FACETS
Floridan Aquifer Collaborative Engagement for Sustainability

Project Advisory Committee Meeting
January 20, 2022

Wendy Graham, Director, University of Florida Water Institute

D. Adams, K. Athearn, C. Barrett, W.L. Bartels, T. Borisova, C. Court, M. Dukes, R. Hochmuth, D. Kaplan, M. Monroe (University of Florida)
G. Cowie, M. Masters, K. Rowles (Albany State University)
P. Dwivedi, C. Furman, W. Porter, A. Smith, G. Vellidis (University of Georgia)
L. Kalin, P. Srivastava (Auburn University)

Coordinators: P. Carton de Grammont & K. Schlatter

USDA — United States Department of Agriculture — National Institute of Food and Agriculture

UNIVERSITY OF GEORGIA · 1785

AU — Auburn University

Albany State University — University System of Georgia

UF | Water Institute — UNIVERSITY of FLORIDA

PROJECT VISION

Promote economic sustainability of agriculture and silviculture in N Florida and S Georgia while protecting water quantity, quality, and habitat in the Upper Floridan Aquifer and the springs and rivers it feeds.

Brings together scientists and stakeholders to:

➥ develop new knowledge needed to explore tradeoffs and synergies between the regional agricultural economy and environmental quality;

➥ understand changes needed to achieve agricultural water security and environmental protection; and

➥ develop tools, incentives and educational programs for improved decision making

Where we left off…

- Virtual PAC meeting October 2020 – updates on:
  - FL & GA BMP research
  - Water Schools
  - Farm/forest scale modeling
  - FL & GA regional biophysical modeling
- Email updates March 2021
- 2021 Annual Report and Executive Summary

Where are we going…

- Jan 2022 virtual meetings:
  - Project updates, simple scenario results, co-developed scenarios

- 2022: Future webinars on topics of interest

- 2022/23: In-person PAC meeting(s)
  - Co-developed scenario results
  - Discussion of policy implications of project findings

BMP Research

➡ Florida

   ➡ Corn, Carrot, Peanut
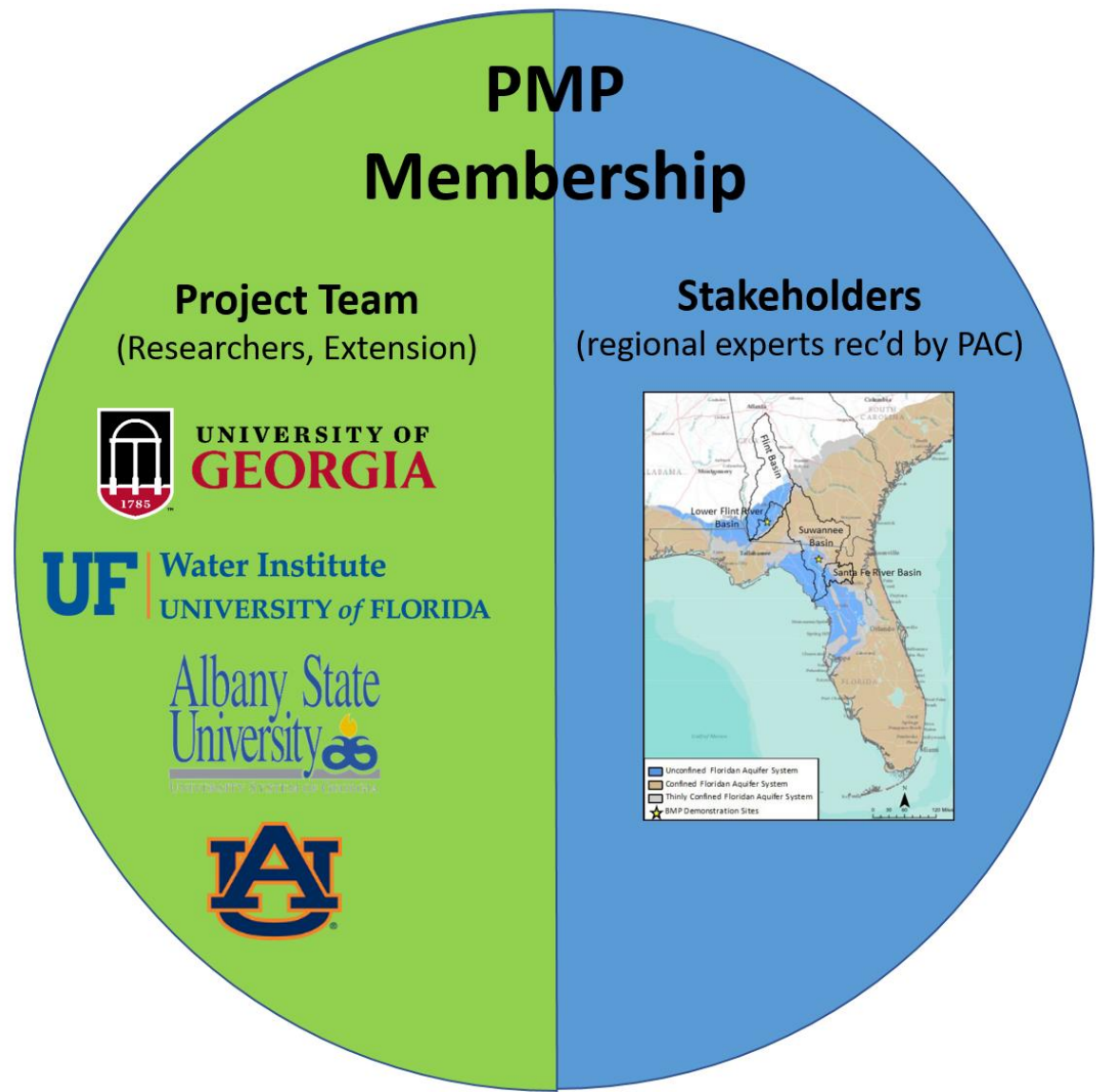
   ➡ Corn, Cover Crop, Peanut

➡ Georgia

   ➡ Corn, Cotton, Peanut

➡ BMPs

   ➡ Fertilizer rates/application methods, irrigation scheduling methods, cover crops

PARTCIPATORY MODELING PROCESS

PMP Membership

Project Team
(Researchers, Extension)

Stakeholders
(regional experts rec'd by PAC)

* Stakeholders highlighted in orange are members of PMP and PAC

GEORGIA STAKEHOLDERS

Hillside Farms, *Mike Newberry*
RW Griffin, *Greg Murray*
UGA Sustainable Forestry Initiative, *Chase Cook*
Southern Forestry Consultants, *Michael Dooner*
Flint River Soil & Water Conservation District, *Perri Campis*
Georgia Environmental Protection Division, *Anna Truszczynski*
The Nature Conservancy, *Sara Gottlieb*
Flint Riverkeeper and USGS, *Elliott Jones*
Jones Ecological Center, *Steve Golladay*
City of Camilla, *Steve Sykes*
Baker County, *Connie Hobbs*
Georgia Farm Bureau, *Jeffrey Harvey*
Georgia Forestry Commission, *Bert Early*

FLORIDA STAKEHOLDERS

Brock Farms, *Kirk Brock*
Grimmway Farms, *Jason Chandler*
Florida Farm Bureau Federation, *Charles Shinn*
Rayonier Inc., *Dan Roach*
Usher Land and Timber Inc., *Eric Handley*
Suwannee River Water Management District, *Hugh Thomas*
Florida Department of Agriculture and Consumer Services, *Kathryn Holland*
Florida Department of Environmental Protection, *Kevin Coyne*
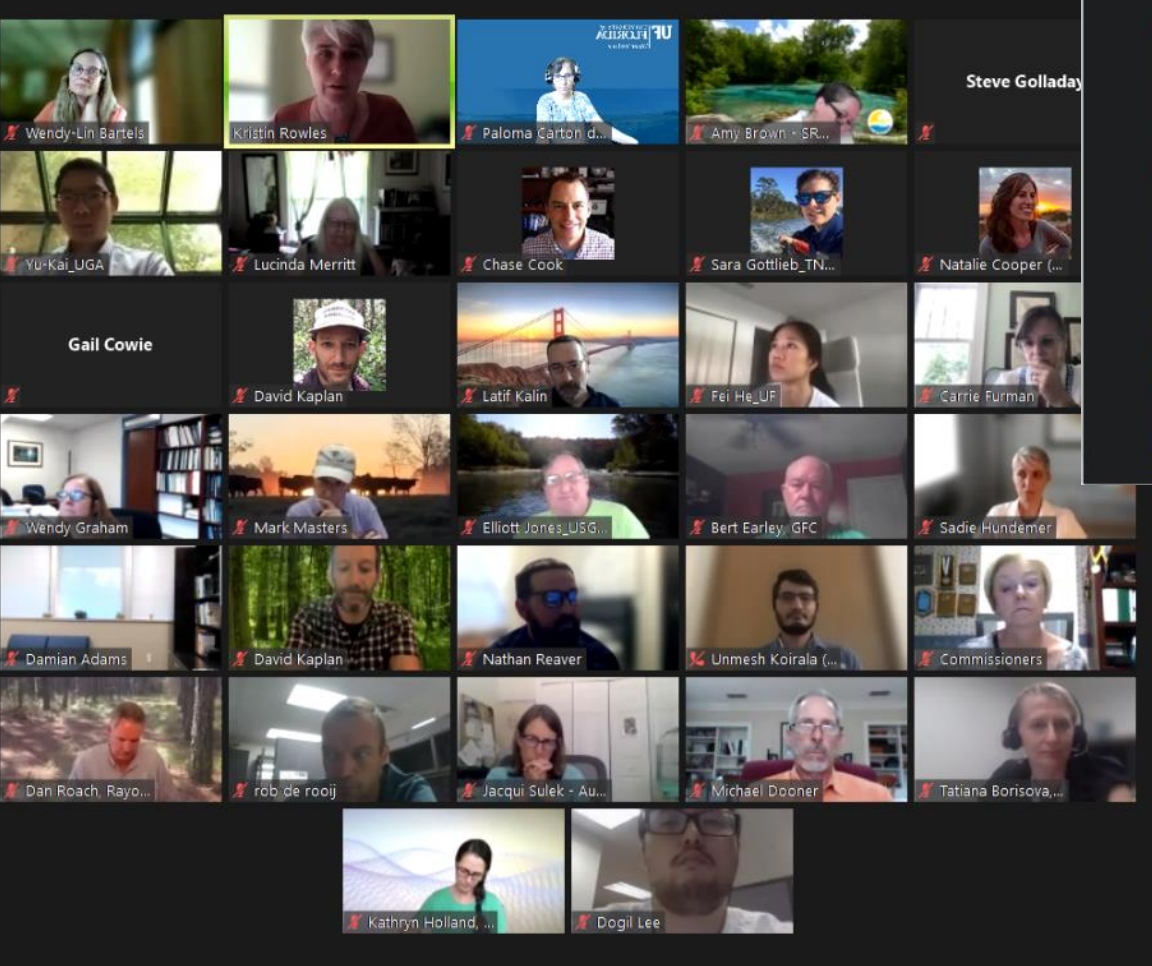**Santa Fe Springs Protection Forum,** *Stacie Greco*
Ichetucknee Alliance, *Lucinda Merritt*
Audubon, *Jacqui Sulek*
The Nature Conservancy , *Lesley Bertolotti / David Royal*

Continuation of virtual PMP meetings in 2021…

Stakeholder Preference & Valuation Research Highlights

- **Willingness to Accept (WTA)** for <u>forest landowners</u> in the Suwannee river basin area (FL) and Lower Flint river basin area (GA)- **completed**
  - Forest landowners' preference for forest incentive program attributes
  - WTA estimates for water quality and quantity conservation-based forest incentive program

- **WTA survey** for <u>GA tree farm program participants-</u> **completed**
  - WTA estimates to forest landowners to adopt practices such as thinning intensity and planting density aimed to increase water yields downstream

- **WTA survey** for <u>FL & GA agricultural producers</u> - **in progress**
  - Perceptions and preferences about incentive payment programs for corn, cotton, and peanut producers to adopt conservation practices to protect water resources in the region

- **Willingness to Pay (WTP)** survey for <u>FL & GA general public-</u> **completed**
  - Public's WTP to support hypothetical water quality and quantity conservation-based incentive program

FACETS
Floridan Aquifer Collaborative Engagement for Sustainability

Communications Research Highlights

1. **Stakeholder mental models – completed**

   ➡ How producer perspectives on regional water issues differ from environmentalist perspectives

2. **Newspaper framing of water issues – completed**

   ➡ How newspapers prioritize and frame coverage of regional water issues

3. **Public water science knowledge and beliefs; effectiveness of moral frames and political spokespersons – completed**

   ➡ Public knowledge and beliefs about water and alternative framings of water policy messages

4. **Stakeholders' relationships with nature and social identity – in progress**

5. **Assessments of how to communicate water-related tradeoffs – in progress**

FACETS
Floridan Aquifer Collaborative Engagement for Sustainability
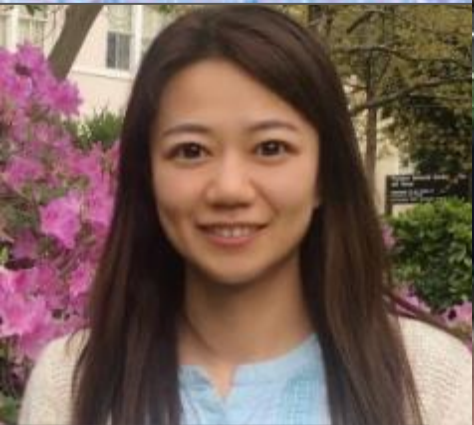
Water Schools for Decision-Makers

➡ Completed first FL Water School

➡ Two Water Schools in GA planned for Spring 2022

➡ Final FL Water school planned for Fall 2022/
Spring 2023

FACETS
Floridan Aquifer Collaborative Engagement for Sustainability

Additional on-going activities:

- Land use change modeling

  - Prototype optimization model to maximize landowner profits subject to hypothetical surface water quality restrictions in the Little River Basin GA - **completed**

  - Economic optimization model to maximize landowner profits in the Lower Flint River Basin subject to streamflow constraints- **in progress**

- Social learning research

- Development of Corn App irrigation scheduling component

- On-farm BMP demos and In-Service Trainings

For more information
http://Floridanwater.org
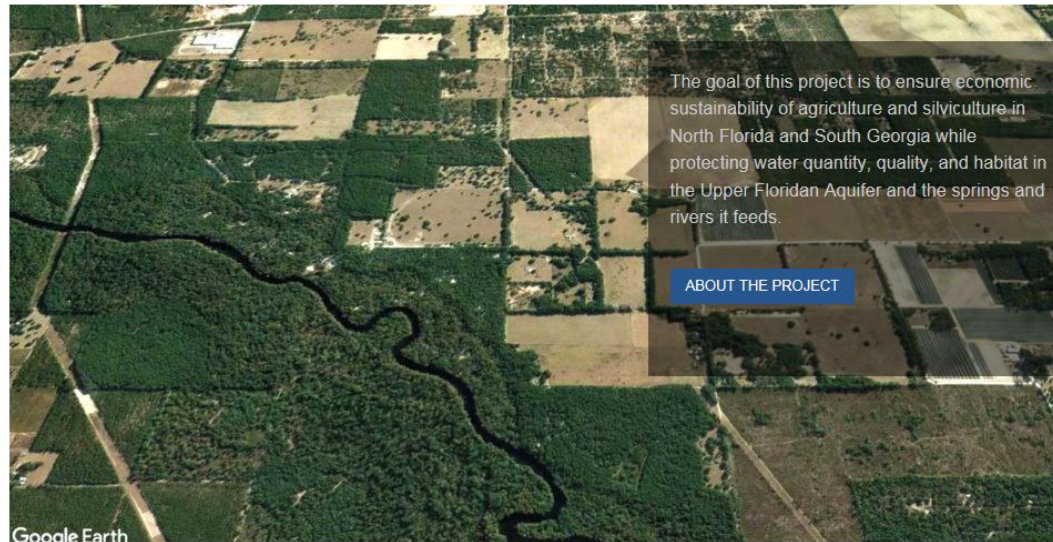
The Floridan Aquifer Collaborative Engagement for Sustainability (FACETS) project is a Coordinated Agricultural Project funded by the USDA National Institute of Food and Agriculture. The FACETS project brings scientists and stakeholders together in a participatory process to develop new knowledge needed to explore tradeoffs between the regional agricultural economy and environmental quality; understand changes needed to achieve agricultural water security and environmental protection; and to implement desired changes.