

Approved

## MEETING SUMMARY

### Agricultural and Green Industry Joint Advisory Committee

Southwest Florida Water Management District

June 7, 2018

The Agricultural (AAC) and Green Industry (GIAC) Joint Advisory Committee of the Southwest Florida Water Management District convened for a meeting at 9:02 a.m., June 7, 2018, at the Tampa Service Office, 7601 US Highway 301 North, Tampa, Florida.

#### **AAC Committee Members Present**

Chair Mac Carraway, FL Turfgrass Assoc.  
Curt Williams, FL Farm Bureau Federation  
Dale Lewis, FL Nursery, Growers & Landscape Assoc.  
David Boozer, FL Tropical Fish Farms Assoc.  
Jeff Krieger, FL Citrus Production Managers Assoc.

#### **GIAC Committee Members Present**

Chair Travis Council, Turfgrass Producers of FL  
Vice-Chair George Cook, FL Golf Course Superintendent's Assoc.  
Jennifer Bryan, FL Golf Course Superintendent's Assoc.  
BJ Jarvis, UF/IFAS  
Phil Christman, City of Largo Parks Superintendent  
Gail Huff, FL Irrigation Society (Ballenger & Co.)

#### **Staff Members Present**

Michael Molligan, Facilitator  
Thomas Kiger  
Patricia Robertshaw  
Chris Zajac  
April Breton  
Ross Morton  
Lois Sorensen  
Reed Putnall

#### **Recording Secretary**

Kelly Page

#### **Others Present**

Dr. Eban Bean, UF/IFAS  
Dr. Kjelgren, UF/IFAS  
Dr. Beeson, UF/IFAS  
Dan Dourte, FDACS

Approved summaries from previous meetings can be found on the District's website [WaterMatters.org](http://WaterMatters.org).

*The numbers preceding the items below correspond to the order of presentations.*

#### **1. Call to Order and Introductions**

Agricultural Committee Chair Mac Carraway called the meeting to order. He welcomed members and interested persons. Members introduced themselves.

#### **2. Additions and Deletions to the Agenda**

Mr. Michael Molligan, Employee and External Relations director, stated there were no changes to the agenda.

#### **3. Approval of the March 1, 2018 Committee Meeting Minutes**

Following consideration, the committee approved the March 1, 2018 meeting minutes.

#### **4. Public Comments**

None

#### **5. Agricultural Water Use for Central Florida Water Initiative (CFWI)**

Mr. Thomas Kiger, Water Supply engineer, provided an update on the CFWI and the methods and projections for future agricultural water use. The purpose of the CFWI is to establish one water supply plan for the central region, which includes Polk, Osceola, Seminole, Orange and part of Lake Counties. Goals include generating water use demands for all sectors of water use, potential sources

of alternative water supply, potential water supply projects, as well as supply versus potential impacts to groundwater and minimum flow levels.

Currently, CFWI stakeholders are working collaboratively to adopt one water demand model for the 2020 Central Florida Regional Water Supply Plan. (In the 2015 Regional Water Supply Plan, each of the water management districts had different sources of data.) The 2020 Regional Water Supply Plan will use the Florida Statewide Agricultural Irrigation Demand (FSAID) model to establish water use projections. These projections will be used to determine application rates to each parcel based on crop types. Demand projections were at 135 million gallons per day (mgd) for 2015 and increase upwards of 165 mgd in 2040. Future predictions are based off historical trends.

The main steps involved in the development of water use projections, which have been contracted to The Balmoral Group by the Florida Department of Agriculture and Consumer Services (FDACS), include: collection of the annual agricultural water use data, based on metering, from each water management district, development of a baseline map of statewide irrigated areas, using an econometric model to apply application rates for each of the parcels and predict water demands based on rainfall, evapotranspiration, irrigation system, crop type, etc.

Members asked for clarification on how the application rates from Agmod rates are reconciled to the pumpage data because they are two different numbers. Mr. Kiger explained the model used is a unique model to FSAID IV and is not comparable to demand in any individual year.

Mr. Kiger explained the next steps in the CFWI projections, which include finalizing water demand projections for all categories, outreach to stakeholders, and adoption of the Regional Water Supply Plan in Fall 2020.

Members had a discussion on the increase in demand versus the decrease in acreage over the 25-year projections. Mr. Kiger explained the model is calculated using several different factors, including market conditions and rainfall in association with each parcel. Mr. Dan Dourte, with the Balmoral Group, explained the model is based on the assumption of increased planting densities, where new acreage is expected to be higher value crops as opposed to pasture crops.

#### **6. Irrigation Schedule and Crop Coefficients for Tree Nurseries**

Dr. Richard Beeson, Jr., associate professor, University of Florida/Institute of Food and Agricultural Sciences, and Dr. Roger Kjelgren, center director, University of Florida/Institute of Food and Agricultural Sciences, presented their research that measured the daily water use for trees. The goal for this project was to establish maximum quantities of water use for nurseries in order to conserve water.

Dr. Beeson briefly explained the process of their study, which began in 2002 with small trees. They recorded data, such as the size and species of plants, and used a lysimeter to measure the amount of evapotranspiration released by each of the plants. Their results determined that water consumption varies by species and size, and trees can consume up to 50 gallons (adult live oak) or even 75 gallons (adult cypress) of water per day.

Dr. Kjelgren informed the committee of an ongoing study to determine minimum water use for trees. He explained when trees experience water stress, they will first reduce its evapotranspiration rate, then stop growing, shed foliage and eventually die back. The purpose of this study is to provide the design community and nurseries a guideline for the minimum amount of water to keep plants healthy while cutting down on water use.

Dr. Kjelgren's mentioned that Florida Friendly Landscaping (FFL) was examining a water and walk away approach. Committee members asked for clarification whether FFL is advocating non-turf

landscape and a “water and walk away” philosophy. Dr. Kjelgren responded that there is an ongoing discussion with FFL to determine how much water is needed to get established and then how to keep them alive without irrigation.

Members asked if the results from this study were consistent with the District’s Agmod calculations. Mr. Chris Zajac, FARMS manager, explained to the committee that the findings of this study were brought to Regulatory and it was decided not to make changes to the Agmod because it currently allocates an appropriate volume of water based on these species and is consistent with the study results.

Members requested a representative from Regulatory to further explain why the Agmod will not be changed at the next meeting. Members also asked for a presentation on FFL and to have an update on their position with non-turf landscape and the water and walk away philosophy at the next meeting.

#### **7. Mitigating Soil Compaction on Residential Landscape**

Dr. Eban Bean, assistant professor, University of Florida/Institute of Food and Agricultural Sciences, performed a study on the effects of plant growth in soil with maximum compaction. Dr. Bean explained how he performed this study on a new construction site in Ocala, which, like much of Florida, has sandy soil.

Dr. Bean tested three treatments on the soil: compacted soil, tilled soil and soil tilled with compost mixed in. He tested for bulk density, depth to refusal (root growth), hydraulic conductivity (water movement or flow), and volumetric water content. Dr. Bean’s findings suggest soil amendment accelerates lawn growth by three to five years. However, over extended lengths of time, compacted soil mitigates itself, therefore variances in plant growth are not significant.

Dr. Bean shared with the committee the next phase of testing, which includes the study of these three soil types with two topsoil treatments per year to see how this changes some of the measurable factors. Dr. Bean mentioned that he will be monitoring the water use from each homeowner as well as using lysimeters to determine which nutrients are leaching out through the lawn relative to the treatment applications. Members requested an update of the next phase.

#### **8. FARMS Program – MIA Update**

Ms. Patricia Robertshaw, staff environmental scientist, provided an update on the Most Impacted Area (MIA) of the Southern Water Use Caution Area (SWUCA). As part of the SWUCA recovery five-year assessment, the District reached out to stakeholders, who supported the idea to promote FARMS projects in this area. The District’s cost-share portion for projects in this area that meet water conservation criteria was increased from 50 percent to up to 75 percent for a three-year time period. As a result, the FARMS projects in the MIA doubled.

Ms. Robertshaw explained the expiration date on the temporary increase in cost-share is fast approaching. The cost-share rate drops back down to 50 percent on September 30<sup>th</sup> of 2018.

Mr. Chris Zajac listed some of the priority areas within the SWUCA and their benefit from the FARMS cost-share incentive. Mr. Zajac explained the evolution of the cost-share FARMS Rule discussed in Ms. Robertshaw’s presentation, and the Board’s recent discussion regarding reimbursement rates.

Members discussed the current cost-share rate of up to 75 percent, which is advantageous for private individual entities that could not otherwise afford certain research projects or best management practices. Members also discussed their purpose as an advisory committee to provide feedback and suggestions to the Governing Board.

**Members made a motion to present a letter to the Governing Board to support the District continuing to pay for 75 percent of the costs for FARMS projects in the MIA and for FARMS projects elsewhere that included both water conservation and water quality components. This motion was seconded and passed unanimously.**

#### **9. Citrus Task Force**

Mr. Ross Morton, Ombudsman, explained that citrus is a leading crop in Florida, totaling \$8 billion in revenue, and the District wants to be proactive with permitting in sustaining this market. Within the District, the agricultural industry uses approximately 323 million gallons of water per day, of which 57 percent of this quantity is from citrus growers.

Mr. Morton explained the purpose of the Citrus Task Force, which is to ensure permitting meets its responsibilities without creating unnecessary barriers for crop growers. This team, composed of District managerial staff, is tasked with listening to challenges faced and solicit feedback from the citrus industry. They are currently planning to reach out to 30 to 40 permittees, several associates and consultants as well for feedback.

Mr. Morton offered contact information to the committee. Members mentioned there are several components to process the fruit than just the growers, such as juicers, packing plants, etc. and added there is a true concern with crop loss. Members were receptive to the ambitions of the Citrus Task Force and asked to hear about the results as information is collected.

Members asked for contact information be emailed to them.

#### **10. Hydrologic Conditions Update**

Ms. Lois Sorensen, Demand Management program manager, updated the committee on the District's current hydrologic conditions. March started out dry, however April brought normal to above normal rainfall, followed by almost three times the expected rainfall in May.

The 12-month rainfall data reflects the rainfall average significantly above. Surface water on the Withlacoochee River is up to the 65<sup>th</sup> percentile. Polk, Pasco and Pinellas Counties are above normal at the 87<sup>th</sup> percentile, and Hillsborough is at the 79<sup>th</sup> percentile. The Peace River is at the 87<sup>th</sup> percentile. The Alafia River is at the 100<sup>th</sup> percentile, which means there is some flooding in various locations.

The forecast for June, July and August predicts above normal temperatures as well as above normal rainfall. Recent rain has enabled soil hydration. There have been some recent localized flooding events and Florida is predicted to have an active hurricane season.

#### **11. 2018 Legislative Review**

Mr. Michael Molligan, Employee and External Relations director, provided an update on the recent legislative session. He explained House Bill 703, which is an expedited process for sale of surplus lands. This will streamline the process to sell small parcels of surplus land.

Mr. Molligan also presented House Bill 705, which is a public records exemption with lands for sale. This is a temporary exemption, which allows the public record to be exempt up to one week before the Governing Board is going to act on the sale.

Both bills passed through legislation and will become effective July 1, 2018.

Also, there were seven Governing Board confirmations approved by the Senate.

**12. Development of agenda topics for the next Agricultural and Green Industry Advisory Committee meeting at 9:00 a.m. on September 6, 2018 in the District's Tampa Office.**

Members requested for Regulatory to present on Agmod; Members requested an explanation on the non-turf landscape/water and walk away discussion with Florida Friendly Landscape; and members requested to hear about the findings with Dr. Bean's topsoil application study.

**13. Announcements and Other Business**

None

**14. Adjournment**

Meeting adjourned at 11:58 a.m.