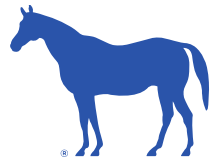


LEXINGTON-FAYETTE MSA PRIORITY CLIMATE ACTION PLAN

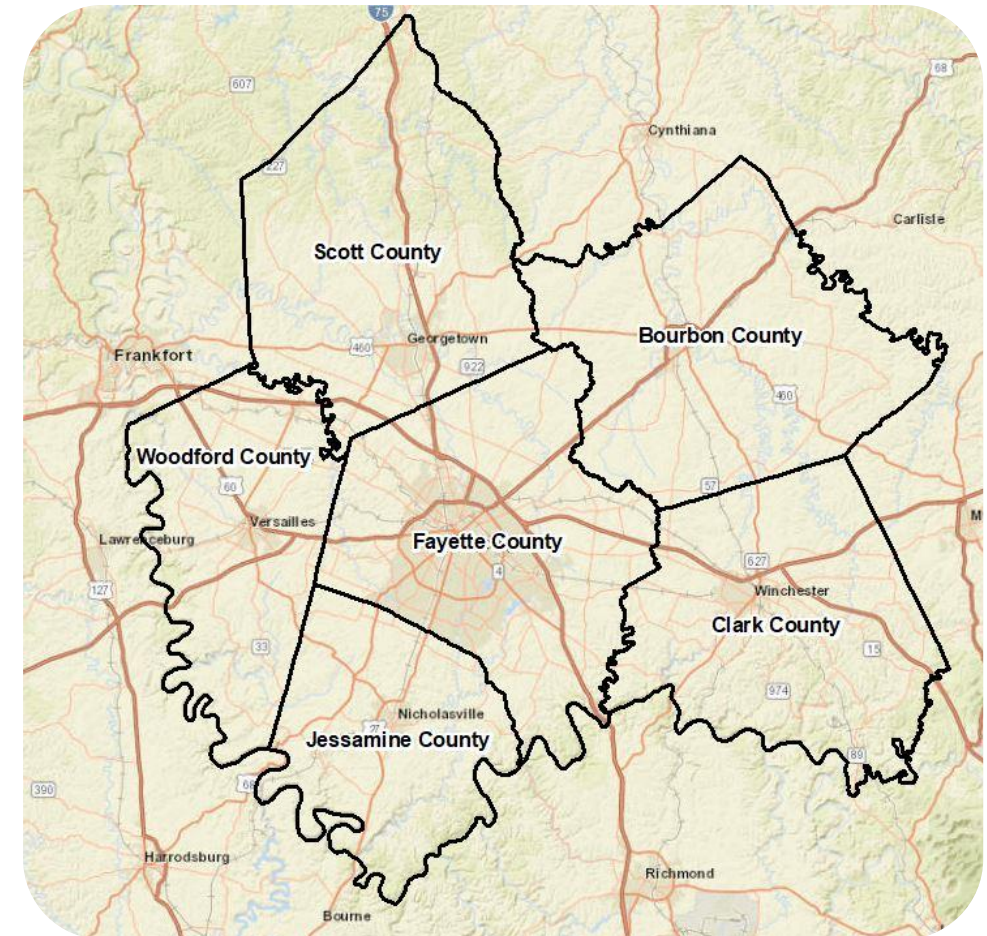
February 15, 2024



LEXINGTON

Agenda

- Climate Pollution Reduction Grant Program Overview
- Greenhouse Gas Emissions Overview
- Priority Climate Action Plan
- Implementation Measures
- Discussion

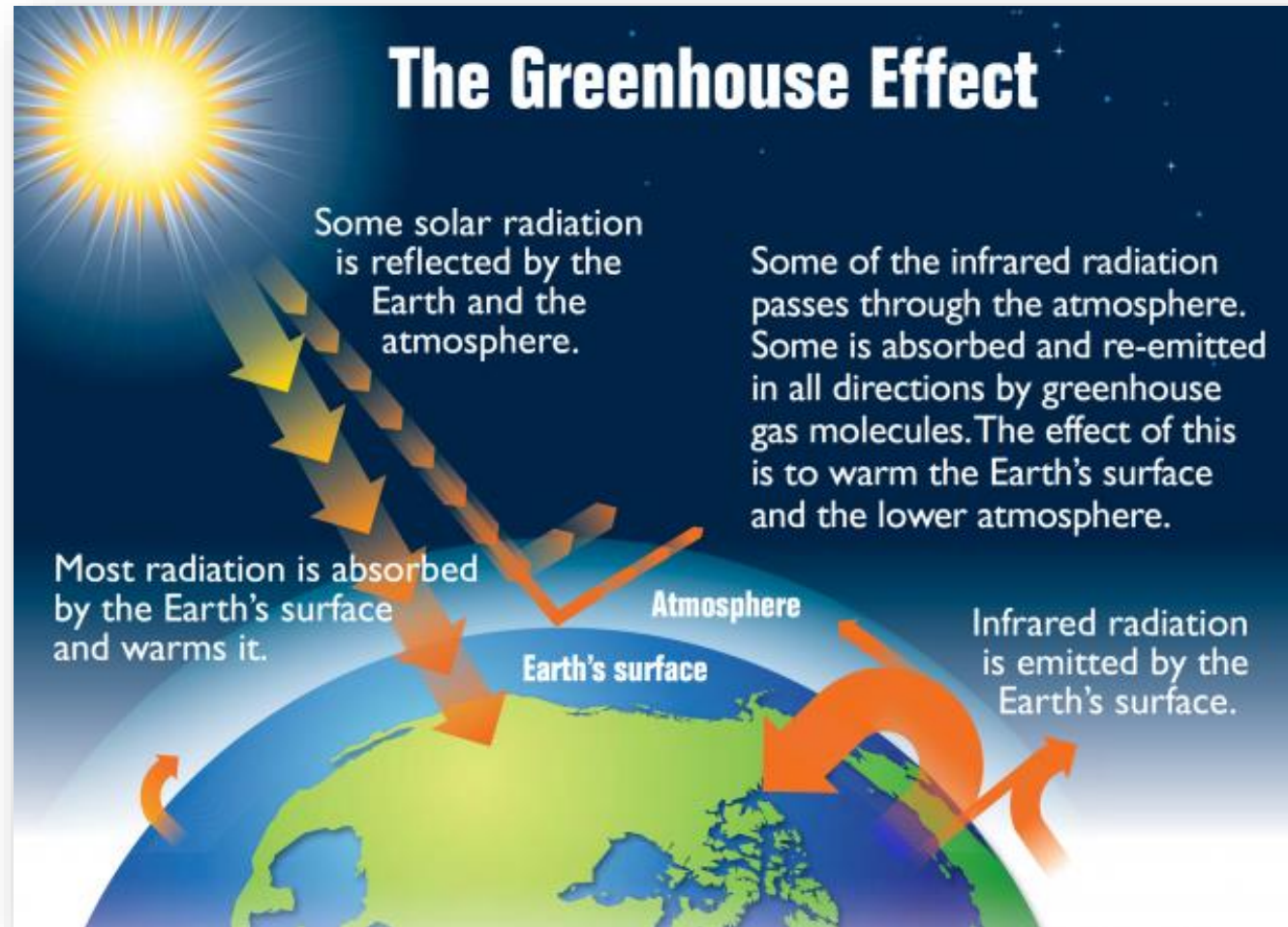




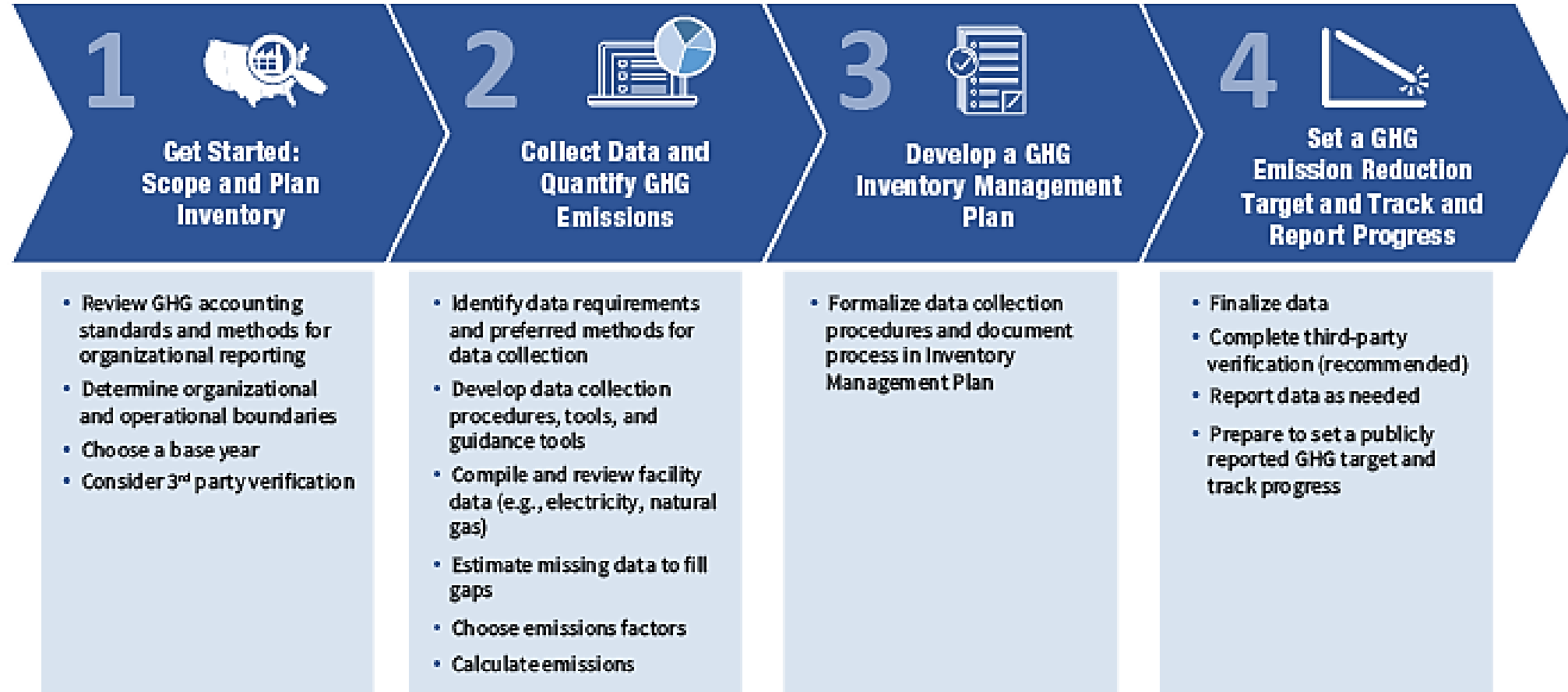
Climate Pollution Reduction Grant Program Overview

- U.S. Environmental Protection Agency (EPA) initiative to act as a catalyst in helping communities develop and implement ambitious plans for reducing GHG emissions and other harmful air pollution
- Lexington-Fayette County Metropolitan Statistical Area (MSA) received a Planning Grant to develop a Priority Climate Action Plan (PCAP) and Comprehensive Climate Action Plan (CCAP)

Greenhouse Gas Emissions Overview



Greenhouse Gas Emissions Overview



Priority Climate Action Plan (PCAP)

- Requirements:
 - Simplified GHG Inventory for MSA
 - List of “Implementation Ready” Measures
 - Quantified GHG Reductions
 - Review of Authority to Implement
 - Low Income/Disadvantaged Communities Benefits Analysis
 - Stakeholder Engagement



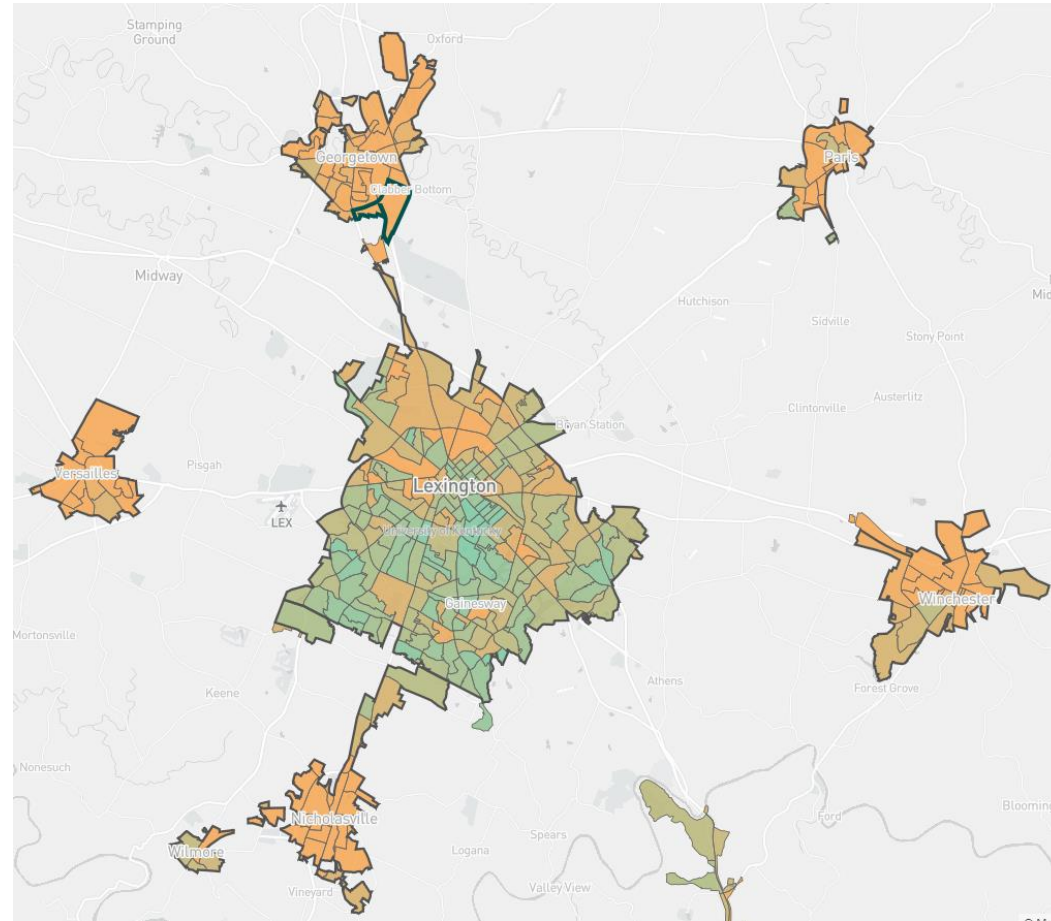
Implementation Measures

Increasing Tree Canopy

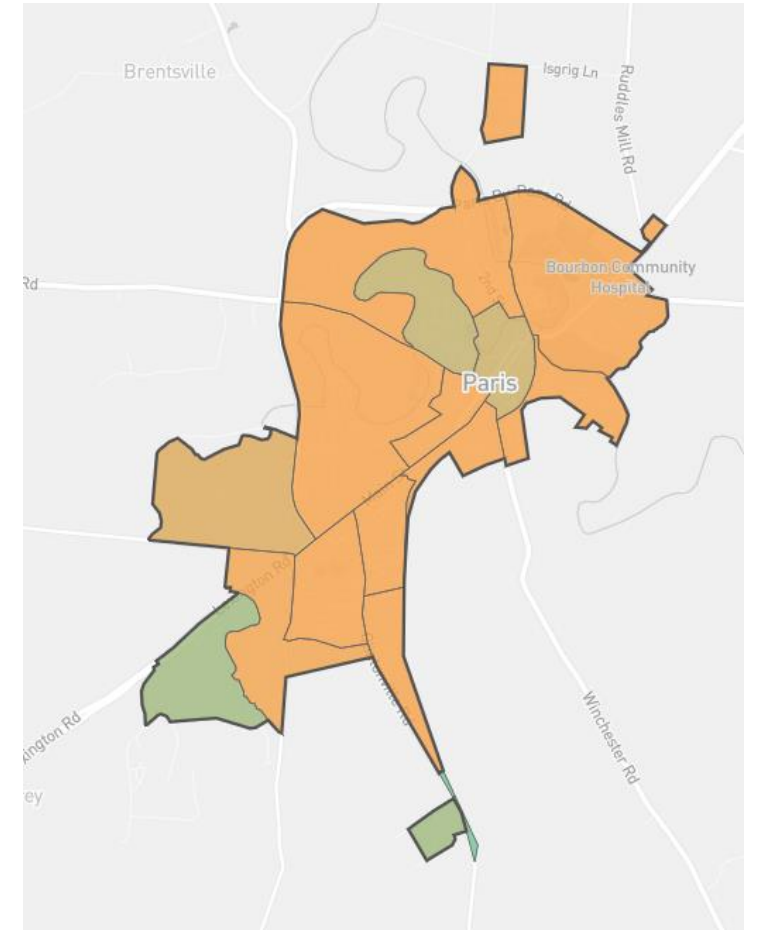
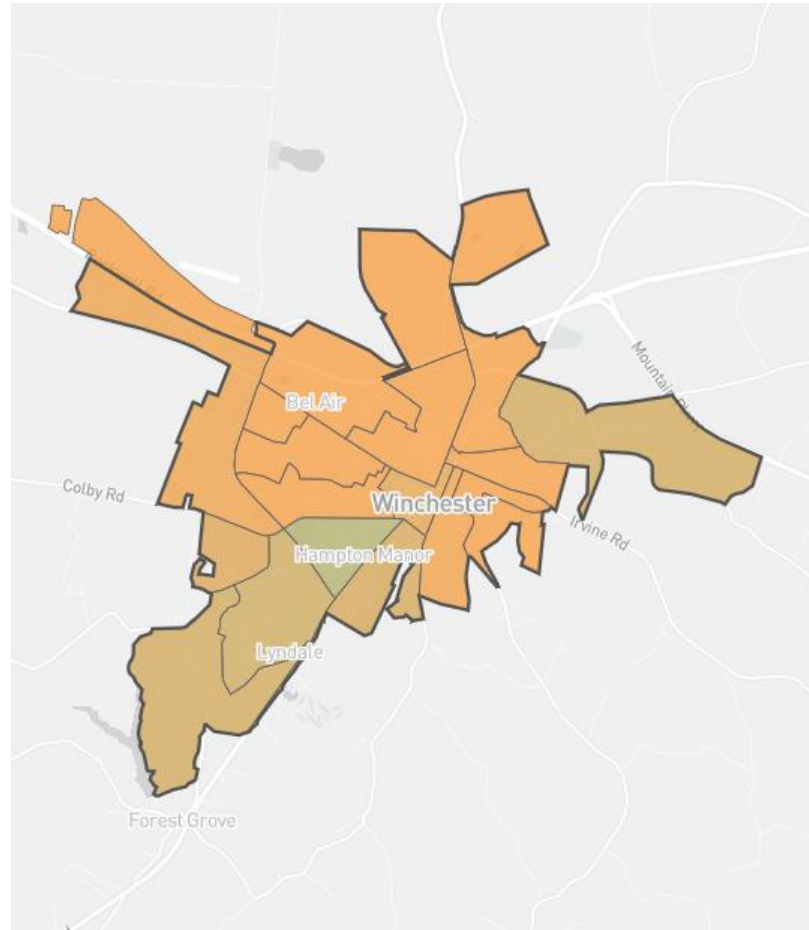
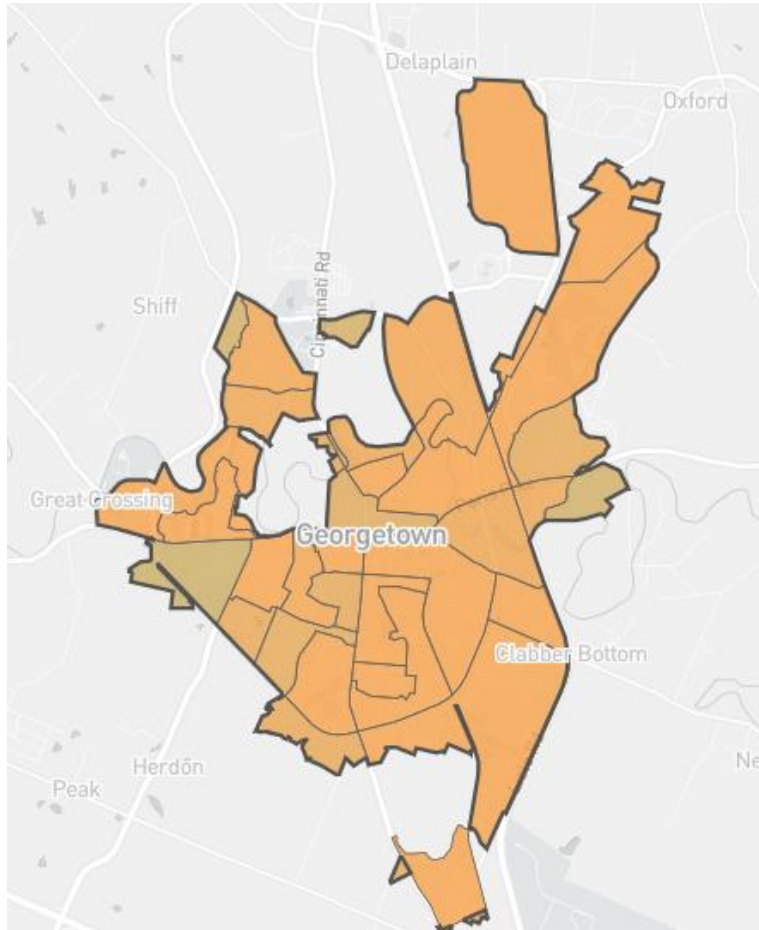
- Emissions “sink”
- Programs such as Reforest the Bluegrass and Reforest At Home have been highly successful
 - More than 215,000 tree seedlings planted
 - Around 65% first-year survival rates
 - More than 18,000 volunteers involved



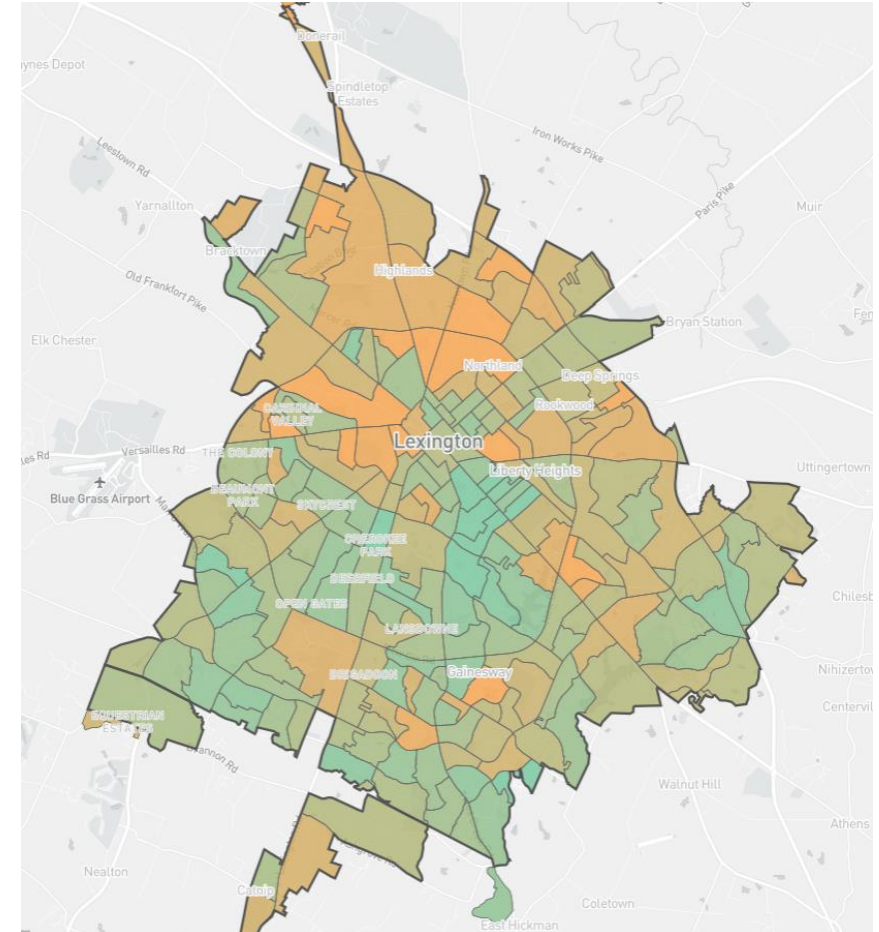
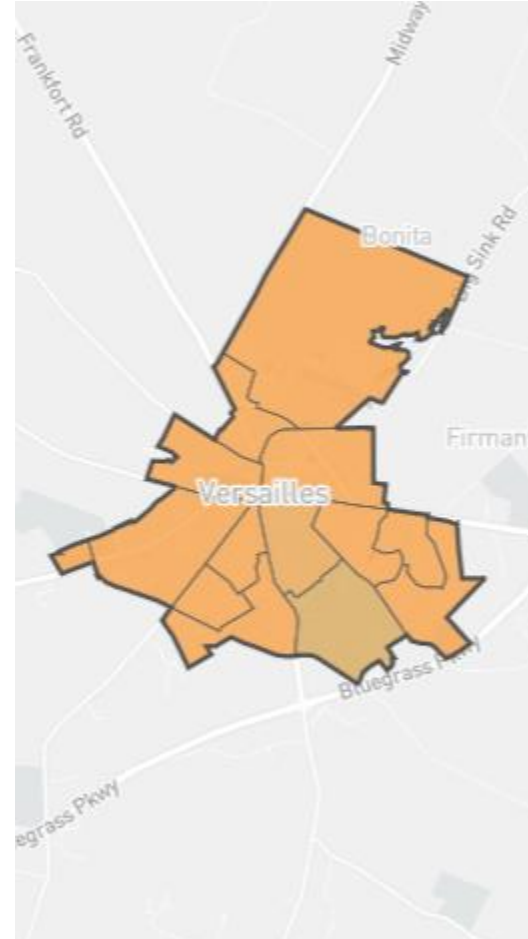
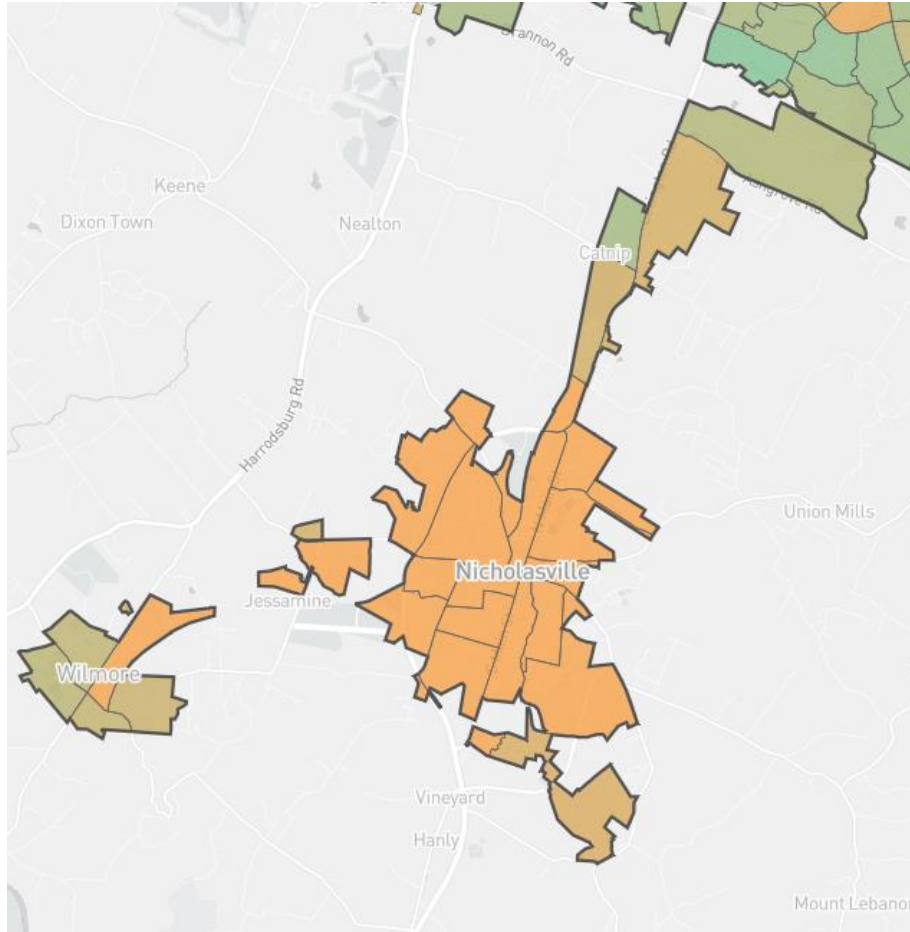
Increasing Tree Canopy



Increasing Tree Canopy



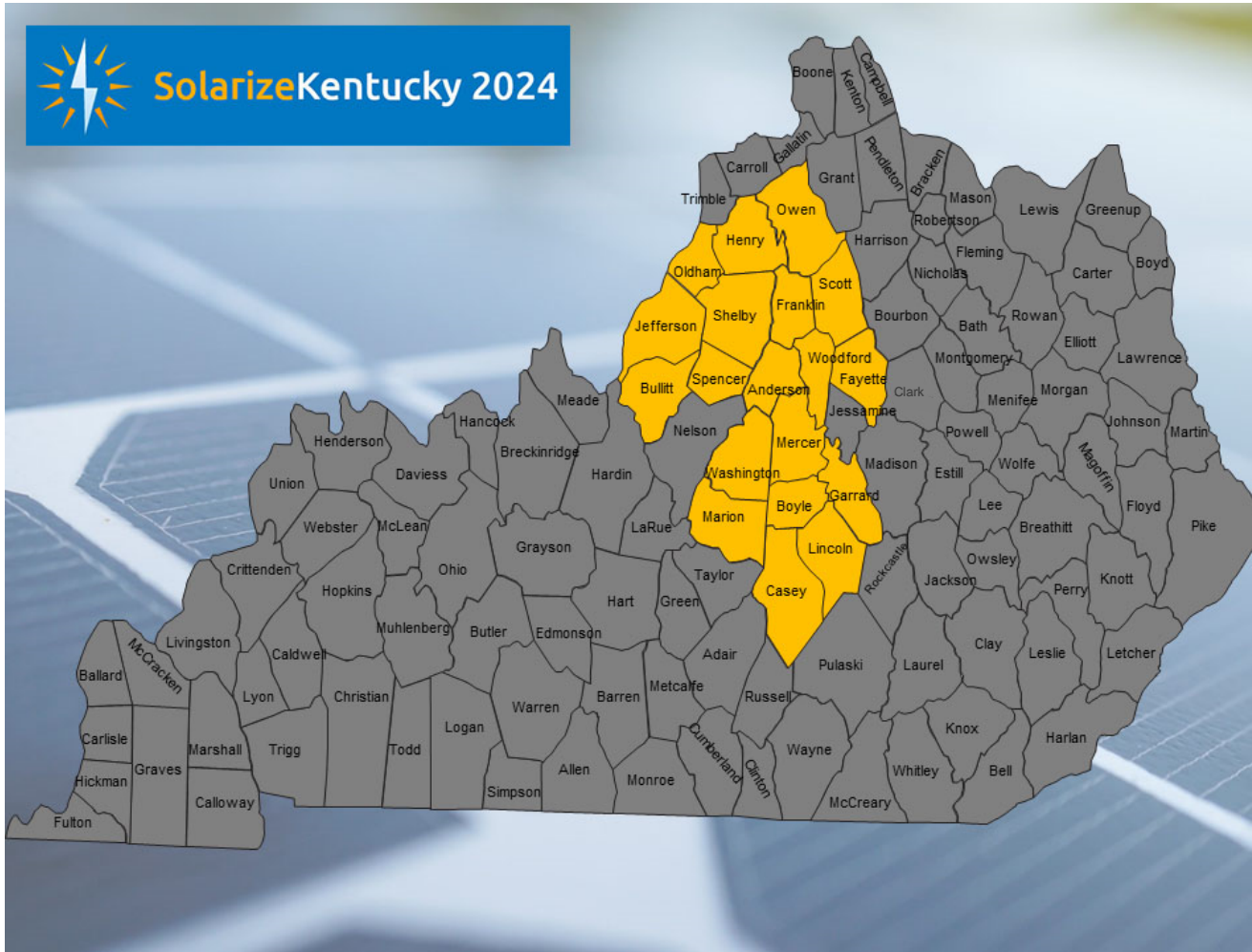
Increasing Tree Canopy



Increasing Tree Canopy

Tree Equity Score of 65							
	Trees	CO2 (Tons)	PM2.5 (lbs)	PM10 (lbs)	NO2 (lbs)	SO2 (lbs)	Ozone (lbs)
Nicholasville/Wilmore	31,167	547,713	874	3,232	1,939	1,220	20,286
Versailles	13,942	245,016	350	1,512	854	536	8,104
Georgetown	8,745	153,688	316	984	606	406	5,705
Winchester	6,383	112,173	137	833	397	269	3,783
Lexington	6,009	105,601	168	615	378	255	3,580
Paris	1,474	25,907	39	140	88	59	842
TOTAL	67,720	1,190,099	1,883	7,316	4,262	2,745	42,300

Solarize Kentucky



 SolarizeKentucky 2024

THE RESULTS ARE IN

LOUISVILLE

66 NEW SOLAR HOMES
502 KW PV ADDED
307 KWH STORAGE INSTALLED

In Year 2 of Solar Over Louisville KYSES, Louisville Metro Government and Louisville Sustainability Council worked together to produce strong results from Jefferson and the surrounding 8 Kentucky and Indiana counties. 5 of the 2023 projects will be grant funded LMI homes.

FRANKFORT

25 NEW SOLAR HOMES
210 KW PV ADDED

Frankfort, with 1/20th of Louisville's population punched way above its weight when it came to the communities desire to embrace new solar. Having the local involvement of KSU, City of Frankfort, Franklin County Judge Executive and Apogee produced outstanding adoption rates in Year 1.

LEXINGTON

76 NEW SOLAR HOMES
560 KW PV ADDED
148 KWH STORAGE INSTALLED
42 LMI GRANT PROJECTS

2023's Solarize Lexington had a heavy focus on grant funding solar for low and moderate income (LMI) homes. The response to the joint KYSES and LFCUG city funded push for more equitably distributed solar was truly inspiring. Low cost renewable energy that builds local jobs and resiliency should be accessible by all.

Solarize Lexington Program

- City of Lexington-Fayette Co. will again partner with KY Solar Energy Society to provide a vetted process for residents
- Group buying program designed to promote and encourage the use of solar
- Solarize Lexington is currently only offered to Lexington-Fayette Co. residents, small businesses, non-profits, and places of worship
- 2023 Lexington Results
 - 634 Interest Forms Submitted
 - 76 Signed Contracts (42 grant-34 non-grants)
 - 560 kW installed leading to an energy savings of 672,000 kWhrs/year
- Propose to extend the 2025 Program to other counties in our MSA



Lextran Electric Bus Charging Canopy Project

- Lextran Electric Vehicle Fleet
 - 4 current Battery Electric Vehicles in operation
 - 1 in production
- Lextran currently limited in number of EVs
 - Limited ability to recharge
 - No current protection from weather / elements
 - Can significantly degrade battery performance / range
- Canopy project details
 - Provide cover / weather protection for up to 15 vehicles
 - Provide charging infrastructure for each parking stall
 - Provide generator backup for recharging during electric power outage or other disruption
 - Includes solar array installation to support other Lextran operations



Regional Electric Vehicle Charging Study

- Identify demand for future public electric vehicle recharging stations
 - 3 primary goals
 - Support long-distance travel by battery electric vehicles
 - Identify areas where private sector less likely to provide recharging infrastructure
 - Focus on disadvantaged communities
 - Identify feasibility of hydrogen refueling to support freight logistics / heavy construction vehicles
 - KYTC currently identifying locations for level 3 chargers along designated EV corridors
 - Within MSA region, these are the Interstate System and the Bluegrass Pkwy
 - Federal requirement to have at least 1 charging station every 50 miles
 - Proposed study would consider:
 - Locations along other roadways to support long-distance travel
 - Supplementing KYTC locations along designated EV corridors

Implementation Grant

- Implementation Grant funding is intended to provide funds for greenhouse gas (GHG) reduction measures that will significantly reduce cumulative GHG emissions by 2030 and beyond, and that will accelerate decarbonization across one or more major sectors responsible for GHG emissions.
- Applications for Implementation Grants must include measures listed in a PCAP developed with funding from a Planning Grant.
- \$4.6 billion dollars in competitive grants are expected to be awarded.

Additional Feedback Opportunities

- Survey
- LiveGreenLex - Facebook/X/Instagram
- Email - livegreen@lexingtonky.gov
- Sustainability Webpage - <https://www.lexingtonky.gov/departments/sustainability>

Questions?



LEXINGTON