

ALBANY COUNTY

CLIMATE RESILIENCY PLAN

Technical Advisory Committee // Meeting #1

September 9, 2021

MEETING OVERVIEW

01 Project overview

02 Climate resilience in Albany County

03 Asset inventory

04 Needs and opportunities discussion

05 Visioning exercise

06 Next steps

01

PROJECT OVERVIEW

Purpose

Project team

Scope

Schedule

PROJECT PURPOSE

The Albany County Climate Resiliency Plan aims to **improve the ability of municipalities and other private and public stakeholders to prepare for, adapt to, and minimize impacts from flooding and other severe weather events.**

»» CLIMATE CHANGE IS HAPPENING IN ALBANY COUNTY.

Temperatures are warming.

+0.22

°F / decade between 1901 and 2012

Precipitation is increasing.

+0.90

inches / decade between 1901 and 2012

01 PROJECT OVERVIEW

A GLOBAL & LOCAL ISSUE

GLOBAL

IPCC Report (2021)

NEW YORK STATE

Climate Leadership and Community Protection Act (2019)

Community Risk and Resilience Act (2014)

ClimAID (2011 and 2014 update)

ALBANY COUNTY

Multi-Jurisdictional Hazard Mitigation Plan (2018)

Clean Energy Community Designation (2017)

Climate Smart Communities (2009)



01 PROJECT OVERVIEW

A LOCAL ISSUE



»»» Flooding in Downtown Albany (June 2021)



»»» Nor'easter Aftermath Guilderland (Dec. 2020)



»»» Storm Damage in the City of Albany (Aug. 2021)



»»» Flooding in Downtown Albany (Aug. 2015)



»»» Hurricane Irene, Berne (Sept. 2011)

PROACTIVE APPROACH

consider a range of future
CLIMATE IMPACTS

Sea Level Rise

Extreme Precipitation

Flooding

Coastal Storms

Extreme Temperature

Heat Waves

Drought



understand their affects on
ALBANY COUNTY

Economic systems

Infrastructure

Health/social services

Natural/cultural resources

Housing

Vulnerable populations



identify resiliency
PROJECTS

Capital improvements

Community planning

Capacity building

Recovery & response

Policies

Laws / regulations

PROJECT TEAM

Albany County

- Manage and guide project
- Identify key stakeholders
- Support public engagement
- Review project deliverables
- Facilitate plan implementation

NYS Dept. of State

- Funding agency
- Advisory role
- Technical support
- Ensure alignment with state priorities
- Assist with the identification of funding opportunities
- Review and approve project deliverables

Consultant Team

- Provide technical support / expertise
- Develop tools to support project
- Produce all project deliverables
- Facilitate and conduct community engagement

with a lot of support from... **Technical Advisory Committee** (you all!)

Municipal Working Group

Stakeholders

Public

FIVE COUNTY RESILIENCY PLANS

➤➤➤ In 2018, five counties were awarded funds to develop countywide resiliency plans to integrate the principles of Smart Growth and climate resiliency:

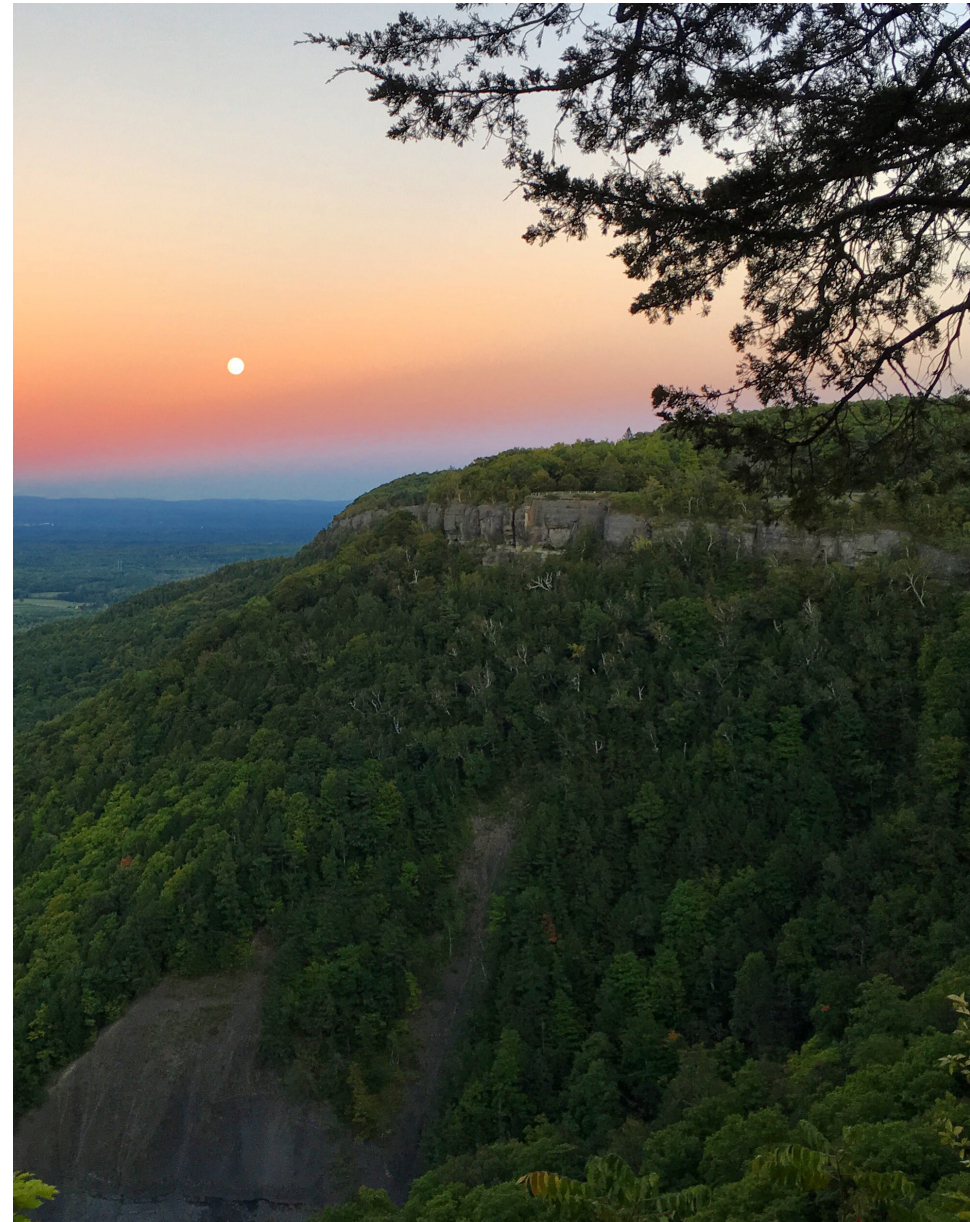
Albany County

Genesee County

Orange County

Sullivan County

Tompkins County



PROJECT SCOPE

building on existing related plans and initiatives, this project will:

create a
**COUNTY
PROFILE**
to lay the
foundation for
the plan



establish a
**COUNTY
RESILIENCE
VISION**
to guide the
planning process



develop an
**ASSET
INVENTORY**
collaboratively
w/ municipalities
and stakeholders



conduct a
**RISK
ASSESSMENT**
to identify
vulnerable
assets, with a
focus on flood
risks



identify
**PROJECTS &
STRATEGIES**
to increase
community
resiliency to
climate change

COMMUNITY ENGAGEMENT

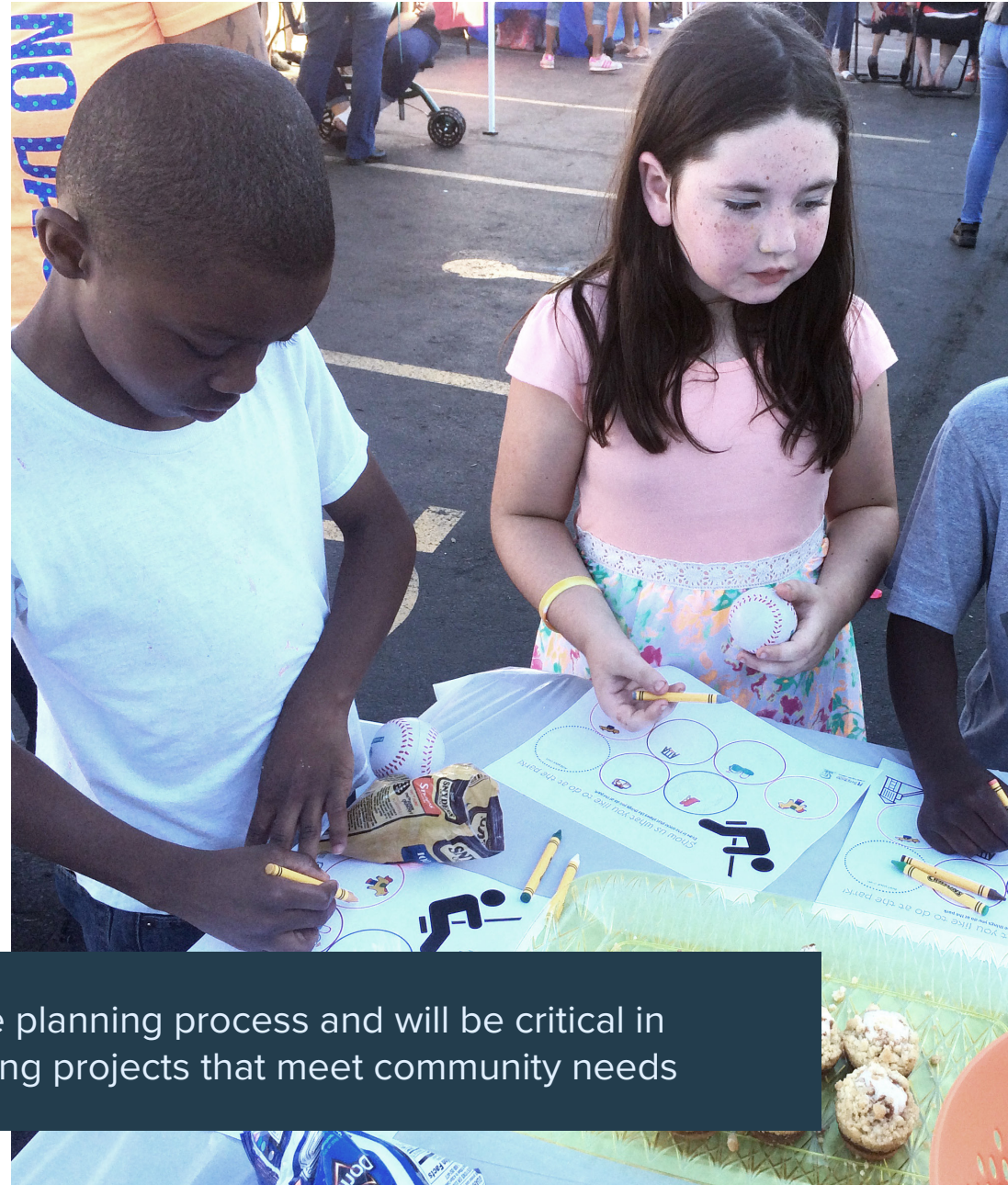
Technical Advisory Committee

Municipal Working Group

Stakeholder Meetings

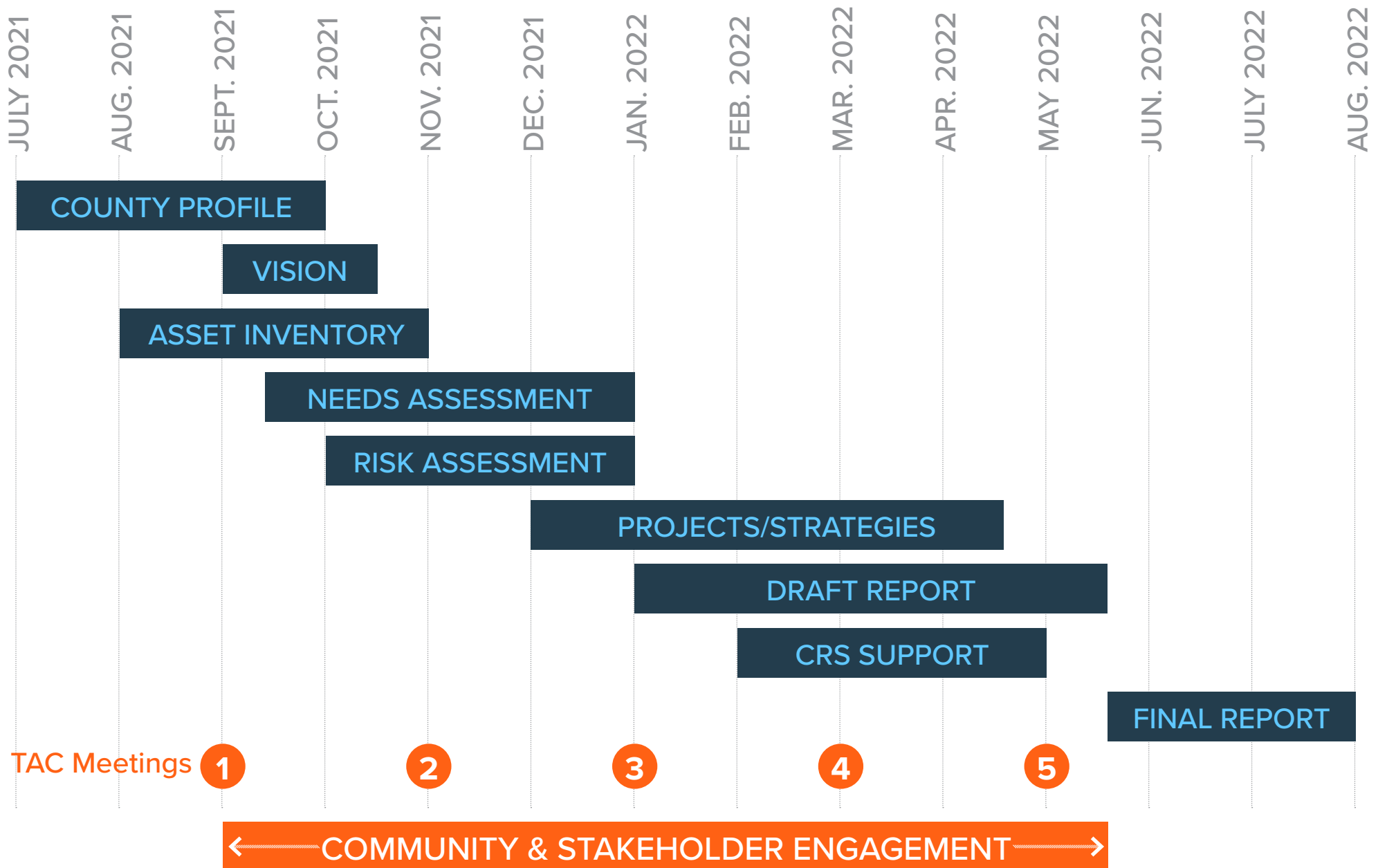
Public Events / Community Workshops

Project Webpage on County Website



»» public engagement will occur throughout the planning process and will be critical in developing the resilience vision and identifying projects that meet community needs

PROJECT SCHEDULE



02

CLIMATE RESILIENCE IN ALBANY COUNTY

Defining resilience

Resilience of what and to what

Potential approaches to climate resilience

WHAT IS RESILIENCE?

to “jump back” or “rebound”
derived from the Latin word “resiliere”

the capacity of a social-ecological system
to absorb or withstand disturbances and
other stressors and still maintain its basic
structure and function

Holling 1973, Gunderson & Holling 2002,
Walker et al. 2004

a measure of how well people and societies
can adapt to a new reality and capitalize on
the new possibilities offered

Paton 2006, 2008



GROUP DISCUSSION!

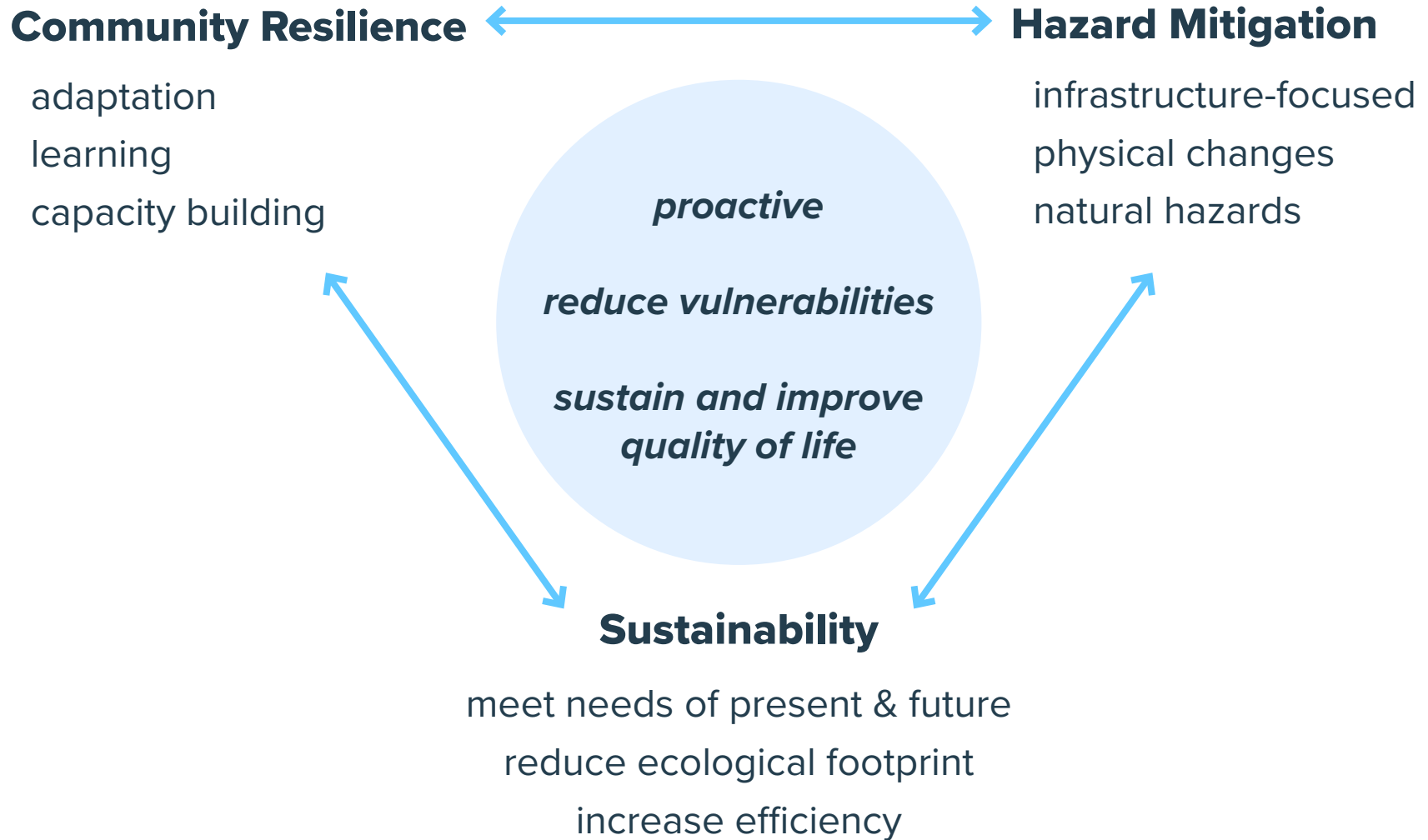
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device or open another
window and go to:

www.menti.com

Then, enter the code:

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WHAT IS RESILIENCE?



BENEFITS OF RESILIENCE

- Reduced vulnerability to disturbances
- Increased capacity to learn from, anticipate, and adapt to change
- Greater capacity to provide goods, services, and support systems
- Enhanced quality of life for all residents



GROUP DISCUSSION!

qualities of a **RESILIENT WORLD**

Diversity

Ecological variability

Modularity

Manage slow variables
& feedbacks

Social capital

Innovation

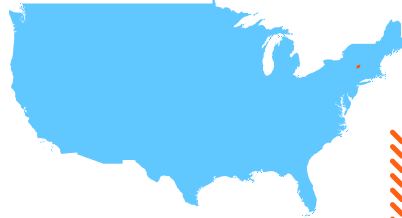
Redundancy

Ecosystem services

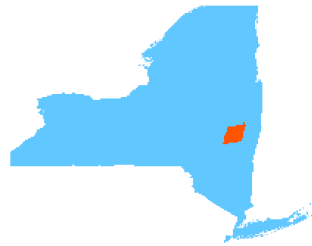
Walker & Salt (2006)

RESILIENCE ACROSS SCALES

United States



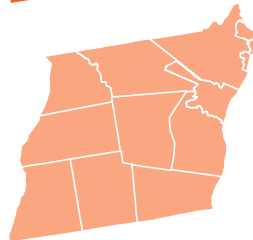
New York State



Albany County



Municipalities



Landowners

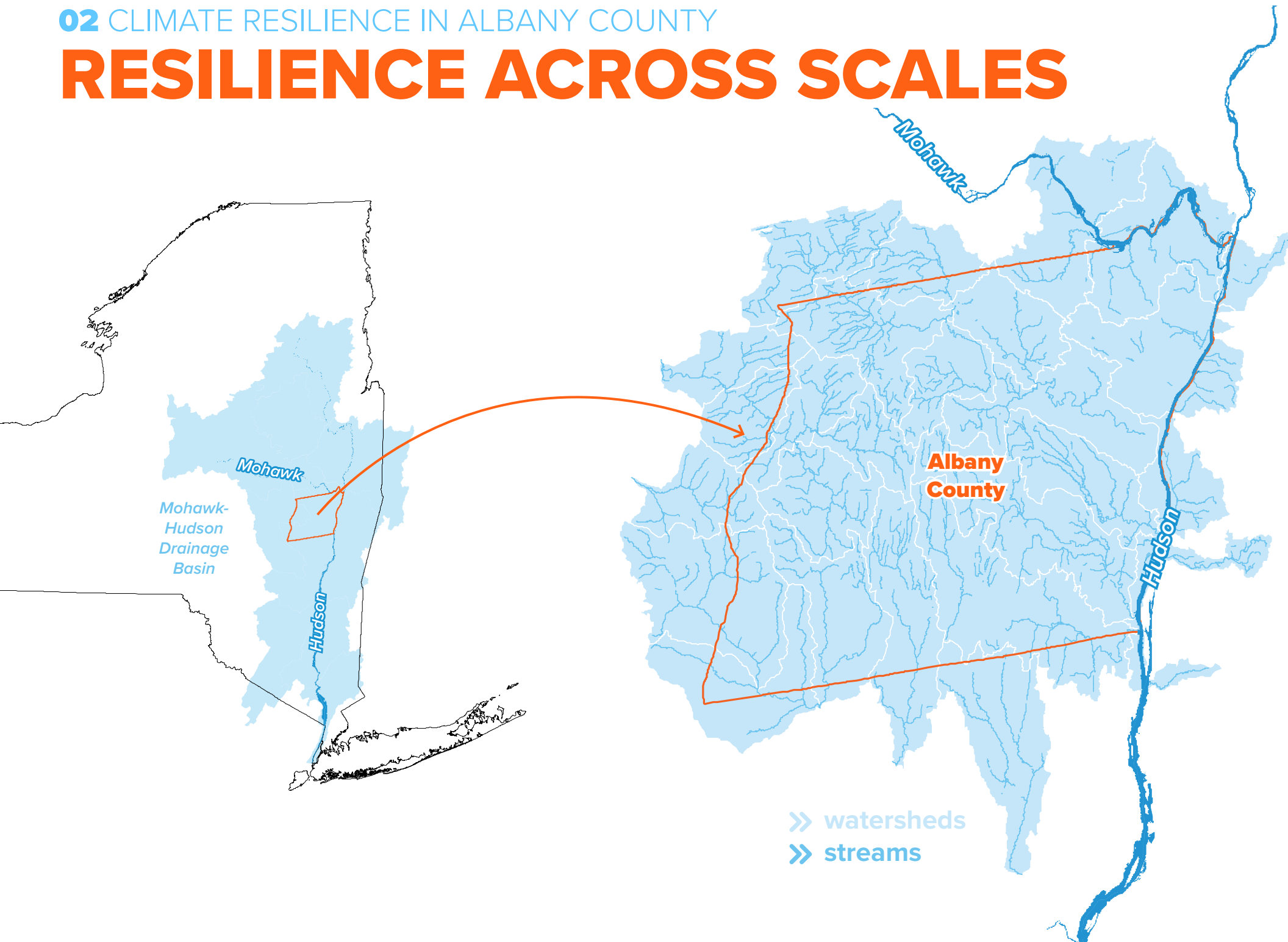


**Slower moving
variables**
(laws, regulations)

Focal scale

**Faster moving
variables**
(land use & management)

RESILIENCE ACROSS SCALES



RESILIENCE OF WHAT & TO WHAT?

RESILIENCE OF

the systems & communities
that define Albany County

RESILIENCE TO

the impacts of climate change:

sea level rise

extreme precipitation

coastal storms

flooding

extreme temperatures

heat waves

drought



GROUP DISCUSSION!

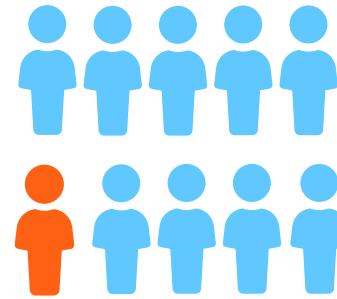
A DIVERSE COUNTY



Population

306,968

0.28% Growth



Median Age

38



Average Median Household Income

\$66,252



Total Vacant Housing

10.60%

0.66% Growth

A DIVERSE COUNTY



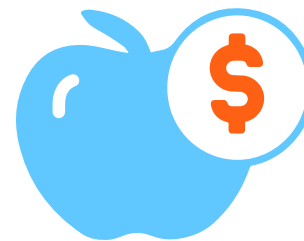
Poverty Rate
11.9%
12% Decline



Percent of Labor Force Unemployed
3%
32% Decline

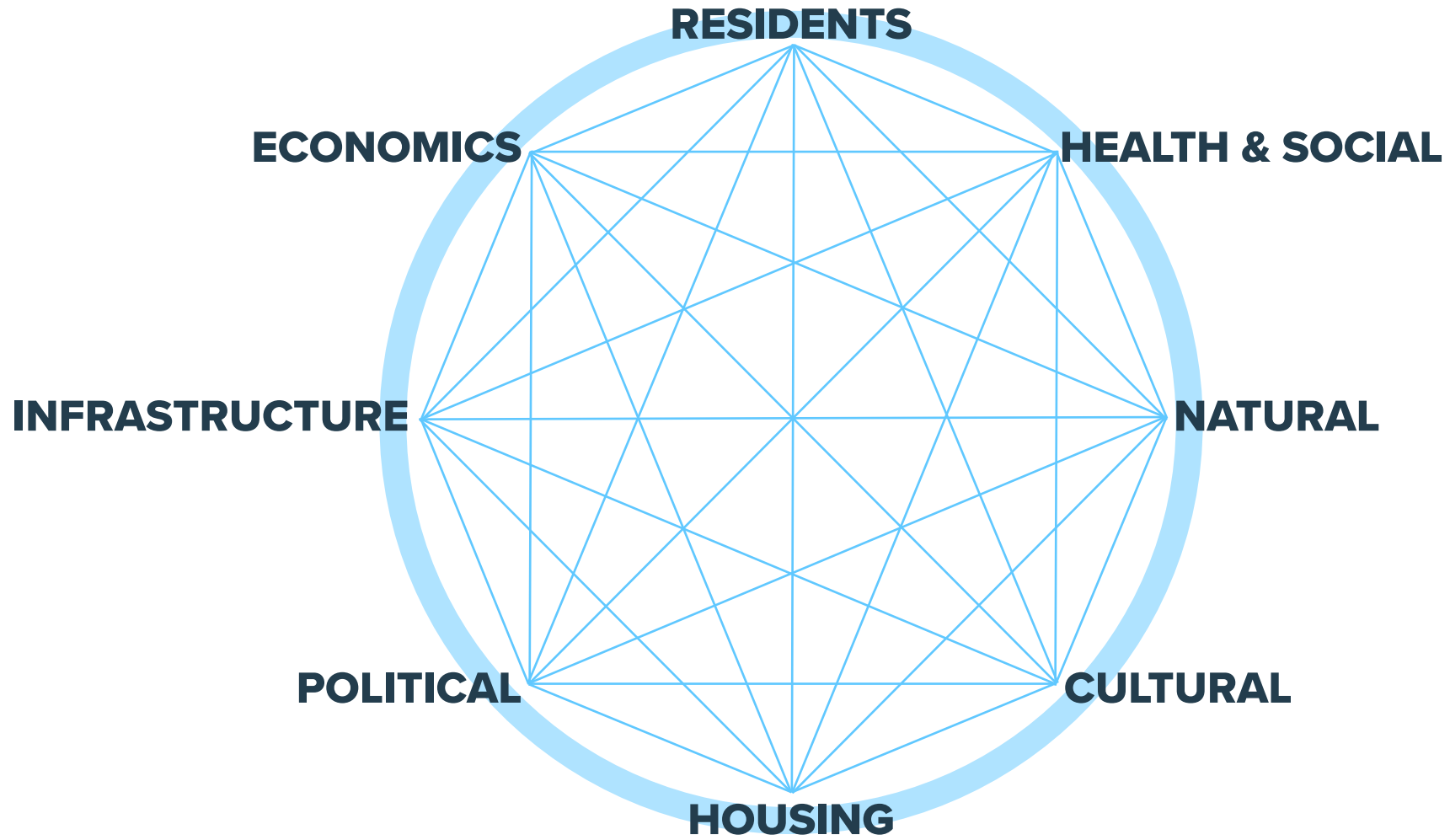


No Access to a Vehicle
12,850
23% Growth



Households that Receive Food Assistance
14,243
7% Growth

INTERCONNECTED SYSTEMS



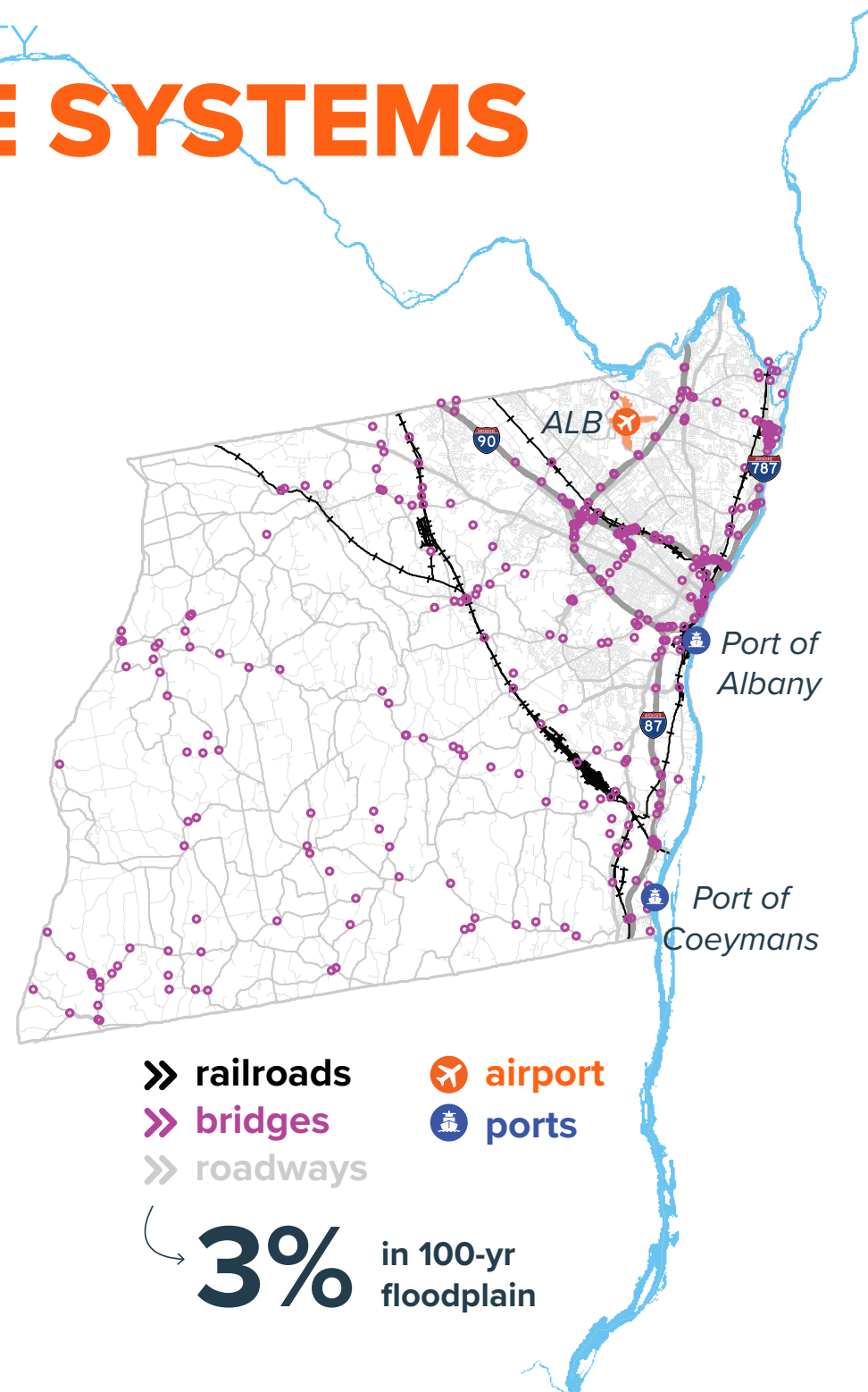
INFRASTRUCTURE SYSTEMS

RESILIENCE OF

transportation networks, energy supply and distribution, water supply and treatment, telecommunications

POTENTIAL CLIMATE IMPACTS

- sea level rise will affect bridge clearances and put coastal infrastructure at risk
- storm events and flooding will disrupt service and access



ECONOMIC SYSTEMS

RESILIENCE OF

downtowns, businesses, supply chains, workforce

POTENTIAL CLIMATE IMPACTS

- resilience of global economic systems will have local impact
- extreme weather events may cause physical damage and/or disrupt services and access



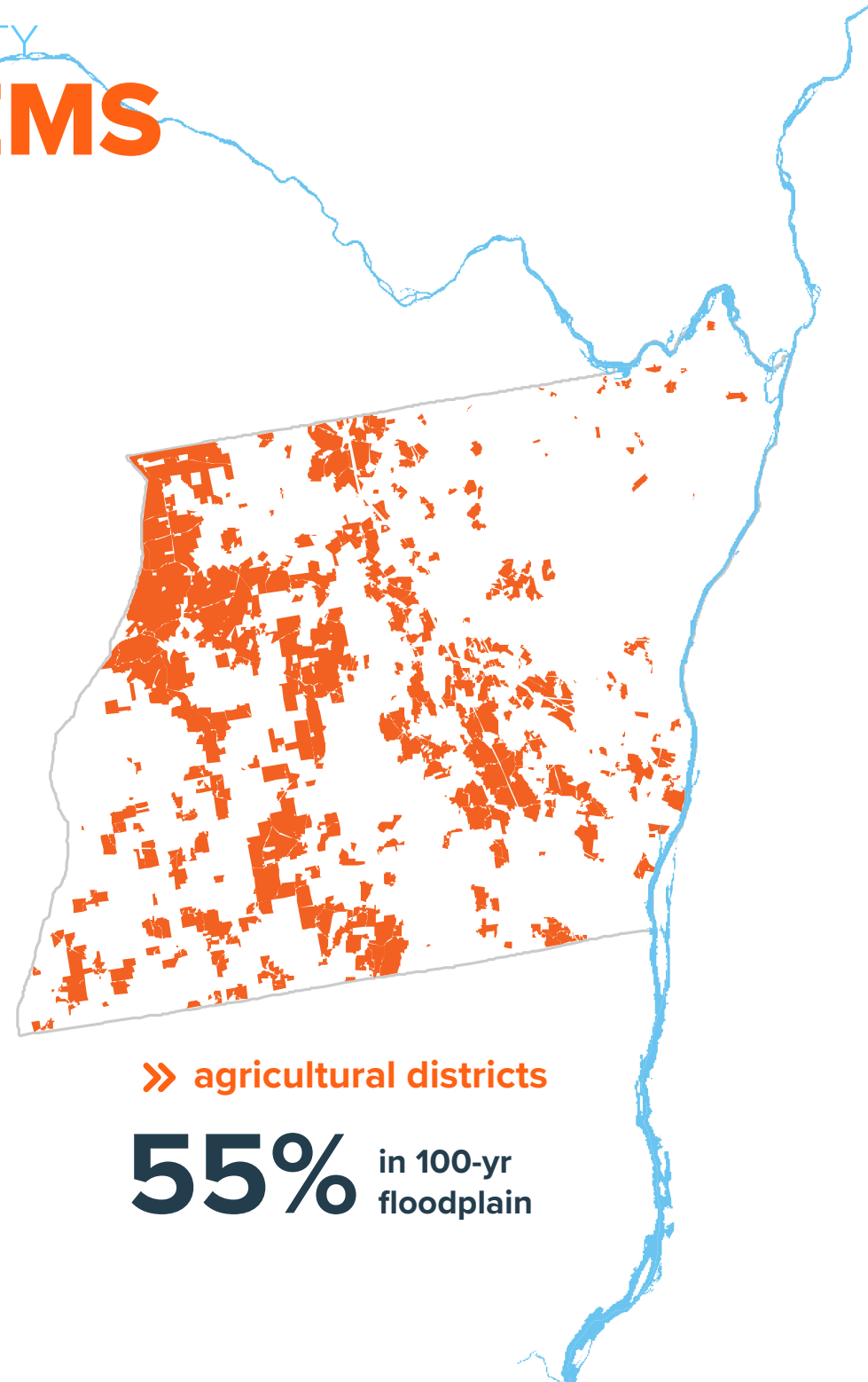
ECONOMIC SYSTEMS

RESILIENCE OF

agriculture

POTENTIAL CLIMATE IMPACTS

- heat waves will stress livestock and crops causing shifts in quality, output, and economic sustainability
- higher volumes of runoff will require infrastructure upgrades
- temperature increases will intensify pest and disease pressures



» agricultural districts

55% in 100-yr
floodplain

NATURAL SYSTEMS

RESILIENCE OF

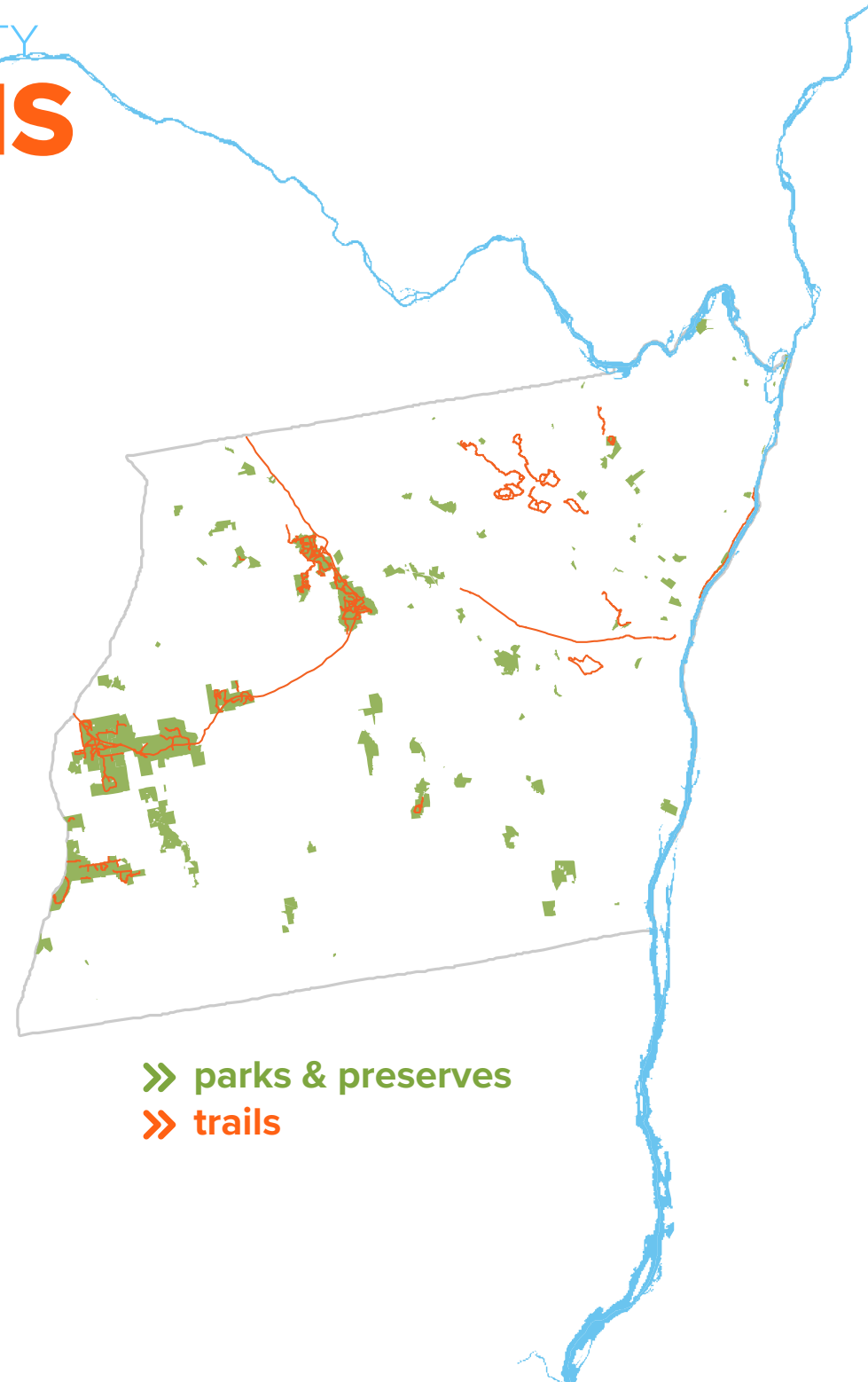
ecosystems, wildlife, nature preserves

POTENTIAL CLIMATE IMPACTS

- increasing temperatures will shift species distributions
- changes in temperature and precipitation will introduce new pests and invasive species

POTENTIAL BENEFITS

- carbon sequestration
- flood storage
- ecosystem services



HEALTH & SOCIAL SERVICES

RESILIENCE OF

schools, medical facilities, libraries, fire, emergency response, police, and other community services

POTENTIAL CLIMATE IMPACTS

- extreme weather events can disrupt access, deployment, and quality of response services
- increased GHG emissions will negatively impact air quality and public health



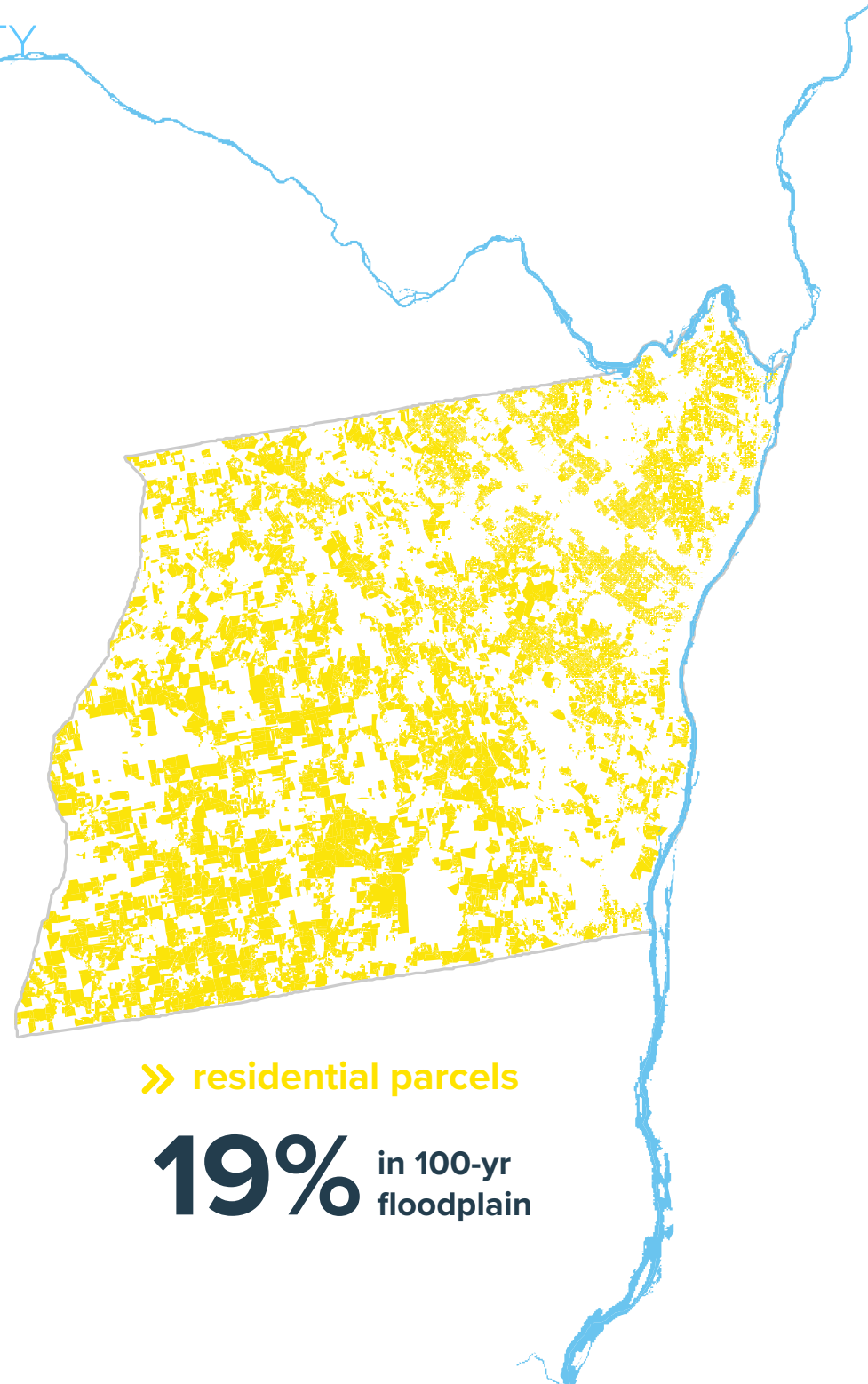
HOUSING

RESILIENCE OF

housing stock

POTENTIAL CLIMATE IMPACTS

- loss of property and life due to extreme weather events
- displacement and housing instability due to damage and cost of repairs
- exposure to hazardous materials



» residential parcels

19% in 100-yr
floodplain

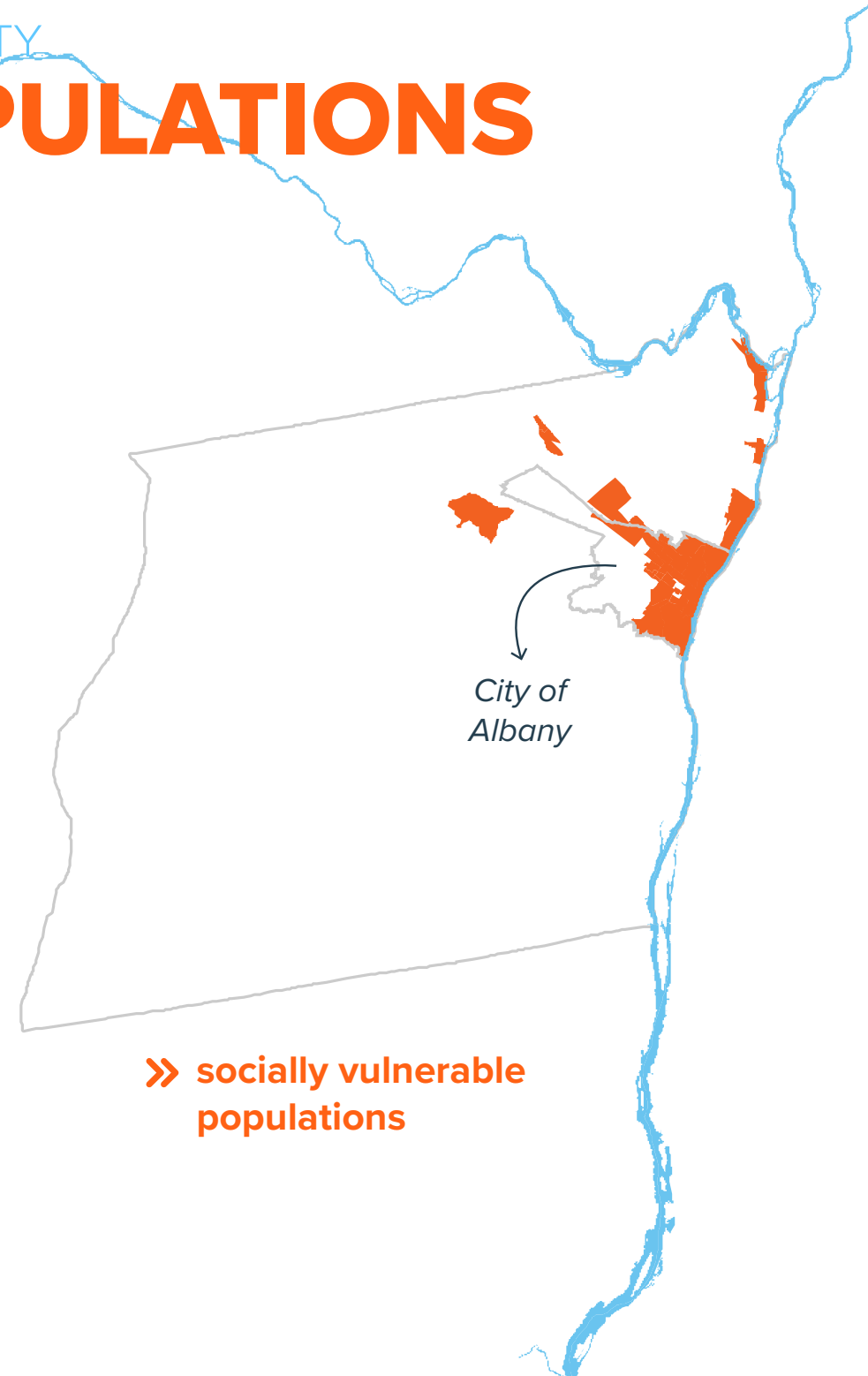
VULNERABLE POPULATIONS

RESILIENCE OF

all communities, regardless of income or socio-economic status

POTENTIAL CLIMATE IMPACTS

- heat waves compounded in urban areas due to heat island effect
- disproportionate loss of property and life and displacement as a result of extreme weather events



City of
Albany

» socially vulnerable
populations

TOOLS FOR CLIMATE RESILIENCY

ADAPTATION

focuses on addressing and adapting to the impacts of climate change, such as severe storms and flooding

MITIGATION

tackles the cause of climate change by reducing greenhouse gas emissions



TOOLS FOR CLIMATE RESILIENCY

ADAPTATION EXAMPLES

Policies and regulations

- Higher regulatory standards for floodplain management
- Building code updates
- Flood-resilient zoning

Projects and programs

- Green infrastructure
- Relocation/renovation of critical facilities
- Open space conservation
- Voluntary buy-outs
- Education and capacity building

MITIGATION EXAMPLES

Policies and regulations

- Low emission vehicle (LEV) standards
- Idle reduction
- Complete street policies
- Parking requirements
- Adoption of smart growth principles

Projects and programs

- Renewable energy infrastructure
- Energy efficiency upgrades
- Electric vehicle charging infrastructure
- Transit, bicycle and pedestrian facilities
- Reforestation and conservation



GROUP DISCUSSION!

ALBANY COUNTY RESILIENCE POLICIES / INITIATIVES

2019

Traditional Non-Land Use Control MS4/
Stormwater Management Policy

2015

Policy for the Design of County Facilities
and the Coordination of Green Infrastructure
Elements to Reduce Stormwater Pollution

2014

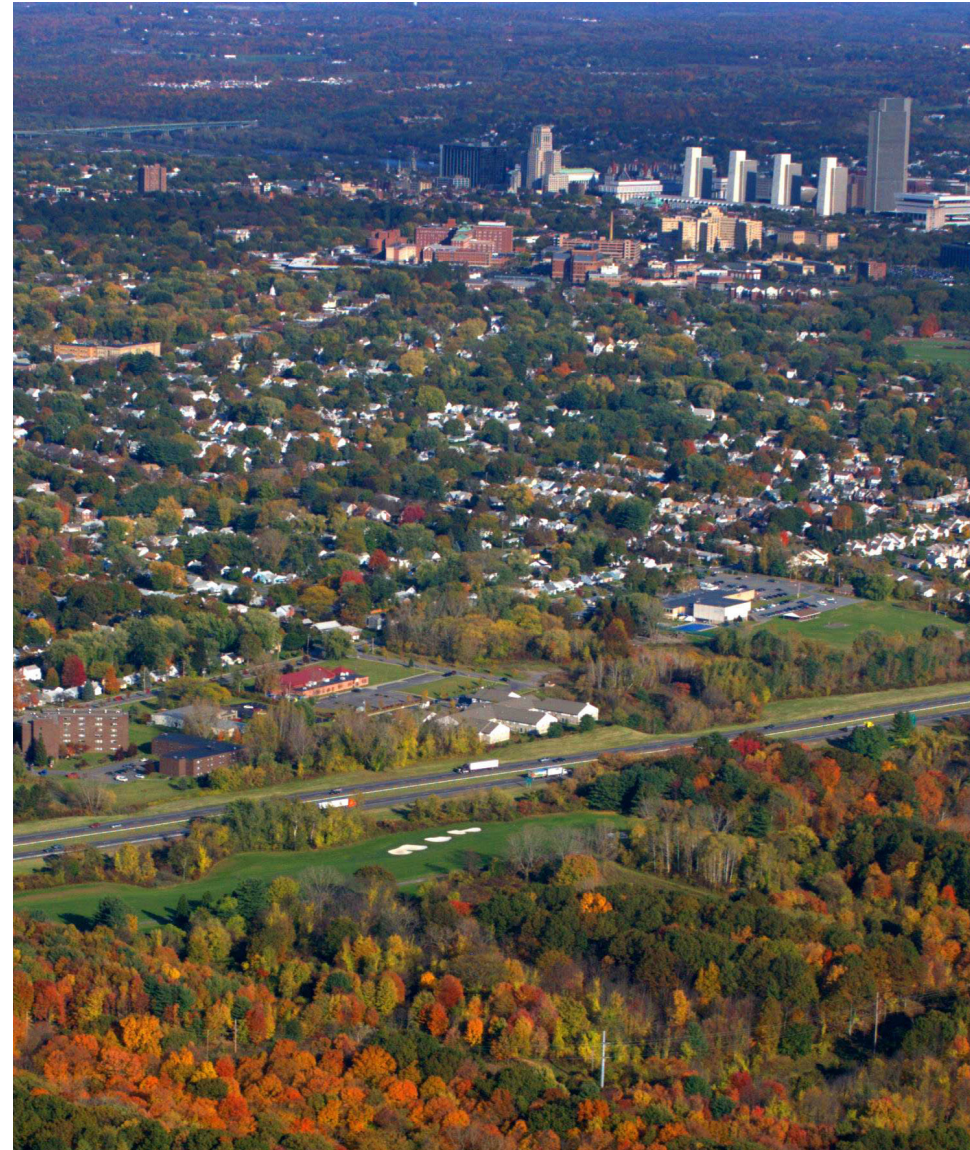
Participating Climate Smart Community

2013

County Government Operations GHG
Inventory Report

2010

County Community GHG Inventory Report



03

ASSET INVENTORY

Overview and purpose

Existing datasets

Building on local knowledge

03 ASSET INVENTORY

PURPOSE

- »»»» To document places, structures, systems, and resources essential to the county's function and identity
- »»»» To develop an inventory informed by local knowledge and values
- »»»» To provide a foundation for the risk assessment and identification of resiliency projects



»»» **Albany International Airport** (credit: Wikipedia)

ORGANIZATIONAL STRUCTURE



Economic



Infrastructure



**Cultural &
Natural**

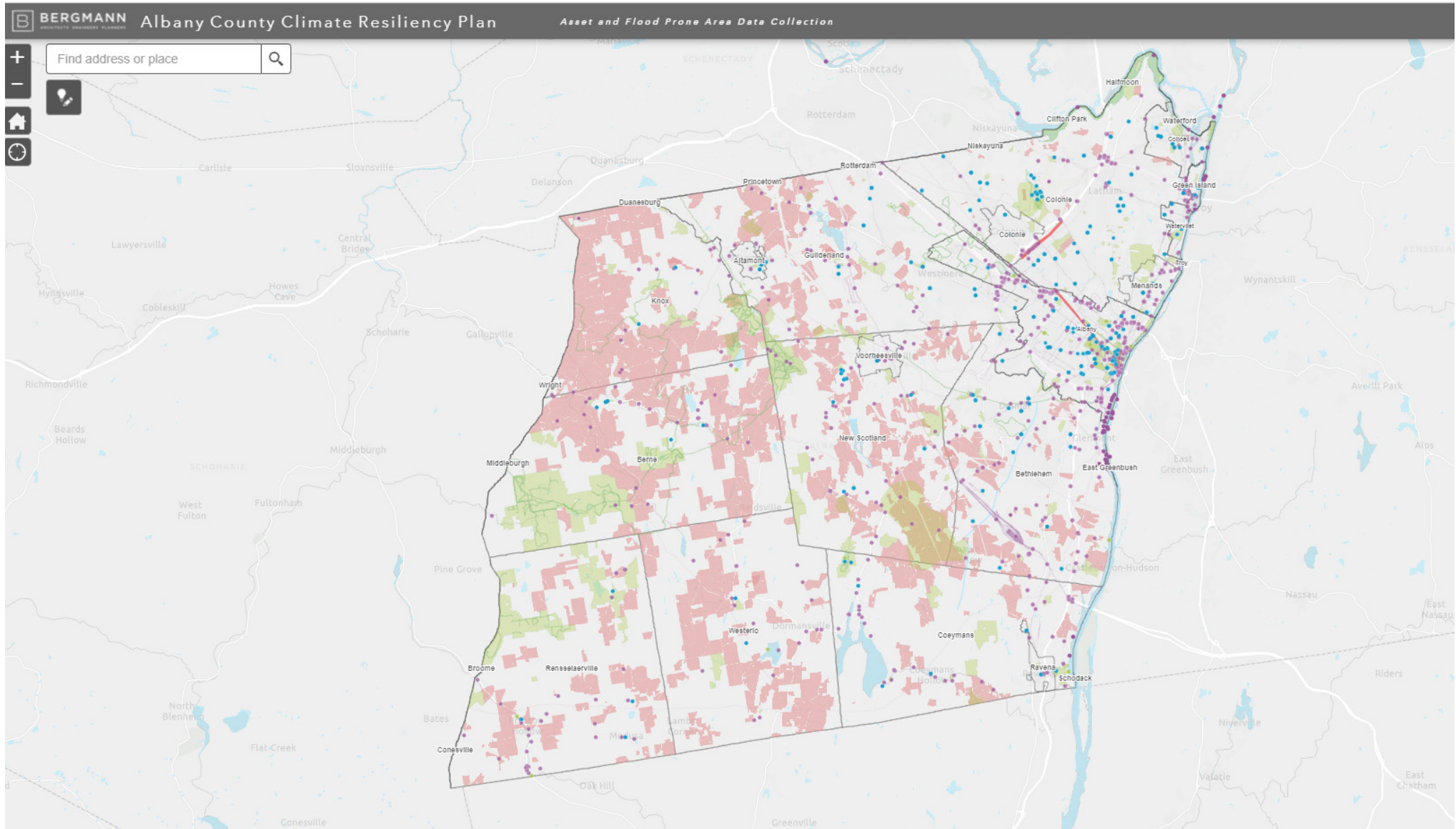


Housing



**Health &
Social Services**

BUILDING ON LOCAL KNOWLEDGE



04

NEEDS & OPPORTUNITIES

Organizational framework

Group discussion

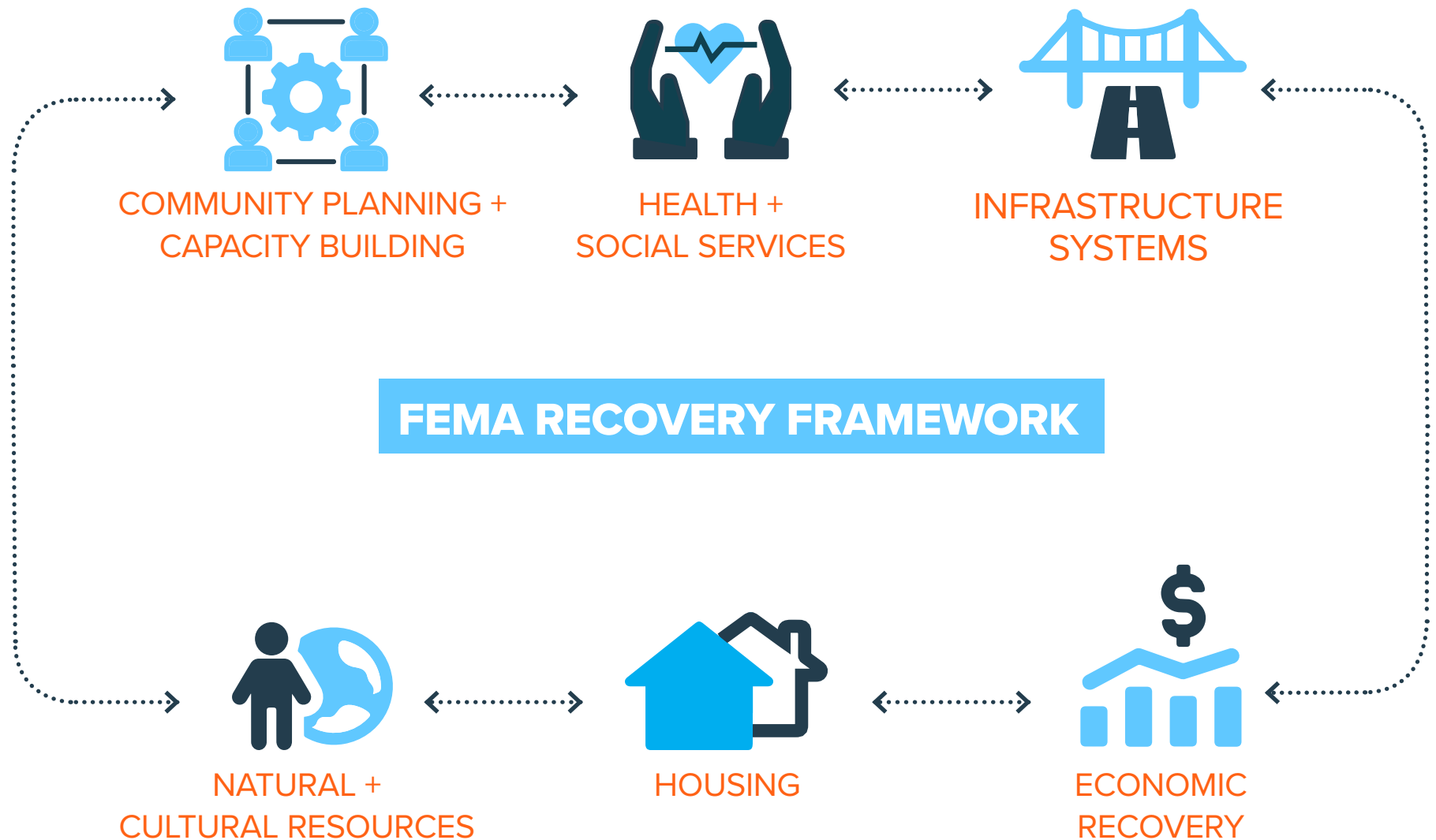
PURPOSE

- »»»» To expand the asset inventory and include social capital, response and recovery, and other social networks essential to the county's function and identity
- »»»» To supplement the risk assessment and support the identification of resiliency projects



»»» Eightmile Creek Farm, Westerlo (credit: USDA)

ORGANIZATIONAL STRUCTURE





GROUP DISCUSSION!

05

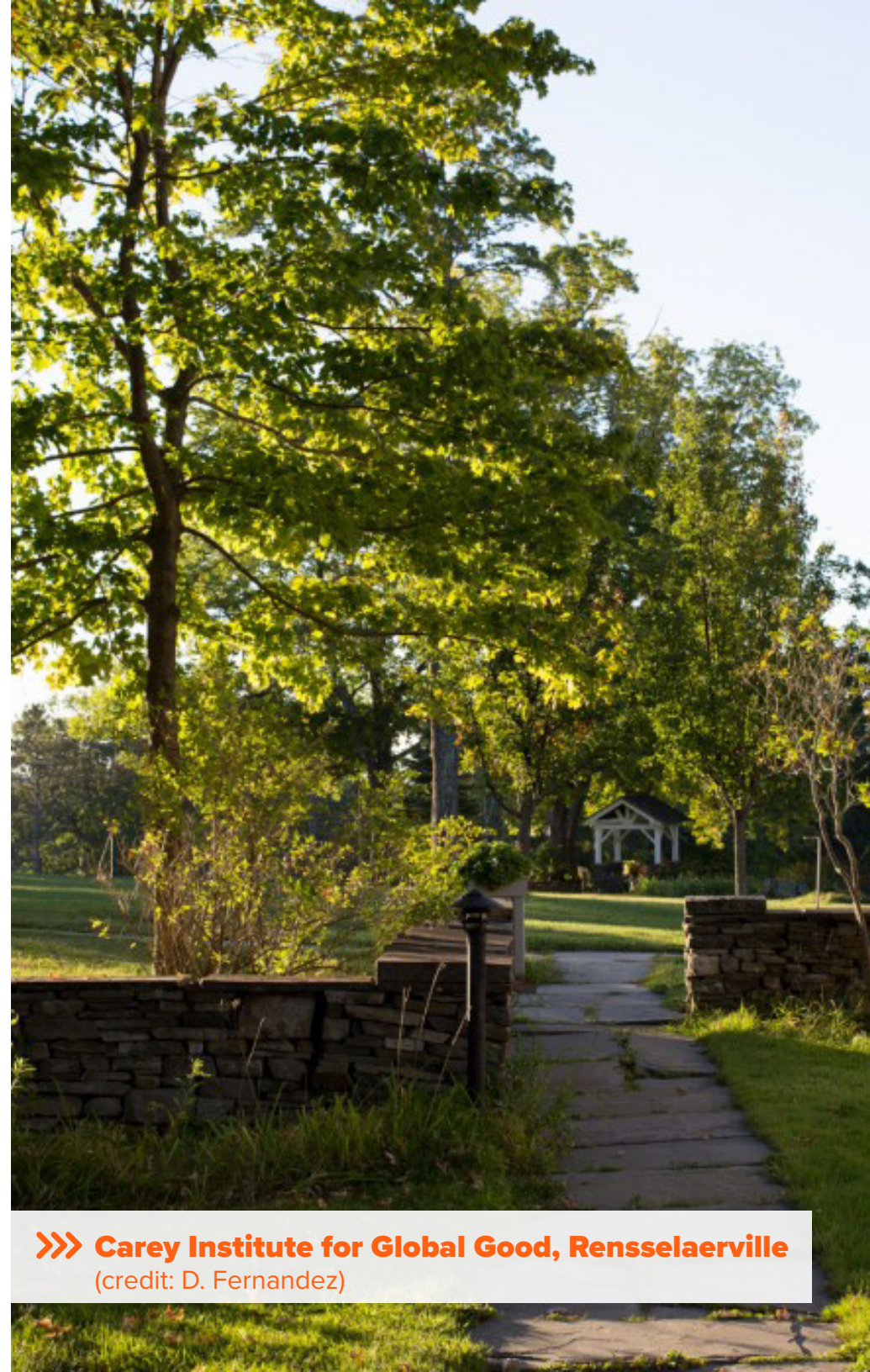
VISIONING EXERCISE

Developing a climate resilience vision

05 VISIONING EXERCISE

PURPOSE

»»»» To develop a positive, compelling, community-driven vision for Albany County's future



»» Carey Institute for Global Good, Rensselaerville
(credit: D. Fernandez)



GROUP DISCUSSION!

06

NEXT STEPS

Project milestones

Community engagement

SHORT-TERM ACTIONS

SEPTEMBER - OCTOBER 2021

County profile development

SEPTEMBER - NOVEMBER 2021

Continue building asset inventory

NOVEMBER 2021 - JANUARY 2022

Risk assessment

Needs/opportunities assessment



06 NEXT STEPS

PUBLIC ENGAGEMENT

SEPTEMBER 2021

Municipal working group

SEPTEMBER - NOVEMBER 2021

Stakeholders interview

OCTOBER 2021

First public event

NOVEMBER 2021

2nd TAC meeting



THANK YOU!