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

MINUTES

Committee Members Present
Jennifer Hecker, Coastal and Heartland National Estuary Partnership
Allain Hale, Environmental Confederation of Southwest Florida
Jenna Taylor, Florida Trail Association
Jan Wells, Florida Trail Association (alternate)
Paul Crowell, Keystone Civic Association
Mike Burton, Manatee Chamber of Commerce
Dwayne Carlton, The Ocala Metro Chamber
Dave Tomasko, Sarasota Bay Estuary Program
Gordon Colvin, Save the Homosassa River Alliance
Sid Flannery, Sierra Club – Tampa Bay Group
Ed Sherwood – Tampa Bay Estuary Program

Governing Board Liaison
Michelle Williamson

Staff Members
Mandi Rice
Michael Molligan
Jennette Seachrist
Chris Tumminia
Robyn Felix
Randy Smith
Chris Zajac
Elizabeth Fernandez
Chris Anastasiou
Vivianna Bendixson
TJ Venning
Doug Leeper
Kristina Deak
Jordan Miller
Jill Qi
Madison Frazier
Cassidy Hinson
Ed Kouadio
Francisco Faria
Jerry Harding
Mark Walton
Patience Wentz
Susanna Martinez Tarokh
Andrew Thornquest
Craig Joseph
Mike Bray
Adrienne Vining
Rachael Simpson
Tammy Plazak
Megan Albrecht

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, January 10, 2023, via Microsoft Teams.

Chair Jennifer Hecker called the meeting to order, and attendance was called.

Governing Board Liaison Michelle Williamson welcomed the committee.

2. **Additions and Deletions to the Agenda**
   None.

3. **Approval of the July 12, 2022, Meeting Minutes**
   A motion was made to approve the minutes from the July 12, 2022 meeting. The motion passed unanimously.

4. **Public Comments**
   None.

5. **2022 Suncoast Seagrass Mapping Results**
   Dr. Chris Anastasiou, Chief Water Quality Scientist and Seagrass Mapping Program Lead, gave a presentation on the provisional results for the 2022 seagrass mapping effort. The District has been mapping seagrasses since 1988 and is one of the most comprehensive seagrass mapping programs in existence today. The District's coasts have been broken down into two regions, the Suncoast which gets mapped every two years and the Springs Coast which gets mapped every four years. In 2022, only the Suncoast region was mapped and includes Clearwater Harbor, Tampa Bay, Sarasota Bay, Lemon Bay, and Charlotte Harbor estuaries. There are three elements to seagrass mapping: acquisition, photointerpretation, and field verification. Some modifications to the acquisition were made for 2022. The flight window was moved from November 1 to December 1 to account for poor atmospheric conditions caused by persistent unseasonable warmth and humidity in the month of November. Go-no-go criteria was updated with the elimination of the Secchi disk water clarity requirement. Flight lines were optimized to reduce the imagery footprint over land reducing overall acquisition time and cost. This cost savings allowed for imagery upgrade from one foot to six-inch pixel resolution allowing the photo interpreters to see much greater detail resulting in a more accurate map. There are very strict photogrammetric requirements that must be adhered to for images post-processing. Dr. Anastasiou discussed the field data elements and stated that they have collected over 2,000 field verification points in 2022, which is a record. He discussed how they interpret photos based on photographic signatures and field verification using a modified Florida land use cover classification system. He then gave an overview of three mapping conventions: continuous (9116), patch (9113) and attached algae (9121). Continuous seagrass exhibits a continuous and uniform signature of >25% to 100% seagrass coverage, with less than 25% coverage of any area showing up as unvegetated bottom features. Patchy seagrass areas appear as singular, rounded clumps, or elongated strands of isolated seagrass patches mixed with open bottom or sand. With attached macroalgae, only homogeneous strands of attached macroalgae are mapped. Dr. Anastasiou then went over the 2022 provisional data results for each estuary. He stated that they expect to complete the final accuracy assessment in the next couple of weeks and that the data will become official and available for download to the public after the seagrass working group meeting on February 13. He concluded by giving some key takeaways and stated that all data prior to 2022 is available online for download.

   Chair Hecker and Mr. Dave Tomasko recognized Dr. Anastasiou for a great job on the presentation and commented about the District's efforts in this program.

   Mr. Ed Sherwood asked from the standpoint of the SWIM plan development and cooperative funding, if this reprioritizes those initiatives and dedicates funding toward addressing additional source controls that might be necessary to get some of the areas back on track.

Dr. Anastasiou replied that it does factor into the SWIM plan and added that they have pushed the schedule back slightly for the maps to be finalized and to incorporate these trends into the plans.

Mr. Sid Flannery complimented Dr. Anastasiou on his presentation. He suggested that the District consider a natural climatic variation and if there are very dry years with less rainfall, the estuaries will become clearer in favor of seagrass expansion.

6. SWIM 35th Anniversary

Ms. Vivianna Bendixson, SWIM Program Manager, gave a presentation on 35 years of the Surface Water Improvement and Management (SWIM) program. The SWIM program was created by the Legislature in 1987. In the late 1980s, it was determined that Florida had to do more to protect and restore its surface waters. Extreme degradation of many of the state's surface waters were resulting in fish kills, foul odors, and algal blooms. The Florida Legislature created the SWIM program through the SWIM Act as one mechanism to address nonpoint pollution sources. The SWIM Act helps protect, restore, and maintain Florida's threatened surface water bodies. A list of priority water bodies with regional or statewide significance which require restoration or protection is developed and maintained, and the list must be approved by the Florida Department of Environmental Protection. For each of these at-risk or impacted water bodies, SWIM develops carefully crafted plans and directs the work needed to restore damaged ecosystems and improve degradation from stormwater runoff and other sources. SWIM plans are used by other state programs to help make land-buying decisions, and by local governments to help make land-use management decisions. SWIM plans identify studies and projects to protect and restore these surface water resources. There are currently 12 SWIM priority water bodies in our District and the list is updated every five years. There are three estuaries -- Tampa Bay, Sarasota Bay and Charlotte Harbor, five first-magnitude springs systems -- Weeki Wachee, Chassahowitzka, Homosassa, Crystal River/Kings Bay and Rainbow River, and four lake systems -- Lake Panasoffkee, Lake Thonotosassa, Lake Tarpon and the Winter Haven Chain of Lakes. Since 1987, SWIM has made great strides toward improving the quality of impacted water bodies and continues to increase understanding of defining healthy water bodies. To date, 384 water quality improvement and natural system restoration projects have been completed, 15K acres of habitat have been restored, and they have provided water quality treatment for more than 230K acres of watershed. Staff and projects have received more than 65 awards for these efforts and SWIM had 21 newspaper, newsletter, and internet articles just during calendar year 2021. The District partners with the Tampa Bay Estuary Program, Sarasota Bay Estuary Program, and Coastal and Heartland National Estuary Partnership to set common goals for water quality, seagrass acreage, and habitat restoration. Partnerships include funding, technical support, providing land for projects, and on-going maintenance on project sites.

There are many examples of excellent natural systems restoration and water quality improvement projects that SWIM has completed. Rock Ponds Ecosystem Restoration Project located in Hillsborough County restored 1,043 acres with stormwater treatment and land acquisition, design, permitting and construction with a total project cost $16,308,085. Stallion Hammock Restoration at Balm Boyette Scrub Preserve project used a process known as hydraulic carving to re-create a stream and restored a 1,500-foot stream and enhanced 82 acres with water quality improvements. While recognizing the need to manage all springs, the District places a priority on the five first-magnitude spring groups. These spring groups collectively discharge more than one billion gallons of water per day and are located in or discharge to an area known as the Springs Coast. Each of these spring systems is a unique, complex system with different sets of challenges, so each one requires different management techniques. A Springs Coast Steering Committee was formed, and the first goal was to develop SWIM plans tailored for each spring system. In FY2020, two foundational projects were implemented that have already lifted SWIM to a more efficient and productive model. Those two projects are the SWIM Restoration Geodatabase and the SWIM Restoration Site Assessments. The Geodatabase takes SWIM restoration project information, transforms the data into a

standardized format, adds in geospatial data, and links it with other already existing District systems to access full project information more easily. The Site Assessments review previous projects with a focus on current site condition while capturing information on success criteria for future projects. Ms. Bendixson concluded by listing the District's ongoing and future projects.

Chair Hecker recognized the District staff for their efforts in this program.

Mr. Allain Hale asked about Warm Mineral Springs and why it was not included in the list of springs.

Ms. Bendixson responded that it is not a first-magnitude spring, and that she had only highlighted the five that were first-magnitude springs.

Discussion ensued.

Mr. Dwayne Carlton suggested correcting the SWIM Priority Water Body map because the Chassahowitzka and Homosassa rivers were mislabeled.

Ms. Bendixson replied that she would review the map.

7. <u>Lake MFL Methodology</u>

Mr. TJ Venning, Staff Environmental Scientist, gave a presentation on the results to develop revisions and improvements to the Lake Minimum Flows and Levels (MFL) methodology. Mr. Venning began by defining a minimum level as the water level at which further withdrawals would be significantly harmful to the water resources or ecology of the area. In 1999, MFL standards were developed for certain lakes. These standards applied only to lakes with 0.5 acres of fringing cypress wetlands and were categorized as either category one or two lakes. In 2001, standards were developed and peer reviewed for category three lakes. In 2007, the wetland offset was developed for use on category three lakes. In 2021, lake categories and methods were removed from rule. In 2022, staff completed a multiyear review of environmental criteria and modeling for lake MFLs including two independent expert panels and an independent peer review.

As a result of the method review for models, improvements were made to the water budget model process. As a result of the environmental criteria method review, criteria were revisited and partitioned into standards and screenings. Standards including Cypress Offset, Mesic Wetland Offset, Xeric Wetland Offset, and Species Richness are applied and the more sensitive, higher standard is used to propose MFLs. Screenings including Aquatic Habitat Zone Screening, Aesthetics Screening, Basin Connectivity Screening, and Dock Use Screening assess lake-specific sensitivity to criterion. After standards are applied and the most sensitive is used for proposed MFLs, then MFLs are further assessed with screenings to ensure that they are protective of water resource values. Proposed MFLs could potentially be adjusted based on results of the screening methods. In summary, staff reviewed, updated, and documented all lake MFL methods. New methods allow for more flexibility for addressing lake-specific needs and will be applied to currently prioritized and future lake and wetland MFL evaluations and reevaluations.

Mr. Flannery complimented the District on decades of great work.

Mr. Sherwood asked after a lake MFL is established and the P50 value becomes the assessment benchmark, at what period of time are trends being looked at in the lake condition and does it go back to the historic record.

Ms. Jill Qi responded that since a new MFL will be established, an annual status will be evaluated against that new MFL and that status assessment will incorporate over 20 years of data.

8. **Development of agenda topics for the next Industrial Advisory Committee meeting tentatively at 10:00 a.m. on Tuesday, April 11, 2023**

   Mr. Hale requested a presentation on Warm Mineral Springs. Mr. Flannery brought up the subject of the Lake Hancock Restoration project and volunteered to give a presentation on the Upper Peace River. Mr. Flannery also suggested a presentation on the progress of the Little Manatee River Minimum Flows. Mr. Gordon Colvin stated that he would like to hear an update on the ongoing communications between the District and FDOT on the northern turnpike extension, and the management plan for the new Nature Coast Aquatic Preserve. Mr. Carlton addressed the concerns on the northern turnpike and commented that the plans have been shelved indefinitely.

9. **Announcements and Other Business**

   None.

10. **Adjournment**

    Meeting adjourned at 12:03 pm.