

FloridaWCA WORKSHOP REPORT

Workshop #17

Monday, October 2, 2017

8:45 AM – 4:00 PM

Prepared by
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Hosted by
Hosted by University of Florida Water Institute

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Executive Summary

Florida Water and Climate Alliance (Florida WCA) is a stakeholder-scientist partnership committed to increasing the relevance of climate science data and tools to support decision-making in water resource management, planning and supply operations in Florida (<http://floridawca.org/>). The FWCA brings together interested stakeholders (public water supply utilities, local governments, water management districts and academic institutions) to increase the relevance and usability of climate change and variability data and tools to the specific needs of public water supply utilities and resource managers and planners. Initiated in 2010 by the UF Water Institute, the FWCA partnership includes the UF Water Institute, Southeast Climate Consortium (SECC), the Florida Climate Institute (FCI), and UF/IFAS Center for Public Issues Education, six major public water supply utilities, representatives of local governments, and three water management districts. Initially supported through [two NOAA funded projects](#) and interim funding provided by FloridaWCA partners, currently, Tampa Bay Water supports the FloridaWCA workshops and website. *Detailed information on the FloridaWCA is available the [FloridaWCA website FloridaWCA.org](http://floridawca.org).*

Network Goal: Unfold the need for, and enhance the usability of, climate change and variability data and tools in the planning and operations of Florida's public water supply utilities by creating spaces for sharing knowledge from the multiple perspectives and enhancing collaborative research. FloridaWCA participants are interested in impacting relevant research agendas in the technical and social sciences; understanding policy, management, operations and application of planning tools and understanding new policy changes at the state/local level that would affect the utilities; and the FloridaWCA network sustainability.

Steering Committee: Tirusew Asefa (TBW), Kevin Morris (PRMRWSA), Rob Teegarden (OUC), Ed Carter (SJRWMD), Vasu Misra (FSU), Tracy Irani (UF) and Chris Martinez (UF); Workshop Coordinator – Lisette Staal (UF Water Institute)

Workshop Goal: Provide an environment for stakeholder-scientist exchange of current research and tools to address climate variability and change issues. Focus on topics that may help inform scientists' research that would result in an actionable science of use to practitioners.

Summary of Workshop Outcomes

1) RESEARCH

Applied research is of particular interest to the FloridaWCA participants. Participants noted that it is important to identify research needs, particularly from the perspective of generating actionable science. Specific Research Topics of interest mentioned:

- Vulnerabilities - sea level, climate change, variability and population growth
- Extreme events - attribution to climate – opportunity to include in planning

- Change in water use after drought?
- What is the future of “low water flow level”?
- What ecological implications impact water utilities?

2) POTENTIAL LINKAGES AND SYNERGIES

- Need to better understand which of the Utilities research needs can be addressed in the context of the SEC-SC
 - Ability to train students (Fellows SECSC)
 - Funding – students/research
 - Communication for decision makers (RAND – problem framing – “immediacy
 - Share Applied information – impact and engagement with stakeholders
- FloridaWCA could potentially provide a clearinghouse for “data” and information—providing links to other resources
- Provide Translational information (applied)-- papers, video sound bites
- USGS work on evapotranspiration may be beneficial to participants
 - Share ET predictions and sensitivity
 - Synthetic Hurricane data
 - Geodata portal <https://cida.usgs.gov/gdp/> (example sofia website)

3) NEXT STEPS

- SEC- SC- Participate in planning workshop in November
- TBW/UF – Tirusew Asefa will share TBW/UF work on precipitation with– Dr. Ana Carolina Coelho Maran, The Resilient Utility Coalition (RUC)
- Participants expressed interest in the publication of “Regional Environmental Change” issue of [A Multi-disciplinary Assessment of the Southeastern United States Climate \(Guest Editor: Vasubandhu Misra\)](#)
- Next workshop – To be held in Spring 2018.

Workshop Summary- Monday, October 2, 2017

The 17th workshop since the FloridaWCA was initiated was hosted by UF Water Institute, Gainesville, Florida and attended by 19 participants (*see Appendix 1 for participant list*).

Workshop Goal: Provide an environment for stakeholder-scientist exchange of current research and tools to address climate variability and change issues with a focus on increasing local relevancy to utilities and water resource managers. Explore topics that that may help inform scientists' research that would result in an actionable science of use to practitioners.

Workshop Objectives

1. Learn about different organizations focused on stakeholder-scientist exchange of climate science, research, and models.
2. Present recent methods, models and data that are available and how they might be useful to local planning and operations.
3. Explore utility research interests and potential synergies for addressing research needs.

Session 1: Welcome, Introductions and FloridaWCA background

The participants were welcomed by Dr. Wendy Graham, Director of the UF Water Institute. Workshop facilitator, Lisette Staal (UF Water Institute) asked participants to consider things that each participants' organization does, provides and needs and to introduce themselves sharing briefly information on their organizations (*see Appendix 1 for list of participants and organizations*)

Session 2: Getting to know Organizations with similar interests

(moderator: Tirusew Asefa, TBW)

- [Florida Water and Climate Alliance \(FloridaWCA\)](#), Kevin Morris, Science and Technology Officer, Peace River Manasota Regional Water Supply Authority
- [Water Utilities Climate Alliance \(WUCA\)](#), Tirusew Asefa, Manager, Planning & System Decision Support, Tampa Bay Water
- [The Water Institute of the Gulf](#), Eric D. White, PE, Research Engineer

How can looking at what has been done in Louisiana help us?

Understanding funding – Federal and state restore act – NOAA, NAC, centers of excellence, CPR state agency

- [Southeast Climate Science Center \(SE CSC\)](#), [Aranzazu Lascurain](#), Asst. University Director and [Adam Terando](#), Research Scientist.
- [The Resilient Utility Coalition \(RUC\)](#) – Dr. Ana Carolina Coelho Maran, Water Resources Manager, Environmental Protection and Growth Management Department, Environmental Planning and Community Resilience Division

Session 3: Science and Technology in Local and Regional Efforts

(moderator: Ed Carter, SJRWMD)

- [“Overview of evapotranspiration studies in the USGS Caribbean-Florida Water Science Center.”](#) John Stamm, Ph.D., P.G., [U.S. Geological Survey, Caribbean-Florida Water Science Center](#)
- [“Models instrumental in Coastal Louisiana Planning Efforts: 1\) Integrated Compartment Model and 2\) Basin-wide Delft.”](#) Eric D. White, PE, Research Engineer, [The Water Institute of the Gulf](#)
- [“Southeast CSC Science in the US Caribbean: Downscaled climate models, frog calls, and the path towards long-term adaptive species management, \(Part 1 and Part 2\)”](#) [Adam Terando](#), Research Ecologist, [Southeast Climate Science Center \(SE CSC\)](#)
- [“Issues Facing Water/Wastewater Utilities in Florida- GR Perspective.”](#) Rae Hafer, Utility Engineer, Gainesville Regional Utilities

Session 4: Utility Research Interests and Possibilities- Exploring Linkages & Synergies and FloridaWCA next steps

Lisette Staal, facilitator, asked participants to think back over the presentations and discussions that occurred throughout the day and posed 2 questions to open the conversation, including 1) What research interests did you hear today about today from a water supply/demand-utility perspective? 2) What are some linkage strategies that would work from your organizational context? Key discussion points follow:

1) RESEARCH

Applied research is of particular interest to the FloridaWCA participants.

Participants noted that it is important to identify research needs, particularly from

the perspective of generating actionable science. Several broadly focused questions were raised regarding overall planning incorporating climate - How important is “seeing impact for getting acceptance? How does risk play out in planning (for example, IRMA experience?) Are there examples to share, learn from? Do we need to consider Climate “experience” - a new way of thinking?

Specific Research Topics of interest included-

- Vulnerabilities - sea level, climate change , variability and population growth
- Extreme events - attribution to climate – opportunity to include in planning
- Does population growth dwarf the climate issue?
- Has there been a change in water use after drought? (Is there an increase in domestic self supply? - suggested to check-in with Rich Marella).
- What is the future of “low water flow level”—if the MFL changes in future what things will change
- What ecological implications impact water utilities?

2) POTENTIAL LINKAGES AND SYNERGIES

- This will help us to not recreate or duplicate but rather build on each other’s knowledge and experience
- Opportunities to apply similar methods in different locations
- In considering linkages with the SEC-SC, and their research interests and potential funding, it will be important to understanding which of the Utilities research needs can be addressed in the context of the SEC-SC
 - Ability to train students (Fellows SECSC)
 - Funding – students/research
 - Communication for decision makers (RAND – problem framing – “immediacy
 - Share Applied information – impact and engagement with stakeholders
- FloridaWCA can provide a clearinghouse for “data” and information—providing links to other resources- to be able to bring forward right tools, and needed knowledge, and Best practices – know what they are
- Provide Translational information (applied)-- papers, video sound bytes
- USGS work on evapo-transpiration
 - Share ET predictions and sensitivity
 - Synthetic Hurricane data
 - Geodata portal <https://cida.usgs.gov/gdp/> (example sofia website)

3) NEXT STEPS

Linkages –

- SEC- SC- Participate in planning workshop in November (they will be exploring work plan and working groups that will generate potential science topics for funding. In addition, possibility of student opportunities, and exploring specific sites for student internship experiences.
- TBW/UF – Tirusew Asefa will share TBW/UF work on precipitation with– Dr. Ana Carolina Coelho Maran, The Resilient Utility Coalition (RUC)
- FSU-coaps - Participants expressed interest in the publication of “Regional Environmental Change” issue of [A Multi-disciplinary Assessment of the Southeastern United States Climate \(Guest Editor: Vasubandhu Misra\)](#)

Next workshop –

To be held in Spring 2018. A few potential ideas were suggested:

- Mark Hafen – infrastructure/ natural and built environment
- Johnna I. Uncertainty in precipitation
- Rich Marella from the U.S. Geological Survey – domestic use
- Extreme events

APPENDIX 1: List of Participants – FloridaWCA Workshop

Monday, October 2, 2017, UF Water Institute, Gainesville, FL

Last name	First name	Stakeholder group	Organization
Adams	Alison	Utility	Aadamsphd63@gmail.com
Asefa	Tirusew	Utility	tasefa@tampabaywater.org
Carter	Ed	WMD	ecarter@sirwmd.com
Chang	Jason (Seungwoo)	University	swjason@ufl.edu
Graham	Wendy	University	wgraham@ufl.edu
Hafen	Mark	University	mhafen@usf.edu
Hafer	Rae	Utility	HaferRA@gru.com
Lascurain	Aranzazu	University	alascur@ncsu.edu
Mandrup-Poulsen	Jan	private-consulting	jmandrup-poulsen@dslc.com
Maran	Carolina	govt-county	CMARAN@broward.org
Martinez	Christopher	University	chrisjm@ufl.edu
May	Joe	Utility	E312622@miamidade.gov
Morris	Kevin	Utility	KMorris@regionalwater.org
Sharek	Chris	Consulting	chris@shareksolutions.com
Staal	Lisette	University	lstaal@ufl.edu
Stamm	John	govt-Fed	jstamm@usgs.gov
Teegarden	Robert	Utility	rteegarden@ouc.com
Terando	Adam	University	ajterand@ncsu.edu
White	Eric	private org	ewhite@thewaterinstitute.org

APPENDIX 2: Agenda –

FloridaWCA Workshop Agenda

Monday, October 2, 2017

Hosted by University of Florida Water Institute, Gainesville, FL

Workshop Goal: Provide an environment for stakeholder-scientist exchange of current research and tools to address climate variability and change issues with a focus on increasing local relevancy to utilities and water resource managers. Explore topics that may help inform scientists’ research that would result in an actionable science of use to practitioners.

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3. Explore utility research interests and potential synergies for addressing research needs.

Workshop Agenda:

8:45 – 9:00 Check-in, Networking

9:00 – 9:30 **Session 1:** Welcome, Introductions and FloridaWCA workshops background
Welcome by UF Water Institute Director, Dr. Wendy Graham

9:30 – 10:30 **Session 2:** Getting to know Organizations with similar interests (moderator: Tirusew Asefa, TBW)

- Florida Water and Climate Alliance (FloridaWCA), Kevin Morris, Science and Technology Officer, Peace River Manasota Regional Water Supply Authority
- Water Utilities Climate Alliance (WUCA), Tirusew Asefa, Tirusew Asefa, Manager, Planning & System Decision Support, Tampa Bay Water
- The Water Institute of the Gulf, Eric D. White, PE, Research Engineer

10:30 BREAK

10:45–12:15 **Session 2:** (continued) Getting to know Organizations with similar interests (moderator: Tirusew Asefa, TBW)

- Southeast Climate Science Center (SE CSC), Aranzazu Lascurain, Asst. University Director and Adam Terando, Research Scientist.
- The Resilient Utility Coalition (RUC)– Dr. Ana Carolina Coelho Maran, Water Resources Manager, Environmental Protection and Growth Management Department, Environmental Planning and Community Resilience Division
- Open discussion with all organization representatives

12:15– 1:00 LUNCH

1:00 – 2:30 **Session 3:** Science and Technology in Local and Regional Efforts (moderator: Ed Carter, SJRWMD)

- “Overview of evapotranspiration studies in the USGS Caribbean-Florida Water Science Center,” John Stamm, Ph.D., P.G. ,U.S. Geological Survey, Caribbean-Florida Water Science Center
- “Models instrumental in Coastal Louisiana Planning Efforts: 1) Integrated Compartment Model and 2) Basin-wide Delft,” Eric D. White, PE, Research Engineer, The Water Institute of the Gulf
- “Southeast CSC Science in the US Caribbean: Downscaled climate models, frog calls, and the path towards long-term adaptive species management,” Adam Terando, Research Ecologist, Southeast Climate Science Center (SE CSC)
- TBA, Rae Hafer, Utility Engineer, Gainesville Regional Utilities

2:30 – 2:45 BREAK

2:45 – 3:45 **Session 4:** Utility Research Interests and Possibilities- Exploring Linkages & Synergies – Interactive Discussions (moderator: Lisette Staal, UF/Water Institute)- So what does this mean to potential users of the science and models? Research areas of interest? Potential opportunities? What role can FloridaWCA, partners and other organization play?

3:45 – 4:00 FloridaWCA NEXT STEPS