

Identifying Climate Information Needs of Water Managers in the Southeastern United States



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Background

The Southeast Climate Consortium (SECC) developed a web site in recent years which relates climate to crop and agricultural management practices. The goal of this web site is to help farmers make decisions which include the effects of climate variability in crop management decisions. This website is www.AgroClimate.org. The SECC is now developing a similar website designed to meet the needs of water managers in the Southeastern US.

Interview process

To assist in site development, we surveyed 55 water managers and other stakeholders across the region to determine their needs for weather and climate information on monthly, seasonal and annual time scales. Interviews were done using a semi-structured format in person or by telephone. The participants constituted a variety of water managers and other stakeholders across the Southeast, including the Army Corps of Engineers, Florida Water Management Districts, U.S. Geological Survey, municipal water managers, Riverkeeper organizations, and the Southeast River Forecast Center (National Weather Service). Topics included:

Water management decisions

Type of water management operation
Decision-making processes
What properties of water do you use in making management decisions? (quality, quantity, timing, etc.)

Production decisions

Key decisions you make during the year
Regulatory oversight issues
Risks you face in making management decisions
Main goals of decisions

Climate impacts and adaptations

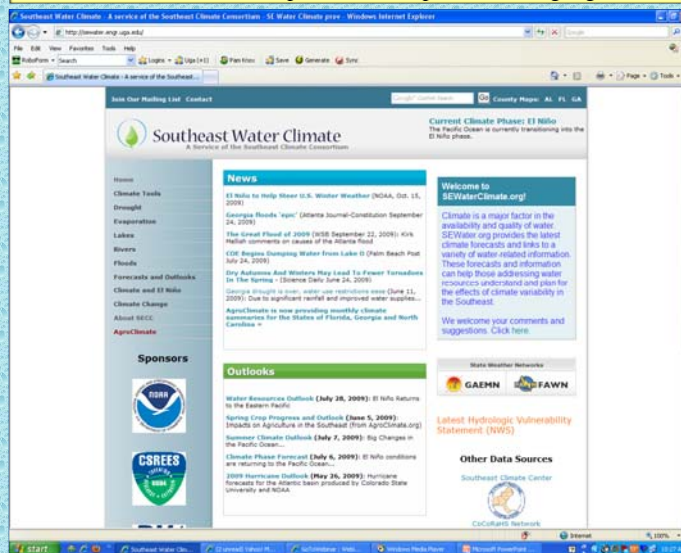
Aspects of climate that affect your operations
Use and value of current climate forecasts
Management strategies to counteract risks of climate

Our goal: To develop a Water Outlook web portal which will be the most useful site available for water managers

Objective:
To provide timely, useful climate information that can be used by water managers to make decisions on water use which incorporate the effects of El Niño and other climatic factors

Methods:
1) Interview water managers on their current decision-making processes and how they presently include climate forecasting (if at all).
2) Develop planning and analysis tools which can aid them in their water management decision processes

Check out the current template site at <http://sewater.engr.uga.edu/>



For information or to contribute ideas contact Pam Knox at pknox@uga.edu.

Significant survey results

- Most local water managers and non-governmental organizations used climate information only in an advisory sense or as background data.
- State agencies, particularly Water Management Districts in Florida, were more likely to use seasonal forecasts, but they tended to work on shorter time scales in their decision-making processes and found seasonal forecasts to be of limited value.
- Large reservoir managers used climate forecasts in planning seasonal releases but found their operations tied to regulatory requirements and had limited ability to respond to climate forecasts.
- Effects of climate change are being considered by managers at various levels but take lower priority than political and regulatory management issues.

Future Work and Product Development

Scientists at the SECC are currently working on website tools and other content items which are geared towards meeting the needs of water managers and other stakeholders. Content and tools under development include:

- One-stop shopping for links to a variety of water information products already available
- Climate information presented by watershed as well as county
- Evaporation data, especially for large reservoir management
- Scientifically based general information on climate change in the Southeastern US

Final website will be at: <http://sewaterclimate.org>

Sponsors
 • US Department of Agriculture – Cooperative State Research, Education and Extension Service (CSREES)
 • US Department of Commerce – National Oceanic and Atmospheric Administration (NOAA) – Office of Global Programs – Regional Integrated Sciences and Assessments (RISA)
 • US Department of Agriculture – Risk Management Agency (RMA)

Key Partners
 • The State Offices of Climatology for Alabama, Florida and Georgia to define research priorities and disseminate climate outlooks and forecasts
 • The Cooperative Extension Services for Alabama, Florida and Georgia and their network of extension specialists and county agents.