



PUBLIC SUPPLY ADVISORY COMMITTEE MEETING
TUESDAY, November 7, 2023 – 1:00 PM
2379 BROAD STREET, BROOKSVILLE, FLORIDA 34604

MINUTES

Committee Members Present

Bryan Schmalz – Bay Laurel Center Community
Debra Burden – Citrus County Water Resources
Sarah Malone – City of Lakeland Water Utilities
Lynn Spivey – City of Plant City Utilities
Ryan Smith – City of Tampa Water Department
Thomas Kiger – City of Tarpon Springs Utilities
Alys Brockway – Hernando County Utilities
David Glicksberg – Hillsborough County Utilities
Olga Wolanin – Manatee County Utilities (Chair)
Mark Thomas – Marion County Utilities (alternate)
Tamara Richardson – Polk County Utilities
Krystal Azzarella – Polk County Utilities (alternate)
Stoney Pope – Sarasota County Utilities
Brian Fagan – Sarasota County Utilities (alternate)
Erin Hayes – Tampa Bay Water (alternate)
Trey Arnett – The Villages
Suzannah Folsom – WRWSA

Governing Board Liaison

Robert Stern

Staff Members

Adrienne Vining
Andrew Thornquest
April Breton
Bob Thompson
Catherine Wolden
Chris Zajac
Doug Leeper
Jay Hoecker
Jennette Seachrist
Jennifer Soberal
Jeremy McKay
Jordan Miller
Kristina Deak
Kym Holzwart
Michael Molligan
Randy Smith
Robyn Felix
Ryan Pearson
Steve Desmith
XinJian Chen
Yonas Ghile

Board Administrative Support

Virginia Singer
Barbara Matrone

1. Call to Order and Introductions

The Public Supply Advisory Committee (PSAC) of the Southwest Florida Water Management District (District) met for its regular meeting at 1:00 p.m. on Tuesday, November 7, 2023, via Microsoft Teams.

Chair Olga Wolanin called the meeting to order, and attendance was called.

Governing Board Liaison Robert Stern welcomed the committee.

2. Additions and Deletions to the Agenda

Ms. Virginia Singer stated that a Hydrologic Conditions Update would be added as item # 5 to the agenda.

3. Approval of the August 8, 2023, Meeting Minutes

A motion was made to approve the minutes from the August 8, 2023 meeting. The motion passed unanimously.

4. Public Comments

None.

5. Hydrologic Conditions Update

Mr. Steve Desmith, Senior Professional Geologist, gave a hydrologic conditions update. The District's wet season includes the months of June, July, August, and September. September is the last month of the four-month wet season and this year it was drier than expected. The District averages about 7.0 inches of rainfall in September, but this past September only received 5.0 inches, which was a 2-inch rainfall deficit. The highest amount of rainfall in September was in Highlands County at 14.1 inches and the lowest was at 0.4 inches in Pinellas County. The District averages about 31.0 inches of rainfall in the four-month wet season, but this year only received 26.2 inches, which was a 4.8-inch rainfall deficit. Mr. Desmith showed a graph of the 12-month rainfall distribution from October 2022 through September 2023. The District averages about 52.7 inches of rainfall for the 12-month period, but this past 12-month period through September only received 42.8 inches, which is a 9.9-inch rainfall deficit. The heavy rainfall from Hurricane Ian in 2022 contributed to this significant difference.

Mr. Desmith showed a graph of the 12-month departure from the mean and discussed the rainfall surplus and deficits for September. Last year at this time there was a 3.1 inch surplus due to Hurricane Ian but as of September of this year, we have a 9.9-inch rainfall deficit. He showed the provisional rainfall distribution for October of this year and stated that it was another dry, below-average rainfall month. The District averages about 3 inches of rainfall but only received 1.4 inches, which was a 1.6-inch rainfall deficit.

He then discussed the groundwater levels in the northern, central, and southern counties from January 2004 through October 2023, as well as the surface water levels in the Northern Lakes, Tampa Bay Lakes, Polk Upland Lakes, and Lake Wales Ridge Lakes regions.

He then showed graphs and discussed surface water discharge and the eight-week mean discharge of the Withlacoochee, Hillsborough, Alafia, and Peace rivers. Mr. Desmith then discussed the public supply levels for the City of Tampa's "Hillsborough" Reservoir and public supply volumes for the Bill Young Reservoir in the Hillsborough and Alafia rivers, and the water quantities in the Peace River Reservoir. He discussed the Climate Prediction Center Near-Term Climate Forecast showing seasonal outlooks for temperature and precipitation. The Center is predicting above normal rainfall and normal temperatures for the next three months within the District. For the extended climate forecast, above normal rainfall is predicted now through May 2024. The District is still in tropical storm season which runs from June 1 through November 30, but there is nothing in the outlook for tropical weather in the next seven days.

6. Recommended Minimum Flows for Horse and Charlie Creeks

Dr. Kristina Deak, Senior Environmental Scientist, gave a presentation on the recommended minimum flows for Horse and Charlie creeks. Florida law requires that minimum flows are established for all flowing water courses. A minimum flow is the limit at which further withdrawals would be significantly harmful to the water resources or ecology of an area. A minimum flow is not a permit. After Governing Board approval, minimum flow recommendations are adopted into District rules and used in the Water Use Permitting, Environmental Resource Permitting, and Water Supply Planning programs. To date, the District has established 34 minimum flows for river segments or springs throughout the management area of the District.

The development of minimum flows includes consideration of natural season fluctuations, non-consumptive uses, and 10 environmental values. Those values include recreation in and on the water, fish and wildlife habitats and the passage of fish, estuarine resources, transfer of detrital material, maintenance of freshwater storage and supply, aesthetic and scenic attributes, filtration and absorption of nutrients and other pollutants, sediment loads, water quality, and navigation.

A baseline flow record must be developed to account for natural flow variation, structural alterations in the water course, and any existing withdrawal impacts. Flow blocks are identified to account for environmental factors associated with the full range of flows. Within each flow block, significant harm thresholds are identified for setting minimum flows. These include percent-of-flow reductions in baseline flows that could occur before 15% reductions in sensitive environmental resources are observed and flow thresholds for a specific flow rate that protects key environmental resources.

Dr. Deak discussed the lengthy process for establishing minimum flows and then began her review of Horse and Charlie creeks. Both Horse and Charlie creeks are significant tributaries to the Peace River. Horse Creek is about 54 miles long and has a mean annual flow of 185 cubic feet per second (cfs). Approximately 42% of the watershed is natural lands, 41% is designated as agricultural use, and 12% is mining areas. Charlie Creek is about 42 miles long and has a mean annual flow of 262 cfs. Agriculture covers about 56% of the watershed and 37% is natural lands.

The initiation of District projects related to developing these minimum flows began in 2007. Draft reports were submitted to the Governing Board in June 2023. Peer review and report revisions were made between June and October 2023. Stakeholder presentations and a public workshop will be held between June and November and a presentation of final reports and proposed rule language will be given at the December 12 Governing Board meeting.

Dr. Deak discussed how baseline flows were calculated for each creek, the advantages of using flow-based blocks for the development of minimum flows, and which metrics were applied to quantitatively separate blocks. She then explained how minimum flows were determined within each flow-based block. A low flow threshold was established to protect all flows in Block 1 to ensure continuance of fish passage in each creek. The recommended minimum flows for medium flows in Block 2 were established based on the availability of suitable habitat for invertebrate taxa. Minimum flows in Block 3 and its sub-blocks were determined by a sensitivity analysis of floodplain inundation. Additional analyses were conducted to ensure all environmental values were protected.

Dr. Deak reviewed the minimum flows status assessment and stated that the recommended minimum flows are currently being met in both systems and are expected to be met over the next 20 years. A minimum flows status assessment will be completed annually by the District, every five years as part of the regional water supply planning process, and on an as-needed basis in association with permitting and project-related activities. The recommended minimum flows will be presented to the Governing Board at the December 12 meeting.

7. Little Manatee River Minimum Flows

Ms. Kym Holzgart, Lead Ecologist, gave a presentation on the proposed minimum flows for the Little Manatee River. The Little Manatee River is one of the most pristine blackwater rivers in Southwest Florida. It is the only tidal river designated as an Outstanding Florida Water by the Florida Department of Environmental Protection mostly because of its relatively natural state. The river is located in the southern part of Hillsborough County and the northern part of Manatee County. The river flows west from its headwaters east of Fort Lonesome for about 40 miles before emptying into Tampa Bay near Ruskin and west of Highway 301, the river flows through Little Manatee River State Park and Cockroach Bay Aquatic Preserve. Minimum flows were developed for both the upper and lower river, and the flow record from the United States Geologic Survey (USGS) gage at US Highway 301 was used to develop the minimum flows. Analyses used to develop minimum flow for the upper river focused on the river from its headwaters to the Highway 301 bridge, while analyses supporting minimum flows development for the lower river focused on the portion of river downstream of the Highway 301 bridge to Tampa Bay.

Minimum flows development for the lower river began in the late 1990s. A draft report for the upper river minimum flows was completed and reviewed by a panel of independent scientists in late 2011/early 2012. A draft report containing the proposed minimum flows for both the upper and lower river was completed in late 2021. It included new analyses and considered the earlier peer

review of the upper river proposed minimum flows. A peer review of that report was completed in September and included substantial revisions to District hydrologic models and tools and analyses used for both the upper and lower river minimum flow recommendations. The final draft report is on the District website and addresses all the comments from the panel of independent scientists, as well as various stakeholders.

A baseline flow record is needed to develop minimum flows. Baseline flows are flows that would have occurred in the absence of withdrawals. The flow data used is available from the USGS's gage at the Highway 301 bridge from 1939 through 2021 to develop the baseline flow record. The daily surface water withdrawals from Florida Power and Light's Little Manatee Plant since 1976 were added and flows from the excess runoff from agricultural lands since 1977 were subtracted.

The District's approach to minimum flows development is habitat based. Ms. Holzwart discussed how changes in flow from withdrawals affect habitat, and she went over the different development methods for the Little Manatee River. She then discussed flow-based blocks that were developed for the upper and lower river segments and showed the results for each. She also showed a summary of proposed minimum flows for the upper and lower river segments and stated that they will be established at a Hillsborough County Environmental Protection Commission Water Quality Monitoring Station located downstream of the Highway 301 bridge. This location was determined to be an appropriate boundary location by reviewing water quality and biological data. Ms. Holzwart concluded by discussing the current and future status of minimum flows and stated that they are currently being met and are expected to be met over the next 20 years. A presentation will be made to the District's Governing Board at its December 12 meeting to request approval to begin rule development.

Mr. David Glicksberg asked that since a portion of the river is being considered for federal designation as a Wild and Scenic River, had there been any impact on how the minimum flows are determined. Ms. Holzwart responded that the possible designation did not affect the development of minimum flows.

8. Overview of the District's Water Quality Monitoring Networks

Ms. Catherine Wolden, Water Quality Monitoring Program Manager, gave an overview of the District's water quality monitoring networks. The Data Collection Bureau (DCB) is composed of an administration section and four data collection sections:

- The Geohydrologic Data section performs exploratory coring, monitor well construction oversight, aquifer testing, and well repairs, abandonments, and modifications.
- The Hydrologic Data section collects hydrologic data including groundwater and surface water levels and atmospheric data.
- The Water Quality Monitoring section performs water quality sampling from wells and surface water bodies, and the chemistry lab analyzes water samples for District projects and initiatives.
- The Mapping and GIS section provides visualization and management of spatial data using mapping products, and the survey section provides professional surveying services for District projects and initiatives.

The main goal of DCB's data collection efforts is to support resource management decisions.

Ms. Wolden briefly discussed the timeline of the District's Water Quality Monitoring Program (WQMP) and provided dates from 1979 when the lab was first established until 2012 when the current organizational structure of the WQMP within the DCB was instituted.

The WQMP and lab are made up of 21 staff members, including field and lab technicians, chemists, a data analyst, data managers, a professional geologist, student interns and two supervisors. Data sample collection and laboratory analysis are performed for surface, groundwater, and springs water quality projects. Annually, 2,700 samples are collected and analyzed for the parameters that are

relevant to the objectives of the project. Approximately 60,000 individual analyses are performed annually in the lab and 21,000 field observations are collected to accompany the laboratory data in the database.

The mission of the DCB is the collection of high-quality data with a focus on time and cost efficiency. Numerous quality checks are performed on data collection and documentation activities throughout the bureau. Staff audits on the Chemistry Lab are performed every two years to maintain certification with the state. The WQMP supervisor performs audits on field staff to ensure the sampling methods and safety practices are being followed. The bureau has a safety team that meets monthly to assess field safety, health and safety plans, and equipment needs. Data Governance is a check and balance used to track and manage requests for new data collection.

The WQMP and lab support many programs and initiatives throughout the District. Some of the main areas of support are for groundwater modeling, watershed management, minimum flows and levels, restoration initiatives, surface water improvement waterbody management, Central Florida Water Initiative, real time data collection, structure operations, surface and groundwater status and trends monitoring, and regulatory assessments. The District maintains and collects data from several networks of observation wells and springs to evaluate water quality trends at over 500 sites. The primary goal of these networks is to track water quality changes in groundwater throughout the District. These networks include coastal groundwater, water use permitting, inland Floridan aquifer system, springs, and the upper Floridan aquifer nutrients networks.

In addition to groundwater monitoring, surface water networks track water quality changes in surface water throughout the District. The primary intent of our rivers, streams and coastal spring-fed river monitoring networks is to track nutrients within these systems. These systems drain into the coastal and estuarine areas and increased nutrient levels have the potential to affect aquatic ecosystems by stimulating the growth of nuisance aquatic vegetation within the rivers, streams, and their receiving waterbodies. Lake monitoring is primarily used in support of establishing and tracking minimum water levels for District lakes. In addition to using this data for District projects and initiatives, it is also provided to the Florida Department of Environmental Protection for use in determining the impairment status of waterbodies and aquifers.

Ms. Wolden concluded by demonstrating how to access the data and tools on the District's website.

9. Field Trip Discussion

Ms. Singer mentioned a possible tour of Polk County's Direct Potable Reuse Pilot Project and said that a poll would be emailed to the committee to choose a February or May date for the field trip.

10. Development of Agenda Topics

Chair Wolanin requested a public supply annual report and another hydrologic conditions update.

11. Announcements and Other Business

Ms. Alys Brockway commended District staff for putting together a great agenda of topics. Chair Wolanin announced that the Region 10 AWWA Best Water Taste Test was conducted. Sarasota County won the competition this year and will bring their water sample to a state competition at an upcoming conference.

12. Adjournment

The meeting adjourned at 2:38 p.m.