

## **Environmental Advisory Committee**

MEETING DATE – JANUARY 14, 2020

LIAISON REPORT – ROGER GERMANN

### **Governing Board Workshop Recap and Results**

- Ms. Mandi Rice, Assistant Executive Director, provided a summary of the December 2019 Governing Board Workshop. She explained the Board has focused majority of the cooperative funding to date on water supply because three-fourths of the District is within Water Use Caution Areas.
- Decisions from the Workshop include the continuation to prioritize water supply and fund alternative water supply (AWS) through regional entities, assisting with potable reuse projects and continuation to fund septic-to-sewer projects, assisting Tampa Bay Water with 20 million gallons per day (mgd) of AWS, assisting PRWC with 30 mgd of AWS and Peace River Manasota River Water Supply Authority with 21 mgd of AWS.
- Ms. Jennifer Hecker asked where surface water fits in with AWS and asked whether there is ongoing monitoring to ensure drawing from the surface waters is not contributing to a depletion in flow. Ms. Hecker asked specifically about Shell Creek. Ms. Rice explained surface water is considered an alternative supply for AWS funding and that the minimum flows and levels (MFL) and permitting programs make sure they are not being over withdrawn. Ms. Rice said Shell Creek is currently under evaluation for the MFL and staff will provide the committee a presentation in the next few months.
- Ms. Hecker suggested to ensure the public and other organizations that the water is safeguarded for the natural systems, and this be done in tandem with water supply permitting.
- Mr. Ed Sherwood stated the District is a leader in responsible reuse and suggested the Governing Board continue to prioritize reuse. Ms. Rice agreed and explained the District is closely following developments with potable reuse.

### **Weeki Wachee Natural System Carrying Capacity Study**

- Mr. Randy Smith, Natural Systems and Restoration Bureau Chief, provided results from a carrying capacity study conducted to evaluate the effects of recreational use on the Weeki Wachee River's natural systems. The study included collections of water quality data, analyzing vessel launch data, and aerial assessments of shoreline vegetation, as well as statistical analyses of this data to assess relationships between recreational use and environmental responses.
- Results suggest there are statistically significant relationships between recreational use and turbidity (water clarity and quality) on the Weeki Wachee River. This includes vessel use, wading, docking, and swimming. Results also suggest a reduction in users or vessels alone may not reduce the impacts, and first-step management decisions should address recreational activities.
- Mr. Gordon Colvin asked about the water quality impacts and why there was no sampling for fecal coliform. Mr. Smith explained there is statistically significant increase in turbidity in the system with recreation. This study was specific to the recreation impacts and did not look at fecal coliform.
- Members asked if there are septic communities along the river. Mr. Smith replied in the

affirmative and explained the county is working as part of a master plan to eliminate septic systems in this area.

- Mr. Alan Bailey asked about the falling trees and whether Hernando County removes snags from the river. Mr. Smith explained the county does not remove snags that provide habitat value unless they are a safety hazard. Mr. Bailey asked for maps to this study.
- Members discussed limiting recreation activities versus launching restrictions and recalled their experiences on the river. Mr. Smith explained these options will be looked at as part of the management plan.
- ***Mr. Sherwood made a motion to recommend to the Governing Board to have a follow up study to see how enforcement of the 280-vessel limitation (in the state park) might be helping in the recovery of the Weeki Wachee River system. The motion was seconded and passed unanimously.***

### **Springs Monitoring: Next Generation in Water Quality Monitoring**

- Mr. Robin Speidel, Environmental Data Project Manager, provided an overview of real-time water quality monitoring, which provides live and continuous data of water quality in the springs. This method will help to identify gaps in water quality monitoring, reduce the need to collect lab samples, and detect changes in water quality pertaining to weather events. Challenges for this method include higher upfront costs and requires consistent maintenance.
- Mr. Sid Flannery asked if staff are monitoring chlorophyll on a regular basis. Mr. Speidel responded in the affirmative, identifying a chlorophyll probe on the unit.
- Mr. Dwayne Carlton asked how spring vents can be crystal clear and become turbid around the corner. Mr. Speidel explained it depends on the geochemistry of the vents where the water is coming from.
- Mr. Alderson asked whether assessments are confined to springs only. Mr. Speidel explained there are multiple projects Districtwide in support of the MFLs, and they are conducted by United States Geological Survey and Florida Department of Environmental Protection as well.
- Ms. Hecker asked whether sufficient levels of data will be inputted to the Watershed Information Network (WIN) for quality assurance/quality control readings. Mr. Speidel explained grab samples are put into WIN but is unaware whether WIN is capable of housing continuous monitoring data.
- Mr. Sid Flannery suggested an effective way to reduce data from continuous recorders is to report daily means, minima and maxima
- Mr. Sherwood suggested the District continue to use this as an open science initiative because data are rich and should be open to the public.

### **Lower Hillsborough River Minimum Flows Five-Year Assessment**

- Ms. Danielle Rogers, Environmental Project Manager, provided information on the Lower Hillsborough River minimum flows, the minimum flows recovery strategy five-year assessment, as well as ongoing activities. Recovery strategy sources include Sulphur Springs, Blue Sink Project, Morris Bridge Sink, and transfers from the Tampa Bypass Canal.
- Mr. Bailey asked whether the increase salinity at Sulphur Springs is due to intrusion into the aquifer or overpumping. Ms. Rogers suggested modeling would need to be completed to

address this question, however, it is meeting its MFL so overpumpage should not be a factor.

- Mr. Sherwood suggested additional time to review and requested a time series on the water quality data to better interpret the dataset. Ms. Rogers offered this data to the committee and explained 2013 and 2017 were low rainfall, so these are the strongest with recovery strategy implementation effectiveness.
- Mr. Flannery suggested more assessments from the available USGS recorder data in the river.
- ***Mr. Flannery made a motion for the District to be amenable to extending the review period. The motion was seconded. Following discussion on time constraints of the second versus third five-year assessment, the motion passed unanimously.***

#### **Hydrologic Conditions Update**

- Mr. Granville Kinsman, Hydrologic Data Manager, provided an update on hydrological conditions as of January 13, 2020. He explained the dry season rainfall is above normal to date. Mr. Kinsman indicated the northern and central regions are healthier than the southern region and public water supplies are full.