

## **Industrial Advisory Committee**

MEETING DATE – AUGUST 13, 2019

LIAISON REPORT – JAMES MURPHY

### **Elections of Chair and Vice Chair**

- *Members unanimously voted Ilia Balcom to serve as committee chair.*
- *Mark Hurst (absent) was nominated for vice chair and members voted him unanimously, pending his acceptance.*

### **Overview of District Data Collection Efforts**

- Mr. Granville Kinsman, Hydrologic data manager, explained the Hydrologic department collects water level data, rainfall data and evapotranspiration (ET) data. The hydrologic conditions monitoring is to advise of conditions that might warrant water shortage restrictions. They have over five thousand data collection sites that they visit and over 14 million records are collected every year. US Geological Survey (USGS) provides the data collection component for flow data; they are the experts in calculating discharge on rivers and they provide the data in real time. Mr. Kinsman explained there will be a new web interface the District will be utilizing shortly.
- Mr. Dave DeWitt, chief professional geologist, provided a brief overview of the water quality monitoring program and what they do. Mr. DeWitt explained they work mostly on groundwater-quality, including springs, nutrient monitoring, and the District's coastal saltwater interface network. They have created new programs for additional ground water monitoring, particularly for springs.
- Mr. Subrata Bandy asked about the USGS potential ET measurements and if they could be explained. Mr. Kinsman stated that he could send some background information, however, they are using solar data and he believes that is the only data they are using. Mr. Kinsman stated the University of Alabama created a model and they have been working with the geologic survey (GS) for over 10 years.
- Mr. Bandy asked what is done with the data collected and if there is an effort to do a regional trending analysis in terms of water quality. Mr. DeWitt explained staff assess the data, however, because groundwater and water quality changes rather slowly, this data is assessed over a period of a few years. The data collected is stored in the District's in-house databases and is available to the public.
- Mr. Bandy asked what parameters are used to analyze groundwater. Mr. DeWitt explained the parameters consist of all the major ions, including calcium, magnesium, sodium and potassium. Staff also test for field parameters, which include temperature, Ph and specific conductivities.

### **Migration to the Environmental Data Portal**

- Mr. Granville Kinsman, Hydrologic Data manager, provided a brief overview of the current corporate database known as Water Management Information system. It consists of two components: Data Collection Regulatory. The District is in the process of migrating data to a new system known as the Water Information System by Kisters (WISKi), and information can be access through the interface known as the Environmental Data Portal (EDP). The EDP will be introduced in coming months and training will follow closely upon its release.
- Ms. Balcom asked where she could sign up for project updates. Mr. Kinsman referred to the District's website and identified a link to receive email updates.

- Mr. Bandy asked if this data is only District-collected data. Mr. Kinsman replied in the affirmative.

### **Hawthorne Aquifer System**

- Mr. Jason Patterson, staff hydrogeologist, provided a presentation on the Hawthorn aquifer system, and discussed a study conducted, in response to dry well complaints, to determine whether minimum levels should be set on the aquifer. The minimum aquifer level would protect the aquifer from detrimental impacts due to groundwater withdrawals. Staff are currently updating the 2017 reevaluation and will not recommend establishing a minimum aquifer based on the data.
- Mr. Bandy asked how deep is the Permeable Zone (PZ) 3. Mr. Patterson responded that PZ3 is around 800 feet deep in Sarasota County and 500 feet deep in DeSoto area. Mr. Dewitt explained further that it depends on where the top of the Upper Floridan aquifer beings.
- Ms. Balcom asked what would be causing the water level decrease and if it is isolated to that area. Mr. Patterson explained water can be pumped near one zone and it will draw down, however, that does not necessarily mean the system itself is going down, just the one area is going down.
- Mr. Bandy asked if it is mostly domestic wells going dry in PZ1 and PZ2. Mr. Patterson explained most of these wells are in the Coastal Sarasota area and that is where majority of the 2001 complaints came from. Mr. Patterson explained these wells were monitored to investigate what the water quality water level trends were.
- Mr. Bandy asked if the water quality in the Floridan areas are worse than the intermediate aquifers. Mr. Patterson explained Hardee and DeSoto county are not worse, they have quite a bit of production from the Upper Floridan in that area and the chlorides and sulfates are below the 250 milligram per liter.

### **Lower Florida Aquifer Exploratory Program update**

- Mr. George Schlutermann, senior hydrogeologist, discussed the first phase of exploring the Lower Floridan Aquifer (LFA), which includes drilling and testing. Staff were able to develop a geological framework of the aquifer system, identified production capability, and confirmed a good confining layer between the Upper and Lower Floridan Aquifer at the Frostproof site. Next steps include completion of the dual zone monitoring well at the site as well as pump testing at the Crooked Lake site and investigation at the Lake Wales Site.
- Mr. Bandy asked how the water quality compares between LFA I and LFA II (b). Mr. Schlutermann explained that there was a lot of mixing going on, and they will be able to see this better once they pump that zone.
- Mr. Bandy asked why they back plugged the bottom of the exploratory hole. Mr. Schlutermann explained this is due to the deeper portions of the borehole having undesirable water; the monitoring zone was more representative of the aquifer they desired to monitor.
- Mr. Bandy asked if they were thinking of using the same aquifer for both production and disposal. Mr. Schlutermann explained there is discussion going on about how the same

aquifer can be used for production and injection, but they need a good confining unit and that is still being determined.

- Mr. Bandy asked how the water quality came back. Mr. Schlutermann explained quite a bit of variation occurs when sampling zones.
- Mr. Bandy asked if Packer Test LFA II (b) is the most reliable for production purpose. Mr. Schluterman explained that once they begin the pump test, they will be able to provide accurate numbers but currently LFA II (b) has the most production capability.