

The third meeting of the Springs Coast Management Committee opened at 1:00 pm.

*1. Call to Order and Roll – Mr. Michael Molligan, Southwest Florida Water Management District (SWFWMD)*

A quorum was present.

*2. Action Item: Minutes Approval from 10/22/14*

Mr. Ken Cheek, Citrus County, made a motion for approval of the minutes. Mr. Dave Burnell, City of Crystal River, seconded the motion. It subsequently passed unanimously.

*3. Atlantic Multi-decadal Oscillation (AMO) – Mr. Mike Gittinger, National Weather Service*

Mr. Gittinger's presentation addressed the El Nino and AMO weather patterns and Florida's weather outlook. Ocean temperatures drive El Nino and AMO patterns. Since the late 1990s, the Atlantic Ocean has been in a warm phase. Increased tropical storm and hurricane activity is associated with this phase. Reduced storm activity is experienced with cooler temperatures. Florida's weather outlook for winter/spring is cooler temperatures and above normal rainfall (i.e., El Nino).

Commentary during the discussion included the following:

- Dr. Chris Anastasiou, SWFWMD, questioned the frequency of weather patterns, and stressed the importance of rainfall timing, duration and spatial distribution. Mr. Gittinger stated his office focuses on seven-day forecasts and explained that weather patterns could last for several weeks.
- Mr. Ron Basso, SWFWMD, questioned the relationship between landfall storms and weather patterns. Mr. Gittinger stated influences exist.

*4. Minimum Flows and Levels – Mr. Ron Basso, SWFWMD*

Mr. Basso discussed MFLs for the springs, and the northern groundwater system. There was mention that the Chassahowitzka, Homosassa and Weeki Wachee spring groups have established MFLs. Gum and Rainbow springs are scheduled for MFL establishment in 2016, and Kings Bay in 2017. A reevaluation is scheduled for Chassahowitzka and Homosassa springs in 2019.

The Floridan aquifer is the primary groundwater system, and it is generally unconfined in the north. The first-magnitude springs line up mostly in the unconfined area of this aquifer. Groundwater pumping impacts are localized for unconfined aquifer areas, and more dispersed in the confined areas of the aquifer. The north has the highest groundwater recharge rates in the state but rainfall and evapotranspiration greatly influence this. In recent years, rainfall has declined but the evapotranspiration rate has remained stable resulting in a substantial decline in recharge rates. He also indicated the spring systems have positively responded to rainfall in 2014.

Committee member comments and inquiries were as follows:

- Mr. Charles Lee, Florida Audubon, stated rainfall assumptions in models do not reflect experiences in the real world. He also questioned the use of the term “significant harm,” and stated great harm is taking place and the measuring is happening in an impacted environment. Mr. Basso stated the water management districts define “significant harm,” and the District has chosen, for riverine systems, a 15 percent change (i.e., deterioration) in habitat or resources. The determination of harm is a balancing act, and the 15 percent reduction does not translate to an automatic reduction in flow by the same amount.

- Mr. Lee questioned the differences between the MFL allowable flow reduction for Chassahowitzka and Homosassa springs (three percent) and Weeki Wachee springs (ten percent), and the availability of information on water conservation practices and associated savings by user groups. Mr. Basso identified water conservation measures being implemented and agreed to follow up with Water Supply staff on the water conservation question. Mr. Mike Heyl, SWFWMD, responding to the question relating to allowable flow reduction differences for the Chassahowitzka and Homosassa and Weeki Wachee rivers, stated similar MFL evaluation protocols were used so the differences are due to physical characteristics, water volume and the estuary areas. Mr. Lee also noted how the installation of water conserving toilets in pre-1994 buildings would reduce the volume of effluent being released into springsheds. Mr. Molligan stated water conserving toilets could be identified as a management option.

- Mr. Curt Williams, Florida Farm Bureau, questioned the need for leak detection for homes with swimming pools. Mr. Eric DeHaven, SWFWMD, stated it could be added as a management strategy.

- Mr. Richard Owen, Withlacoochee Regional Water Supply Authority, stated information presented today indicates spring flow problems are attributable to hydrologic changes and other factors, and not groundwater withdrawals. He also questioned the status of the Chassahowitzka and Homosassa MFL petition and requested a copy of the FDEP decision. Mr. Basso stated salinity in monitoring wells is fairly stable, and sea level rise is responsible for the observed vegetation changes. Mr. Heyl stated the District’s Chassahowitzka and Homosassa MFL rules were determined to be consistent with FDEP’s water resource implementation rules.

*5. Withlacoochee Regional Water Supply Authority’s Water Supply Plan 2014 Update – Mr. Richard Owen, WRWSA*

Mr. Owen provided an overview of the recent plan update. The WRWSA’s Water Supply Plan was cooperatively funded with the District. It identifies, for the planning period 2010-2035, an increase in public supply demand of 41 mgd and an increase in all water use types of 97 mgd. The plan analyses concluded that available water supply sources, includes water conservation practices and reclaimed water, could satisfy the District’s portion of the demands. In the SJRWMD portion of the region, MFLs for Silver Springs/Silver River may limit additional Upper Floridan aquifer quantities. The plan examined the Lower Floridan aquifer but did not attempt to quantify available supplies. Mr. Owen expressed an interest in addressing the Lower Floridan aquifer in the next plan update.

The following are committee member comments and questions:

- Mr. Lee questioned the Lower Floridan aquifer's rate of replenishment. Mr. Owen stated withdrawals are being made from this aquifer system in the St. Johns River Water Management District, and a better understanding of the resource is needed. Mr. Basso stated limited testing in Wildwood indicated that the Upper and Lower Floridan aquifers are not hydrologically connected but variable leakage does occur between the aquifers. The Villages development is currently withdrawing about 10 mgd from the Lower Floridan aquifer for irrigation.
- Mr. Flip Mellinger, Marion County, indicated that Marion County is exploring opportunities to shift groundwater withdrawals to the Lower Floridan aquifer and expressed concern with the contamination of the resource with wastewater discharges. Mr. Basso stated investigations show fresh water is available at 2,000 feet in the aquifer.
- In reference to a proposed alternative water supply project identified in the RWSP, Mr. Lee questioned the method of water withdrawal from the Withlacoochee River at Holder. Mr. Basso stated the proposal includes an off-stream reservoir for water storage.

#### *6. Member Comments*

Mr. Lee indicated Florida Audubon would provide additional information on water conservation. He stated DeKalb County, Georgia is doing water conservation right.

#### *7. Public Input*

None

#### *8. Date and Agenda Topics for Next Meeting*

Ms. Veronica Crow announced the next meeting will be held on January 14 meeting at 1:00 pm. Meeting topics will include water quantity management options and the Homosassa/Chassahowitzka MFL petition.

#### *9. Assignment Recap*

Dr. Anastasiou asked committee members to submit water quantity management options for the January discussion.

#### *10. Adjournment*

The meeting adjourned at 3:15 pm.

A copy of the meeting audio is available upon request.