

# REGIONAL CLIMATE ACTION PLAN

NOACA Policy Committee  
January 28, 2022



# INTRODUCTION ED-CEO

- **A Regional Climate Action Plan (CAP) promises tremendous co-benefits**
- **The global climate emergency and public support prompt action**
- **Some Northeast Ohio jurisdictions (e.g. Oberlin, Cleveland, Cuyahoga County) have already developed CAPs, but global efforts have elevated planning to the regional scale:**
  - Greenhouse Gas Emissions Inventory
  - Climate Risk and Vulnerability Assessment
  - Climate Mitigation Strategy
  - Climate Adaption Strategy
- **NOACA will host a Climate Action Summit in March**



# ACTION REQUESTED

No action required. This item is for information and discussion.

# PREVIOUS ACTION

No previous action.

# BACKGROUND

## OVERVIEW

- Why a Climate Action Plan?
  - Significant Co-Benefits
  - The Climate Emergency
- Public Attitude Toward Climate Action: 2020 *eNEO2050* Survey
- Regional-Scale Climate Action Plans
- NOACA Climate Action Plan
- Public and Stakeholder Engagement
- Next Steps

# BACKGROUND

## Why a Regional Climate Action Plan? Co-Benefits

- The Great Lakes hold 20% of the world's fresh water; 90% of fresh water in United States; a critical resource to protect
- NEO air quality improvements: remove nonattainment status
- Increase mobility, accessibility and connectivity to provide more opportunity and lift regional economy
- More equitable solutions through climate mitigation and adaptation strategies



# BACKGROUND

## Why a Regional Climate Action Plan? Co-Benefits (cont.)

- Protect investments in valuable transportation infrastructure (asset management)
- Increase efficiency of regional land use and transportation connections
- Improved access to Lake Erie, parks and natural areas
- Reduce public health costs through improved environmental quality and more active lifestyles



# BACKGROUND



Why a Regional Climate Action Plan? **Global Climate Emergency:** Greenhouse gas (GHG) Emissions need to fall around **45% by 2030** to put world on path to limiting warming to 1.5 degrees Celsius by 2100 (2.7 degrees Fahrenheit).

# BACKGROUND

*The Intergovernmental Panel on Climate Change (IPCC) is the international body to assess the science related to climate change. The IPCC was set up in 1988 to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.*

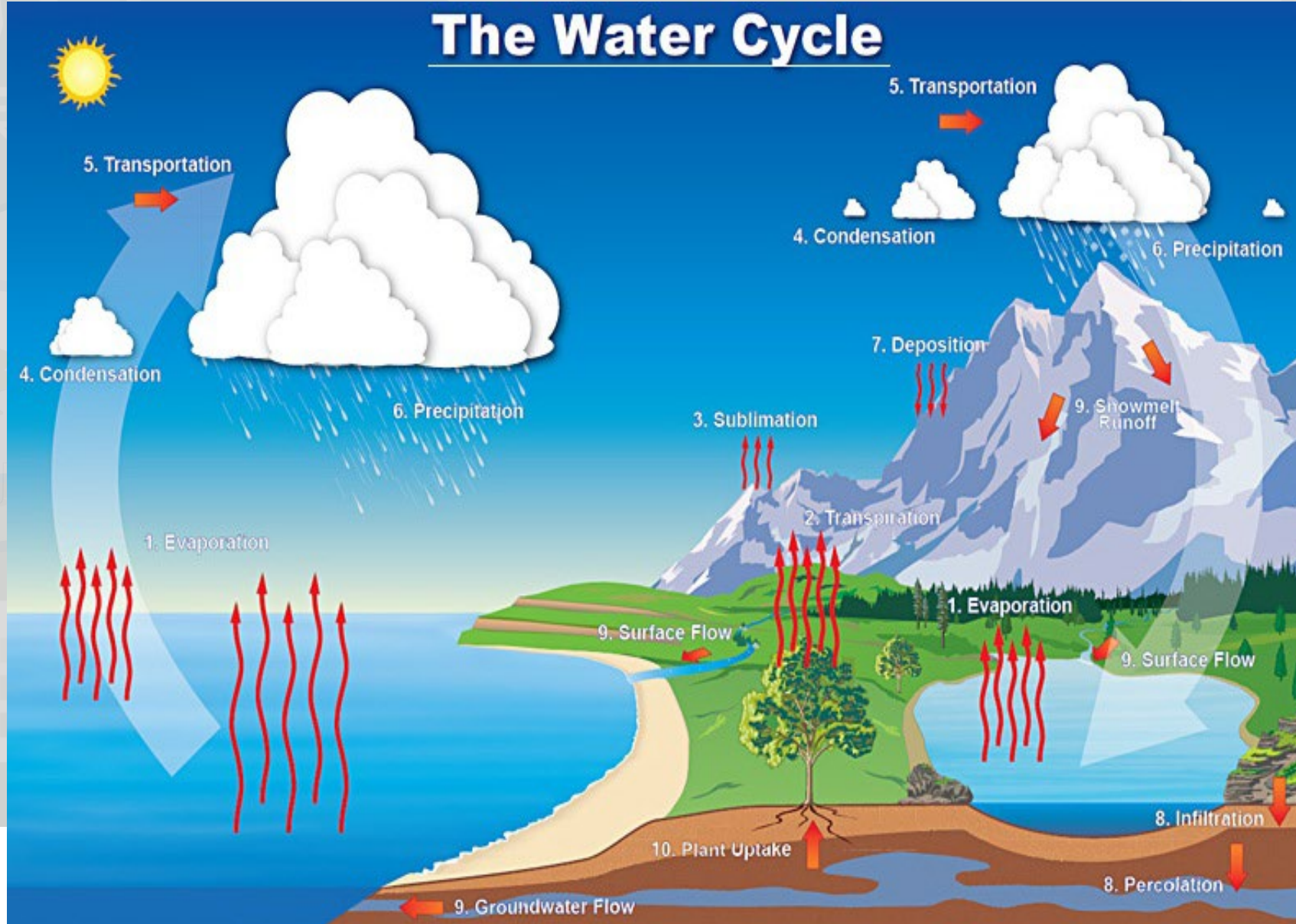


# BACKGROUND

## August 2021 IPCC Sixth Assessment Report

- **Precipitation**
  - Intensify the water cycle (more rainstorms, more drought)
  - More precipitation in higher latitudes; less over subtropics
- **Temperature**
  - Warming will thaw permafrost, decrease seasonal snow cover, melt glaciers and polar ice, amplify urban heat
- **Oceans**
  - Continued sea level rise and flooding, storms and erosion
  - Marine heatwaves, ocean acidification and reduced oxygen levels

# BACKGROUND



# BACKGROUND

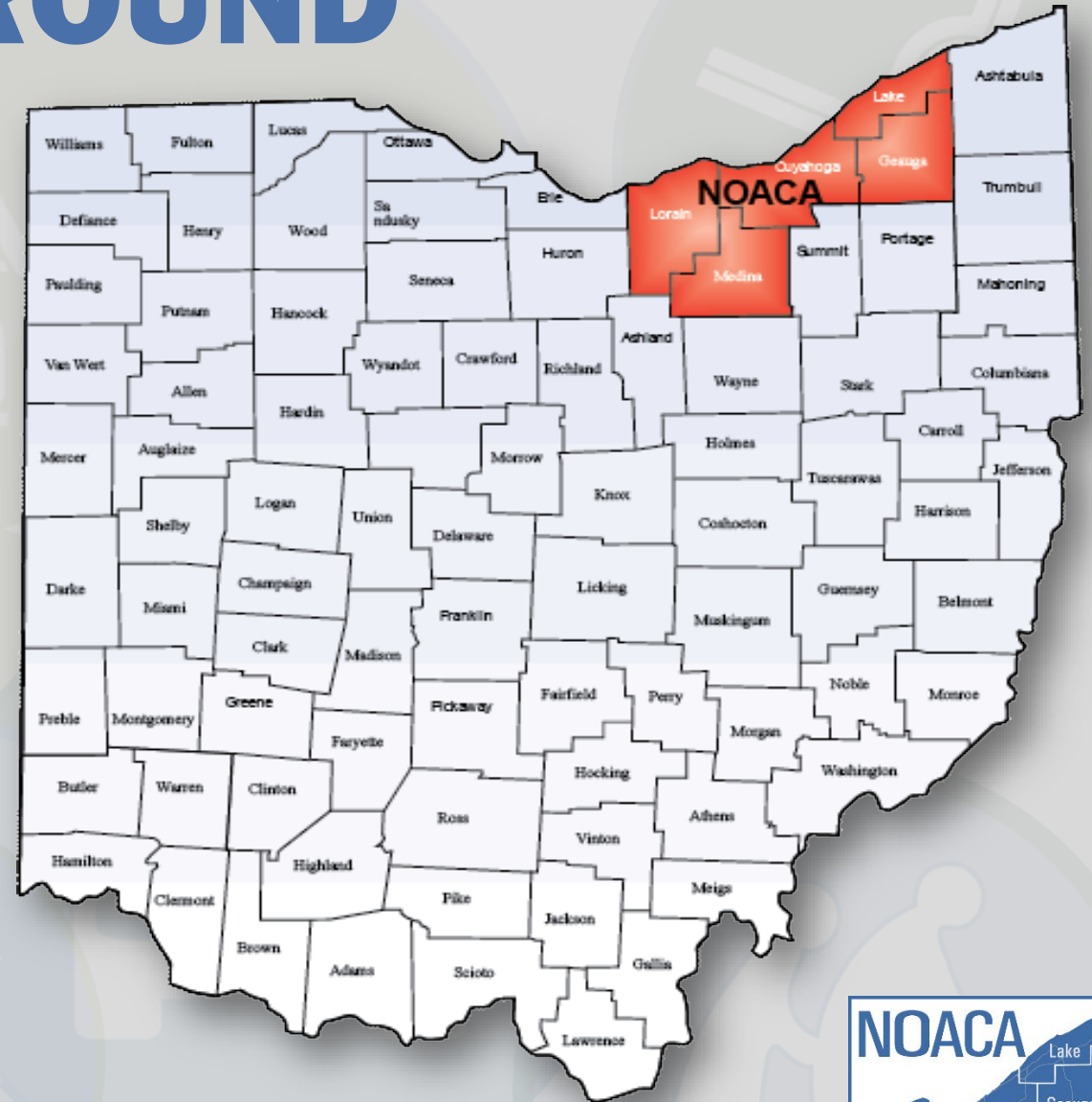
## PUBLIC ATTITUDE TOWARD CLIMATE ACTION

- *eNEO2050* is NOACA's new Long Range Plan (LRP), approved by the NOACA Board in June 2021.
- NOACA and Penn & Associates collaborated to create and implement a survey of a statistically-significant, geographically-proportionate and demographically-representative sample of NOACA's adult population in May-August 2020.

# BACKGROUND

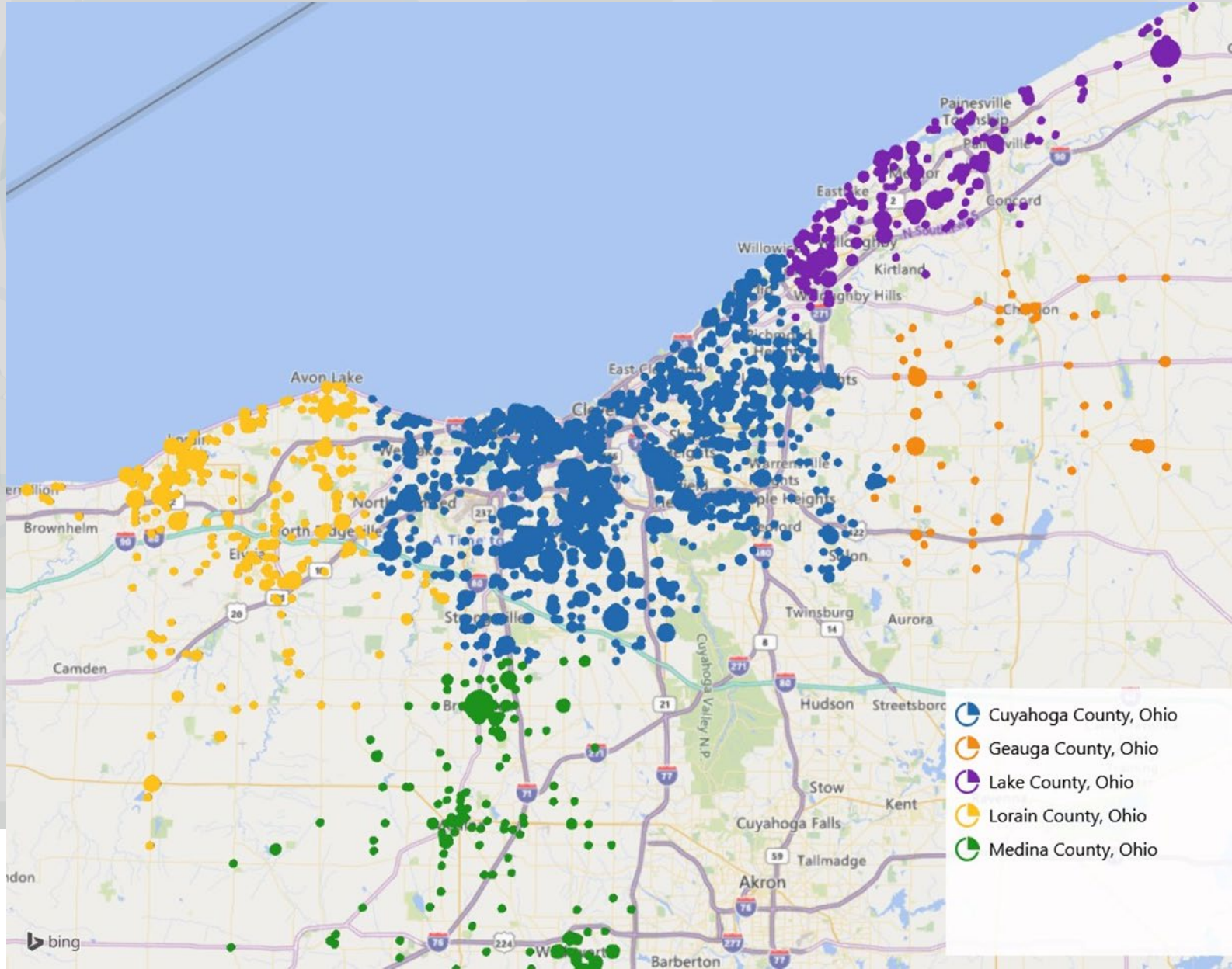
## Cleveland & Counties

	NOACA SURVEY BASE	NOACA Survey %	American Community Survey Pop >18 %
<b>TOTAL</b>	2,464	%	%
<b>Cleveland</b>	446	18	19
<b>Cuyahoga</b>	1,087	44	42
<b>Lorain</b>	362	15	15
<b>Lake</b>	271	11	11
<b>Medina</b>	207	8	9
<b>Geauga</b>	91	4	4



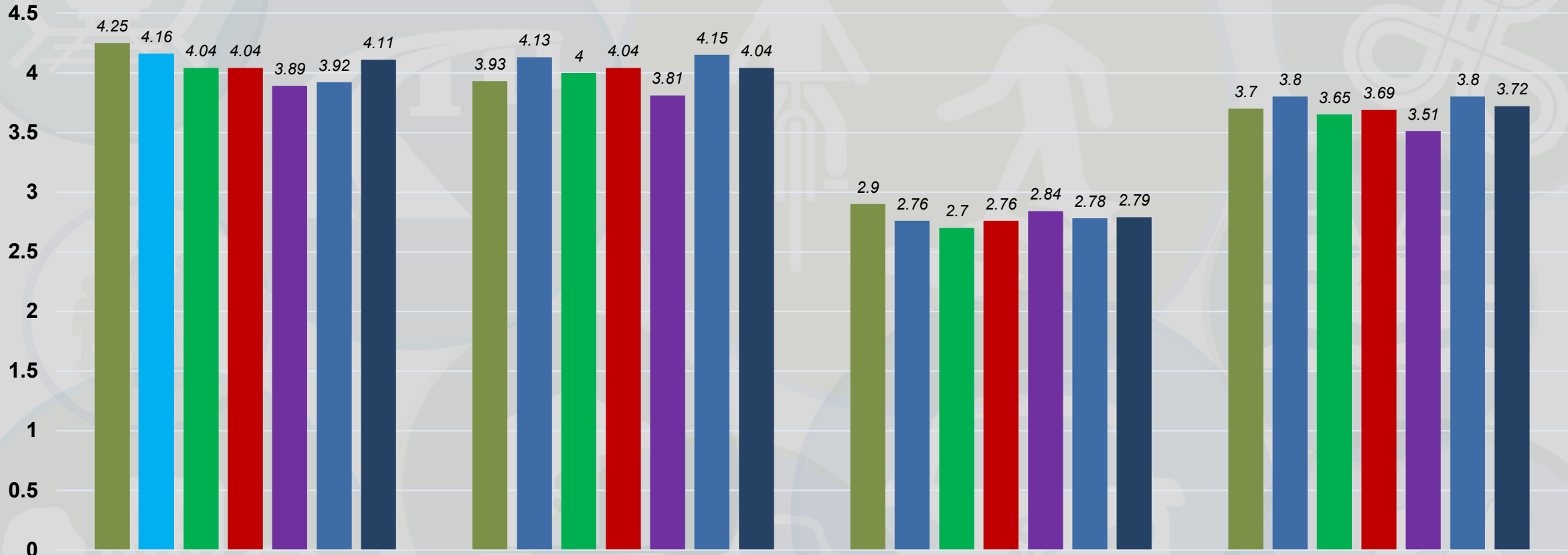


# BACKGROUND



# BACKGROUND

Agreement with Climate Change Statements, 1 = Less Agree, 5 = Most Agree



■ Cleveland ■ Cuyahoga ■ Lorain ■ Lake ■ Medina ■ Geauga ■ NOACA Region





# BACKGROUND

## MONTHLY PERSONAL INCOME WILLING TO INVEST (Q12):

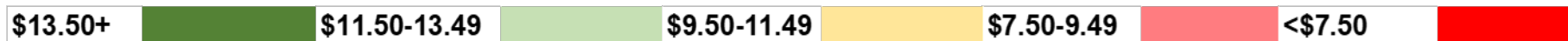
	NOACA Region	Cleveland	Cuyahoga County (no CLE)	Lorain	Lake	Medina	Geauga
Road repair and maintenance	\$14.40	\$20.37	\$13.17	\$11.88	\$14.69	\$13.84	\$10.78
Reduce climate change impacts	\$14.15	\$20.57	\$13.11	\$13.05	\$13.48	\$11.17	\$9.02
Cleaner rivers and lakes	\$13.57	\$19.78	\$12.63	\$12.84	\$10.88	\$12.26	\$9.00
Cleaner drinking water	\$13.56	\$21.82	\$12.12	\$11.79	\$11.17	\$12.47	\$7.65
Hyperloop CLEVELAND-CHICAGO	\$12.78	\$15.38	\$12.39	\$12.48	\$12.39	\$11.87	\$9.49
Cleaner air	\$12.73	\$20.47	\$11.40	\$11.01	\$10.38	\$11.42	\$8.25
V2I (vehicle-to-infrastructure comm)	\$10.81	\$15.91	\$9.50	\$9.68	\$10.36	\$10.48	\$8.59
Hyperloop CLEVELAND-PITTSBURGH	\$10.77	\$14.77	\$9.82	\$9.43	\$10.97	\$11.07	\$6.91
Transportation hub	\$10.16	\$13.69	\$9.39	\$9.19	\$8.20	\$11.48	\$9.30
Commuter rail I-480 route	\$8.07	\$12.87	\$7.87	\$6.46	\$5.03	\$6.54	\$6.39
Brownfield cleanup & redevelop	\$8.03	\$13.05	\$7.02	\$6.47	\$5.94	\$8.72	\$7.01
Improve movement of goods	\$7.93	\$13.38	\$6.61	\$7.26	\$6.37	\$6.54	\$8.25
Smart crosswalks	\$7.24	\$13.50	\$5.33	\$6.32	\$6.33	\$7.12	\$6.91



# BACKGROUND

## MONTHLY PERSONAL INCOME WILLING TO INVEST (Q12):

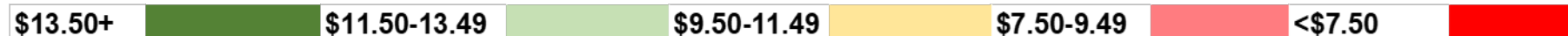
	NOACA Region	Higher-Income Whites	Lower-Income Whites	Higher-Income Non-Whites	Lower-Income Non-Whites
Road repair and maintenance	\$14.40	\$12.58	\$12.92	\$16.13	\$22.29
Reduce climate change impacts	\$14.15	\$11.38	\$13.39	\$18.17	\$20.56
Cleaner rivers and lakes	\$13.57	\$10.39	\$12.45	\$17.77	\$22.91
Cleaner drinking water	\$13.56	\$10.12	\$13.03	\$19.45	\$22.74
Hyperloop CLEVELAND-CHICAGO	\$12.78	\$13.08	\$9.48	\$14.93	\$14.71
Cleaner air	\$12.73	\$9.29	\$11.99	\$19.78	\$21.55
V2I (vehicle-to-infrastructure comm)	\$10.81	\$10.13	\$8.03	\$14.49	\$16.28
Hyperloop CLEVELAND-PITTSBURGH	\$10.77	\$9.87	\$8.54	\$13.57	\$13.70
Transportation hub	\$10.16	\$9.75	\$6.91	\$12.31	\$14.90
Commuter rail I-480 route	\$8.07	\$6.99	\$6.13	\$9.64	\$14.32
Brownfield cleanup & redevelop	\$8.03	\$5.83	\$6.78	\$9.51	\$16.68
Improve movement of goods	\$7.93	\$5.95	\$6.52	\$10.30	\$15.55
Smart crosswalks	\$7.24	\$4.75	\$7.05	\$10.01	\$15.54



# BACKGROUND

## MONTHLY PERSONAL INCOME WILLING TO INVEST (Q12):

	NOACA Region	AGE					
		18-24	25-34	35-44	45-54	55-64	65+
Road repair and maintenance	\$14.40	\$22.78	\$15.85	\$13.90	\$13.69	\$12.70	\$10.80
Reduce climate change impacts	\$14.15	\$25.93	\$18.18	\$13.88	\$13.50	\$10.37	\$8.47
Cleaner rivers and lakes	\$13.57	\$25.56	\$16.57	\$12.85	\$12.84	\$10.47	\$8.23
Cleaner drinking water	\$13.56	\$22.71	\$19.00	\$14.53	\$12.82	\$10.18	\$7.07
Hyperloop CLEVELAND-CHICAGO	\$12.78	\$17.63	\$16.51	\$14.51	\$12.79	\$10.38	\$8.05
Cleaner air	\$12.73	\$22.02	\$16.46	\$13.07	\$13.06	\$9.28	\$7.15
V2I (vehicle-to-infrastructure comm)	\$10.81	\$16.20	\$14.31	\$10.50	\$10.38	\$8.45	\$7.86
Hyperloop CLEVELAND-PITTSBURGH	\$10.77	\$18.06	\$13.74	\$11.79	\$10.33	\$8.73	\$5.62
Transportation hub	\$10.16	\$17.93	\$12.43	\$10.04	\$9.16	\$7.78	\$6.97
Commuter rail I-480 route	\$8.07	\$12.60	\$11.11	\$8.24	\$7.72	\$6.35	\$4.88
Brownfield cleanup & redevelop	\$8.03	\$16.69	\$9.21	\$8.35	\$7.25	\$5.39	\$4.81
Improve movement of goods	\$7.93	\$15.20	\$9.83	\$8.38	\$7.35	\$5.28	\$4.77
Smart crosswalks	\$7.24	\$14.10	\$10.36	\$7.35	\$6.49	\$5.42	\$3.00



# BACKGROUND

## Why a Climate Action Plan at the regional scale?

Although a number of organizations/partnerships work on climate change at metropolitan area and regional level, the traditional approach for cities and communities in the United States to respond to climate change has been to do so at the scale of the administrative boundary of a municipal government. There are numerous examples of a more metropolitan or regional approach in other regions of the world, which offers several benefits.

# BACKGROUND

## Benefits of Regional Climate Action Plans

- Foster more ambitious and widespread action
- Match measurement and action to the scale of systems that produce GHG emissions (e.g. transportation)
- Leverage greater resources and collective efforts through multi-level governance
- Create economies of scale (e.g. public procurement or shared consultant costs)
- Bundle efforts to resolve lack of human and financial resources in smaller entities.





## ***What is the Global Covenant of Mayors for Climate and Energy?***

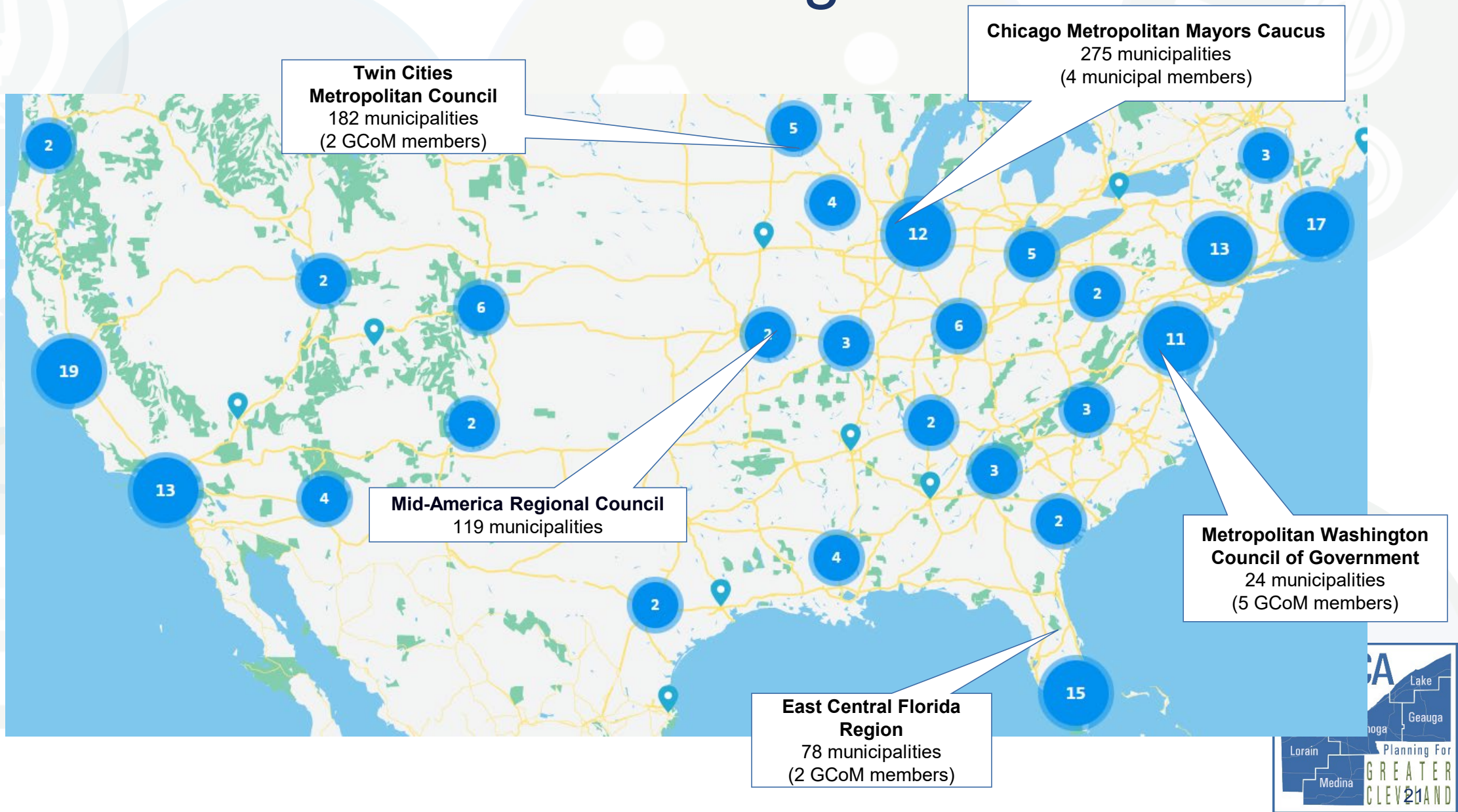
***A first-of-its-kind and largest global alliance of cities leading the fight against climate change, with support from city networks and other partners***

- Recognizes that climate action is about improving quality of life, creating new jobs and economic opportunities, and ensuring a safe climate for future generations
- Values vertical alignment and collaboration across all levels of government to support local-level action
- Makes all city-level data on local climate actions publicly available on one consistent online platform – for the first time ever
- Creates an evidence base for increased investment in low-carbon urban infrastructure

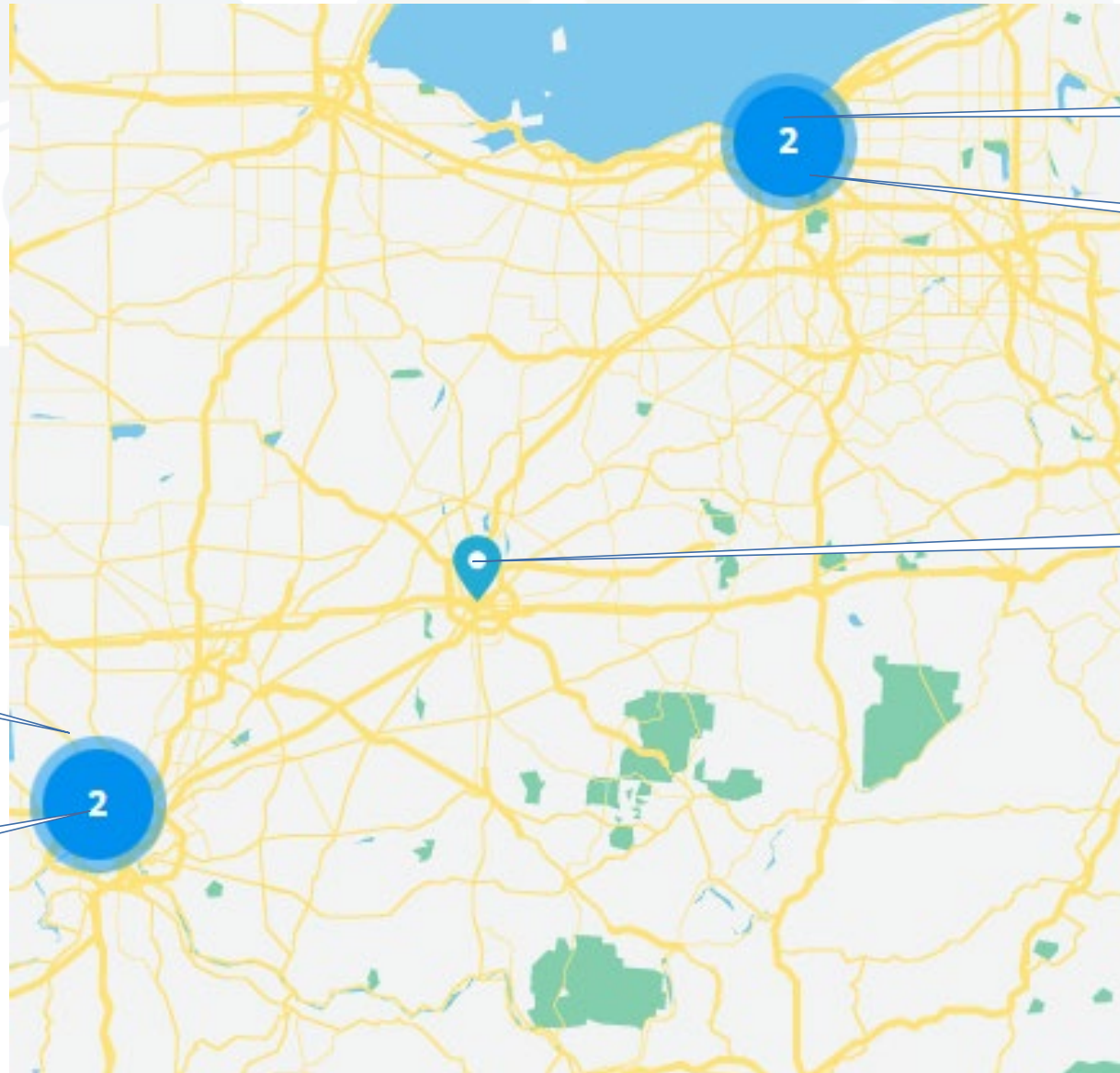




# GCoM USA Regions



# GCoM Members in Ohio



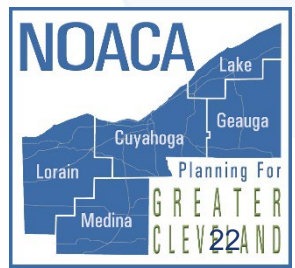
Cleveland

Cuyahoga County

Columbus

Oxford

Cincinnati





# BACKGROUND

## Regional Climate Action Plan Major Project Components:

- Greenhouse Gas Emissions Inventory
- Climate Risk and Vulnerability Assessment
- Climate Mitigation Strategy
- Climate Adaption Strategy

## Inventory results will guide decision about strategies

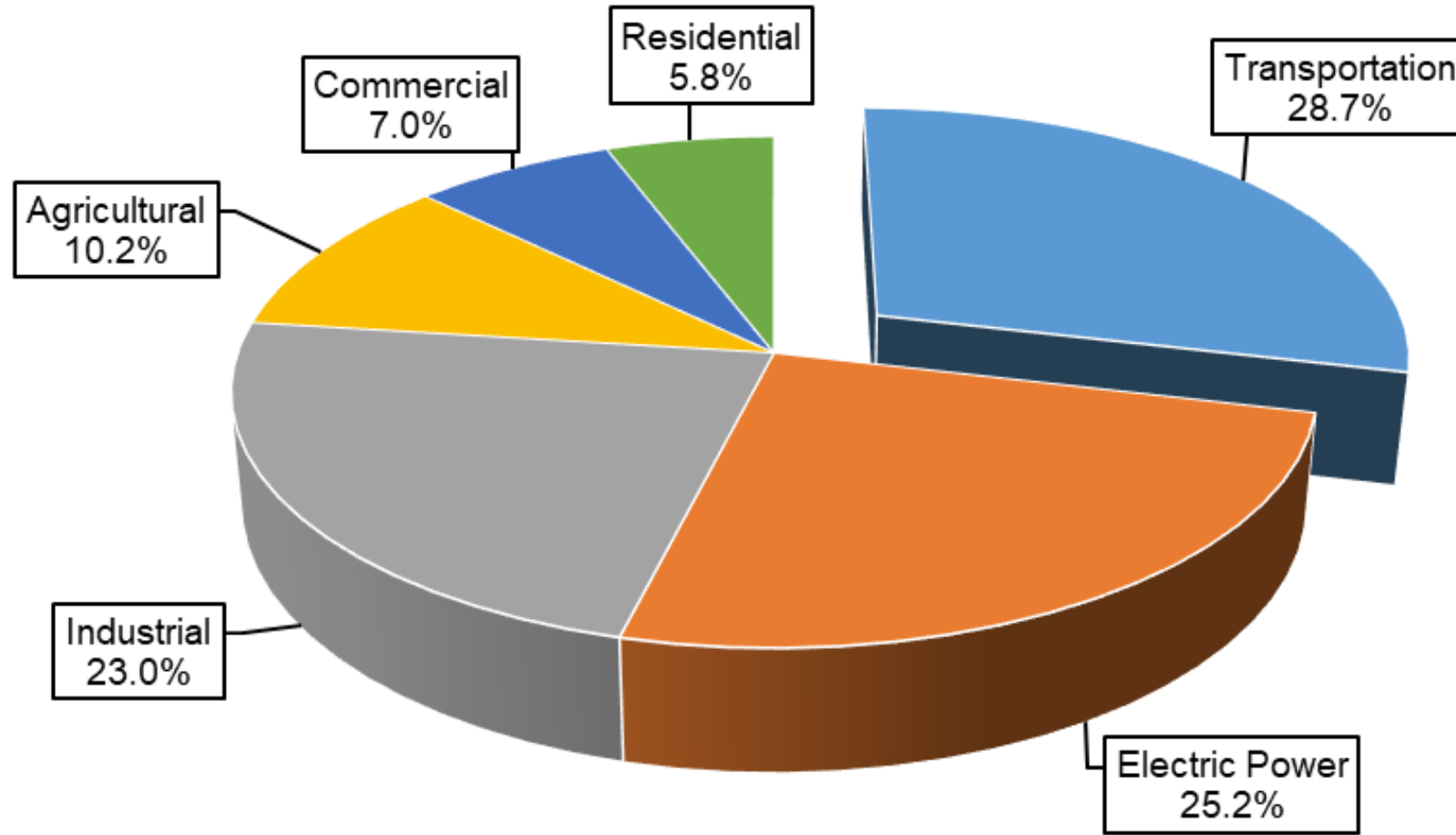
- Focus on transportation (mobile emissions) only; OR
- Comprehensive strategies (mobile and non-mobile emissions (required for GCoM membership)

# BACKGROUND

*The transportation sector generates the largest percentage of greenhouse gases emitted in the United States (29%).*

*Motor vehicles are the leading cause of air pollution in the United States, though other modes of travel, such as planes and cruise ships, create greater emissions per voyage per person.*

# BACKGROUND



# BACKGROUND

## NOACA Climate Action Plan- Development Schedule

**Climate Action Summit**  
March 2022

**Technical Workshop #1**  
May 2022

**Greenhouse Gas Emissions Inventory/Risk and Vulnerability Assessment**  
August 2022

**Climate Mitigation Strategy**  
January 2023

**Climate Adaptation Strategy**  
March 2023

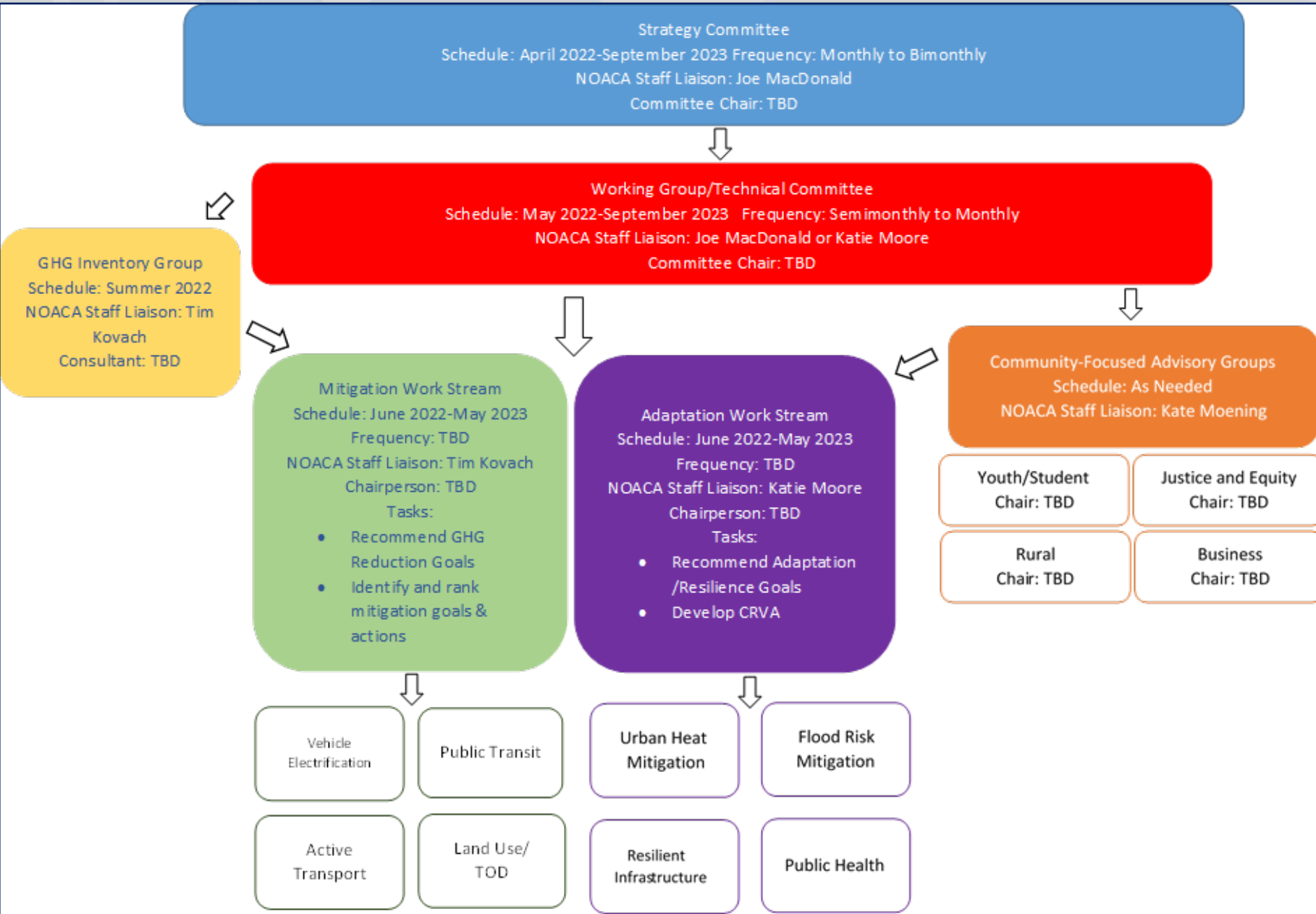
**Technical Workshop #2**  
April 2023

**Final Climate Action Plan**  
June 2023



# BACKGROUND

## Public and Stakeholder Engagement



# BACKGROUND

## Strategy Committee

Schedule: February 2022-June 2023 Frequency: Monthly to Bimonthly

NOACA Staff Liaison: Joe MacDonald

Committee Chair: TBD



## Working Group/Technical Committee

Schedule: March 2022-June 2023 Frequency: Semimonthly to Monthly

NOACA Staff Liaison: Joe MacDonald or Katie Moore

Committee Chair: TBD



# BACKGROUND

**GHG Inventory Group**  
**Schedule: Summer 2022**  
**NOACA Staff Liaison: Tim**  
**Kovach**  
**Consultant: TBD**

# BACKGROUND

## Mitigation Work Stream

Schedule: May 2022-May 2023

Frequency: TBD

NOACA Staff Liaison: Tim Kovach

Chairperson: TBD

Tasks:

- Recommend GHG Reduction Goals
- Identify and rank mitigation goals & actions

## Adaptation Work Stream

Schedule: May 2022-May 2023

Frequency: TBD

NOACA Staff Liaison: Katie Moore

Chairperson: TBD

Tasks:

- Recommend Adaptation /Resilience Goals
- Develop CRVA

Vehicle  
Electrification

Public Transit

Active  
Transport

Land Use/  
TOD

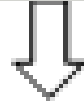
Urban Heat  
Mitigation

Flood Risk  
Mitigation

Resilient  
Infrastructure

Public Health

# BACKGROUND



**Public-Focused Advisory Groups**  
**Schedule: Quarterly (more as needed)**  
**NOACA Staff Liaison: Kate Moening**  
**Chairs: TBD**

**Youth/Emerging  
Leaders**

**Equity**

**Rural**

**Business**

**Community**



# BACKGROUND

## NOACA Climate Action Summit



- Virtual Event in March
- Keynote, Partner Speakers
- Interactive Audience Engagement
- Moderated Panel Discussions addressing CAP development and community commitment
- Call to Action and Next Steps



# NEXT STEPS

- **NOACA staff will implement the CAP Project Management Plan; commence engagement; and market NOACA's Climate Action Summit.**
- **Policy Committee will receive quarterly CAP updates**





NOACA will **STRENGTHEN** regional cohesion, **PRESERVE** existing infrastructure, and **BUILD** a sustainable multimodal transportation system to **SUPPORT** economic development and **ENHANCE** quality of life in Northeast Ohio.

