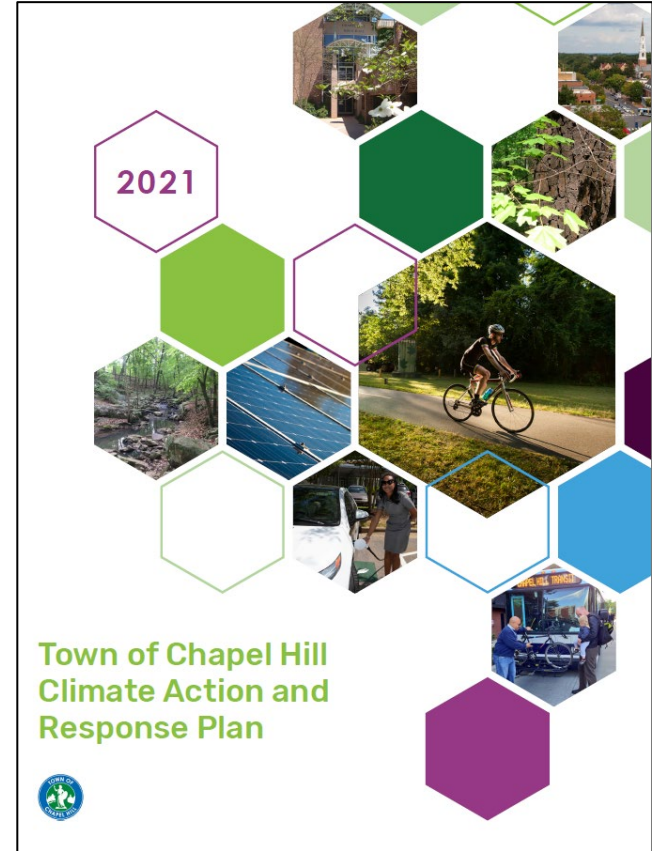




# Receive Update on FY22&23 Climate Action Implementation Plan

Feb. 23, 2022



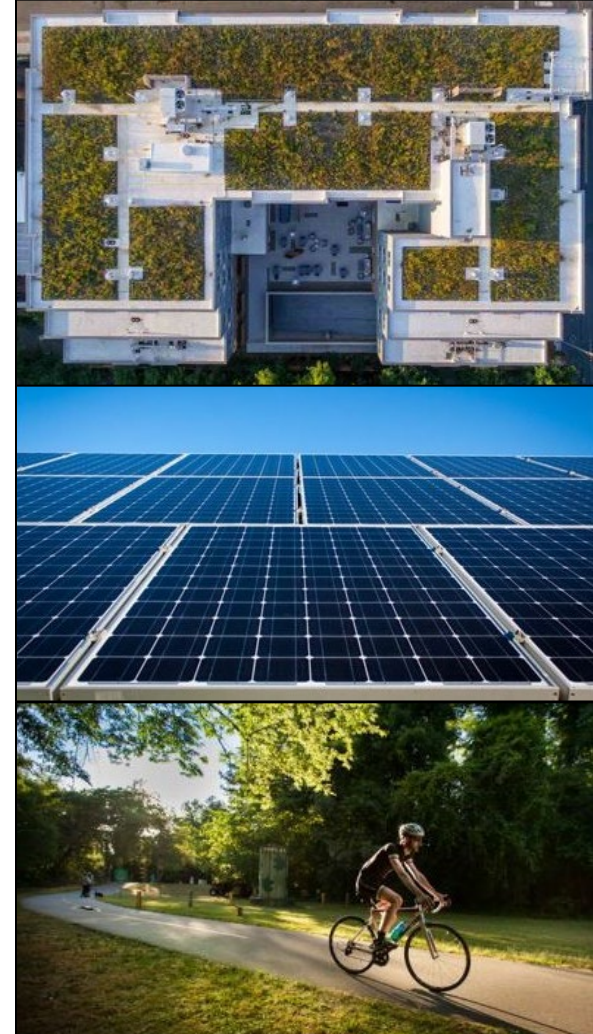
# Recommendation

That the Council receive the information and provide guidance to staff, as needed.



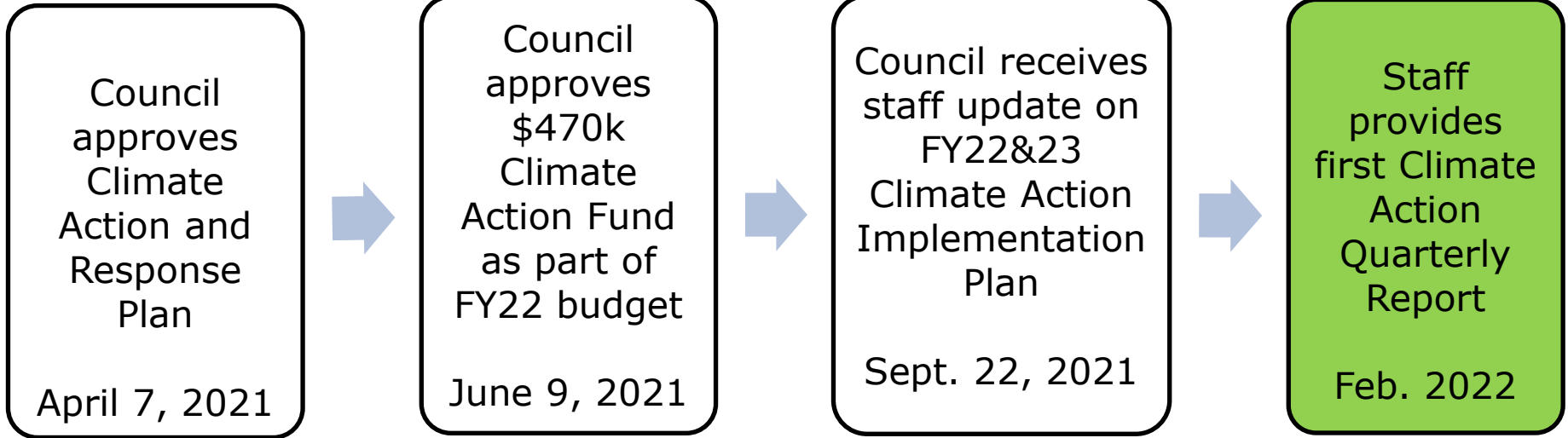
# Overview

1. Brief Recap
2. Implementation Plan Metrics
  1. Available Data
  2. Progress to date
3. Online Hub
4. Recommendation

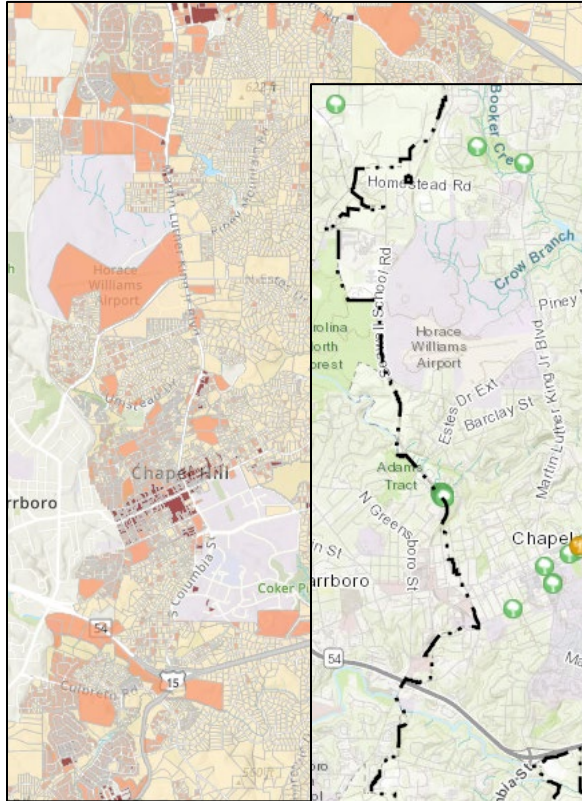


# 1. Brief Recap

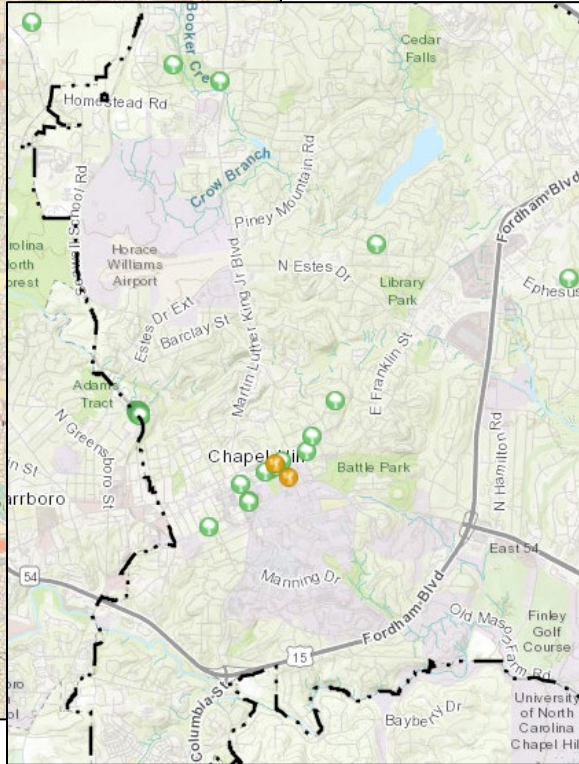
# Timeline



# Climate Equity



Extreme Heat  
Parcel Analysis



Community Tree Planting Suggestions

Extreme Heat Analysis

Tree Planting and Survey

EV Charging Stations


- Priority Locations

Equity Lab

# Climate Equity



# Urgency

2022 Baseline	Annual Actions to meet 2030 targets  Example: Electric vehicle replacements	2030 Total	2050 Total
<u>Fleet</u> : <b>26</b>  (19 in use, 7 on order)	<b>15</b>	140	280
<u>Town</u> : <b>TBD</b>	<b>TBD</b>	11,151	25,371
<u>County</u> : <b>1,259</b>	<b>6,472</b>	53,034 (proportional)	106,068 (proportional)



# **2. Implementation Plan Metrics**

# Indicators

- 15 Key Indicators in the adopted plan
  1. External data often updated annually
  2. Program performance indicators continuous
- Several ways to measure each indicator
  1. Reliable, Current, Specific, Automatic

# Program Indicators

<b>Programmatic Performance</b>	<b>Total Actions</b>	<b>Priority Actions</b>
<b>Implementation Plan Actions Identified to Date</b>	<b>97</b>	<b>34</b>
<b>% Actions Completed</b>	<b>8%</b>	<b>9%</b>
<b>% Actions Advanced</b>	<b>65%</b>	<b>68%</b>
<b>Additional Resources Applied For</b>	<b>\$391,450</b>	

# Action Areas



**Buildings  
& Energy**



**Transportation  
& Land Use**



**Waste, Water &  
Natural Resources**



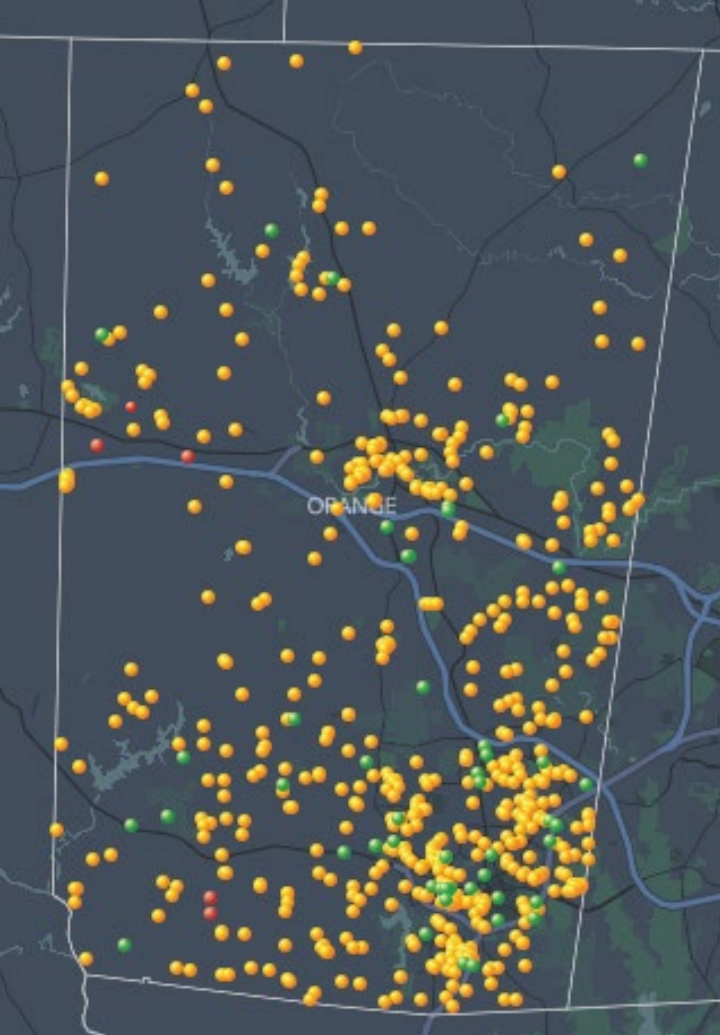
**Resiliency**

# Key Indicators



Buildings  
& Energy

1. Reduction in GHGs for buildings and energy sector
2. Percent of energy from clean, renewable sources
3. Number of buildings meeting LEED or similar standards



	Orange County (all to date)	Chapel Hill (by March 2021)
# of solar installations	662	151
Total solar capacity	25.6 MW	1.15 MW
Total Utility Scale Solar Capacity	20 MW	0 MW

**4%** Total clean renewable energy

**3,104** Certified green buildings



	Orange County (all to date)	Chapel Hill (by March 2021)
# of solar installations	662	151
Total solar capacity	25.6 MW	1.15 MW
Total Utility Scale Solar Capacity	20 MW	0 MW

**4%** Total clean renewable energy

**3,104** Certified green buildings

# FY22 Climate Action Fund



**Buildings  
& Energy**

Action	Fund Cost	Other Funds	Total Cost	ROI (yrs)
LED Lighting Conversion at Library	\$30,104	\$68,068	\$98,172	1
LED Lighting Conversion at Town Hall	\$14,326	\$7,873	\$22,199	6
LED Lighting Upgrade at Cedar Falls Park	\$91,943	\$128,057	\$220,000	12
Green Building Policy Update	TBD	TBD	TBD	N/A

FY23 Preview: Regional Solarize campaign, Home Energy Upgrade Program (LMI)



# Key Indicators

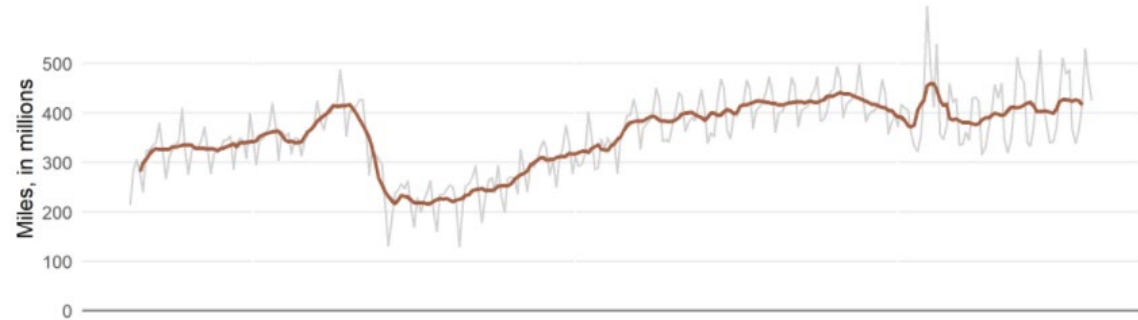


Transportation  
& Land Use

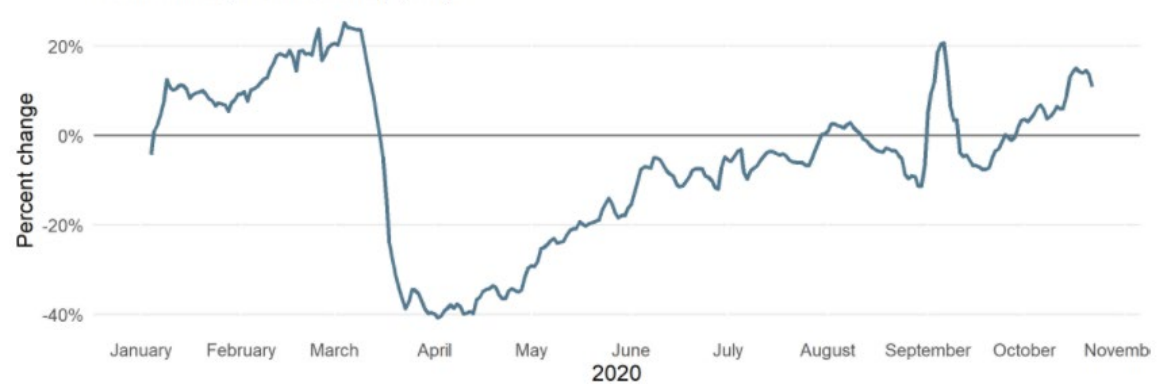
1. Vehicle travel
2. Pedestrian and bicycle travel
3. Pedestrian and bicycle facilities
4. Walkability

### Vehicle miles traveled (VMT) in North Carolina

Daily volume (gray) and 7-day moving average (red)



### Percent change since January (blue)



**Transportation  
& Land Use**

Infrastructure Type	Miles
<b>Bike Lane</b>	<b>32</b>
Buffered Bike Lane	5.5
Paved Greenway	18.25
Sharrows	4.3
Sidepath	2.4
Unpaved Greenway	6.8
<b>Grand Total</b>	<b>69.25</b>



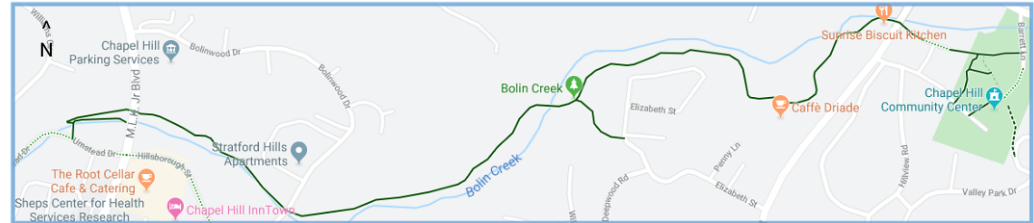
# Bolin Creek Trail

Bicycle Counts Semi-Annual Summary  
February 15—August 15, 2020

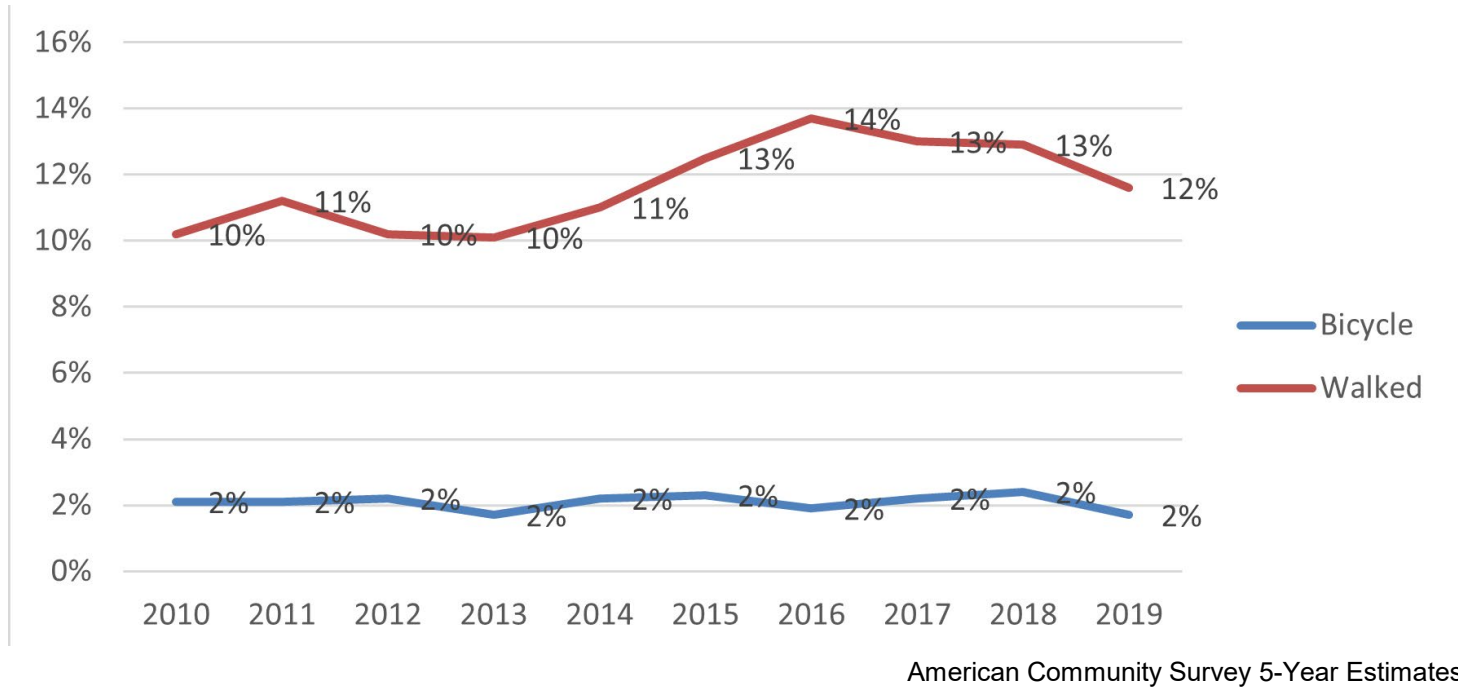


Bolin Creek Trail is a 1.5-mile trail connecting the Community Center Park and the Battle Branch Trail. It is 10' wide and paved through meadow and wooded floodplain.

## Map



# Pedestrian and bicycle travel and facilities



# FY22 Climate Action Fund



**Transportation  
& Land Use**

Action	Fund Cost	Other Funds	Total Cost	ROI (yrs)
Install 2 EV Charging Stations (Town Hall)	\$11,968	\$18,000	\$29,968	N/A
Charting Our Future Phase 2	\$34,000	\$1,198,517*	\$1,232,517	N/A
Grant: EV Refuse Truck(s)	TBD	\$464,690	\$844,890	TBD
Grant: Climate Corps Fellow (EV Planning)	\$0	\$11,250	\$11,250	N/A
Grant: EV Charging Station (Eubanks P&R)	TBD	\$18,500	TBD	N/A

\* \$745,000 of these funds will be covered by an FTA grant.

FY23 Preview: 1-2 EV Fleet Vehicles (Town Hall)

# Key Indicators

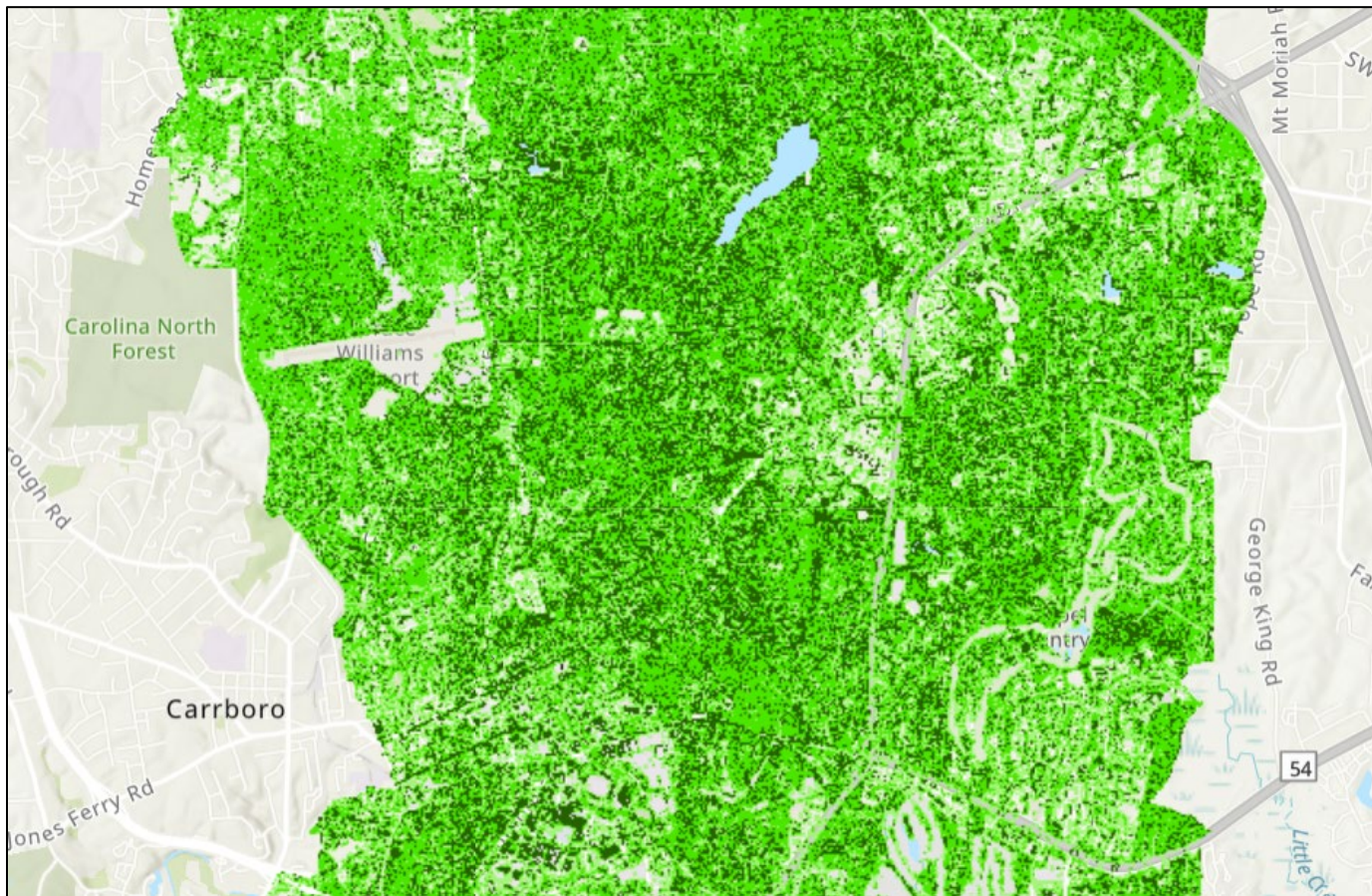


Waste, Water &  
Natural Resources

1. Reduction in waste/water GHGs
2. Solid waste diverted from landfill
3. Net acreage of stream buffers and urban forest
4. Net acreage of urban tree canopy coverage



## Waste, Water & Natural Resources



Tree Canopy area, density, and height analysis (2015 LiDAR, NC Flood Risk Management System –FRIS)

# FY22 Climate Action Fund



**Waste, Water &  
Natural Resources**

Action	Fund Cost	Other Funds	Total Cost	ROI (yrs)
Water Alert Sensors (rain, stream gauges)	\$9,000	0	\$9,000	N/A

FY23 Preview: Participate in Solid Waste Master planning (\$0)



# Key Indicators



Resiliency

1. Time to recovery after a catastrophic event
2. Average Income
3. Access to food/basic services
4. Neighborhood Cohesion

# Key Indicators



Resiliency

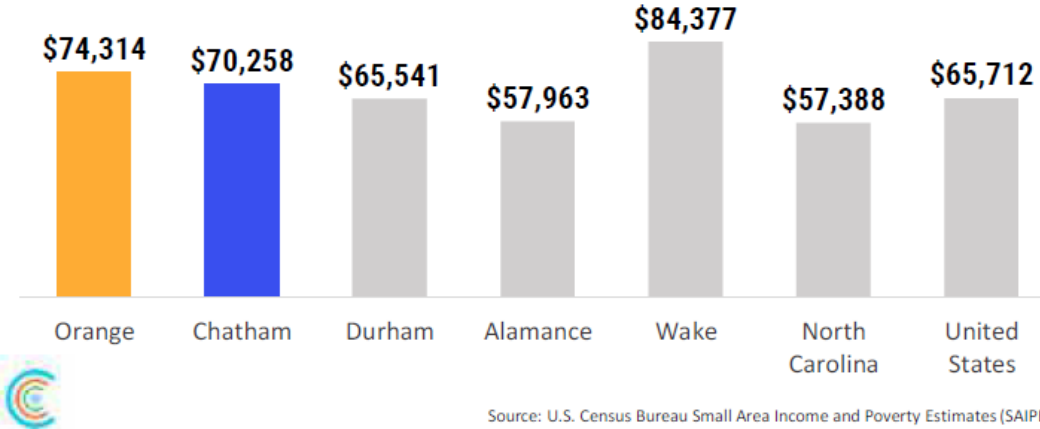
1. Time to recovery after a catastrophic event
2. Income disparities
3. Access to food/basic services
4. Neighborhood Cohesion



Resiliency

## Wake Leads, Orange 2<sup>nd</sup> in Regional Median Household Income in 2019

Household Income is the total annual earnings of all members of a household, whether they are a family or separate individuals living together (Distinct from Median Family Income and Per Capita Income)

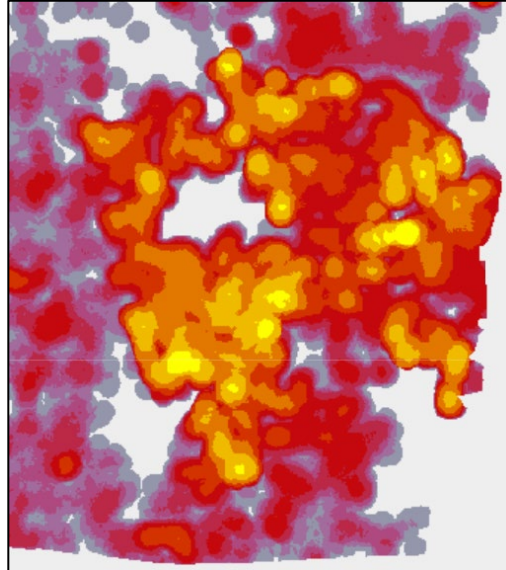
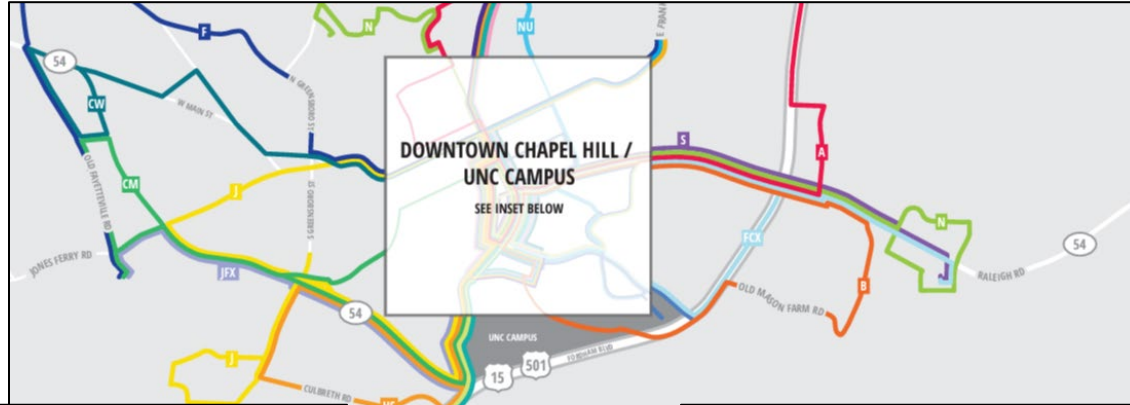


## Chapel Hill Median Household Income:

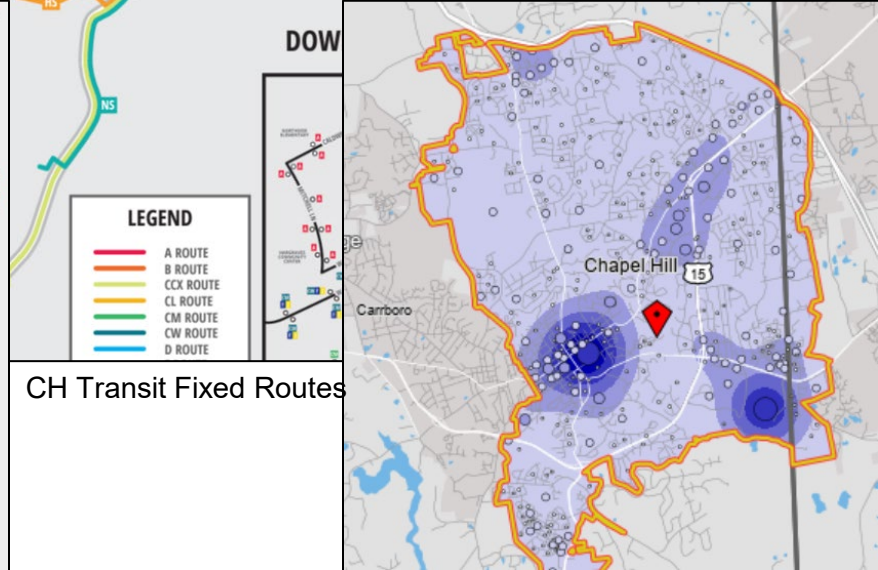
Income	
Median household income (in 2019 dollars), 2015-2019	\$73,614
Per capita income in past 12 months (in 2019 dollars), 2015-2019	\$42,485



Resiliency



Town Population Density



CH Transit Fixed Routes

Employment Density (Census LEHD)

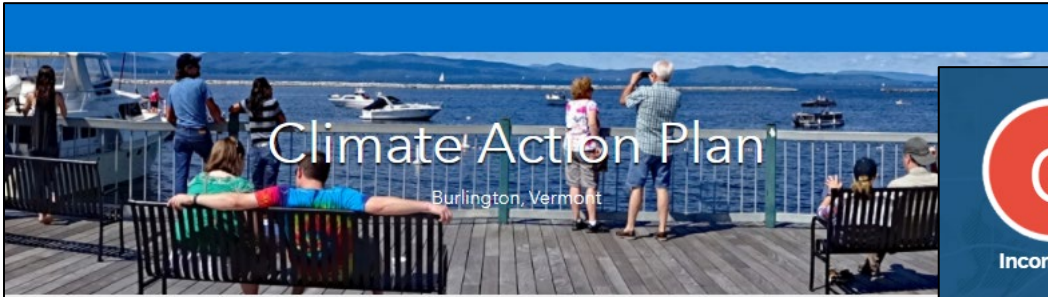
# FY22 Climate Action Fund



Action	Fund Cost	Other Funds	Total Cost	ROI (yrs)
LUMO Rewrite Green Infrastructure Study	\$25,000	See LUMO above	\$25,000	N/A
ArcGIS Urban Hub (dashboard website)	\$2,500	\$0	\$2,500	N/A
Tree Planting	\$0	\$40,000	\$0	N/A

FY23 Preview: ArcGIS Urban Hub (dashboard website)

# **3. Online Hub**



# Climate Action Plan

Burlington, Vermont

In April 2014, the City Council ratified Burlington's updated Climate Action Plan, including 39 strategies in 8 key areas. These strategies, requiring the work of various City departments and stakeholders, were identified to help us meet our greenhouse gas reduction targets while advancing Burlington as a great place to live, work, and play.

## Progress Report

A lot of work has been done since the Plan was ratified - but there's still more to do. What has been completed? What remains incomplete, and what strategies have not been implemented? Click the sector headings below to learn more.



Community Transportation



Compact Mixed Use Development



Energy Efficiency in Buildings



Government Transportation



Incomplete



Launched



Implemented



Complete

## Progress Report

### Create a downtown Transportation Management Association (TMA)

**Strategy:** Develop a downtown transportation management association that plans, develops, and manages all employee transportation and parking programs, infrastructure, and related facilities. The goal of the TMA would be to offer and improve cost-effective and convenient alternative transportation services while simultaneously reducing travel demand and traffic congestion and improving air quality.  
**Department(s):** Community Economic Development Office and Department of Public Works **Staff:** Chapin Spencer  
**Details:** Study of Transportation Demand Management Plan and Parking Management Plan -- both of which support TMA development -- currently underway  
 Progress: Launched

### Develop a Citywide Bike/Pedestrian Plan

**Strategy:** This proposed action would build upon the City's North/South Bike Plan by taking a more comprehensive look at the City's existing bike/pedestrian infrastructure and designing and implementing necessary improvements.  
**Department(s):** Dept. of Public Works **Staff:** Nicole Losch  
**Details:** Bike-Walk Transportation Plan underway with winter 2016 anticipated completion.  
 Progress: Complete

### Develop infrastructure for fuel-efficient vehicles

**Strategy:** This proposed action would develop infrastructure and incentives for fuel-efficient vehicles. This might include charging stations for electric and electric-hybrid vehicles and fueling stations for CNG and other alternative fuel vehicles.  
**Department(s):** Dept. of Public Works and Burlington Electric Department **Staff:** Chapin Spencer  
**Details:** 4 new EV stations installed/upgraded: BED, corner of Church and Main Street, Marketplace and Lakeview Garages <http://billy1MXHQJq>  
 Progress: Implemented

# 5. Recommendation



# Recommendation

That the Council receive the information and provide guidance to staff, as needed.



# Questions

Do you have any questions about tonight's report?

Is there anything you wanted to hear more about?



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