



Habitat Conservation Plan for the Lower Flint River Basin

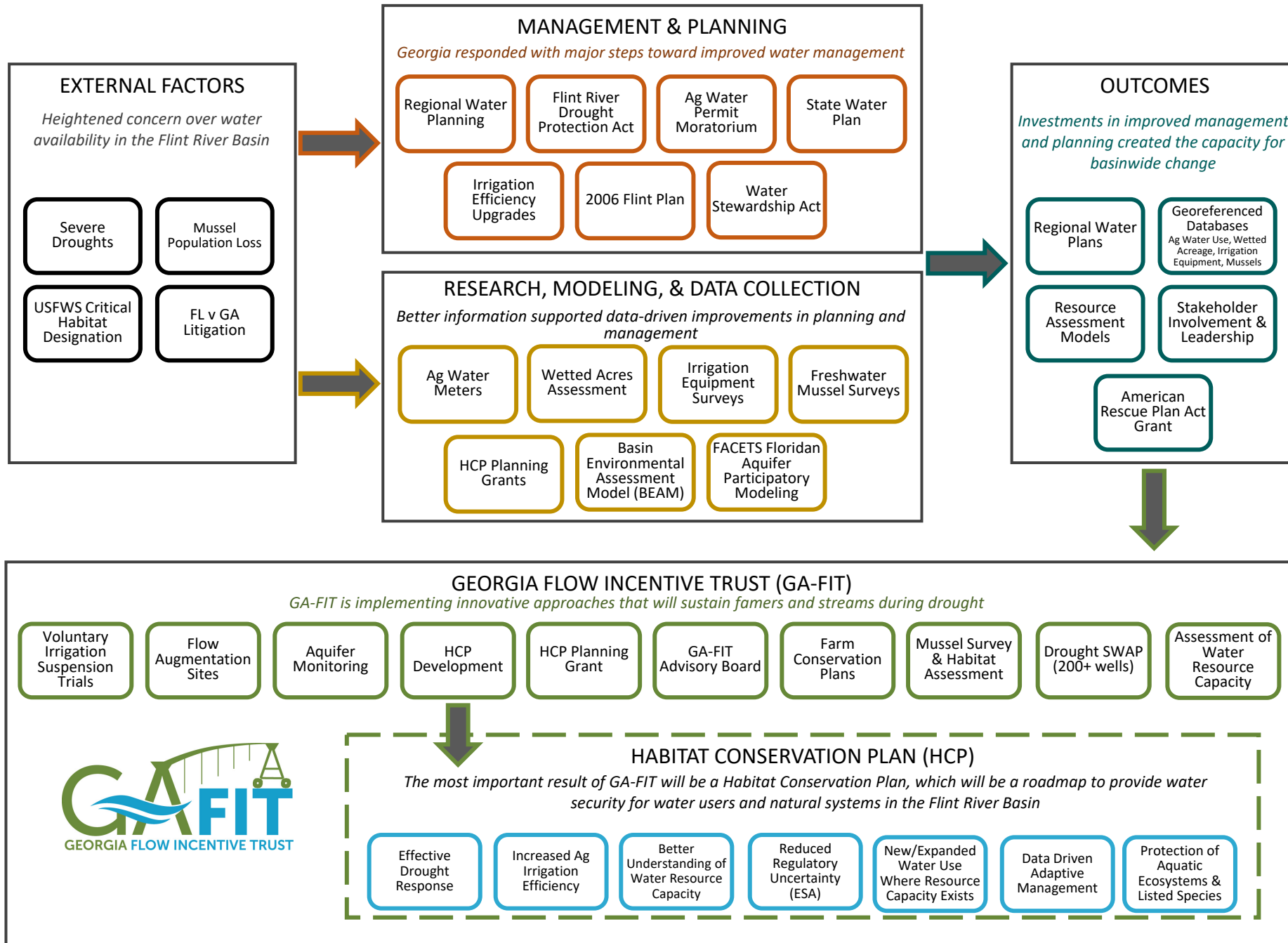
April 24, 2024







A Path to Water Security for the Lower Flint River Basin



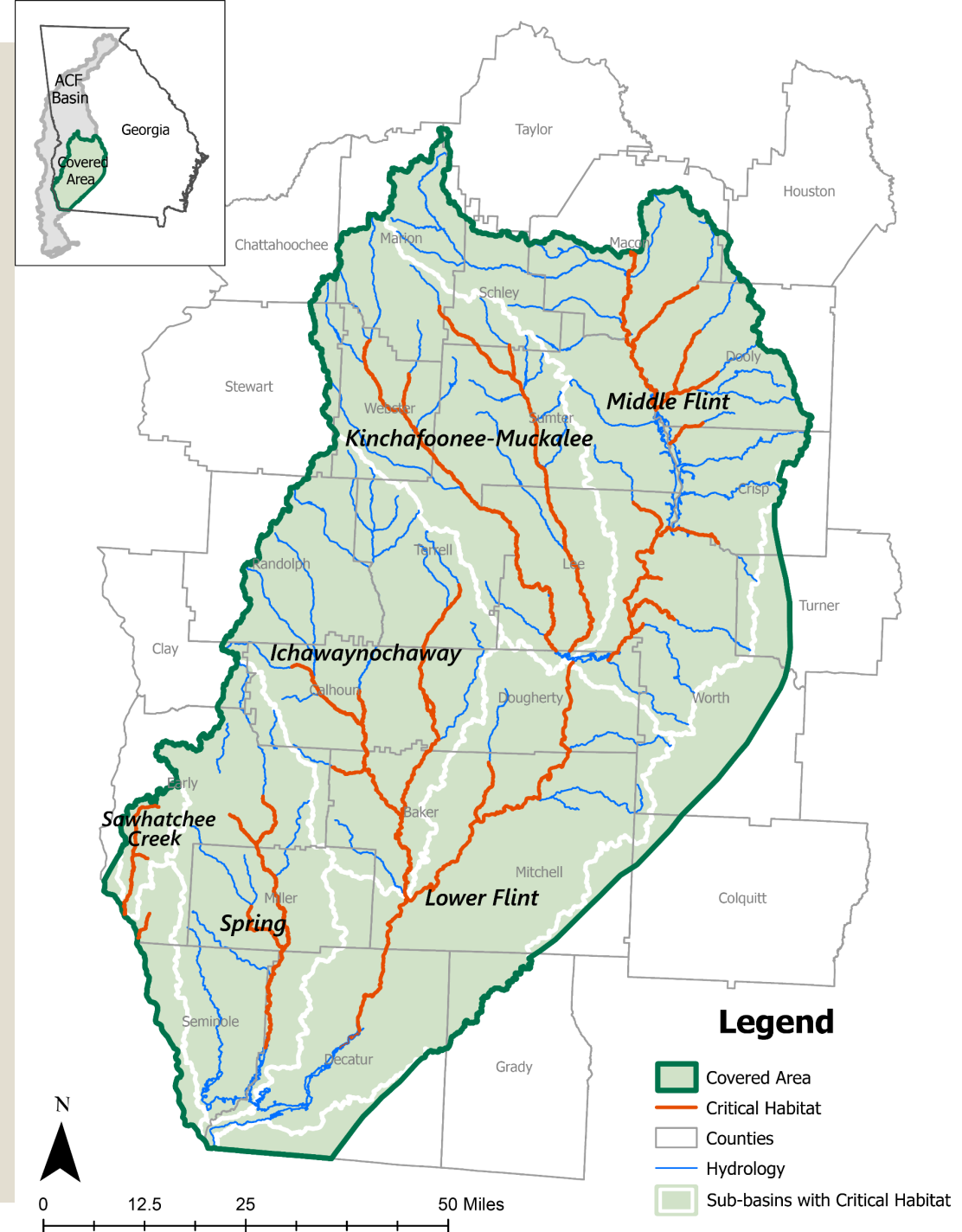


Project Purpose

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 draft Habitat Conservation Plan (HCP)
- Installation of deep groundwater wells at sites of existing agricultural surface water withdrawals (DroughtSWAP)
- Conservation planning at each participating farm
- Monitoring and assessment of groundwater and aquatic ecosystems
- Improved management capacity (conservation, technology, easements, voluntary incentives, augmentation)



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.

Drought SWAP



- Recruitment and application process
- Field assessment of sites and prioritization
- Meetings with landowners
- Contracting with landowners, well drillers, and others
- Test holes
- Well installation by licensed well contractor and assessment of capacity
- Installation with administrative oversight by project field personnel
- Compliance with GAEPD permitting procedures
- Development or update of farm conservation/irrigation management plan



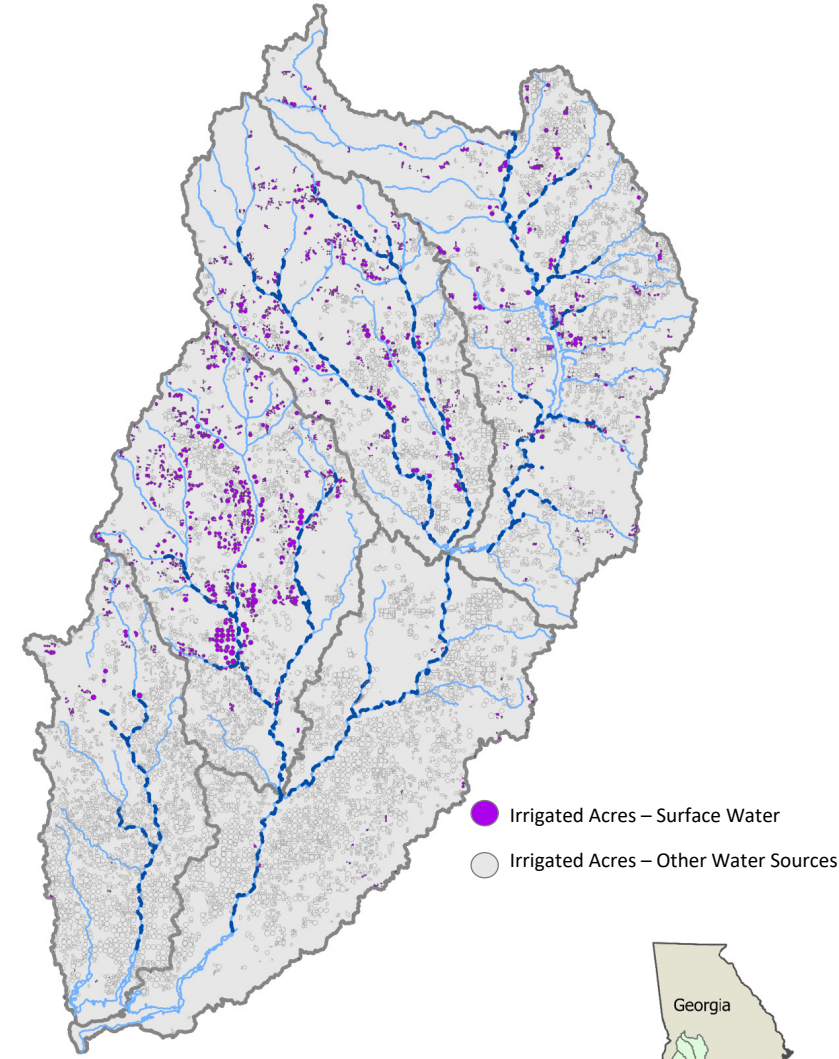
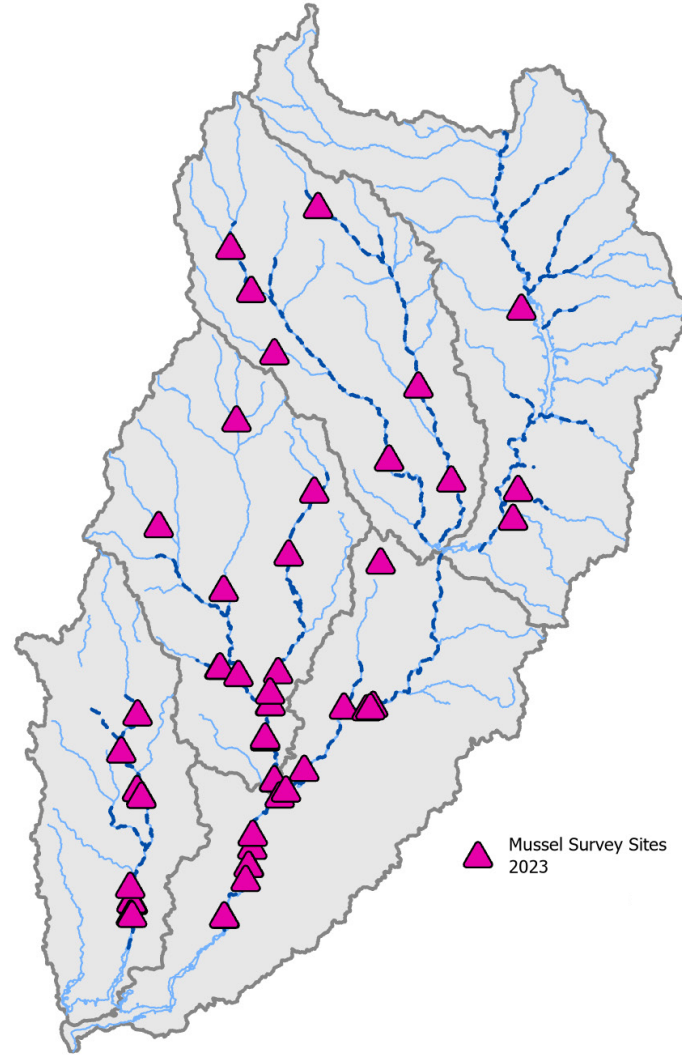
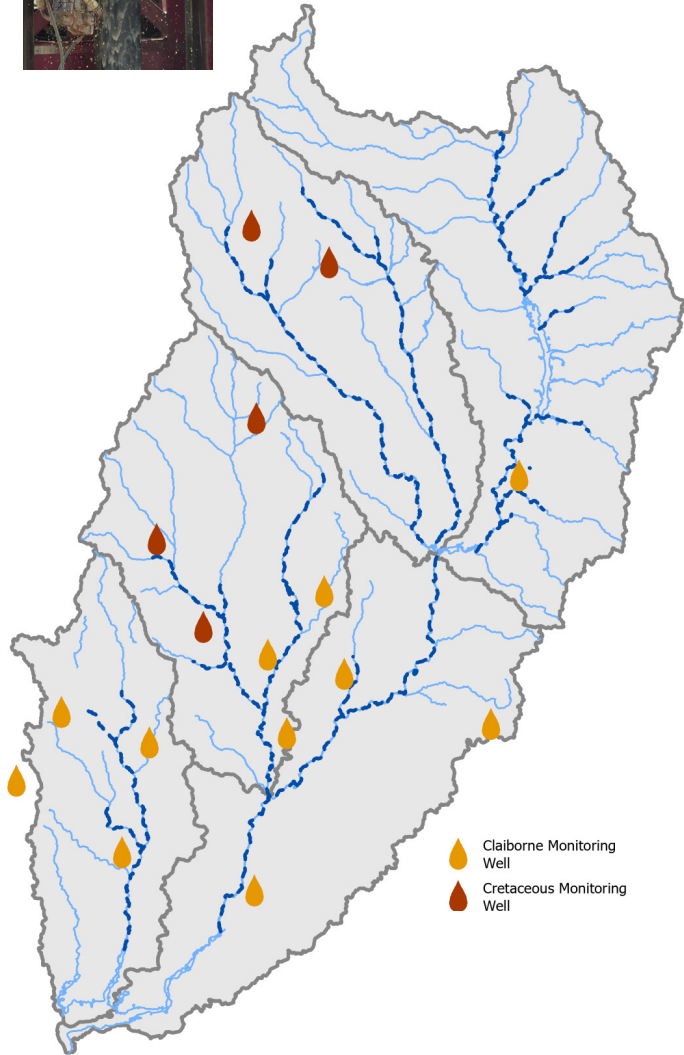
Aquifer
Monitoring Wells



Mussel Survey
Sites 2023



Irrigated Acreage









--- Critical Habitat



Georgia

Federally Listed Freshwater Mussel Species in the Lower Flint River Basin

Scientific Name	Common Name	Federal Status	
<i>Hamiota subangulata</i>	Shinyrayed Pocketbook	Endangered	
<i>Medionidus penicillatus</i>	Gulf Moccasinshell	Endangered	
<i>Pleurobema pyriforme</i>	Oval Pigtoe	Endangered	
<i>Amblema neislerii</i>	Fat Threeridge	Endangered	
<i>Elliptoideus sloatianus</i>	Purple Bankclimber	Threatened	
<i>Alasmidonta triangulata</i>	Southern Elktoe	Proposed Endangered	

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.

HCP Project 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
Evaluating Impact	Hydrologic and habitat modeling; population dynamics models
Management Measures	Temporary source switching Temporary voluntary irrigation suspension Voluntary retirement of land from irrigation via easement/ acquisition Targeted flow augmentation Water quality improvements – sedimentation & erosion control Public education

2024 Activities

- Advisory Board meetings
- Mussel synoptic survey
- Representative habitat reach bathymetry
- Surface water availability and habitat inundation modeling
- Aquifer modeling
- Groundwater monitoring well data collection and analysis
- Mussel survey data analysis
- HCP conservation plan and adaptive management plan
- Drought SWAP application review, test hole drilling, permitting, & well installation



Targeted Outcomes

- Substantial flow benefit during drought
- Improved data on deep aquifers
- Two operating flow augmentation systems
- 14 deep aquifer monitoring wells
- Habitat Conservation Plan
- Updated survey of freshwater mussels
- Improved drought response



