



ARC Climate Change and Planning for Adaptation

ARC Board Meeting – JULY 13, 2021

Mike Alexander, Director, Center for Livable Communities

The Bottom Line Upfront

It's a Marine thing

We expect our communities to get wetter and hotter over the next 80 years.

We must prepare in the most effective and cost- efficient ways.

It is critical to invest in infrastructure that will be operationally resilient in in all future conditions.

What tools and analysis do we need to make these decisions protecting our most vulnerable and preventing inequitable impacts?

1

ARC has worked on Climate Change for over a decade focused on mitigation and information

2

Your staff is committed, interdisciplinary, and thinking holistically about how to help our communities by working collaboratively across policy areas.

3

As a region, we are not alone in these efforts and some of our communities are taking the initiative to understand the risks and impacts so that they can meet the challenge.

4

There will be opportunities to leverage our work so far to take advantage of new funding opportunities

5

We will be engaging you to learn together fostering the development of long-term regional goals and programs to address climate change



ARC's Climate Change Analysis

<https://atlantaregional.org/natural-resources/air-quality/climate-change/>

<https://atlantaregional.org/natural-resources/air-quality/resilience/>

2010

Study “Taking the Temperature”

2014

Climate Change and the Impact of Community Design on GHG Emissions

2015

Utility Climate Resiliency Study

2015

Regional Transportation Demand Management Study

2018

Vulnerability and Resiliency Framework for the Atlanta Region

2019

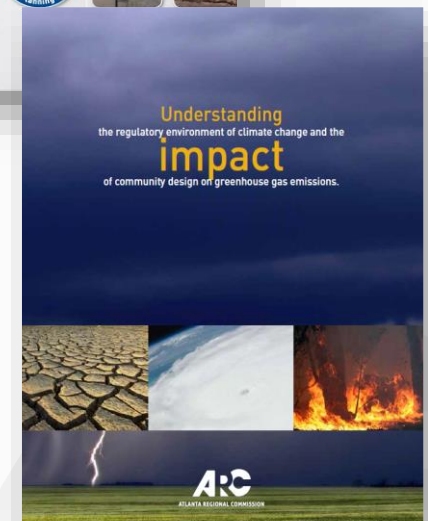
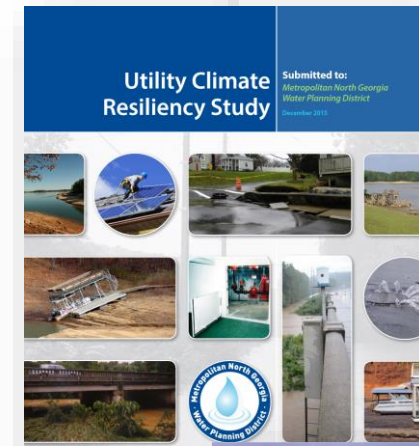
Resiliency and Durability Project (2019-2020)

- Developed City Simulator GIS Tool



ARC
VULNERABILITY AND
RESILIENCY FRAMEWORK
FOR THE ATLANTA REGION

Prepared for Atlanta Regional Commission
Prepared by WSP USA Inc.
January 20, 2018



You are leading from the front

Local leaders are at the forefront of solving problems in their communities - and climate change is no different...Beneficial solutions are within reach, so local leaders can act today to boost economic prosperity, improve sustainability and resilience, and move to energy independence.

National League of Cities



Climate Change is an Emerging Priority in Our Communities and Among our Peers

	Climate/Equity Program	Integrated/ Separate Program	Key Areas of Focus	Full Time Staff Member(s)
Chicago Metropolitan Agency for Planning	✓	Integrated	Publishes a ranges of plans and resources focusing on Water Resources, Open Space, Local Food Systems, Climate Change, and Sustainability Planning	✗
Metropolitan Washington Council of Governments (Washington D.C.)	✓	Separate	<u>2030 Climate and Energy Action Plan</u> : long term action for greenhouse gas emissions, climate mitigation, climate risks and vulnerabilities, and regional climate adaptation	✓
Houston-Galveston Area Council	✓ -	Integrated	Does not explicitly address climate, but environmental programming is robust and relevant to climate change planning.	✗
North Central Texas Council of Governments	✓	Integrated	Robust committees advising on Materials Management, Natural Resources, Public Works, Regional Building Codes, Watershed Management, and Development Excellence	✗
Mid-Ohio Regional Planning Commission	✓	Separate	<u>Sustaining Scioto Implementation Plan</u> guides regional adaption to climate change and includes a separate Board. Agency core areas of focus are Transportation, Sustainability, Data & Maps and Government Affairs.	Unclear
Charlotte Regional Transportation Planning Organization	✗			
North Carolina Capital Area Metropolitan Planning Organization	✗			

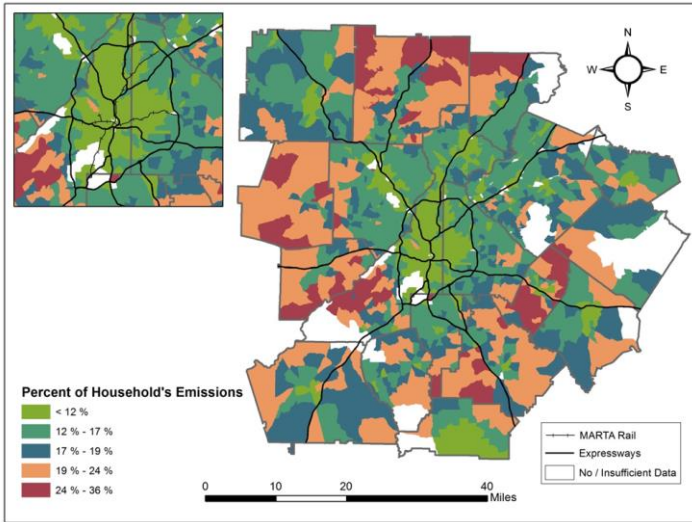
- Atlanta Climate Action Plan
- Decatur Sustainability Assessment
- Partnership for a Better Bartow
- DeKalb Green Focus
- US Conference of Mayors Climate Protection Agreement
 - Alpharetta, Atlanta, Decatur, East Point, Roswell
- Energy Star Challenge
 - 122 organizations in Georgia
 - 12 local governments
 - State of Georgia

Decatur Greenhouse Gas Inventory

Greenhouse Gas Emissions (metric tons of CO ₂ e)		
	2007	2009
Residential	94,908	92,285
Commercial	105,566	105,089
Transportation	66,768	66,000
Solid Waste	2,261	2,029
TOTAL	269,503	265,403
CHANGE		-2%

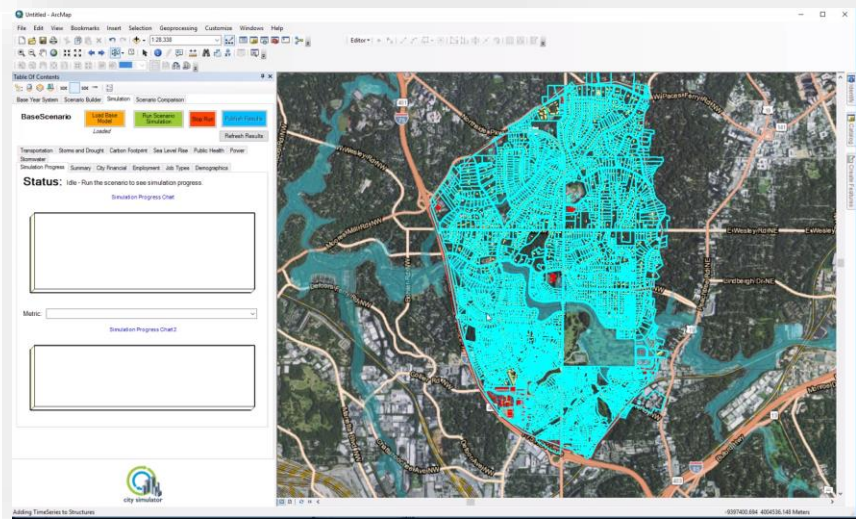
Metro Atlanta is Positioned to take Advantage of Performance-Based Funding Opportunities

Percent of CO₂ Emissions from Transportation



\$2.75 billion in federal transportation grant funds are now tied to environmental and racial-justice goals

- RAISE — Rebuilding American Infrastructure with Sustainability and Equity
- INFRA - Infrastructure For Rebuilding America
- INVEST in America - Investing in a New Vision for the Environment and Surface Transportation in America Act (~\$750 million in grant funds)



We will be engaging you to learn together to foster the development of long-term regional goals and programs to address climate change

Sandy Springs Flood Mitigation and Resilience Strategy

Developing this strategy would be a first step in Sandy Springs' establishment of a comprehensive climate resilience plan. The flood mitigation and resilience component of the plan will unify current existing work on the city's flood issues. As part of this process, the city will work with ARC's City Simulator, a geographic information system (GIS) tool capable of gathering and analyzing a wide variety of geographical data. Using the tool will enable Sandy Springs to accurately predict its infrastructure's vulnerability to threats such as flooding. The city will incorporate the resulting report into its eventual resilience plan.



1990s



Today

