

# Lower Flint-Ochlockonee Council Meeting

April 10, 2025



**GEORGIA  
WATER PLANNING**

[waterplanning.georgia.gov](http://waterplanning.georgia.gov)

## Objectives:

# Agenda

1. Learn about updates in the State for Regional Water Planning
2. Learn about the progress on the agricultural water permitting program
3. Hear updates on the GA-FIT and HCP project
4. Hear briefings on fish consumption guidelines for the Flint River
5. Learn about sustainability and resilient design options

9:30 am Registration

10:00 am Welcome, Agenda Review, & Regional Water Planning Update – *Mark Masters, GWPPC*

10:15 am Chair's Report – *Chairman Campbell*

10:25 am GAEPD Report – *Jennifer Welte, GAEPD*

10:35 am Agricultural Water Permitting Program Update – *Marjie Roquemore, GAEPD*

11:00 am GA-FIT & HCP Update – *Mark Masters, GWPPC*

11:25 am Fish Consumption Guidelines for Georgia Streams – *David Dixon, Flint Riverkeeper*

11:50 am Resiliency – *Dr. Lynn Abdouni, UGA Geospatial Analysis and Environmental Design*

12:20 pm Public Comment

12:25 pm Next Steps – *Mark Masters, GWPPC*

12:30 pm Lunch & Adjourn



# Introductions

**MURRAY CAMPBELL** Council Chair for:  
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**JENNIFER WELTE**  
Georgia EPD  
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**TIM FIELDS**  
Georgia EPD

**MEAGAN TAYLOR**  
GWPPC

**MARK MASTERS**  
GWPPC

**SARAH SKINNER**  
GWPPC

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Council Advisor for:  
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(770) 314-3880

# Lower Flint-Ochlockonee Council Members

Name	City	County
Chris Addleton	Cairo	Grady
J. Steve Bailey	Donalsonville	Seminole
C. LaDon Calhoun	Colquitt	Miller
Murray Campbell, Chair	Camilla	Mitchell
Marc E. DeMott	Moultrie	Colquitt
Frederick Dent	Sylvester	Worth
David Dixon	Leesburg	Lee
Hugh Dollar	Bainbridge	Decatur
Connie C. Hobbs, Vice Chair	Newton	Baker
Greg Hobbs	Thomasville	Thomas

Name	City	County
Michael A. McCoy		Dougherty
George C. McIntosh	Dawson	Terrell
Mike Newberry III	Arlington	Early
Calvin D. Perry	Moultrie	Colquitt
Walt Pierce	Edison	Calhoun
A. Richard Royal	Camilla	Mitchell
J. Stephen Singletary	Blakely	Early
Jay Smith	Albany	Dougherty
Mark Spooner	Donalsonville	Seminole
Steve Sykes	Camilla	Mitchell
Cory Thomas	Colquitt	Miller
James L. Webb	Leary	Calhoun
Rep. Gerald Greene		

# Regional Water Planning Update

- Webinars

- March 28<sup>th</sup> – Hurricane Helene & Emergency Response
  - recording will be uploaded to GAEPD YouTube
  - Discussed how emergency response may be a topic to incorporate in the Regional Water Plans
- May 8<sup>th</sup> – Population Projections

- Council Member Survey

- Brief survey will be sent out to update your contact information

- GAEPD is in the process of updating Council Member Appointments

- Joint Council Meeting – Fall 2025

Council Member  
Survey



Please respond by  
April 23rd



# Chair's Report

Presented by Chairman Campbell





# GAEPD Report

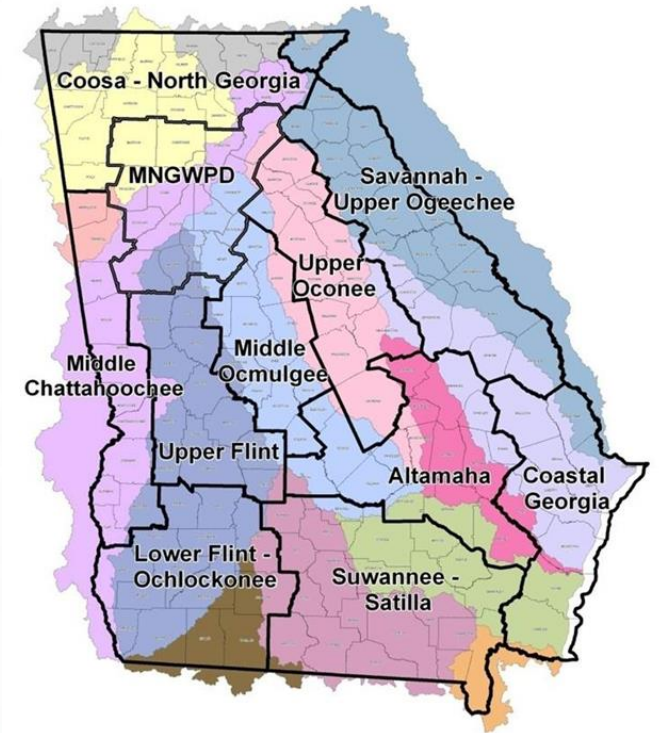
Jennifer Welte, *GAEPD*





# RWP Seed Grant Program

- No applications were submitted in this region for the FY25 seed grant cycle
- Next funding cycle will be announced in July 2025 with applications due by Oct. 31, 2025

A screenshot of a web application interface for the RWP Seed Grant Program. At the top, it features the logo for the Georgia Department of Natural Resources, Environmental Protection Division. Below the logo, there is a breadcrumb trail: "Regional Water Planning Seed Grant > City of Happy | Trash Free Waters Education". A user login area shows "Welcome, joyhinkle5@gmail.com". The main heading is "City of Happy | Trash Free Waters Education" with a dropdown menu set to "Newest to Oldest". The primary content is a form titled "RWP Seed Grant Application" with a green "Submit" button. Below the title, instructions state: "When both Project Description and Budget steps are complete, click 'Mark Complete' on each. The page will refresh and the 'Submit' button to the right will become green and clickable. Click 'Submit'". The form contains two sections: "Application Section 1: Project Description" and "Application Section 2: Budget". Both sections are marked as "Complete" and have an "Edit" button. The footer of the page includes the "wizehive" logo.



# FY2025 SECTION 319(h) GRANT



Currently accepting applications for projects that:

- ✓ Implement watershed management plans
- ✓ Address impaired waters
- ✓ Address nonpoint source pollution
- ✓ Install Best Management Practices (BMPs)
- ✓ Engage in partnerships
- ✓ Collect water quality data
- ✓ Result in measurable water quality improvement

Submit online applications via the  
319(h) Grant Administration Portal (GAP)  
by **APRIL 30, 2025**

<https://epd.georgia.gov/outreach/grants/georgia-319h-nonpoint-source-grant>

# FY2025 SECTION 319(H) GRANT

- Cost-Share: 60% Federal/40% Non-Federal Match
- No maximum or minimum Award - most Federal grant amounts typically average \$150,000-\$400,000
- Preferred Project Period: 3 years
- Total Funding Available: FY2025 allocation is pending from USEPA

## Who Can We Give Money To?

- State Agencies
- City or County Governments with Qualified Local Government status
- Regional Commissions
- Soil and Water Conservation Districts
- Resource Conservation and Development Councils
- Local and regional school systems
- State colleges and universities





# Ag Water Permitting Program Update

Marjie Roquemore, *GAEPD*







**GEORGIA**  
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

# Agricultural Water Withdrawal Program Update

Lower Flint Ochlockonee Water Council Meeting  
April 10, 2025



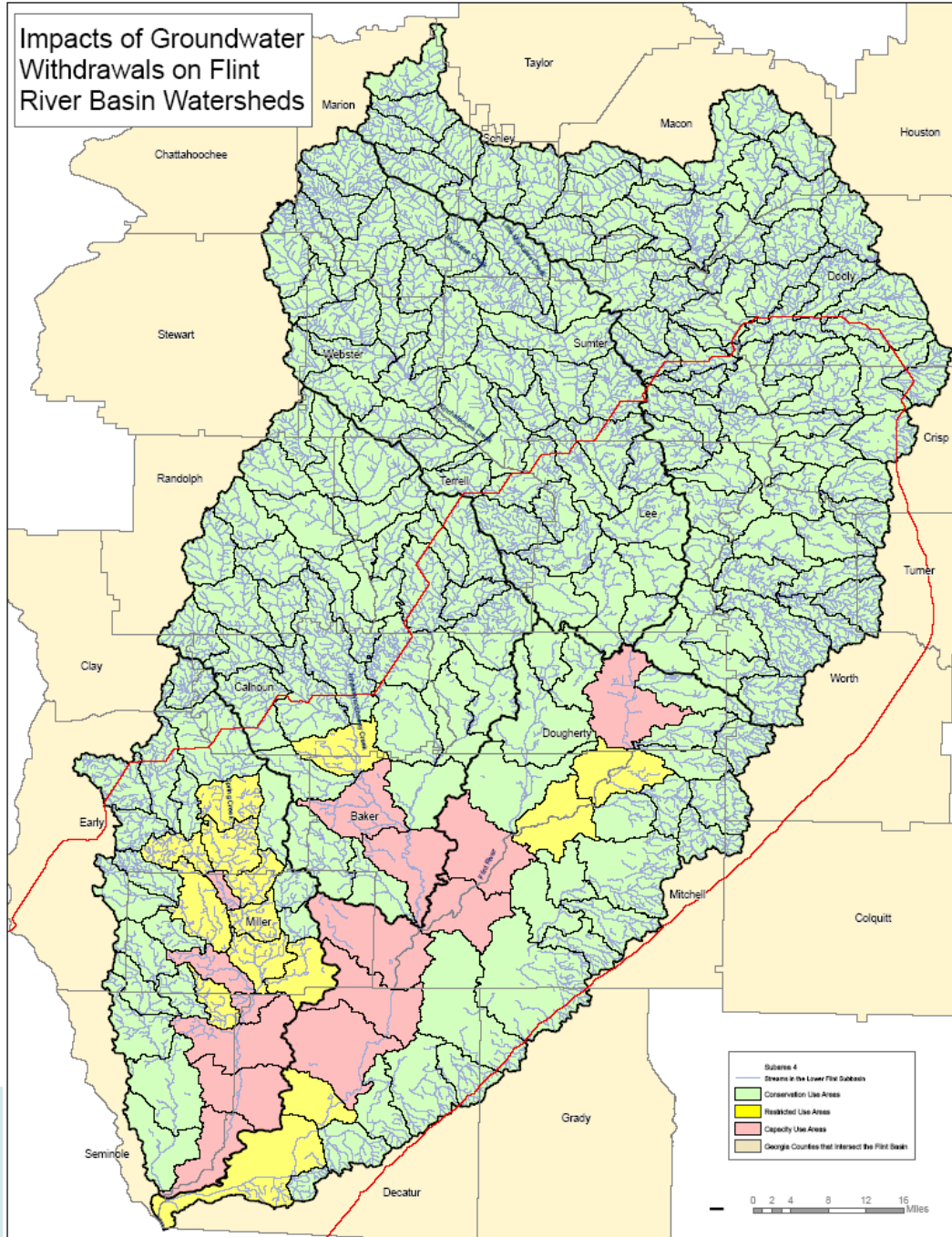




## MODIFYING THE 2012 SUSPENSION

- As of April 1, 2025, EPD is accepting applications on MODIFYING the 2012 Suspension (not LIFTING)
- Surface Water Withdrawals: The 2012 suspension will remain in place for the Flint. No new surface water withdrawals or expanded permitted surface water withdrawals.
- Permit Types (does not apply to Claiborne Aquifer Wells):
  - A) **Unrestricted Permit** – An option for permit holders that are out of compliance on their existing FRB wells installed prior to 2000 (red zone) or prior to 2012 (green and yellow zone). Consistent with FRB 2006 Plan.
  - B) **Drought Restricted Permit** – An option for new water sources and irrigated acres. Restricted from use during drought periods.
  - C) **Volumetric Limited Permit** – An option for permit holders that are out of compliance on sources and acres. Will rely on the basin average application depth during the most critical drought year (2011) which was 15.94 inches.

\* **Consistent with FRB Plan (2006):** 25-year terms, Irrigation Efficiency Requirements, Water Conservation Plan, Metering



# FLINT RIVER BASIN

## RED, YELLOW, GREEN ZONES





# MODIFYING THE 2012 SUSPENSION

Unrestricted Permit (no drought restriction conditions, no volumetric limits), yet consistent with the Flint River Basin Plan of 2006

- Unpermitted GW, SW, or W2P in a RED zone, AND Installed before December 1, 1999 AND no irrigated acreage change.
- Unpermitted GW, SW, or W2P in a RED zone, AND Installed before December 1, 1999, BUT, has changed irrigated acreage. *Case by case - Unrestricted permit based on acres seen in 1999 or before. For acres added post 2012, will have to consider compliance options, drill Claiborne well, drought conditioned permit or take acres out of irrigation.*
  - \*Irrigated Acreage verification is performed using aerial imagery and documentation beyond an affidavit to prove when the irrigated acres and/or source was installed.
  - \*\*Aesthetic and recreational uses - unpermitted - no matter when installed will not be issued.



# MODIFYING THE 2012 SUSPENSION

Unrestricted Permit (no drought restriction conditions, no volumetric limits), yet consistent with the Flint River Basin Plan of 2006

- Unpermitted GW, SW or W2P in a YELLOW or GREEN zone, AND Installed pre-2012, AND no irrigated acreage change since July 30, 2012.
- Unpermitted GW, SW or W2P in a YELLOW or GREEN zone, AND Installed pre-2012, BUT, changed irrigated acreage since July 30, 2012. *Case by case - Unrestricted permit based on acres seen on or before July 30, 2012. For acres added post 2012, will have to consider compliance options, drill Claiborne well, drought conditioned permit or take acres out of irrigation.*
  - \*Irrigated Acreage verification is performed using aerial imagery and documentation beyond an affidavit to prove when the irrigated acres and/or source was installed.
  - \*\*Aesthetic and recreational uses - unpermitted - no matter when installed will not be issued.



# MODIFYING THE 2012 SUSPENSION

## Drought Restricted Permit

- GW or W2P Installed post-December 1, 1999 AND in the RED zone.
- GW or W2P Installed post-2012, AND in YELLOW or GREEN zone.
- New users who wish to install a Floridan well in the Red, Yellow or Green zone.

\* If a permittee wishes to continue irrigating over their permitted amount, the permittee may agree to a permit with drought restrictions covering the full amount of permitted acres. EPD will not consider a situation where one permit will cover both acres without drought restrictions and acres with drought restrictions.





# MODIFYING THE 2012 SUSPENSION

## Over-irrigating Permitted Acres (have an issued permit) – Eligible for Permit Correction

- Permitted GW, SW, or W2P but irrigating acres in excess of permitted amount & acres added pre-December 1, 1999 AND in the RED zone.
- Permitted GW, SW, or W2P but irrigating acres in excess of permitted amount & acres added pre-July 30, 2012 AND in YELLOW or GREEN zone.



## MODIFYING THE 2012 SUSPENSION

### Over-irrigating Permitted Acres (have an issued permit) – Ineligible for Permit Correction

- Permitted GW, SW, or W2P but irrigating acres in excess of permitted amount & acres added post-December 1, 1999 AND in the RED zone. *Case by case - Unrestricted permit based on acres seen on or before July 30, 2012. For acres added post 2012, will have to consider compliance options, drill Claiborne well, drought conditioned permit or take acres out of production.*
- Permitted GW, SW, or W2P but irrigating acres in excess of permitted amount & acres added post-July 30, 2012 AND in YELLOW or GREEN zone. *For acres added post 2012, will have to consider compliance options, drill Claiborne well, drought conditioned permit or take acres out of production.*



# MODIFYING THE 2012 SUSPENSION

## Volumetric Limited Permit

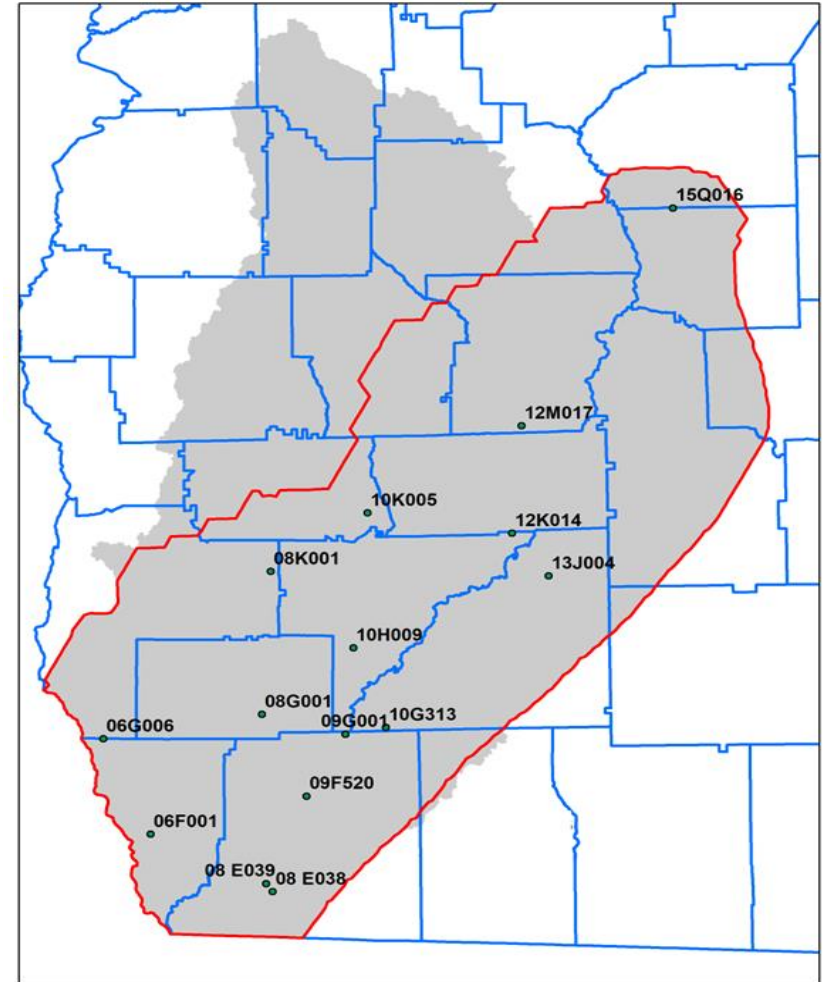
- An **option** for permit holders that are out of compliance on acres. Must have permitted GW, SW, or W2P and irrigating excess acres than allowed under the permit. Acceptable for RED, YELLOW, or GREEN zones.
- The permittee will accept the imposition of an annual volumetric limitation in the permit in exchange for the removal of acreage limitation and thus resolving the compliance case.
- Also, an **option** for a permit holder that is in compliance today but wishes to expand their irrigated acres and accept volumetric conditions.
- Will rely on the basin average application depth during the most critical drought year (2011) which was 15.94 inches.
- For each year (and associated growing season), the permittee has a fixed volume of water (15.94 inches) under the permit and can decide when to apply it, subject to the annual volume limitation.





# DROUGHT RESTRICTION DETERMINATION

- EPD will use data from 15 USGS monitoring wells located in the suspension area.
- EPD developed a trigger: if any five of the 15 wells fall below their monthly 10<sup>th</sup> percentile water level, the entire suspension area is placed under drought restrictions.
- EPD checked the trigger level against historic data:
  - A six-month precipitation deficit of 7-8 inches correlates well to the trigger.
  - The trigger clearly identifies significant droughts (2000, 2002, 2007, 2011, 2012) and does not capture any non-drought years.





# DROUGHT CONDITIONS

- EPD will make a drought restriction determination daily. This determination will be posted to the EPD website and shared through text and email.
- Permittees must check daily whether a drought restriction is in place.
  - If a drought restriction is not in place, the permittee may withdraw water from the Floridan aquifer.
  - If a drought restriction is in place, the permittee may not withdraw water from the Floridan aquifer. Permittees must complete any irrigation application initiated before drought restrictions are put in place within 24 hours of a drought restriction being put in place.



## METERING REQUIREMENTS

- New and modified permits will require the standard requirements for metering agricultural water use, as well as requiring an EPD prescribed telemetry unit capable of transmitting withdrawal information on an hourly basis.
- This telemetry unit would assist with assessing compliance of the drought restrictions included in this permit.
- A new permittee would pay for the telemetry capable meter; however, the State would be responsible for the cost of the telemetry unit.





# HB 143

- Carried by Chairman Robert Dickey
- Unanimous vote in the House 2/27/2025 & Senate 3/25/2025
- Headed to the Governor's desk for signature
- Key changes
  - Returning to the State the responsibility of metering for permits for which a modification, amendment, transfer, or assignment is effective on or after April 20, 2018.
  - Remove the requirement for farmers to install infrastructure within five years of being notified that a site lacks withdrawal or irrigation infrastructure.
  - Authorize EPD Staff to Undertake Maintenance and New Meter Installs in Specific Cases
- This legislation did not require additional state funding and will eliminate 3,800+ compliance cases with a farmer cost savings of around \$9.5 million.



# CONTACT

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[ag.permits@dnr.ga.gov](mailto:ag.permits@dnr.ga.gov)

Main: 229-391-2400

# GA-FIT Report

Mark Masters, *GWPPC*









## Project Purpose

*To restore and protect flow in the Lower Flint River Basin to benefit farmers and natural systems.*

## Project Implementation

- Stakeholder-driven water management planning with a focus on development of a Habitat Conservation Plan (HCP)
- Monitoring and assessment of groundwater and aquatic ecosystems
- Installation of deep groundwater wells at sites of existing agricultural surface water withdrawals (DroughtSWAP)
- Improved management capacity (conservation, technology, easements, voluntary incentives, augmentation)
- New state permitting policies for future withdrawals including drought restrictions and revised enforcement procedures



# Habitat Conservation Plan (HCP)

- A planning document designed to accommodate economic activity to the extent possible by authorizing the limited and unintentional take of listed species when it occurs incidental to otherwise lawful activities.
- 1982 Amendments to Endangered Species Act:
  - Allow take of listed species incidental to otherwise lawful activities, with the issuance of an Incidental Take Permit (ITP) and provided that the ITP holder implements a Habitat Conservation Plan (HCP).
- Non-federal entities can apply for an Incidental Take Permit if they have developed a Habitat Conservation Plan.
- Applicants can include private citizens, corporations, Tribes, States, and counties.

**Take:** "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" a protected species



# Lower Flint Region HCP Summary

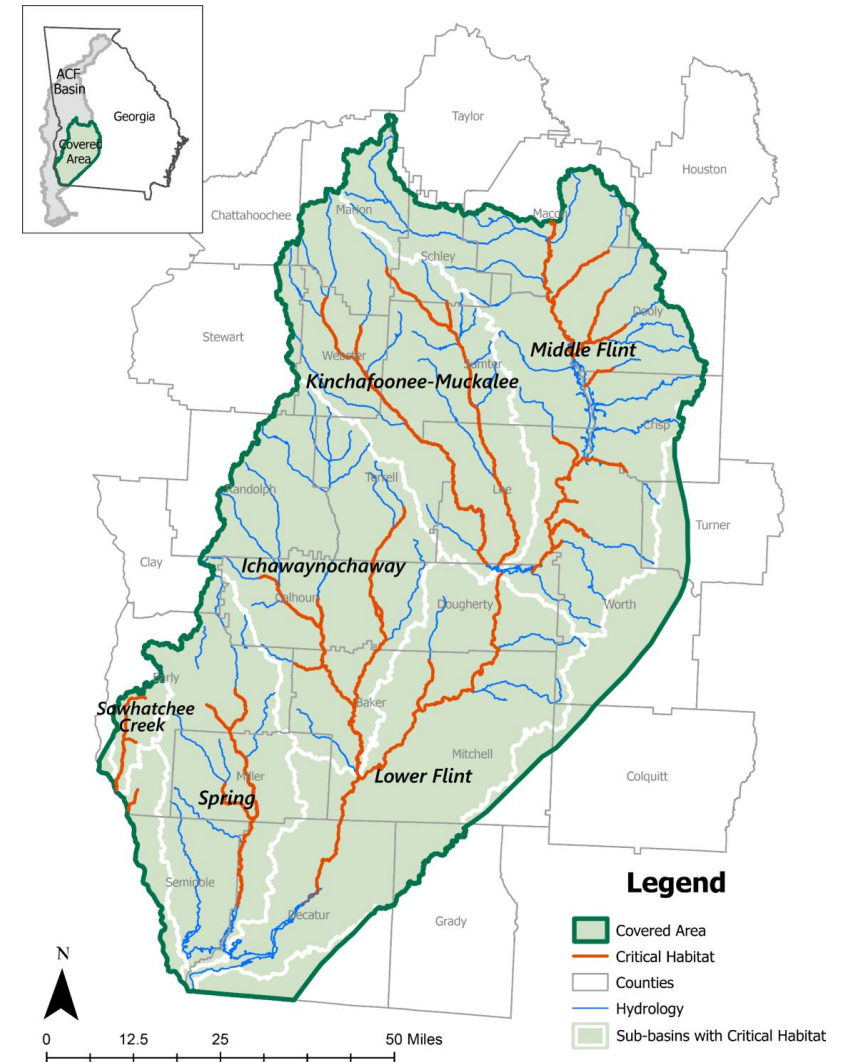
Covered Species      Six listed species of freshwater mussels

Covered Area      Lower Flint River Basin (5 HUC 8's), Subarea 4 (Georgia portion), Sawhatchee Creek

ITP Permit Applicant & Holder      State of Georgia

Covered Activity      Agricultural water withdrawal program

Estimating Take & Impact      Hydrologic and habitat modeling (BEAM, Jones-Torak, HEC-RAS, Bayesian Network biological model)





# Listed Freshwater Mussels of the Flint Basin



Southern Elktoe  
(Proposed Fed T)  
*Alasmidonta triangulata*



Fat Threeridge (Fed E)  
*Amblema nieslerii*



Purple Bankclimber (Fed T)  
*Elliptoideus sloatianus*

# HCP Table of Contents

## Executive Summary

### 1. Introduction

### 2. Covered Activities

### 3. Covered Species

### 4. Environmental Setting and Biological Resources

### 5. Potential Biological Impacts and Take Assessment

### 6. Conservation Program

### 7. Changed and Unforeseen Circumstances

### 8. Funding

### 9. References

### Appendices



# Sections 5 & 6

## **Section 5 Potential Biological Impacts and Take Assessment**

5.1 Direct and Indirect Impacts

5.2 Anticipated Take of the Covered  
Species

5.3 Anticipated impacts of Take on  
Critical Habitat

5.4 Anticipated Impacts of the Taking

## **Section 6 Conservation Program**

6.1 Biological Goals and Objectives

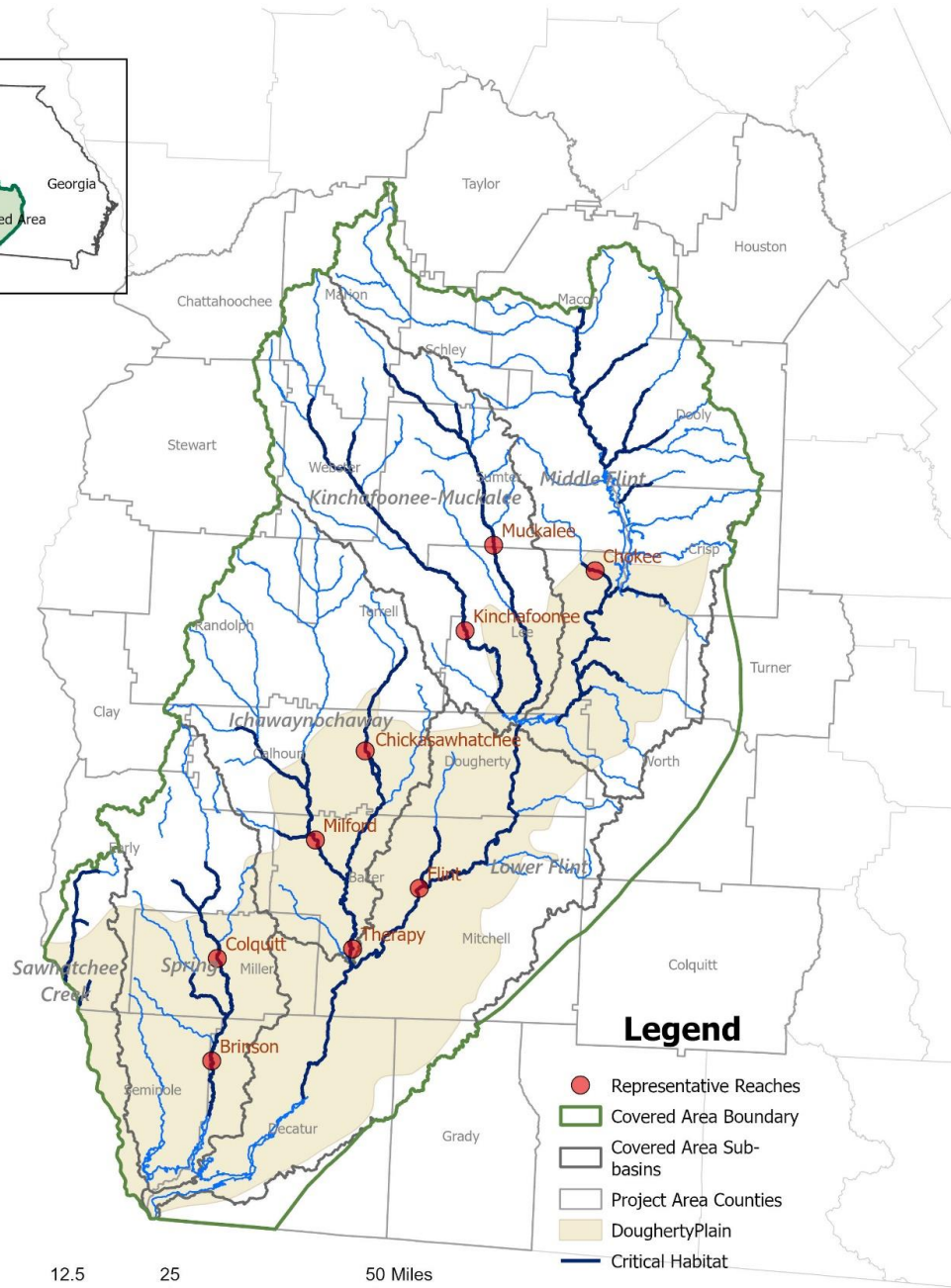
6.2 Measures to Avoid and Minimize Take

6.3 Measures to Mitigate Unavoidable Take

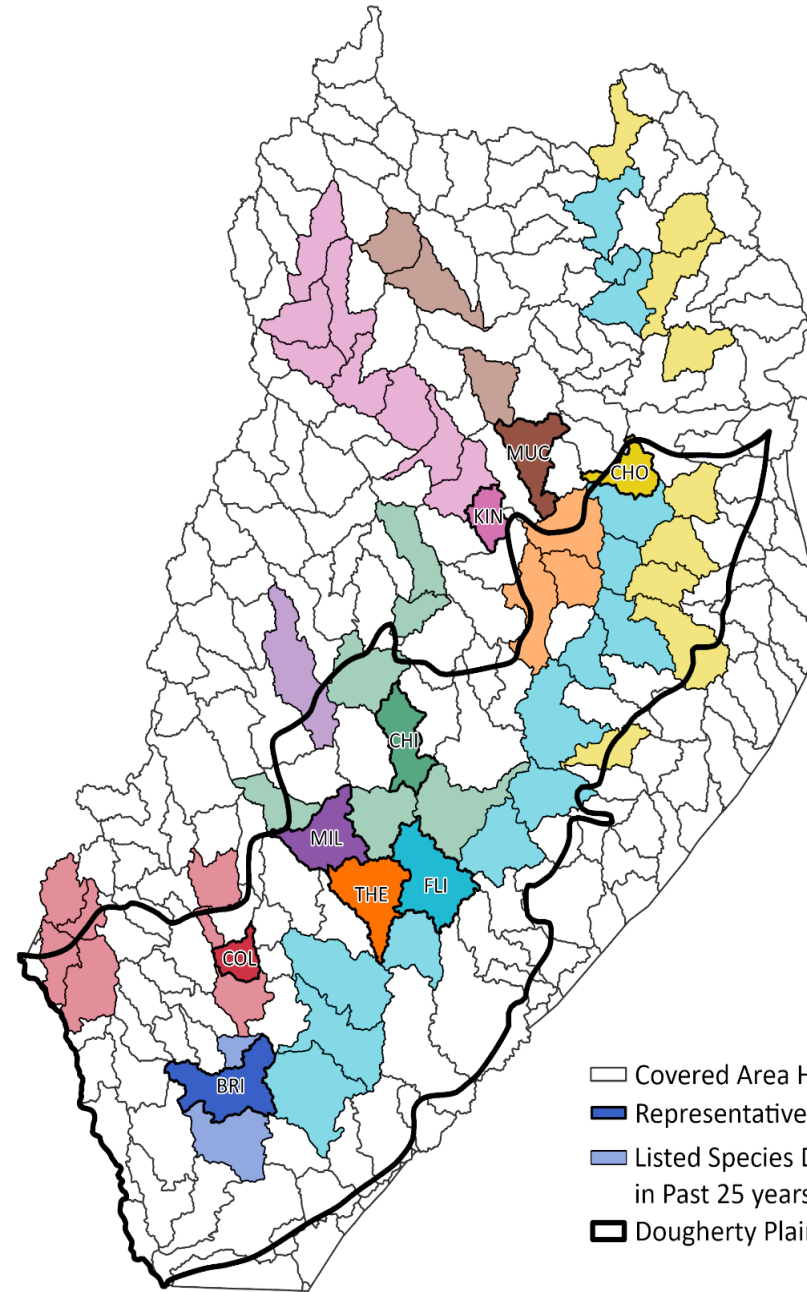
6.4 Monitoring Plan

6.5 Adaptive Management Strategy

6.6 Reporting



0 12.5 25 50 Miles



Covered Species	Occupied Reaches Stream Miles
Oval Pigtoe	159.1
Purple Bankclimber	143.6
Shinyrayed Pocketbook	298.8
Fat Threeridge	7.4
Gulf Moccasinshell	96.4
Southern Elktoe	44.7

Representative Reach	Modeled Number of Impact Days <i>Flow below the Habitat Impact Level</i>		
	Status Quo Scenario	HCP Scenario	HCP with Risk of Take Scenario
Muckalee Creek	1,242	1,236	1,272
Kinchafoonee Creek	1,056	994	1,132
Chokee Creek	1,370	1,370	1,371
Chickasawhatchee Creek	773	732	945
Ichawaynochaway Creek- Milford	565	400	809
Ichawaynochaway Creek - Therapy Shoals	614	511	887
Spring Creek – Colquitt	918	870	1,027
Spring Creek – Brinson	1,172	1,164	1,222
Flint River - Newton	313	282	462



## **HCP Management Measures to Avoid and Minimize Take**

Management Measure 1	Drought Period Source Switching (Drought SWAP)
Management Measure 2	Conservation Planning
Management Measure 3	Agricultural Water Use Measurement and Efficiency Programs
Management Measure 4	Continued Suspension for New and Modified Surface Water Withdrawal Permits (Lower Flint River Basin)
Management Measure 5	Drought Period Permit Conditions
Management Measure 6	Enhanced Agricultural Water Withdrawal Permit Compliance Protocols
Management Measure 7	Targeted Flow Augmentation during Critical Periods

## **HCP Management Measures to Mitigate Take**

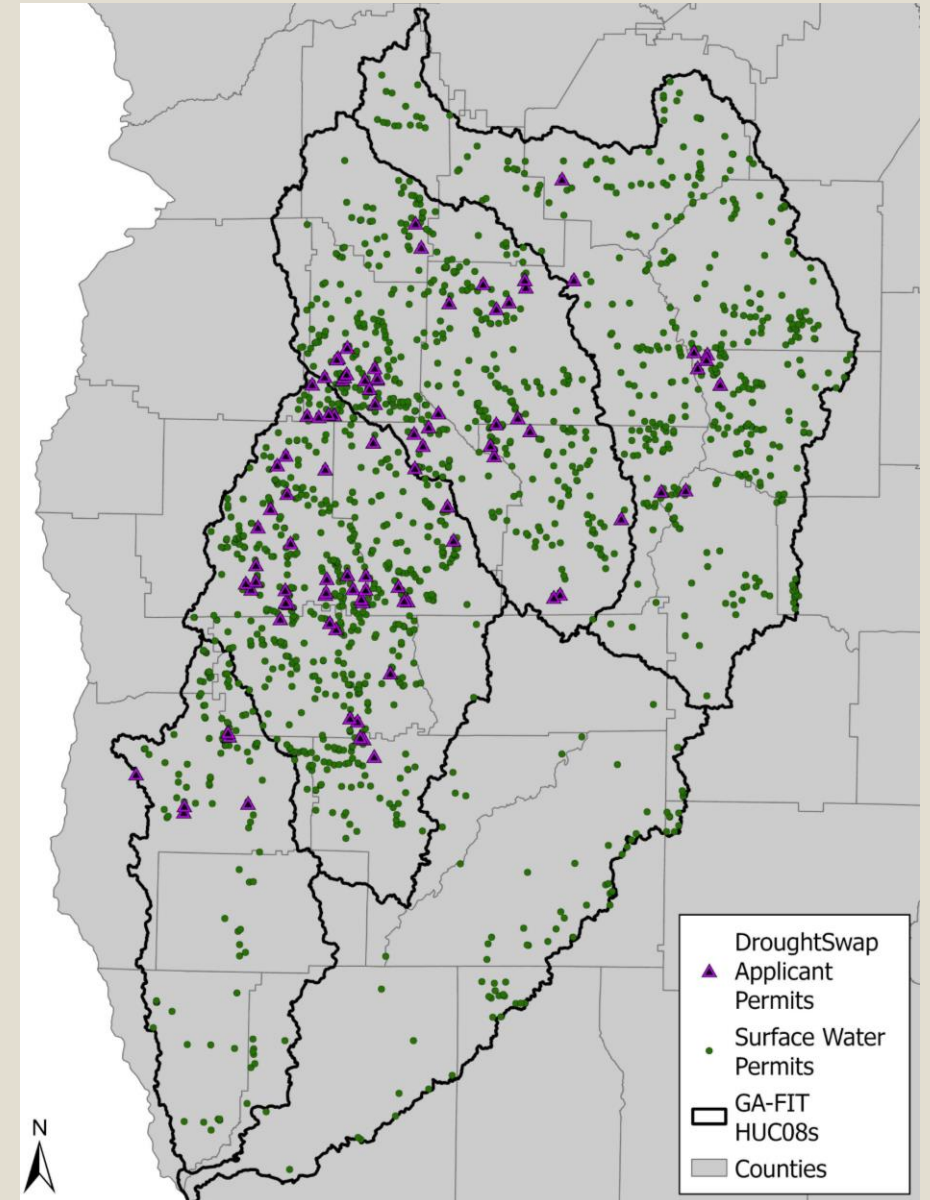
Mitigation Measure 1	Sedimentation Controls
Mitigation Measure 2	Improve Understanding of Covered Species and Their Habitat

# DroughtSWAP

Installation of deep groundwater wells at sites of existing agricultural surface water withdrawals (DroughtSWAP)



- Monitoring well network installed
- Recruitment and application process
- Field assessment of sites and prioritization
- Contracting with landowners & well drillers
- Permitting by GAEPD
- Development or update of farm conservation/irrigation management plan



Drought SWAP -- Projected Implementation

Watershed	Irrigated from Surface Water <i>acres</i>	Projected for Drought SWAP Installations <i>acres</i>	Estimated Flow Benefit during Drought SWAP Operations <i>cfs</i>
Middle Flint	16,513	958	1.73
Kinchafoonee-Muckalee	24,757	4,342	6.83
Lower Flint	1,136	0	0
Ichawaynochaway	42,820	8,773	13.54
Spring	3,945	690	1.20
Sawhatchee Creek	2,140	0	0
<b>Total</b>	91,311	14,763	



# Monitoring Plan

## Effectiveness

- Management measure implementation
- Flow response and associated habitat
- Mussel population response

## Compliance with ITP

- Management measure implementation
- Cumulative estimated take
- Adaptive management plan implementation

Metric	Level	Response
Management measure implementation <ul style="list-style-type: none"> <li>Assess progress annually</li> </ul>	Assess relative to habitat benefits projected for HCP Section 6 Management and Mitigation Measures	Evaluate whether additional implementation is needed
Compliance with management measures (Drought SWAP, withdrawal permits, drought restrictions for new/expanded withdrawal permits)	Compliance level <50%	Assign additional staff and develop new education/outreach for regulated community
	Compliance level <25%	Re-evaluate compliance protocols
Observed Flow below Habitat Impact Level <ul style="list-style-type: none"> <li># of days below Habitat Impact Level</li> <li>Assessed for each representative reach every 5 years</li> </ul>	# of days > 150% of SQ	Reassess Habitat Impact Level for any reach above 150% of SQ



**COMPLETE  
HCP**

Advisory Board review  
(Feb 18)  
Finalize document (Feb  
19-28)

**USFWS  
REVIEW**

Initial review  
Revisions if needed

**NEPA &  
BIOLOGICAL  
OPINION**

Formal review of HCP  
under National  
Environmental Policy Act  
and Endangered Species  
Act

**ITP**

Targeted a 2026  
conclusion of  
reviews/approval for  
HCP and issuance of ITP



# GA-FIT Advisory Board

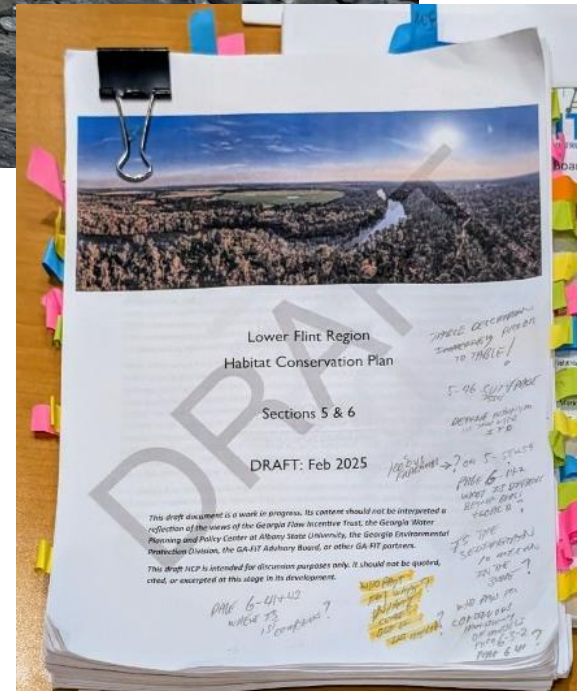
- Murray Campbell, farmer & Lower Flint-Ochlockonee (LFO) Water Council (Chair)
- Donald Chase, farmer & Upper Flint Water Council
- David Dixon, Miller Brewing (retired) & LFO Water Council
- Tommy Dollar, farmer, Dollar Farm Products
- Adam Graft, farmer & Upper Flint Water Council (Chair)
- Connie Hobbs, Baker County Commission (Chair) & LFO Water Council
- Tom McCall, Georgia Farm Bureau (President)
- Marty McLendon, farmer & Flint River S&W Conservation District
- T.E. Moye, farmer & Georgia Federal-State Inspection Service (President)
- Andy Payne, farmer and Lower Chattahoochee S&W Conservation District
- Gordon Rogers, Flint Riverkeeper & Upper Flint Water Council
- Richard Royal, LFO Water Council
- Jayme Smith, City of Colquitt, Economic Development
- Jimmy Webb, farmer & LFO Water Council

## Technical Support Team



...and others as needed.











# Fish Consumption Guidelines for Georgia Streams

David Dixon, *Flint Riverkeeper*



# Fish Consumption Guidelines for Georgia Streams

- <https://epd.georgia.gov/https%3A/epd.georgia.gov/assessment/fish-consumption-guidelines>



# Resiliency

Dr. Lynn Abdouni

*UGA Geospatial Analysis and Environmental Design*



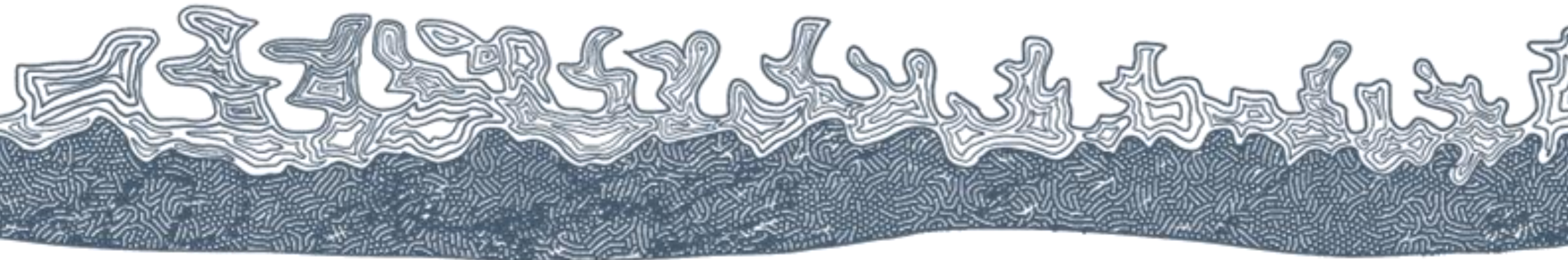




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*Institute for Resilient  
Infrastructure Systems*

# Review of Georgia's Climate Resilience and Adaptation Needs



# Team



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Infrastructure Systems*



**Brian Bledsoe**  
Director



**Zak Ruehman**  
Director of  
Engineering  
Services



**Gin Bacon Talati**  
Director of  
Operations



**Gabrielle Pierre**  
Senior Research  
Fellow



**Lynn Abdouni**  
Associate Research  
Scientist

(Not pictured)  
**Carly Ornstein**



# Hazards in Georgia



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Infrastructure Systems*



Flint River Flood in Albany GA, 1994  
Source: AJC



Honey Prairie fire, Okefenokee, 2011  
Source: The Augusta Chronicle



Drought, Statewide GA, 2016  
Source: Athens Banner-Herald

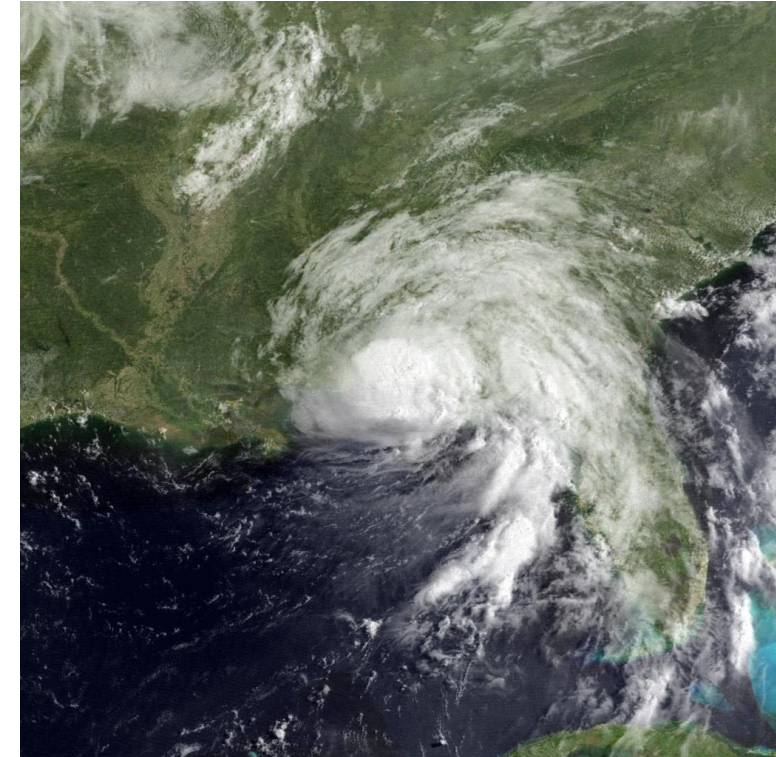
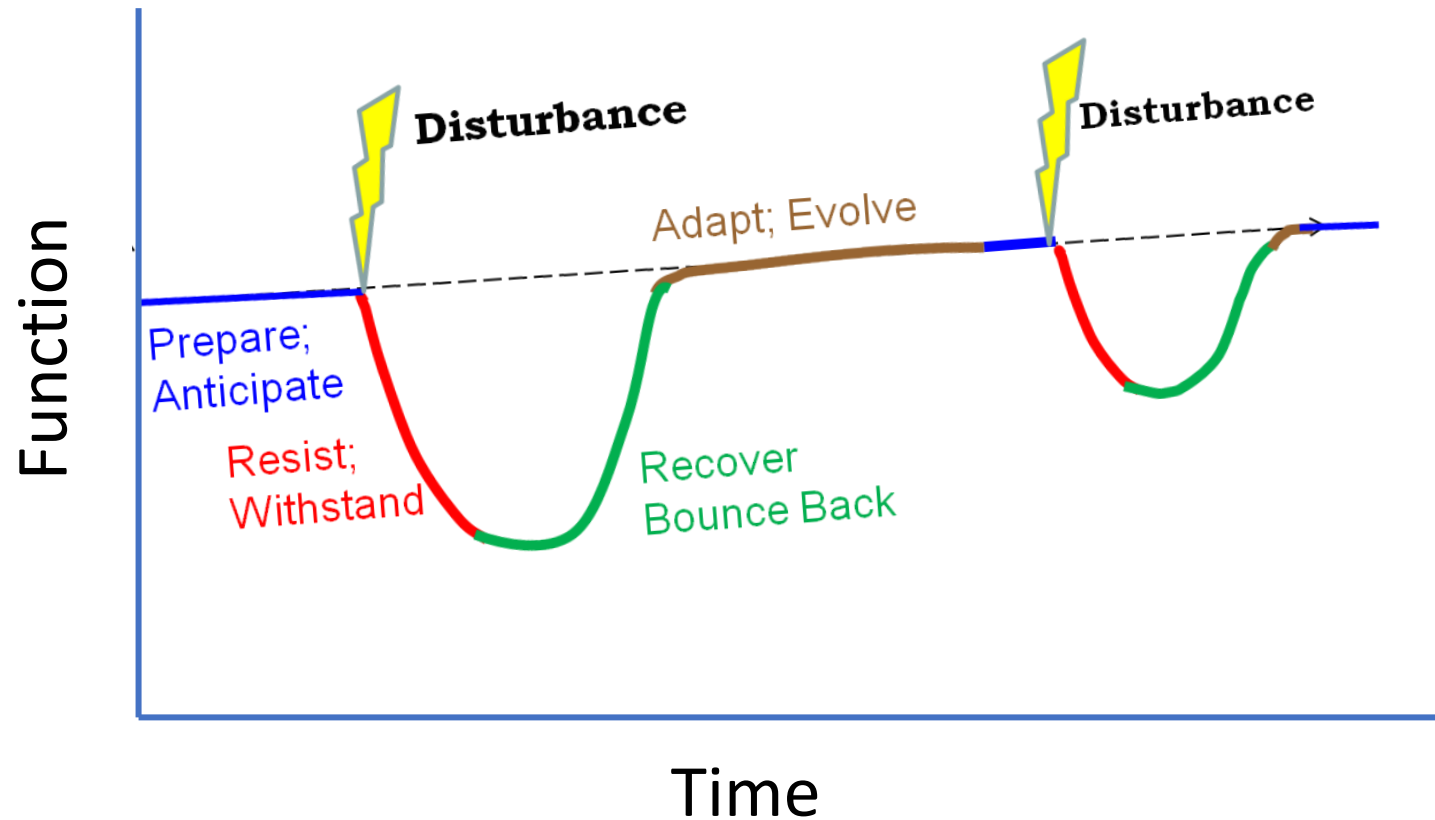


Ice storm, Hall county GA 2025  
Source: Gainesville Times

# About Resilience



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Institute for Resilient  
Infrastructure Systems



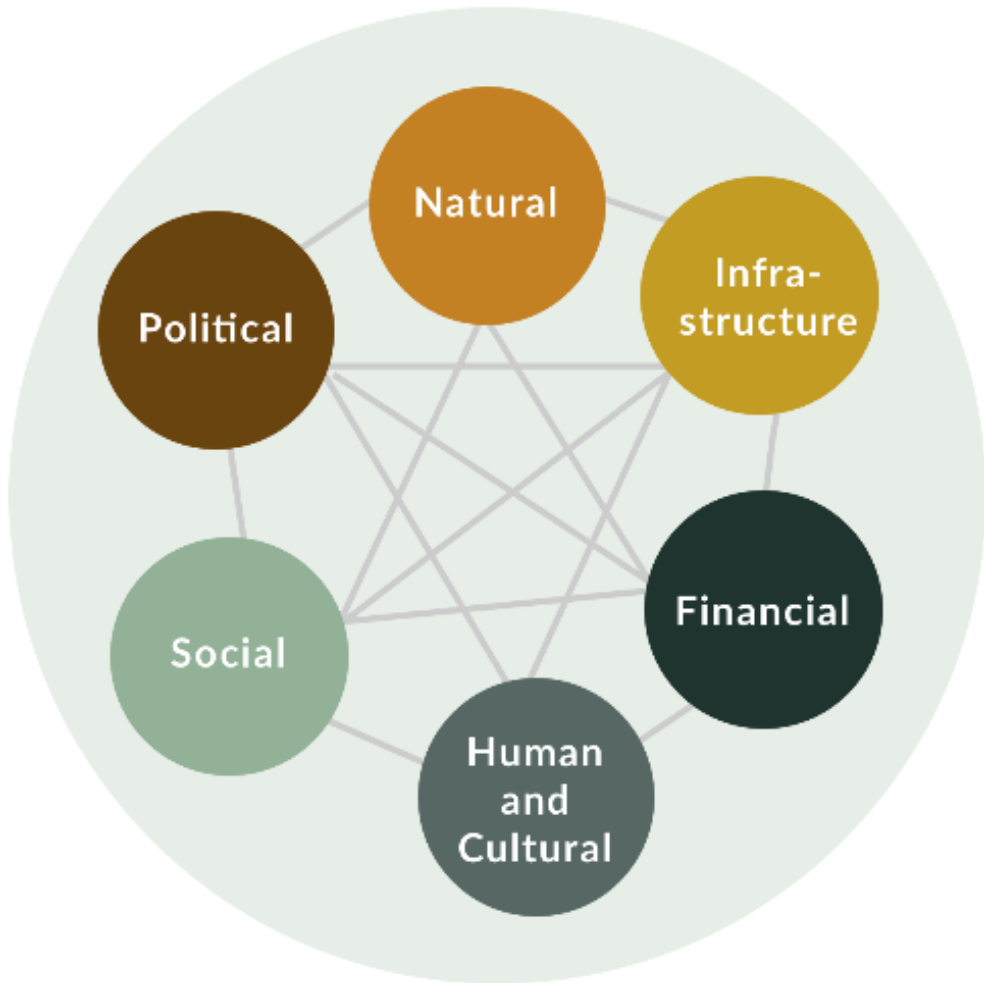
**Resilience:** the ability of a *system* to **Prepare for**, **Resist**, **Recover**, and **Adapt** to achieve functional performance under the stress of disturbances through time.



# Regional Resilience Roundtables



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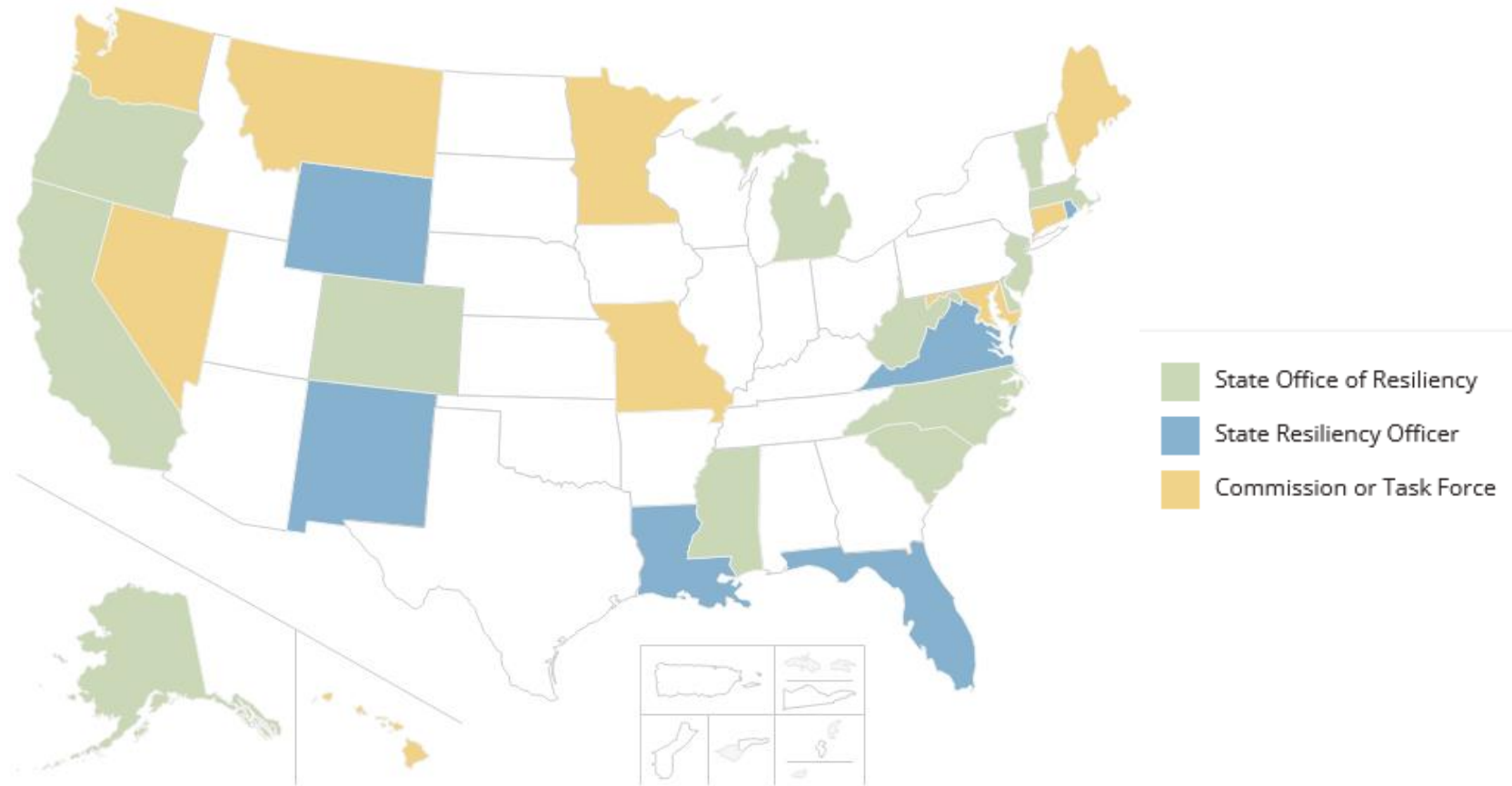


	Absorb	Recover	Adapt
Water			
Power			
Food and Fiber			
Transportation			



## Moving to action:

- Key elements of a statewide initiative
- Initial priorities for implementation
- Roadmap for first 1-2 years to hit the ground running



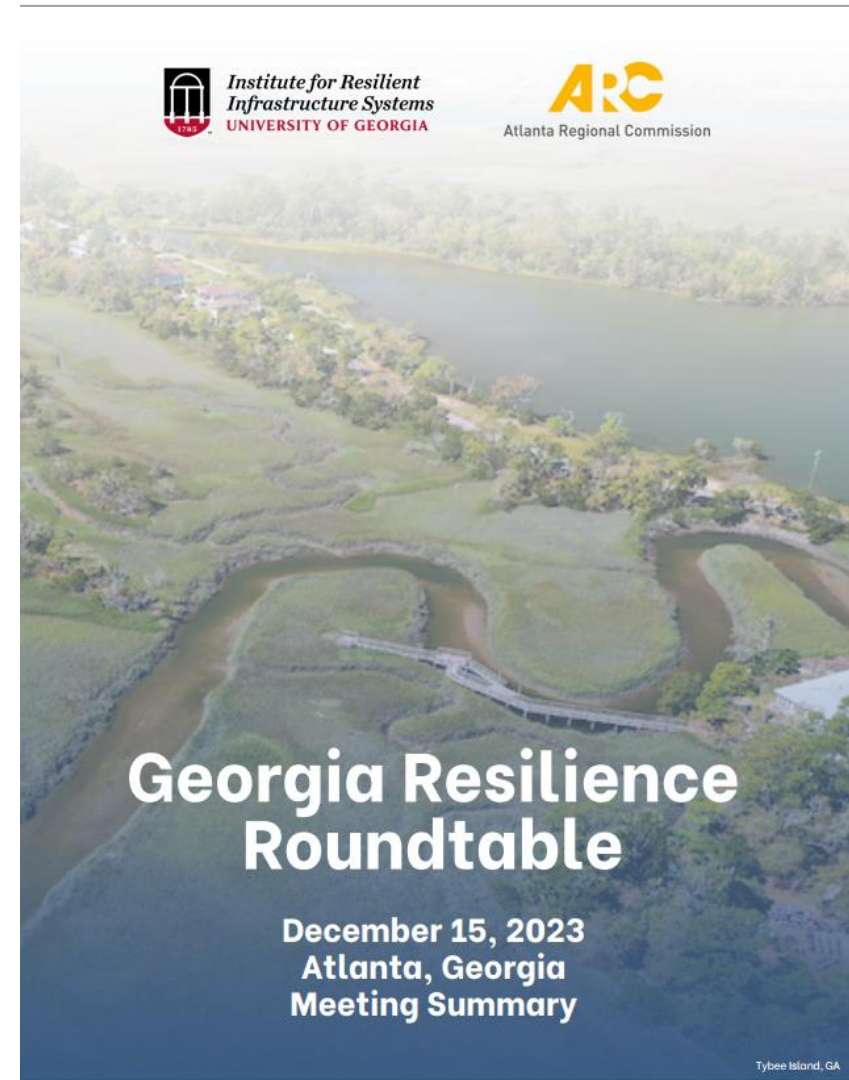
# Georgia Resilience Roundtable 2023



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## Key Takeaways

- Resiliency projects exist but not coordinated
- Involve communities in projects and build trust
- Coordination needed among policy-makers, professionals, practitioners, and public
- Need embedded staff across sectors with resources to help create resilience opportunities



# Findings from the 2023 convening inspired further research



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## CONVENE

Convene regional community meetings across Georgia to learn about needs and gaps for resilience planning, and recommendations to address

## ASSESS

Assess and characterize: regional climate and disaster risks and vulnerability, socially vulnerable regions potential, climate risks to critical infrastructure and community services

## IDENTIFY NEEDS

Identify resource needs and gaps limiting planning and implementation

## IDENTIFY SCALABLE MODELS

Identify existing models and examples of resilience-building activities that may be scaled and replicated statewide

## DEVELOP INTERIM FINDINGS

Develop interim findings and recommendations to enhance long-term resilience planning and investment in Georgia



# Georgia House Study Committee Findings



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## Key Takeaways

- Final report released in late 2024
- Further deliberations on how this will get implemented are on-going in the current GA state legislative session
- Recommendations included:
  - Establishing a State of Office of Resilience and Chief Resilience Officer, administratively attached to the Georgia Emergency Management Agency
  - Update 911 technology, create reforestation tax credit to benefit forestry industry, landowners etc. affected by Helene, suggest revisions to the state building code for assisted living to have back up power/redundancy measures



*House of Representatives  
Study Committee on Disaster Mitigation and Resilience*

Final Report

The Honorable Clint Crowe, Chairman  
Representative, 118<sup>th</sup> District

The Honorable J Collins  
Representative, 71<sup>st</sup> District

The Honorable Edna Jackson  
Representative, 165<sup>th</sup> District

The Honorable Lynn Smith  
Representative, 70<sup>th</sup> District

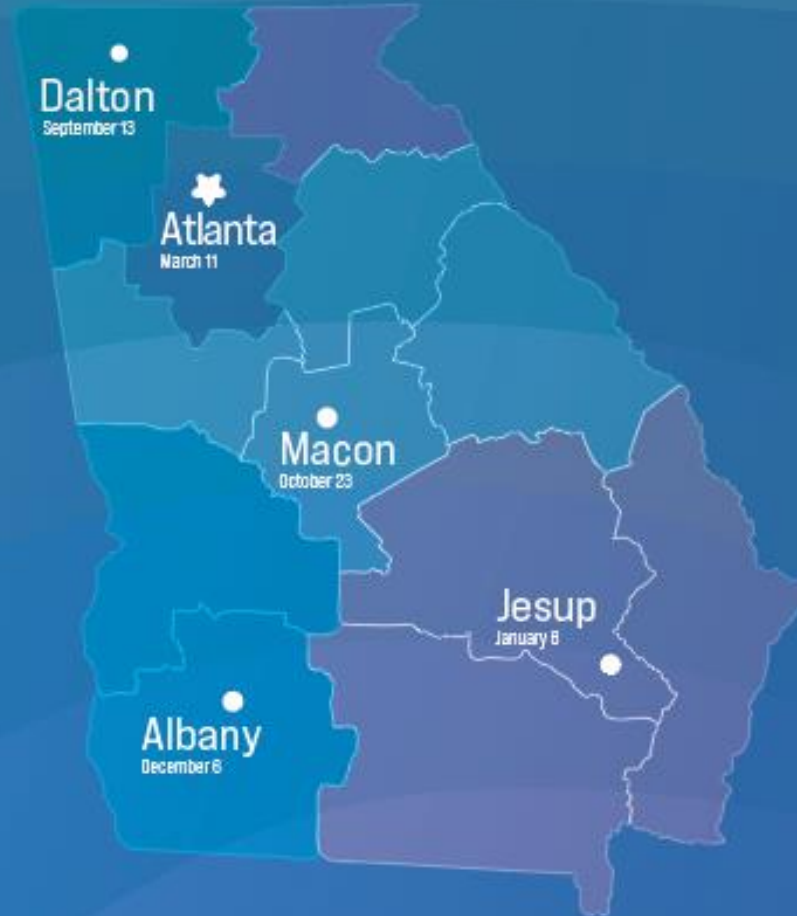
2024

Prepared by: Michael Satterfield, Policy Analyst  
House Budget and Research Office

# TIMELINE



# CONVENING LOCATIONS



# HAZARD INSIGHTS



Flooding is recognized as the most widespread and persistent hazard statewide, but its impacts vary by geography. Aging stormwater infrastructure and increasing development pressures are intensifying flood risks.



Wind hazards, including hurricanes, tornadoes, and severe thunderstorms, are resulting in more frequent and intense impacts and infrastructure disruptions. Above-ground power lines, mobile homes, and warehouses remain highly susceptible to wind damage.



Extreme temperatures such as extreme heat and cold snaps are increasing in frequency. Energy demand surges during extreme temperature events, leading to rolling blackouts and infrastructure system failures.



Drought has become a growing concern for water supply, agriculture, and food security. Fragmentation in regional water management further complicates prolonged dry spells, especially for counties relying on single-source water supplies.

# Overall Methodology



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## APPROACH

Engaged local stakeholders, policymakers, and community leaders.

Facilitated discussions on key resilience topics: economic, social, environmental, and infrastructure resilience.

## DATA COLLECTION

Mentimeter Surveys

Lightning Talks

Roundtable discussions

Breakout discussions

Case studies

One-on-one zoom calls

## ANALYSIS FRAMEWORK

Focused on identifying common themes, region-specific challenges, and exemplary practices.

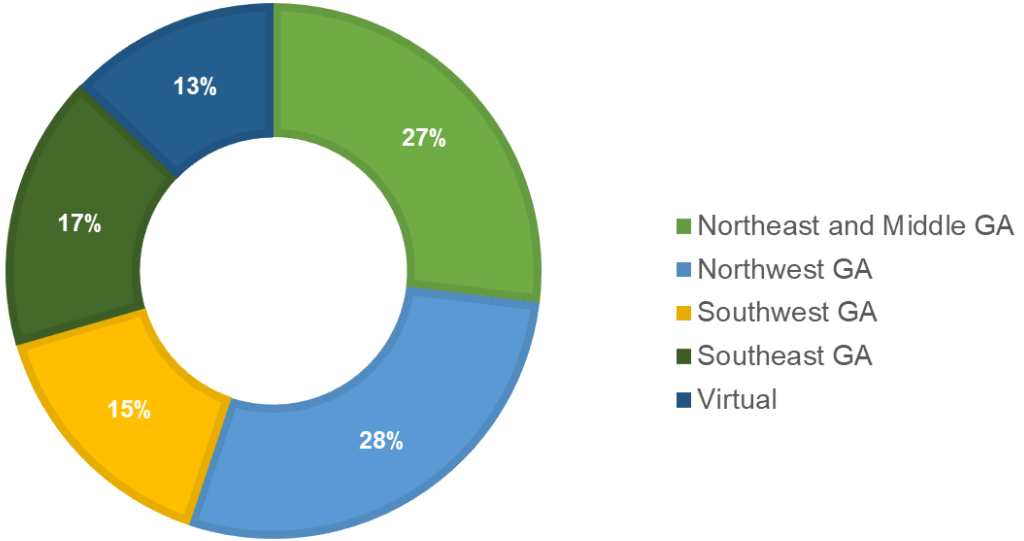


# Regional Resilience Roundtables



- **Identify the most common weather and climate-related hazards** to the region and potential impacts on local infrastructure, economy, and natural resources.
- **Improve mutual understanding of regional resilience efforts**, including policy and infrastructure initiatives.
- **Identify resource needs and gaps** limiting planning and implementation.
- **Recognize examples of local resilience efforts** and opportunities for improved coordination across the region.
- **Identify existing models and examples of resilience-building** activities that may be scaled and replicated statewide

# We had 80+ participants statewide in our regional convenings and conversations



# Our statewide Convening, March 11<sup>th</sup>



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# Identified Resilience Gaps



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## INFRASTRUCTURE VULNERABILITIES

- **Aging stormwater infrastructure**, not sized for present day rainfall/stormwater flows
- **Outdated building codes** for today's hazards today
- **Power grid vulnerabilities** including reliance on above-ground lines etc.

## LACK OF GOVERNANCE COORDINATION

- Disconnects among state, regional, and local planning
- **Rigid and inconsistent land use and zoning policies**
- **Limited inter-jurisdictional collaboration** on watershed and stormwater management

## FUNDING & CAPACITY ISSUES

- **Challenges in obtaining grants** (federal and state)
- **Limited grant-writing and administrative staff** in local governments
- **Lack of public-private partnerships** in resilience efforts

## DATA & PUBLIC AWARENESS GAPS

- **Outdated floodplain maps**
- Difficulty accessing and interpreting authoritative and updated data
- **Limited access to technical expertise** and tools
- **Lack of public education** on resilience measures

# Key Identified Resilience Opportunities



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## INFRASTRUCTURE & DEVELOPMENT

- **Strengthen building codes** for flood- and wind-resistant structures, including special layers of support for low-income residents
- **Expand investment in underground power lines** and smart grids where feasible
- **Develop a more robust statewide water management strategy**, e.g. improving drought resilience

## STATEWIDE AND REGIONAL COORDINATION

- **Establish a Georgia state-level entity** to coordinate efforts and provide guidance, resources, and technical support
- **Develop regional task forces** for multi-county resilience planning etc.
- **Encourage cooperation between cities and counties** through resilience coalitions

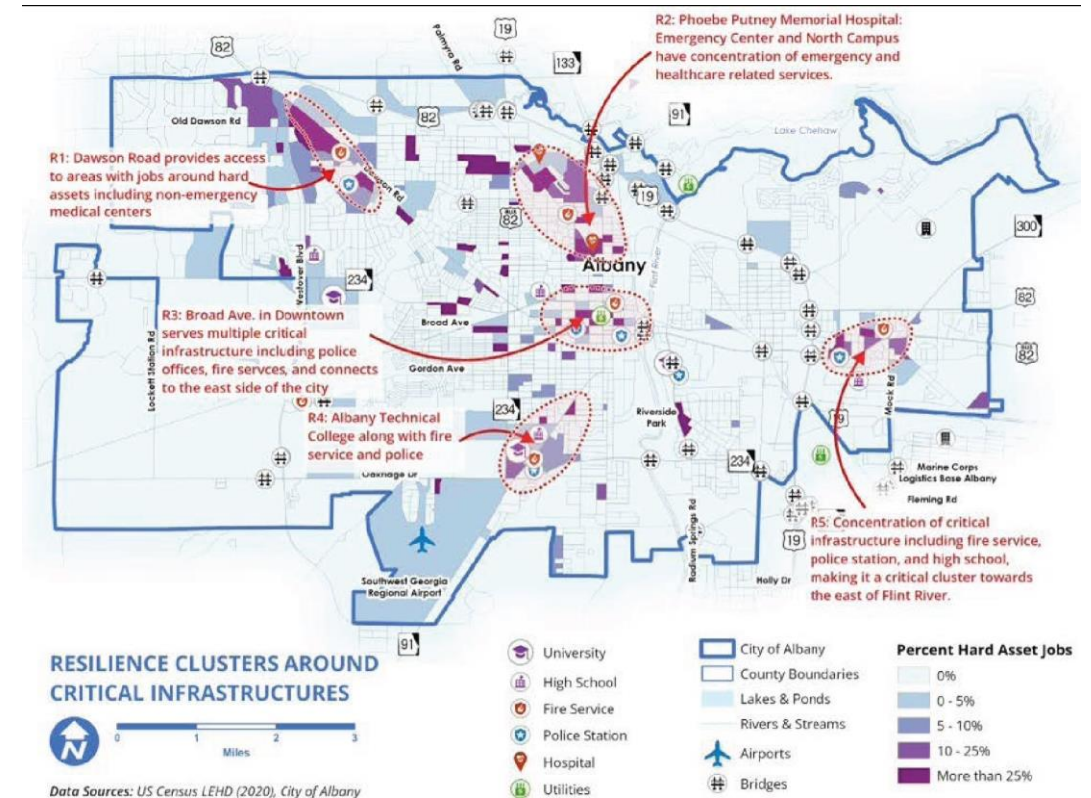
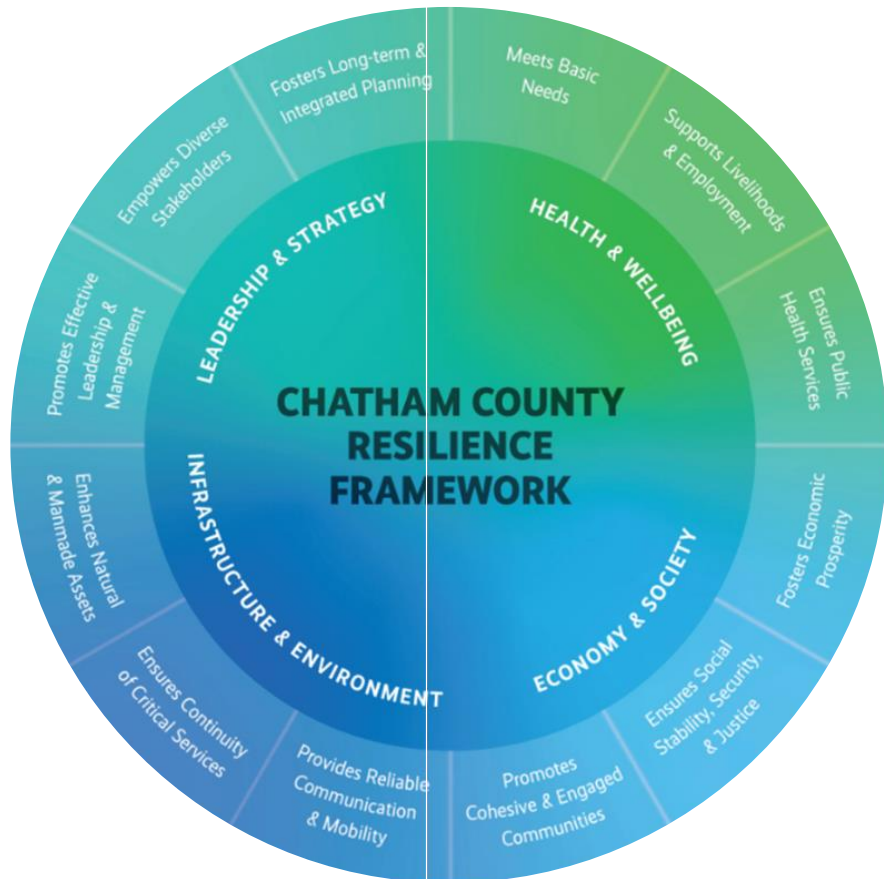
## FUNDING & PUBLIC AWARENESS

- **Create state-level resilience funding programs** to assist with matching funds etc.
- **Improve public education on resilience investments** and long-term cost savings
- **Develop a centralized statewide hazard and resilience framework including resilience metrics and templates** to assist with data-based decision-making and fill expertise gaps.

# Exemplars



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# Standout Ideas from the Convenings



- **Develop a centralized statewide hazard and resilience framework including resilience metrics and templates** to assist with data-based decision-making and fill expertise gaps
- **Develop a statewide data repository** for up-to-date hazards data layers
- **Innovative methods for preventing/recovering from grid interruptions** such as silicone coating electrical wires and localized sub grid systems for wind and tree related outages
- **Develop a more robust statewide water management strategy**, e.g. improving drought resilience, watershed plans for natural infrastructure and nature-based solutions for flood risk reduction and other benefits

# Standout Ideas from the Convenings



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Rank these ideas from most promising to least promising based on their potential impact and feasibility.



# Standout Ideas from the Convenings



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Rank the following by impact and feasibility





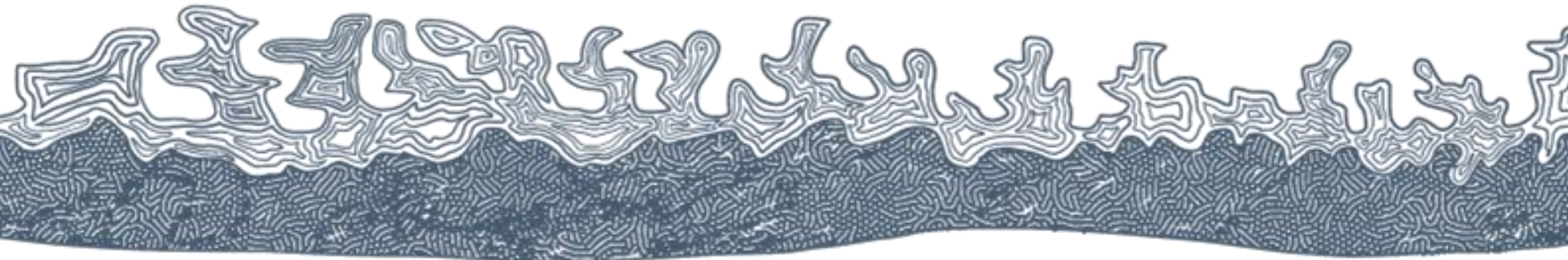


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# Thank you

please contact me at [abdouni@uga.edu](mailto:abdouni@uga.edu) if you have any  
questions, thoughts, or ideas





# Public Comment





# Next Steps





# Next Steps

- Future Council meetings
  - Look out for emails for scheduling
  - Additional topics of interest for council meetings or upcoming Webinars
  - Joint meetings between neighboring Councils
- Look out for the member survey
- Implementation Assessments
- Who does the Council feel should be a part of the conversation in their region?
  - Invite others to join us!

Council Member  
Survey



Please respond by  
April 23rd

# Adjourn





# Lunch

