neighbors. Green Heart will help us discover:

- How to plant trees in urban communities to maximize the removal of air pollution
- If increasing green space affects the risks of developing obesity, diabetes, and heart disease
- If increasing urban green space reduces mental stress, enhances social cohesion, and increases physical activity
- If urban green space affects crime rates, property values, storm water runoff, energy use, and heat island effect.

Drivers of Health

COMMUNITY: Volunteers, stewards, partner organizations.
AIR QUALITY DATA: Gathered from fixed and mobile air monitors.
BUILDINGS: Residential, commercial.
VEGETATION: Trees, grasses and shrubs.
INFRASTRUCTURE: Major and minor roadways.

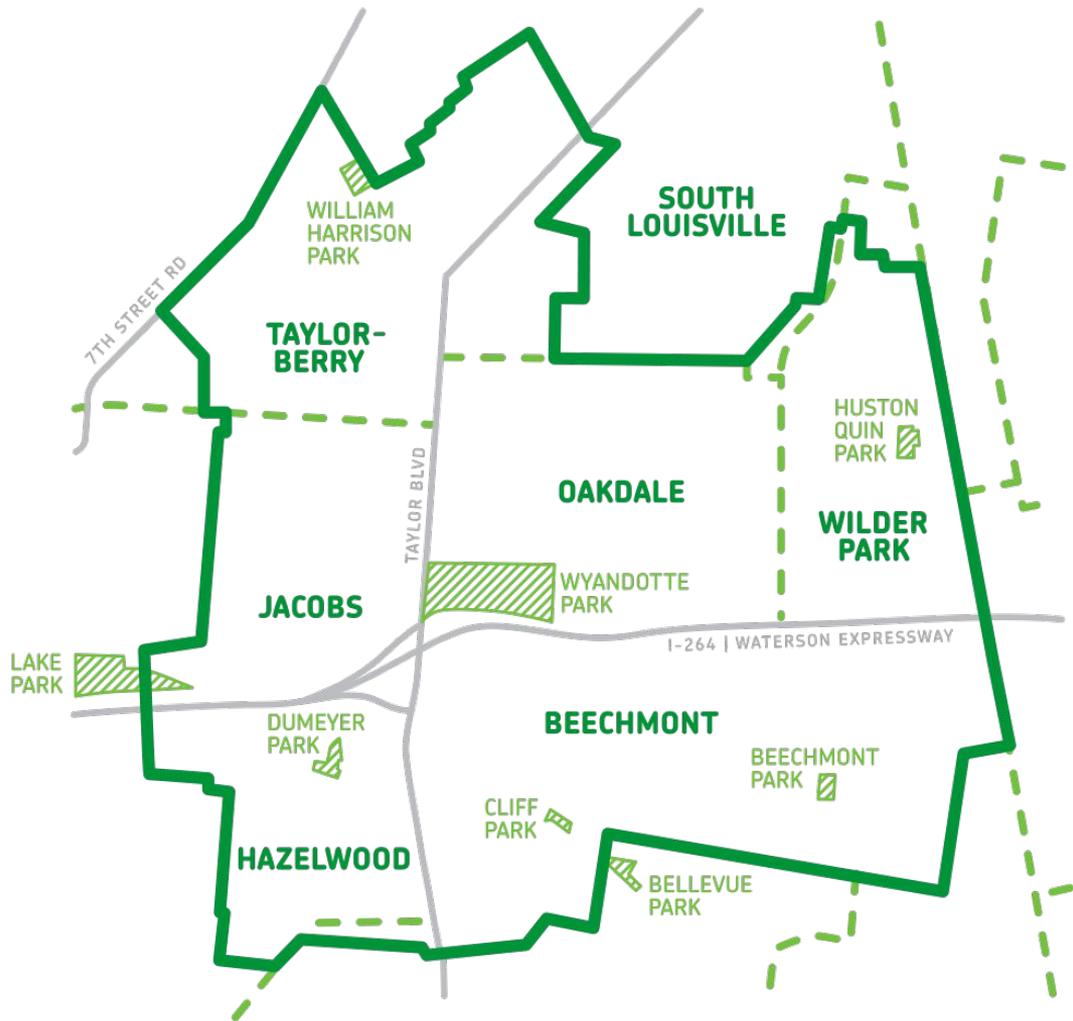
To find the ideal location for Green Heart, we evaluated **existing tree cover, major roadways, population density, plantable space, and neighborhood characteristics** throughout Louisville:

- Beechmont
- Hazelwood
- Jacobs
- Oakdale
- Taylor-Berry
- Wilder Park

The study area is home to 22,100 residents. About 82% of residents own their home and the median household income is \$27,000.

2 Publications specifically in Louisville, KY:

<https://greenheartlouisville.com/learn/research-library/#scroll-to>



Greenheart

<https://www.nature.org/en-us/about-us/where-we-work/united-states/kentucky/stories-in-kentucky/green-heart-project/>

In the fall of 2017, The Nature Conservancy and partners launched [the Green Heart Project](#) to examine the link between neighborhood greenery and holistic human health. This five-year, collaborative effort, led by the [University of Louisville Envirome Institute](#), [Hyphae Design Laboratory](#), and [TNC](#) could inform new, cutting-edge municipal decision-making processes that connect nature with health and well-being.

- Aruni Bhatnagar, Ph.D., a professor and researcher with the University of Louisville School of Medicine
- Launched with an initial **\$5 million grant from the Owsley Brown II Family Foundation**, the Green Heart Project received additional support—just one year into the study—from the **National Institute of Environmental Health Sciences** for the human health assessments, and from **The Nature Conservancy** for initial air quality monitoring.

Additional partners that include Washington University in St. Louis, Cornell University and the U.S. Forest Service.

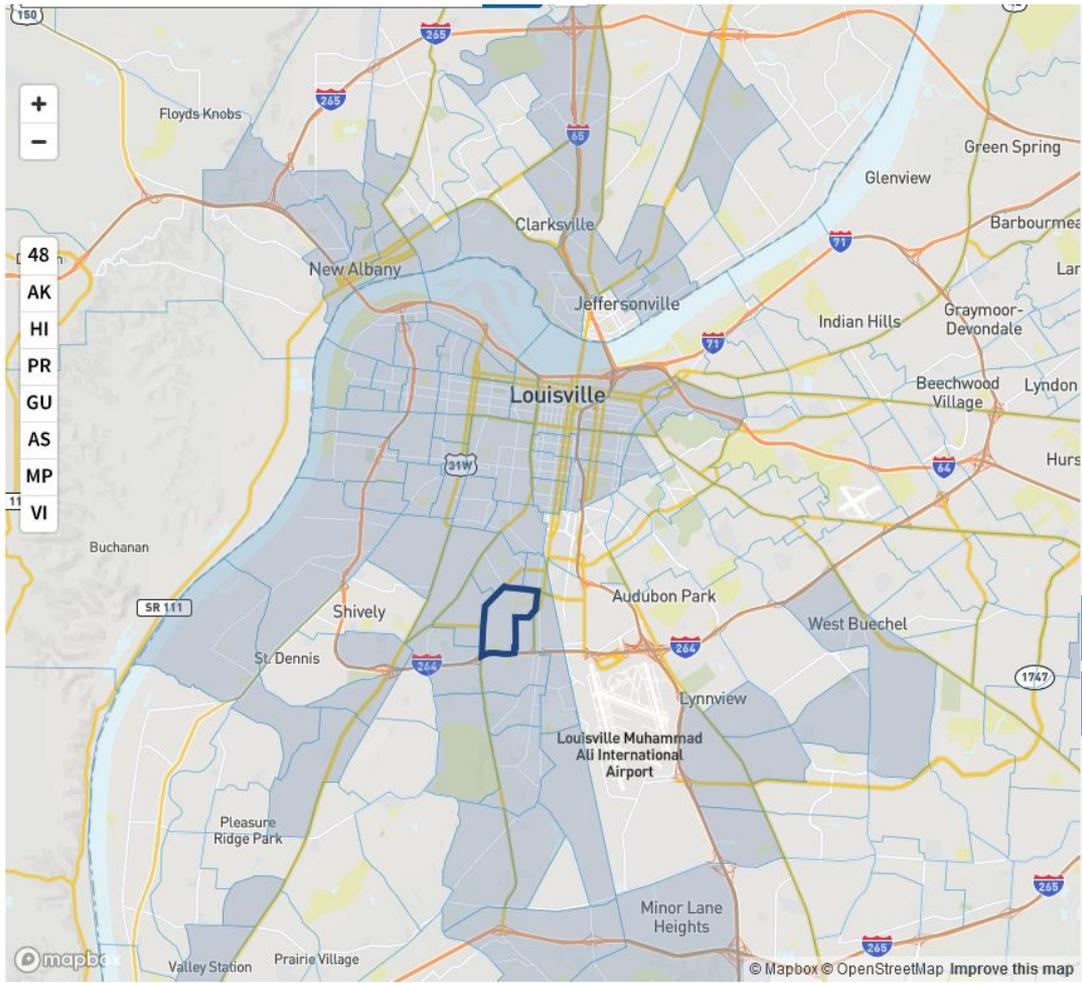
Project started in October of 2019. By the end of August 2020, 675 trees were planted, with plans for nearly 900 additional trees to be planted in the fall of 2020.

Process

- 1) the research team will first **assess the risk of diabetes and heart disease, stress levels and the strength of social ties in 700 participants** from targeted Louisville neighborhoods. The team will take **baseline measurements of air pollution levels** at the same time.
- 2) the team will **plant thousands of trees, plants and shrubs throughout the neighborhoods to create an urban ecosystem** that promotes physical activity while decreasing noise, stress and air pollution
- 3) **the 700 participants will receive annual check-ups** to evaluate how the increasing greenery has **affected their physical and mental health, and their social ties.**

planted along the Watterson Expressway, a highway that runs through the Green Heart study area. Within the community, nearly 500 medium-sized trees up to 15 feet tall will be planted on private property.

now has a 1,000-gallon watering tank that they can drive through the neighborhoods



County: Jefferson County
 State: Kentucky
 Population: 3,617

Tract demographics

Race / Ethnicity ([Show](#) v)
 Age ([Show](#) v)

Identified as disadvantaged?

YES

This tract is considered disadvantaged because it meets more than 1 burden threshold **AND** the associated socioeconomic threshold.

[Send feedback](#)

Climate change +

Energy +

Health -

Asthma
 Share of people who have been told they have asthma **89th** not above 90th percentile

Diabetes
 Share of people ages 18 years and older who have diabetes other than diabetes during **82nd** not above 90th percentile

Also uses census tracts

The bigger study, is at the county level

The HEALing Communities Study

<https://greenheartlouisville.com/get-involved/heal-study/>

<https://heal.nih.gov/research/research-to-practice/healing-communities>

NIH and the **Substance Abuse and Mental Health Services Administration** launched the HEALing Communities Study to investigate how tools for preventing and treating opioid misuse and opioid use disorder (OUD) are most effective at the local level.

The HEALing Communities Study will test the integration of prevention, overdose treatment, and medication-based treatment in select communities hard hit by the opioid crisis. This comprehensive treatment model will be tested in a coordinated array of settings, including primary care, emergency departments, and other community settings. Findings will establish best practices for integrating prevention and treatment strategies that can be replicated by communities nationwide.

The goal of the study is to reduce opioid-related overdose deaths by 40 percent over the course of three years. Research sites are partnering with 67 communities highly affected by the opioid crisis in four states to measure the impact of these efforts.

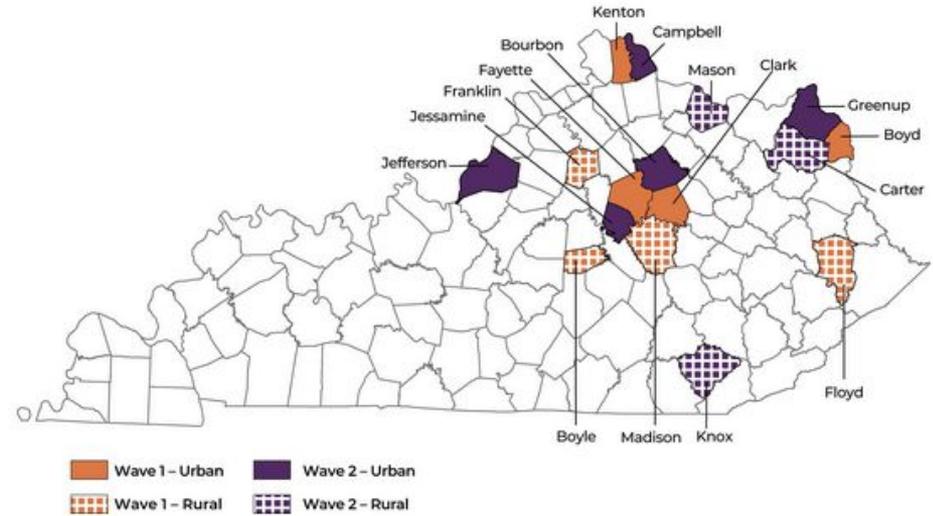
The study also supports harm reduction research to investigate the effectiveness of rapid-acting fentanyl test strips in modifying drug use behaviors and exploring drug checking needs in clinical settings.

the Helping to End Addiction Long-term® Initiative, or NIH HEAL Initiative®, NIH has awarded **\$343.7 million** to fund a coordinating center and research in four states: Research grant awards were issued to the University of Kentucky in Lexington; Boston Medical Center in Boston; Columbia University in New York City; and Ohio State University in Columbus.

Kentucky Snapshot

Kentucky is ground zero of the opioid overdose epidemic. Since the 1990s, Kentuckians have been devastated by this unrelenting crisis, and they have persevered in their continued efforts to save lives.

The University of Kentucky has been conducting research to fight the epidemic from its early days. We've been very successful doing experiments, collecting data, and demonstrating what's effective for treating opioid use disorder. But we haven't been able to fully deploy that knowledge.



Participating counties included Bourbon, Campbell, Carter, Greenup, Jefferson, Jessamine, Knox, and Mason.

[More about the Kentucky HEALing Communities Project](#)

<https://healingstudy.uky.edu/>

Most GIS data around opioid use/deaths are in Campbell and Kenton

StoryMap about Homeless Safe Spaces in Louisville

<https://storymaps.arcgis.com/stories/b86b5a277f4e4dde80634f98b3668566>

If Jefferson County is in Wave 2 of the HEALing communities study, is the Greenheart project a preliminary study that will feed into this?

UFMP