

City of
Gainesville

FROM VISION TO ACTION:

Climate Resiliency Plan

Dan Zhu, Ph.D., LEED Green Associate
Chief Resilience Officer

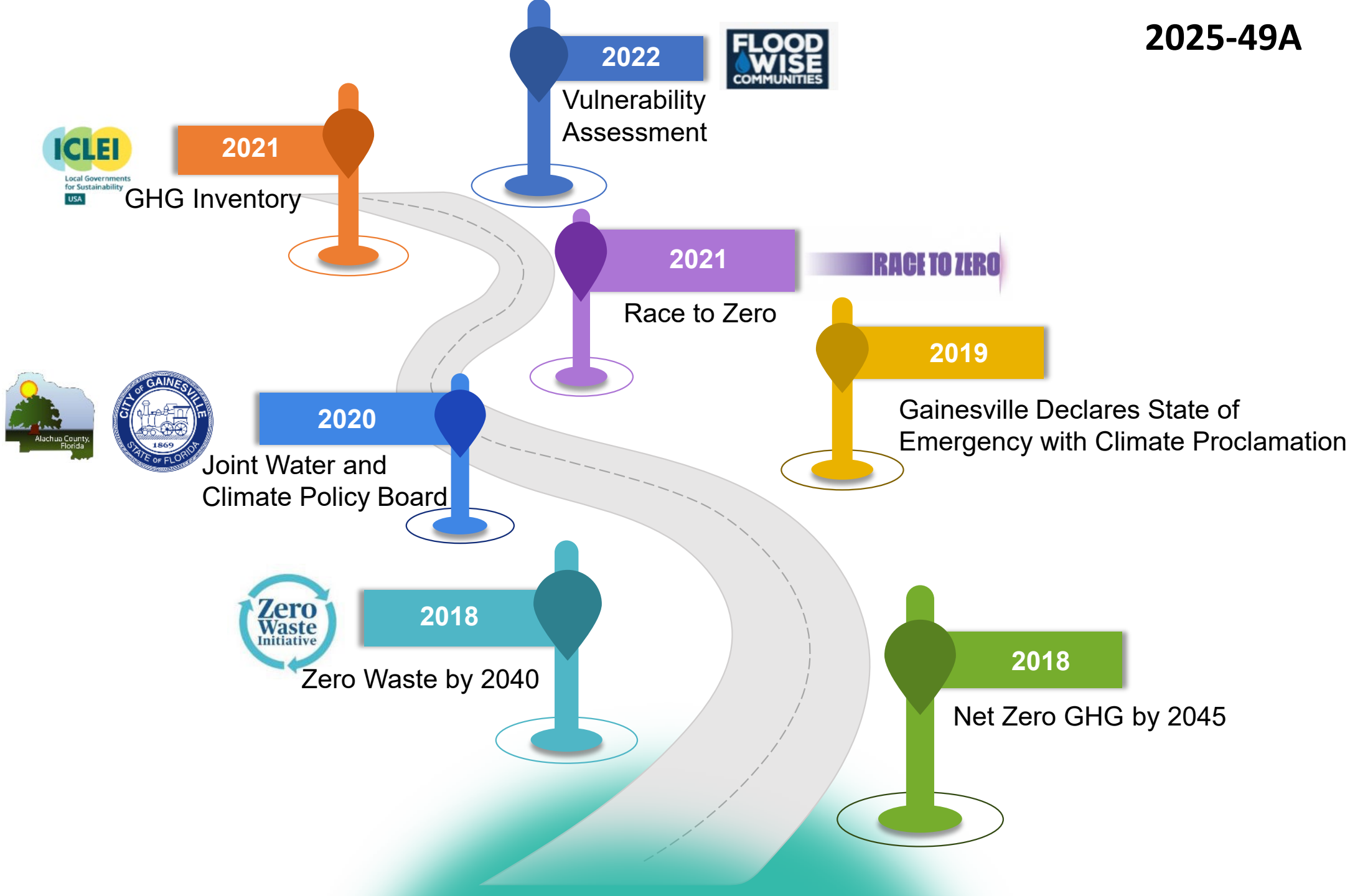


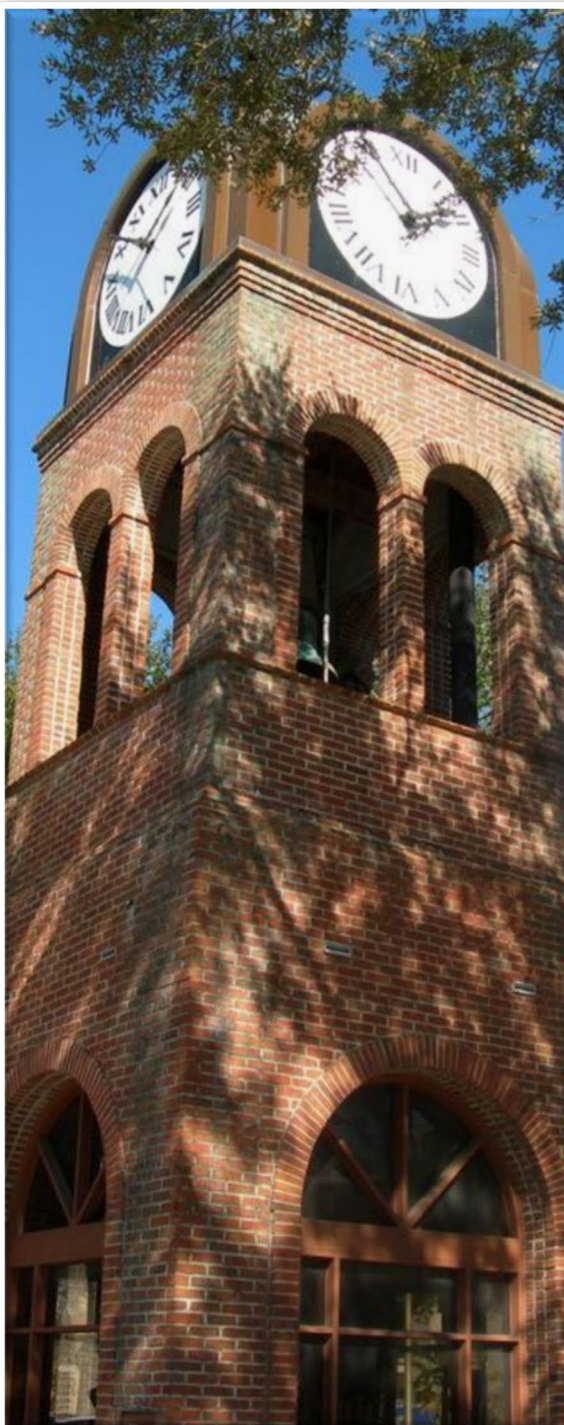
SUSTAINABLE
DEVELOPMENT

GOALS

17 GOALS TO TRANSFORM OUR WORLD







City of Gainesville, FL

2019 Inventory of
Community and
Government Operations
Greenhouse Gas Emissions

August, 2021

Produced by ICLEI - Local Governments
for Sustainability USA

2025-49A

City of Gainesville

FloodWise Communities Vulnerability Assessment
for the
City of Gainesville, Florida



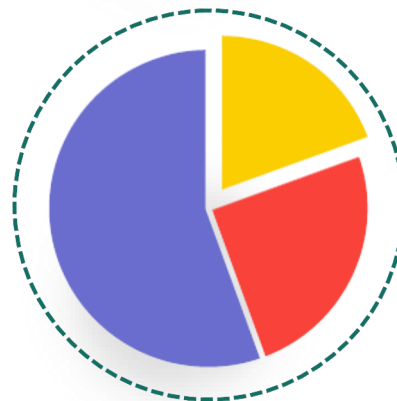
Prepared by City of Gainesville
September 2022

Gainesville Climate Resiliency Plan Chapters^{2025-49A}



Mitigation

Adaptation





RTS Buses

RTS Light
Duty
Vehicles

General
Fleet Light
Duty

Current

118 Buses: 7.6%
(4 EVs and 5
hybrids)

Light Duty: 36
light-duty
vehicles - 8
hybrids

Light Duty: 1080
Vehicles, 12% (131
vehicles)
11 EVs & 120
Hybrids

2025

8.47% (10
buses)

28% (10
vehicles)

15% EV & Hybrid
(160 vehicles)

2030

15% (18 buses)

35% (12
vehicles)

36.5% EV &
Hybrid (585
vehicles)

2040

60% (70 buses)

75% (26
vehicles)

75% EV & Hybrid
(810 vehicles)

2045

80% low or no
emission bus
fleet

100% EV & Hybrid
RTS Fleet

100% EV & Hybrid
General Fleet

Current Charger Stats

Gainesville Charging Stats

▶ 126 Total Stations

▶ 4 CHAdeMO Plugs

▶ 18 Free Stations

▶ 8 CCS Plugs

▶ 6 New Stations (90 days)

▶ 29 Superchargers

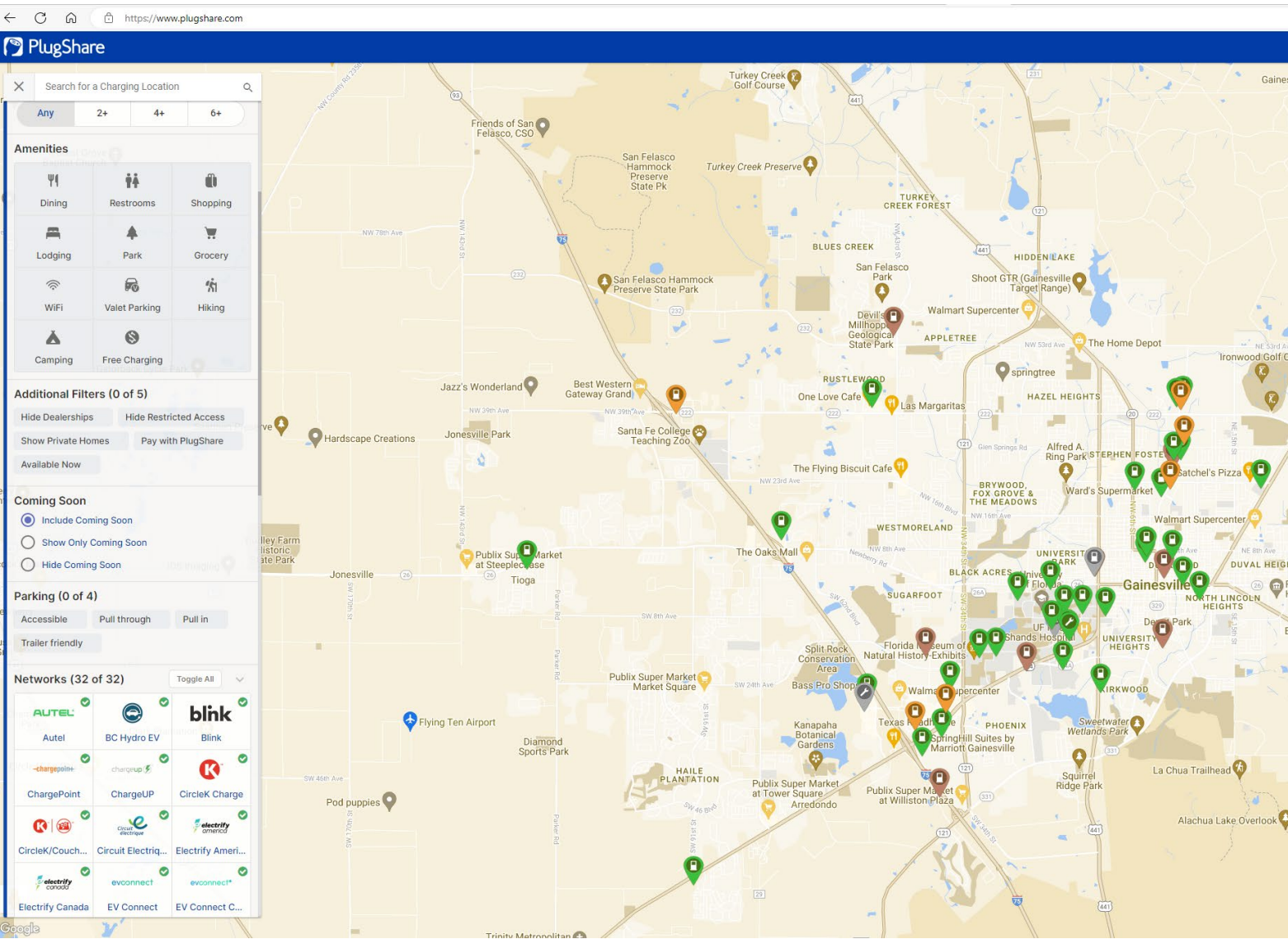
▶ 37 Fast Chargers

▶ 76 J-1772 Plugs

City of

Gainesville

2025-49A

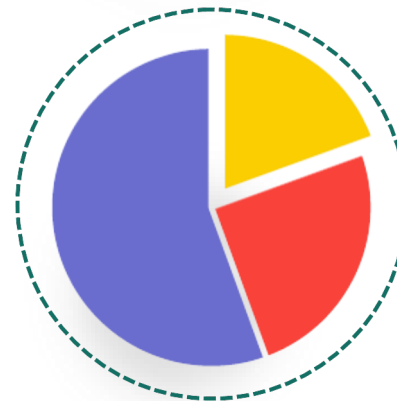


Gainesville Climate Resiliency Plan Chapters



Mitigation

Adaptation



Low-income Energy Efficiency Program Plus

[Pay My Bill »](#)[Report An Outage »](#)[Start, Stop, Move »](#)[My Home »](#) [Lower My Bill »](#) [Save Energy »](#) Low-income Energy Efficiency Program Plus

Menu

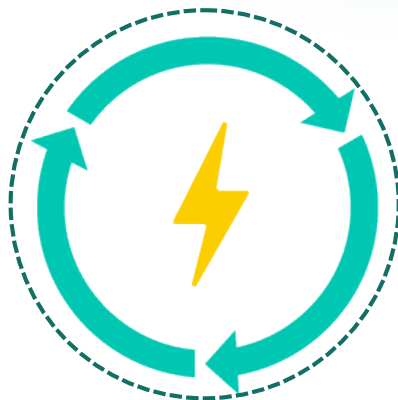
[Your Service ▾](#)[Customer Service ▾](#)[Manage My Bill ▾](#)[Lower My Bill ▾](#)[Winter Energy Tips](#)[Products & Services ▾](#)[Need Help ▾](#)[Power Line Safety](#)

Free Home Upgrades

GRU's Low-income Energy Efficiency Program^{plus} assists low-income customers with home improvements that can lower their electric bill, improve comfort and reduce energy use. Eligible participants will work with GRU to determine the improvements that best suit their home, which may include:



- Replacing or servicing central air conditioning and heating
- Replacing room air conditioners with high-efficiency
- Repairing and sealing duct systems
- Installing additional insulation
- Replacing the water heater



- Renewable Energy Expansion
- Transportation Electrification
- Energy/Water Efficiency
- Conservation Programs



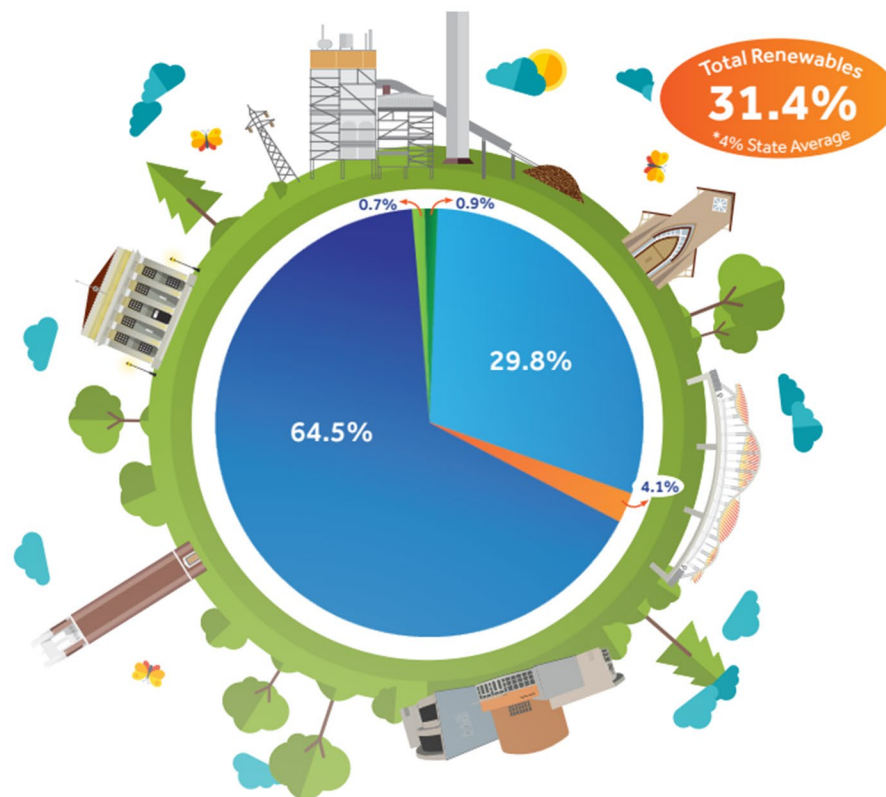
2025-49A



Renewable Energy Report

GRU is the state leader in power generation from renewable fuel sources and is committed to achieving the city's goal of net zero community-wide greenhouse gas emissions by 2045.

The graphic below shows how GRU powered your homes and businesses for the second quarter of fiscal year 2023.



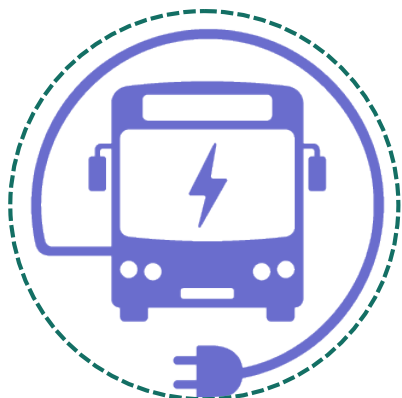
OUR PLANTS

Deerhaven Generating Station - coal and natural gas
Kelly Plant - natural gas
Deerhaven Renewable - biomass
South Energy Center - natural gas

Landfill Gas	Coal
Solar FIT	Natural Gas
Biomass	

*Florida Reliability Coordinating Council, 2020.

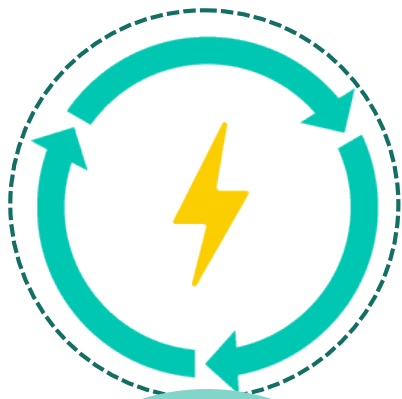
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Mitigation



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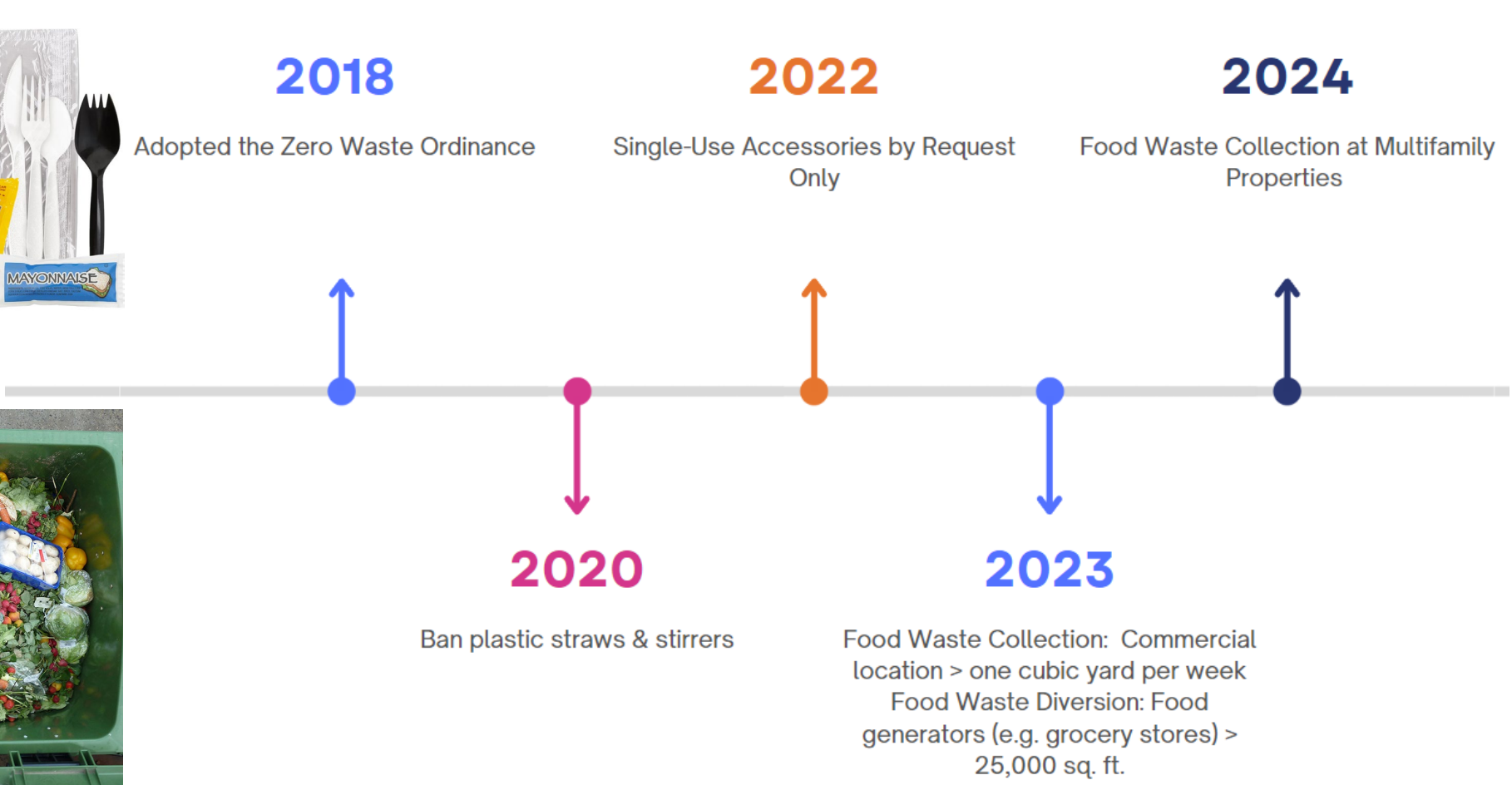
Zero Waste Timeline

To achieve zero waste by 2040

Single-Use Plastic Food Accessories By Request Only

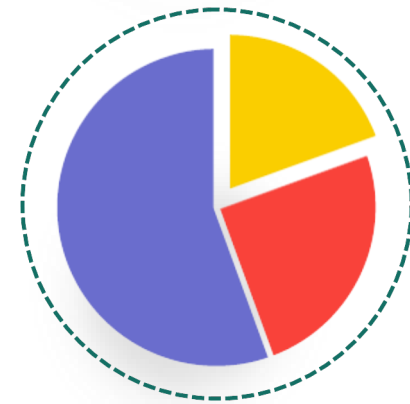
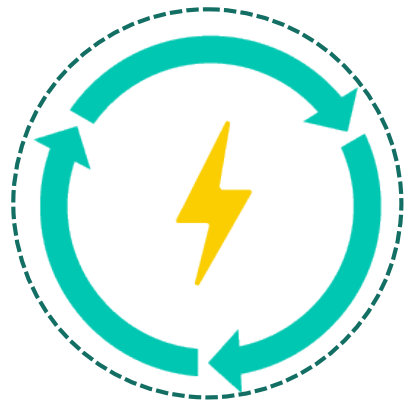
Examples:

- ◆ Plastic Utensils
- ◆ Condiment Packets
- ◆ Portion Cups



- 1 Feeding hungry people
- 2 Feeding animals
- 3 Providing for industrial uses
- 4 Composting

Gainesville Climate Resiliency Plan Chapters

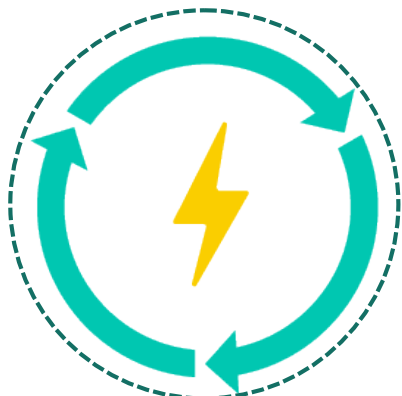
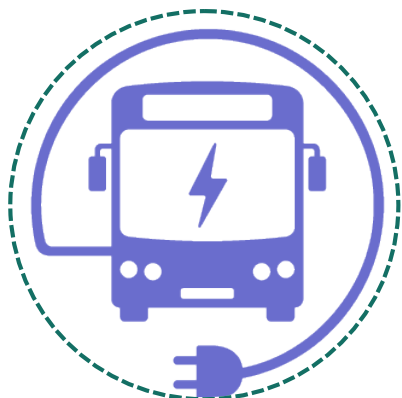


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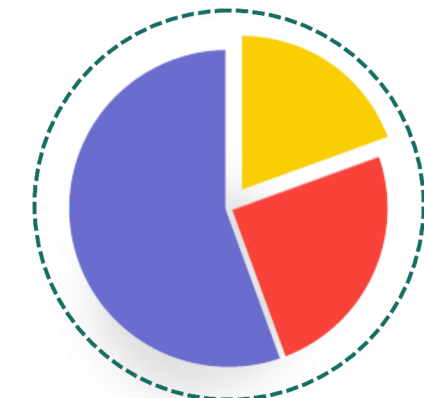
Gainesville Climate Resiliency Plan Chapters

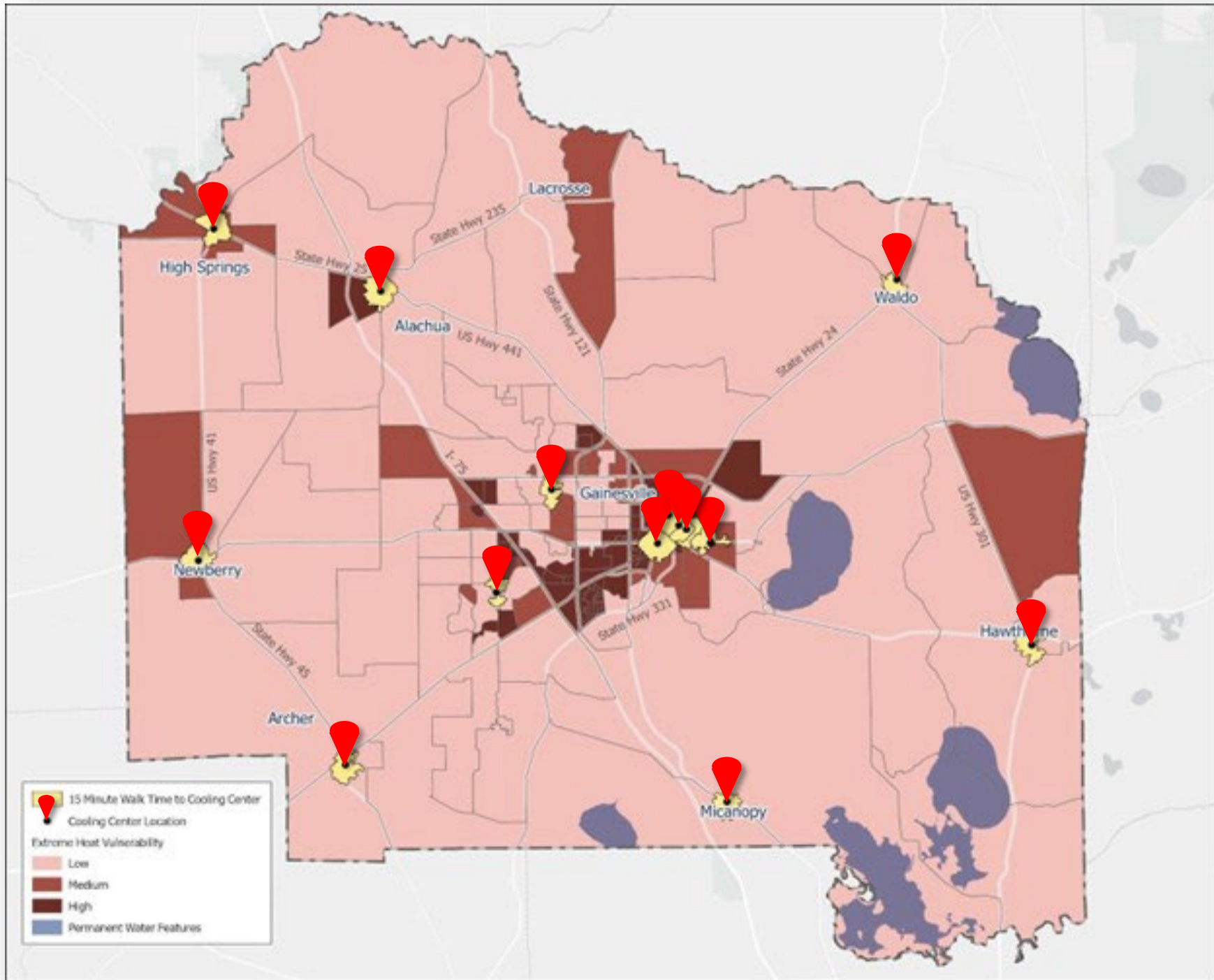
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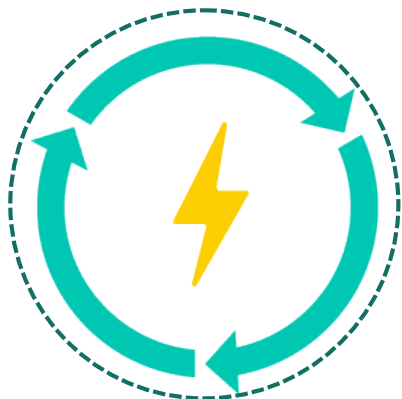
Adaptation





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Food System Map

Open in Map Viewer Classic



Dan Zhu
zhud1_DSD



Legend



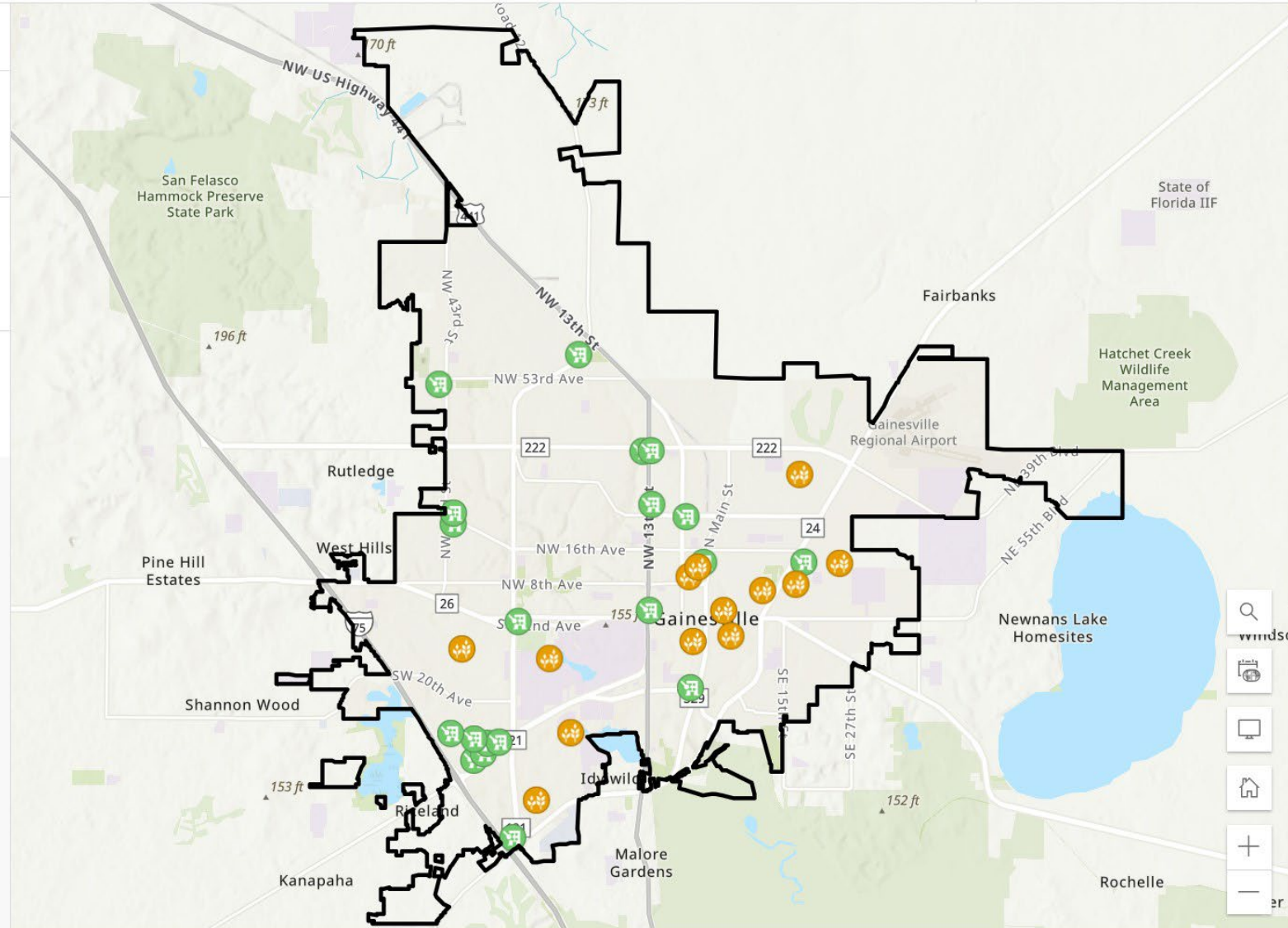
Community Gardens GNV



Municipal Boundary



Grocery Stores GNV

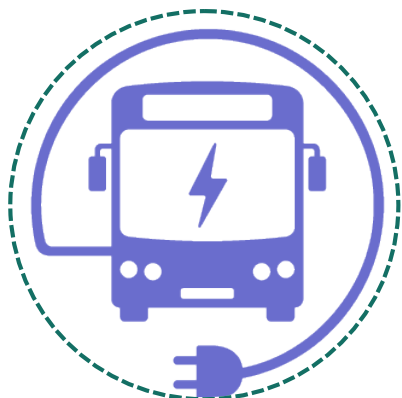


- **Healthy Bites for All**
- **Waste Not, Want Lots**
- **Grow and Show**
- **Economy and Gastronomy**

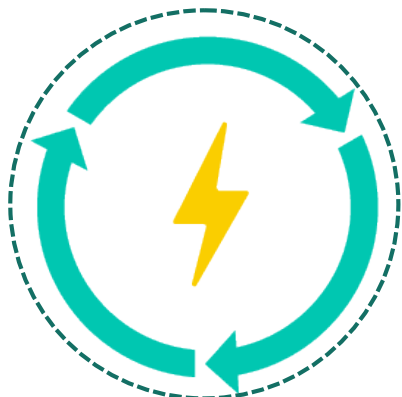


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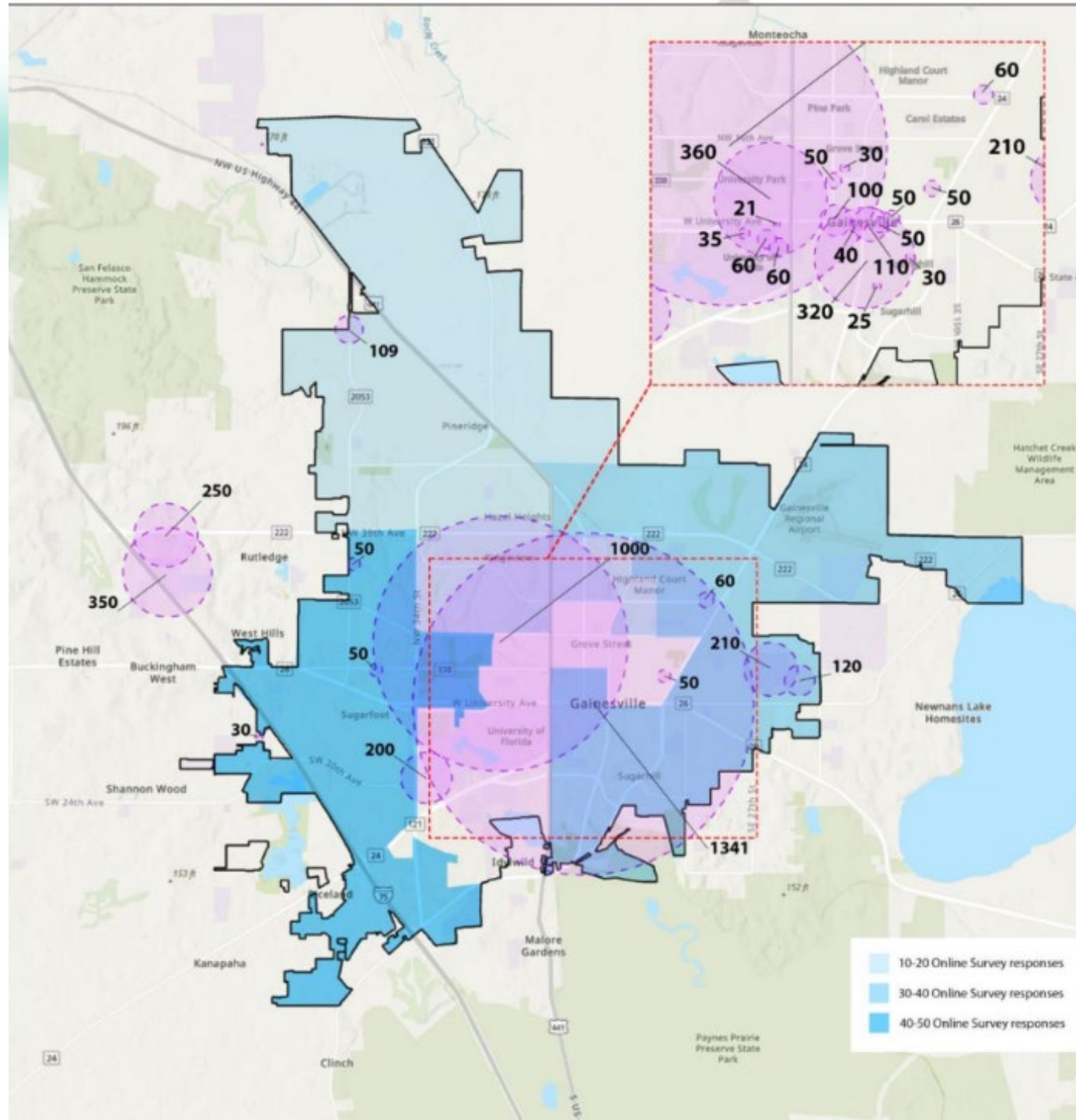


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EUROPE



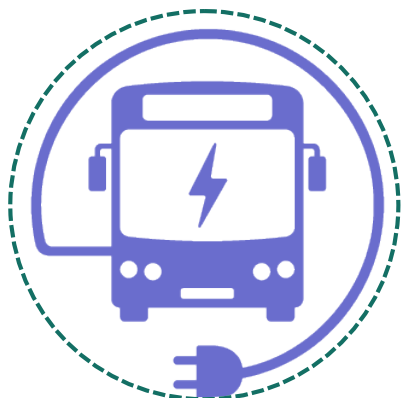


2025 49A

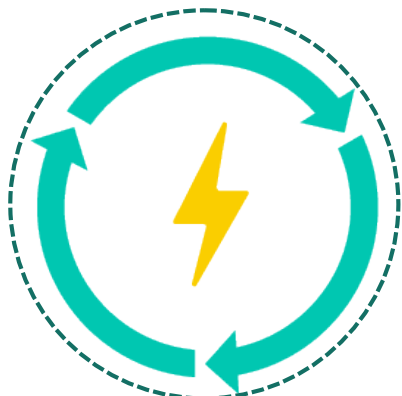


Gainesville Climate Resiliency Plan Chapters

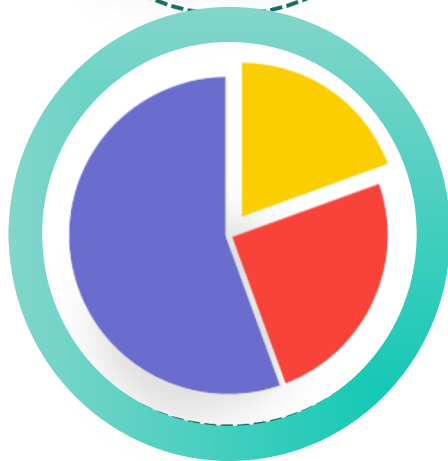
2025-49A



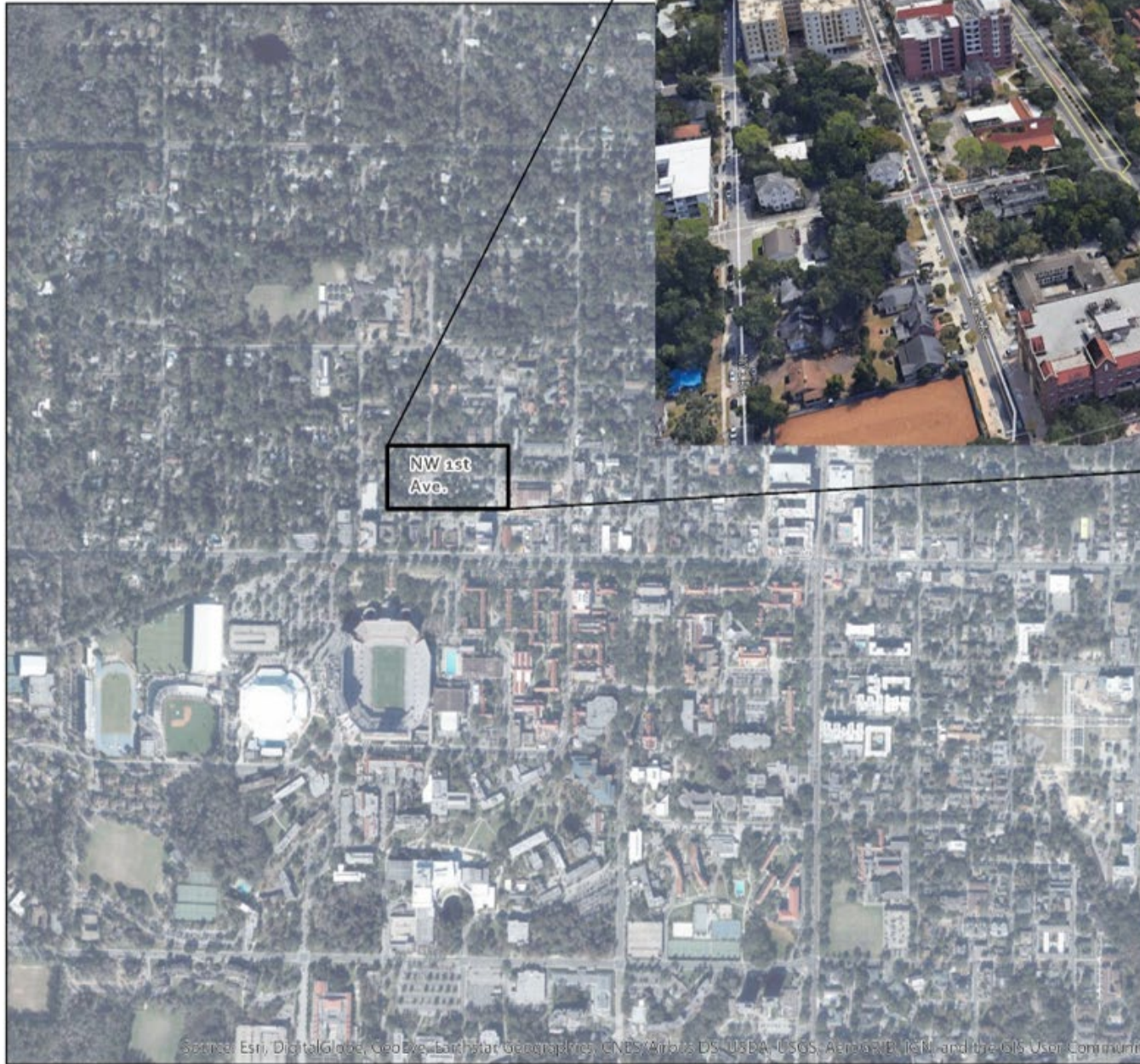
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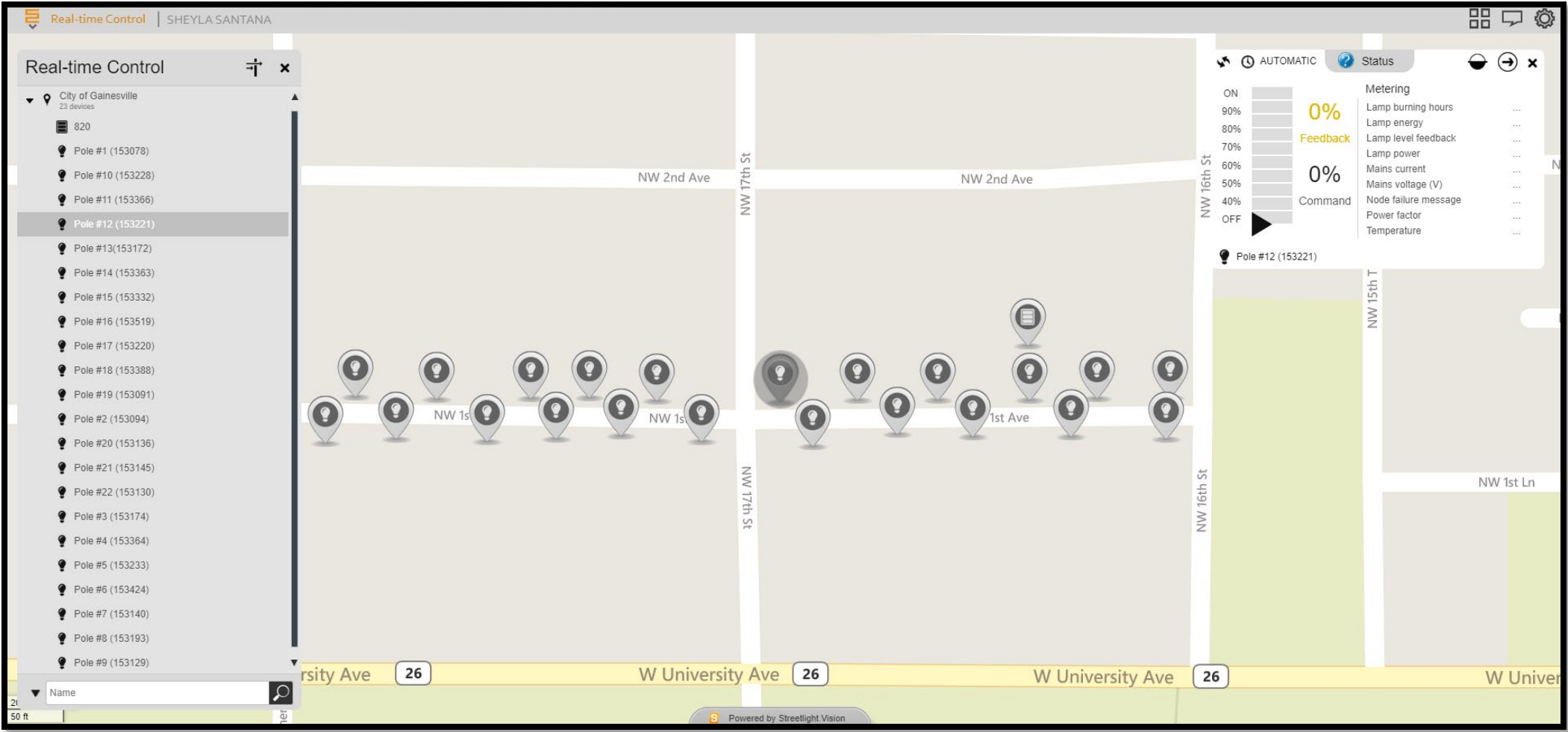
SMART LIGHTING

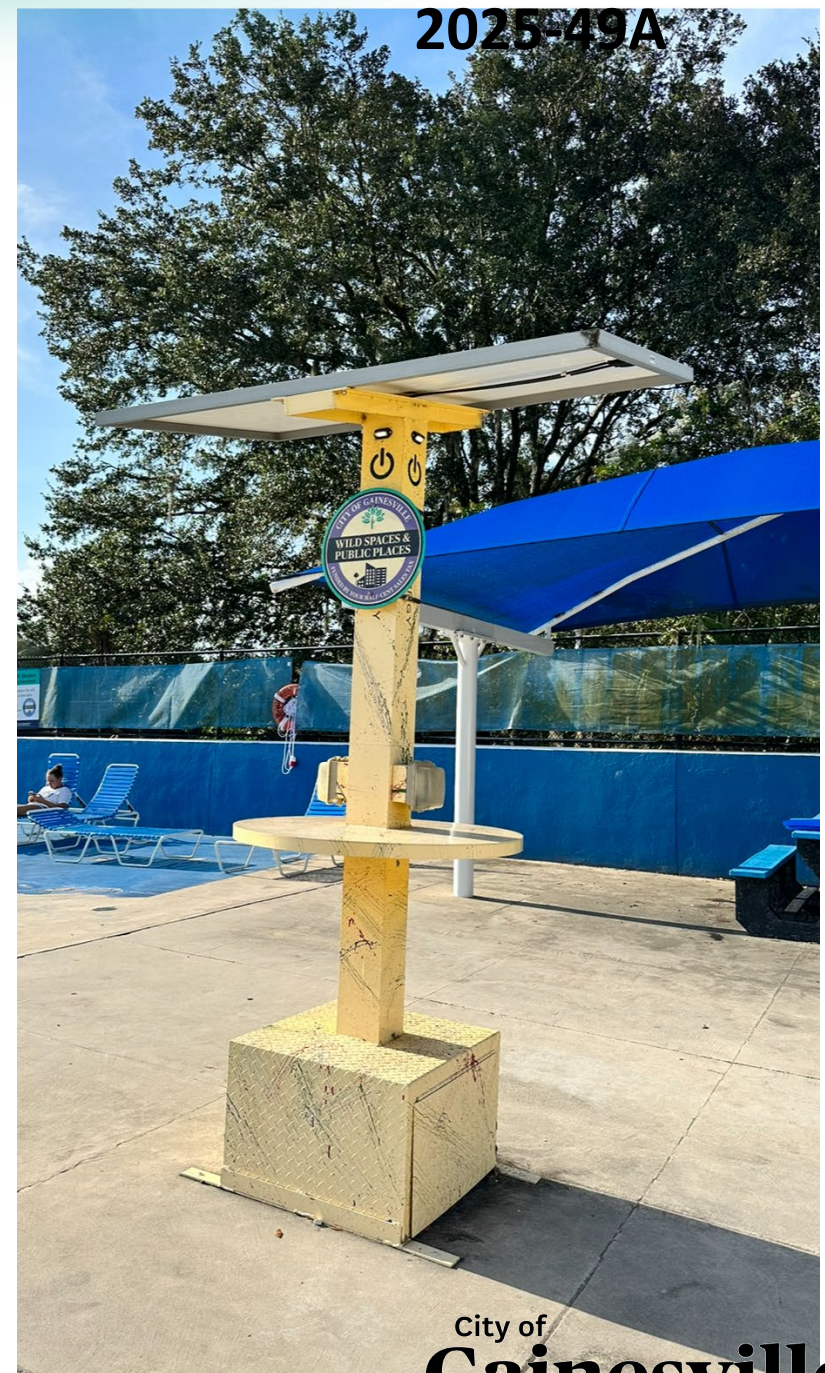
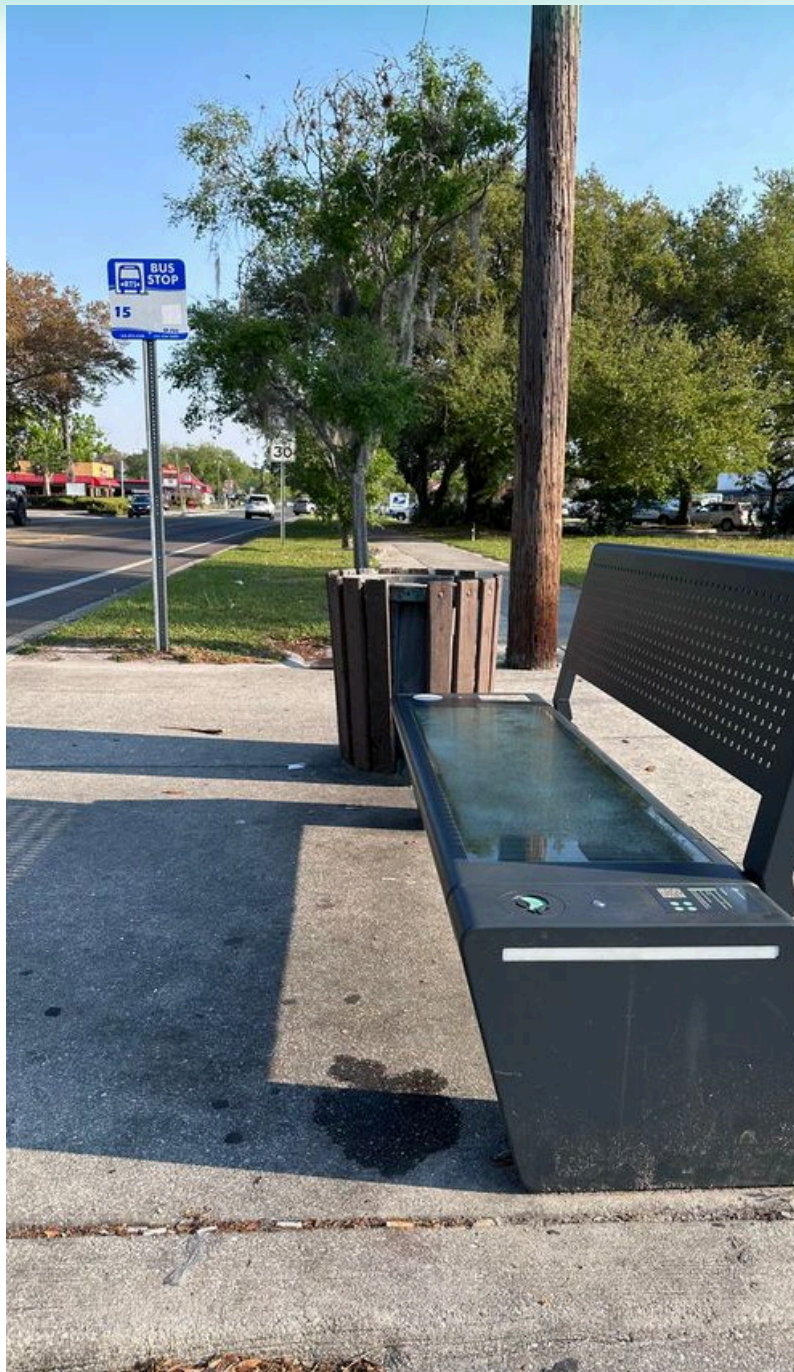


- 1 LED ✓
- 2 Smart ✓
- 3 IoT



SMART LIGHTING







Gainesville, City of - Dashboard

Documentation and Training

Collection List

Ready to Collect6/89

4/45

2/44

Overflow Status

1 Components100% Full

Total Gallons / 6 months

36,900

17,171

Total54,071

Collection Efficiency

Last 6 months: 12%

Last 7 days: 13%

Recycling Diversion / 6 months

68.2% Waste

31.8% Single Stream

Total Diversion 31.8%

Deployment Map

MapSatellite

Collection Summary vs. Baseline / 6 months

Greenhouse Gas Emissions Reduction / 6 months

Click to enter data on GHG emissions

Gainesville's Urban Forest

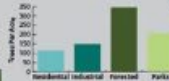
What is an urban forest?

"The term urban forest refers to all publicly and privately owned trees within an urban area—including individual trees along streets and in backyards, as well as stands of remnant forest."

(Nowak et al. 2001)

There are over
7 million trees
in Gainesville covering

Where are the trees?



47% of the total area

22% in Orlando

32% in Tampa

21% in Miami

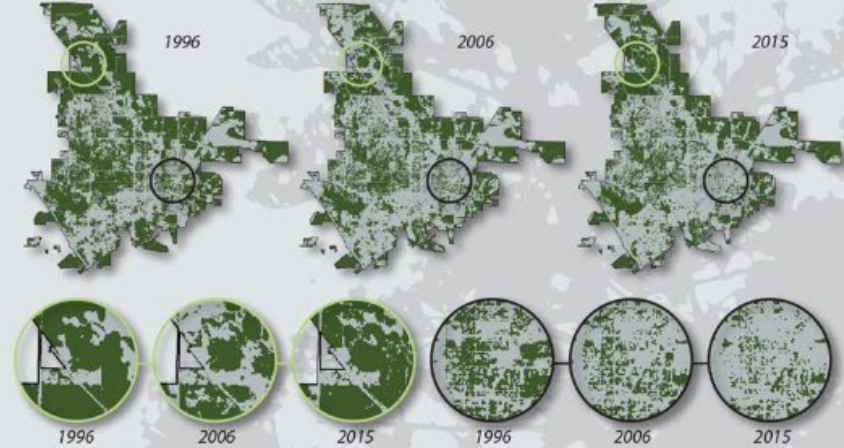
1 tree = 15,000 people

Gainesville's urban forest is worth
\$1.4 billion¹
+
\$24.4 million/year

¹This is a compensatory value that reflects what it would cost to replace the entire forest with new trees (e.g. deliberately or due to a storm).



Canopy Cover Change 1996-2015



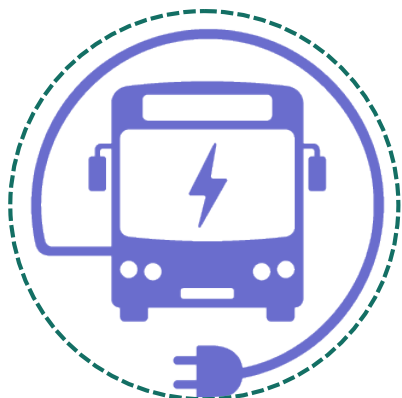
Every year,
Gainesville's urban forest
sequesters carbon
equivalent to...



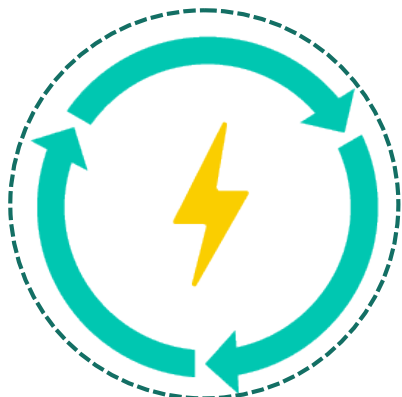
What species make up Gainesville's urban forest?



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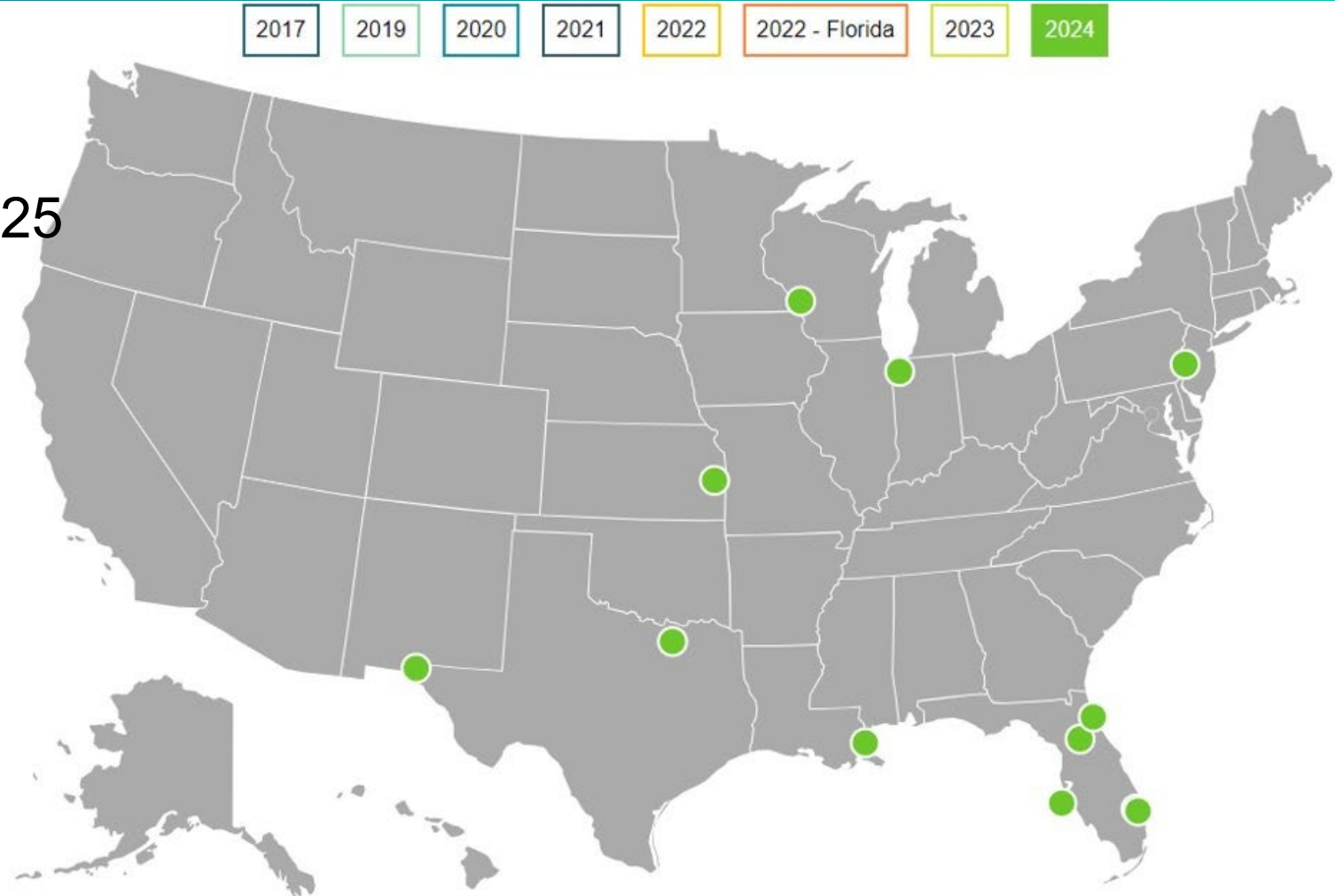


Adaptation



LEED for Cities: Local Government Leadership Program

- Funding Source: USGBC
- Focus Area: All Chapters
- Duration: May 2024 - Apr 2025
- Status: Implementation



2025-49A

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THANK YOU !

