



ENVIRONMENTAL ADVISORY COMMITTEE MEETING
TUESDAY, October 10, 2023 – 10:00 AM
2379 BROAD STREET, BROOKSVILLE, FLORIDA 34604

MINUTES

Committee Members Present

Jennifer Hecker – Coastal and Heartland National Estuary Partnership
Becky Aych – Environmental Confederation of Southwest Florida
Jenna Taylor – Florida Trail Association – Suncoast and Heartland Chapters
Jennifer Brunty – Manatee Chamber of Commerce
Dwayne Carlton – The Ocala Metro Chamber & Economic Partnership
Dave Tomasko (Chair) – Sarasota Bay Estuary Program
Gordon Colvin – Save the Homosassa River Alliance
Sid Flannery – Sierra Club – Tampa Bay Group
Willa Matz – Sierra Club – Tampa Bay Group (alternate)
Maya Burke – Tampa Bay Estuary Program (alternate)

Staff Members

Adrienne Vining
Andrew Thornquest
Bob Thompson
Chris Tumminia
Chris Zajac
Doug Leeper
Elizabeth Fernandez
Jason LaRoche
Jay Hoecker
Jennette Seachrist
Jeremy McKay
Jerry Harding
Jordan Miller
Kristina Deak
Kym Holzwart
Madison Trowbridge
Mandi Rice
Michael Molligan
Randy Smith
Robyn Felix
Seung Park
Xinjian Chen
Yonas Ghile

Board Administrative Support

Virginia Singer
Barbara Matrone

1. Call to Order and Introductions

The Environmental Advisory Committee (EAC) of the Southwest Florida Water Management District (District) met for its regular meeting at 10:00 a.m. on Tuesday, October 10, 2023, via Microsoft Teams.

Chair Dave Tomasko called the meeting to order, and attendance was called.

2. Additions and Deletions to the Agenda

None.

3. Approval of the July 11, 2023 Meeting Minutes

A motion was made to approve the minutes from the July 11, 2023 meeting. The motion passed unanimously.

4. Public Comments

None.

5. SWIM Plan Quantifiable Objective Refinements

Dr. Madison Trowbridge, Springs Scientist, presented quantifiable objective refinements to the Surface Water Improvement and Management (SWIM) Plans for the first-magnitude spring systems. Dr. Trowbridge provided an overview of the District's areas of responsibility and its springs. The first-magnitude spring systems within the District's boundaries include the Weeki Wachee Springs, Chassahowitzka Springs, Homosassa Springs, Crystal River/Kings Bay, and Rainbow Springs. The District maintains a list of priority surface waters and updates it every five years. They also assist in the development of SWIM plans to protect and restore these priority water bodies. The District's Natural Systems and Restoration Bureau houses the SWIM program. Since 1987, more than 380 water quality and natural systems projects have been completed or are ongoing throughout the District.

Dr. Trowbridge showed a slide of the three focus areas for the quantifiable objectives, which are categorized into water quality, water quantity, and natural systems, and discussed the quantifiable objectives for each of their respective focus areas. She discussed the three types of quantifiable objective refinements: river segment targets, reference period approach, and updating targets as currently established.

Dr. Trowbridge reviewed the unique quantifiable objective refinements for each of the five systems. She discussed redefining quantifiable objectives as different river portions, moving water clarity to an indicator status, updating the minimum flows target as adopted, and redefining desirable submerged aquatic vegetation targets. She concluded by showing the tentative timeline for refinements and stated that a public workshop will be held prior to Governing Board review and approval. This information is planned to be brought to the Governing Board at its December 12 meeting. If approved, the information will then be sent for a 45-day stakeholder review before returning to the Governing Board for final approval.

Dr. Trowbridge responded to several questions asked by the committee.

Ms. Becky Ayech noted that the Environmental Confederation of Southwest Florida fully supported the idea of using segments rather than averages and added that it was a huge step forward.

Chair Tomasko stated that the Environmental Advisory Committee was very impressed with the work that was done, particularly the movement that has been made to redefine the springs into different segments rather than river-wide averages.

6. Recommended Minimum Flows for Horse Creek and Charlie Creek

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 to prevent significant harm to the water resources or ecology of an area that may be caused by water withdrawals. The District typically uses 15% change criteria in habitat or resource to identify significant harm in flowing systems. After Governing Board approval, the minimum flow rules are used in the District's water use permitting and water supply planning programs. To date, the District has established 34 minimum flows for river segments or springs groups throughout the District.

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.) Charlie Creek is about 42 miles long and has a mean annual flow of 262 cfs.

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 the conclusions of the peer review panel. She stated that peer review panel reports and District responses can be reviewed on the District's web forum at: <https://swfwmd.discussion.community/minimum-flows-for-horse-creek-and-charlie-creek-941695>. She concluded by showing the tentative schedule for minimum flow activities from February 2023 through early 2024. All meetings are open to the public and can be attended virtually.

Dr. Deak responded to several questions asked by the committee.

Discussion ensued.

Mr. Dwayne Carlton made a motion to support the recommendations to develop minimum flows for Horse and Charlie creeks. Ms. Ayech seconded the motion.

A vote was taken and passed.

7. **Little Manatee River Minimum Flows**

Ms. Kym Holzwart, 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 50 miles before emptying into Tampa Bay near Ruskin and flows west for about 4.5 miles through Little Manatee River State Park; from US Highway 301 to Tampa Bay, and through 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 301 was used to develop the minimum flows. Both sets of minimum flows will be established at this gauge.

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 2011/2012. 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 recently completed and included substantial revisions to District hydrologic models and tools and analyses used for both the upper and lower river minimum flow determinations. The final draft report is on the District website and addresses all the comments from the panel of independent scientists, as well as other stakeholders.

Since river flows vary seasonally, the District develops minimum flows using flow blocks. This allows for the evaluation of changes in habitat, environmental values, or resources of concern due to reductions in flow during critical low and high flow periods. To develop minimum flows, a baseline flow record is needed. Baseline flows can also be called natural flows or unimpacted

flows and are flows that would have occurred in the absence of withdrawals. The District uses a percent-of-flow approach to develop minimum flows for flowing systems. This approach maintains the natural flow regime or the natural variation, which is important for the health and maintenance of the river system. Therefore, the criteria for all resources that were evaluated to develop minimum flows, for both the upper and lower river, is the percentage that flow can be reduced without reducing the availability of the habitat or resource by more than 15% or protecting 85% of that available habitat or resource.

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 rivers and showed the results for each. She also showed a summary of proposed minimum flows for the upper and lower rivers and stated that they will be established at the USGS gauge at the Highway 301 bridge. 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 Public Supply Advisory Committee on November 7 and to the District's Governing Board at its December 12 meeting to request approval to begin rule development. All meetings are open to the public and information is available on the District's website at www.WaterMatters.org.

Following Ms. Holzwart's presentation, Mr. Sid Flannery showed some slides and recommended that additional graphical analyses be conducted before finalizing the flow blocks for the minimum flows for the Little Manatee River. He also showed three slides to support a recommendation that two existing figures of the physical characteristics of the lower river be included in the minimum flows report and that previous studies of the phytoplankton and zooplankton populations conducted for the District by the University of South Florida should be cited and very briefly described in the report.

Following Mr. Flannery's presentation, Maya Burke of the Tampa Bay Estuary Program said that citing previous foundational studies of the lower river is really important to include in MFL report and the TBEP appreciates the District considering that information and incorporating that work in there. She then thanked the District and Mr. Flannery for getting to a place to where those comments have been resolved. (Note - in his presentation Mr. Flannery actually said that citations and descriptions of those studies were not yet in the minimum flows report, which is still the case).

Ms. Holzwart responded to several questions asked by the committee. Becky Ayech asked if the District had addressed all of Mr. Flannery's comments except for the additional analyses of the flow blocks. Mr. Flannery replied that the District had incorporated many, but not all, of his other comments and the report has been improved. Ms. Ayech also asked if the EFF model was capable of doing the types of additional analyses that Mr. Flannery has suggested. Ms. Holzwart said that it is capable of doing those analyses, but the District has chosen not to pursue them because the simulation of salinity zones using a hydrodynamic model is the standard practice for determining flow blocks for tidal rivers. The Peer Review Panel did consider Mr. Flannery's request for additional analyses to evaluate the flow blocks for the lower river but did not recommend the District conduct the additional work.

Discussion ensued.

Ms. Ayech made a motion to support the approach and the numbers that the District has put together for minimum flows and levels for the upper and lower Manatee River. The motion was not seconded.

Mr. Flannery made a motion for the Environmental Advisory Committee to support the District doing additional graphical analyses of predicted favorable fish habitats as a function of flow for different flow reduction scenarios to further evaluate the flow blocks for the lower Little Manatee River. Ms. Ayech seconded the motion.

A vote was taken but did not pass.

8. Development of agenda topics for the next Environmental Advisory Committee meeting tentatively at 10:00 a.m. on Tuesday, January 9, 2024

Ms. Ayech suggested a SWUCA update and how aesthetics play a role in water use permits, filling up lakes and casings on wells. Randy Smith, Natural Systems & Restoration Bureau Chief, responded that the requested update was already provided at a recent meeting, and he would share that information with Ms. Ayech.

9. Announcements and Other Business

Ms. Jennifer Hecker announced that the 2024 Southwest Florida Climate Summit will be held on February 28 and 29 at the Charlotte Harbor Event and Conference Center in Punta Gorda. Chair Tomasko announced that there has been some great improvement in water quality in Sarasota Bay and that 50% of the waterbodies have been delisted.

10. Adjournment

The meeting adjourned at 12:35 pm.