Wakulla Springs Alliance Meeting Minutes – August 28, 2020

The meeting began at 9:00 via ZOOM

Attending: Bob Deyle, Gail Fishman, Tom Taylor, Cal Jamison, Lindsay Stevens, Jim Stevenson, Doug Barr, Jim Davis, Terry Ryan, Debbie Lightsey

· **Welcome and introductions** - Bob Deyle

· **Agenda review** - Bob Deyle

· **Secretary report** – Gail Fishman Minutes were approved by e-mail prior to the meeting

· **Treasurer report** - Jim Davis (attached), Only one expense of $100 to the Big Bend Environmental Forum since last month. Debbie Lightsey moved to approve the report and Tom Taylor seconded. Approved unanimously.

**Presentation: Water Budget, Metrics, and Methodologies for the Wakulla Spring and River Minimum Flows and Levels Study – Kathleen Coates and Paul Thurman, Northwest Florida Water Management District**

• Paul Thurman’s PowerPoint will be posted on the WSA Website/Resources/Hydrogeology

• State law requires a MFL for all first magnitude springs and 2nd magnitude on state lands. Wakulla Springs is first magnitude, and Sally Ward is second magnitude

• Must consider seasonal fluctuations, non-consumptive uses and Water Resource Values and Environmental Values.

• Relationship between stage and discharge has changed over time: stages are lower, but discharge higher

• Looked at daily discharge time series adjusted for tides.

• Average flow Wakulla Spring measured by automated vent gauge for the period 10/22/04 – 12/31/19 is 575 cfs or 372 mgd. Flows measured between 1997 and 2002 are not representative because of the damming/friction effects of the hydrilla mats on flow.

• Sally Ward also has increasing flow trend for the same period based on fewer manual measurements. There were less tests. Average flow 23 cfs or 15 mgd.

• Used and recalibrated hydraulic (stage and velocity) and hydrodynamic (thermal and estuarine) models. Hydraulic and thermal models recalibrated to post-Michael conditions.

• 10 Environmental values were evaluated, and we determined the 4 most important ones: recreation, fish and wildlife habitat and fish/manatee passage, estuarine resources and water quality.

• Schedule:

o Draft MFL Technical Assessment Report –September 2020

o Peer Review –October 2020 through early December 2020

o Address Comments –December 2020 -January 2021

o Final Draft Report –by end of February 2021

o Rule Development Workshop –February 2021

o Rule Language Approval -March 2021 Governing Board Me

Q & A

Q Has spring creek been considered? Wakulla Springs flows are often up when Spring Creek flows are down. With sea level rise there may be more back pressure on Wakulla Springs.

A It is calculated in the flow data. The increase in Wakulla Springs is not predominately from Spring Creek. It is because of the lowering of the stage [water level] in the river and other factors. There are changing dynamics working together. The channel has gotten deeper and wider and the hydrilla has been removed. We continue to study the impact of Spring Creek. Part of the analysis is the flow needed for recreation, fish passage, etc.

Q What is the average flow now?

• Don’t have the current number. 372 MGD for the period of record. Bob uses 400 MGD on boat tours.

Q What is the minimum depth for manatee passage?

• 3.8’ but we have seen manatees in less than 3’.

Q Is the MFL set for the St. Marks.

A Yes

Q What causes the stage lowering?

A Hydrilla loss reduced the damming effects and increased the scouring of the river bottom. Higher velocities increased scouring making the river deeper and wider. Water level in the aquifer and river drives the flow. If the aquifer rises or river stage lowers, flow increases. Hurricane Michael and other tropical cyclones caused increased scouring.

Q Have you checked the aquifer levels?

A We will have to get back to you on that.

Q Is salinity pushing up the river? Does this have an effect?

A We will be getting information from our consultants and will be looking 20-30 years into the future.

Q Is this happening in the St. Marks river?

A Yes, it is the same model.

Q Was salinity data for 2016-18 used to calibrate the model?

A Yes and we are using current and historic data.

Q Is this finished?

A We will be finishing this month and then there will be a review process.

Q Has a minimum flow been prescribed?

A We will look at this in the next month. There will be a recommendation. We don’t have all the results yet. We will set a minimum flow after we have the results.

Q How will you use groundwater models to set MFLs? How are you using the groundwater models?

A We are not using groundwater models to set MFLs. The MFL is based We focus on the effect of flows on the ecosystem. The groundwater model will be used to then determine the extent to which withdrawals will need to be regulated to maintain the required minimum flow. We started data collection for the groundwater model in 2014. Many springs in the state have lower flows and problems because of groundwater withdrawals. Are we focusing on levels for a healthy spring? Will there be a the MFL be used for determining acceptable withdrawals in terms of impact on the ecology.

A This is all related

Q I am still concerned about saltwater intrusion in Spring Creek and further up. How is this considered? The tannic water that went out Spring Creek is now coming to Wakulla Springs. The salinity affects the ecology. The salinity spikes, up to 800 ppm, at Wakulla Springs made the water non-potable. This corresponded with flow reversals at Spring Creek.

A The information from the consultant will help answer this. We can have a presentation at the September WSA meeting.

Q Can you add salinity and dark water to the analysis?

A We are working on the water quality analysis and we can bring the results back to you, including salinity, flow, and clarity.

Q What is the schedule?

A draft MFL Sep, peer review Oct – Dec, address comments Dec – Jan, final draft, end of Feb, rule approval March 2021. Wakulla Springs Alliance will get the report in December. The WMD has been working on this for 6 years and we don’t know what the MFL will be and how it will be used in the future. The big question is how much additional withdrawal will be allowed. We need to see more before it goes to peer review. Everything we do is in the public record and you can request it.

Bob Deyle will post today’s presentation on the Wakulla Springs Alliance website/resources/hydrogeology.

We will have another a presentation by James Sutton on September 25 addressing the interactions between Spring Creek and Wakulla Springs and their long-term discharge trends

**Proposed Bylaws amendments (attached)**

Amend Art I, sec 2. Mission – Cal Jamison pro

**Proposed Bylaws amendments (attached)**

Amend Art I, sec 2. Mission – Cal Jamison proposed the change below:

The Alliance is composed of concerned citizens, scientists, educators, and other professionals who are passionate about conserving, restoring, and protecting the ecological health of the Wakulla Springs and River, including their sources, flow, water quality, biology, and cultural and recreational attributes.

• Jim Stevenson made a motion to approve the change, seconded by Cal Jamison, which passed unanimously.

Amend Art IV Membership – Tom Taylor

• Doug Barr made a motion to approve the change, seconded by Jim Stevenson, which passed unanimously.

Amend Art VI Board of Directors – Bob Deyle

• Howard Kessler made a motion to approve the change, seconded by Lindsey Stevens, which passed unanimously.

Big Bend Environmental Forum report – Bob Deyle

• The Wakulla Springs Alliance is a member of the BBEF

• Primary candidate forum on August 6 and most candidates participated.

• Tom Flanagan moderated.

• • On Facebook, there were over 15,000 impressions and 900 engagements.

**Leon County Comprehensive Wastewater Facilities Plan update – Bob Deyle**

• The Plan was the result of work by Pam Hall, Debbie Lightsey and many others.

• It was funded by Blueprint

• The low bidder was disqualified because they didn’t have enough consultants. The one selected didn’t have expertise.

• On August 3 the Water Resource Committee had a presentation by Theresa Heiker.

• • Pam Hall, Bob Deyle, Alan Niederoda, and Anthony Gaudio asked for more meetings to have technical discussions and review drafts.

• Theresa and Charles Wu agreed to set up a meeting.

• We Pam, Alan, Anthony, and Bob have sent specific questions theywe want to discussanswers to. Bob shared those comments with the WSA members via email on August 24

• One topic of concern is the efficacy of the inground nitrogen reducing biofilters (INRBs). The nitrogen reduction levels attributed to these systems by the consultant are based on the design that was pilot-tested. The system design and installation required under the rules promulgated by FDOH depart from the tested design. research and specifications need to be consistent and the Wakulla Springs Alliance may want to take a position on this. This technology may not be appropriate in the Wakulla Springs basin without additional local regulation of design and installation.

• Anthony Gaudio reported that Damian Anderson and Kevin Sherman pointed out that there is not a good way to monitor effectiveness. There needs to be pressure dosing with a pump to maximize the function of the system. It is unclear that the testing will work. These systems are being installed with the $10,000 grants without pressure dosing or drip systems. We don’t know the nitrogen reduction in the drain field. Comments on FDOH’s proposed rule were not considered prior to finalizing in the rule. The legislature wanted a cheap way to address septic tanks, but it may not work and may be a waste of money.

• See the materials on the Wakulla Springs Alliance website:

• Draft Task 1 report: http://wakullaspringsalliance.org/wp-content/uploads/2016/11/Leon-Co-CWFTP-Task-1-Draft.04-08-20.pdf

• The RFP is at http://wakullaspringsalliance.org/wp-content/uploads/2016/11/Final-RFP.BC-09-05-18-51-SOLICITATION-08-01-2018.pdf. The scope of services begins on p. 21.

• Also, of possible interest may be the comments submitted to FDOH on the proposed rule for the In-ground Nitrogen Reduction Biofilters (NRBs): http://wakullaspringsalliance.org/wp-content/uploads/2016/11/written-comment-proposed-rule-hearing-DOH-64-E6.pdf

• Tom Taylor made a motion, seconded by Cal Jamison, to authorize that Anthony Gaudio, Bob Deyle and Chuck Hess prepare a letter to Leon County to be considered approved at the September WSA meeting. It was approved unanimously.

• Anthony reported that the Wakulla Springs Alliance sent a letter 2 years ago commenting on the proposed regulations.

• Chuck Hess maintained that we need to have a system that works that can be sold to commissions and the public. There are 40,000 septic tanks going in per year in Florida.

• Anthony asserted that at a minimum, pressure dosing is essential and may cost another $1000.

Upcoming WSA meetings and events – Bob Deyle

• September – WMD James Sutton presentation

• October: TAPP report – Mark Heidecker

• Ferrell tract tour – To be scheduled in October after it cools off

What’s new?

• Friends of Wakulla Springs mounted a virtual presentation on Aug 20, Jim Stevenson. It was recorded and can be seen on the Friends of Wakulla Springs website.

• September 17 will have a music presentation by Hot Tamale.

• October 8 Bob Deyle will do a presentation on Where have all the Alligators Gone.

Adjourn

• Howard Kessler made a motion to adjourn, seconded by Jim Stevenson, approved unanimously.

Appendix B

8-28-20 WSA Board Meeting Participants

Officers

Robert E. Deyle, Chair \*

Douglas E. Barr, Vice-Chair\*

Gail Fishman, Secretary \*

Jim Davis, Treasurer \*

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Directors

Albert Gregory

Cal Jamison \*

Howard Kessler \*

Debbie Lightsey \*

Terry Ryan \*

Lindsay Stevens \*

Jim A. Stevenson \*

Tom Taylor \*

Guests

Kathleen Coates \*

Brett Cyphers \*

Scott Dyer \*

Anthony Gaudio \*

Andreas Hagberg \*

Carlos Herd\*

Chuck Hess \*

Mitra Khadka \*

Clint Kromhout \*

Mary Beth Litrico \*

Celeste Lyon \*

Susan Poplin \*

Paul Thurman \*

Sophie Wacongne \*

Ming Ye \*