**Wakulla Springs Alliance**

**8-19-16 WSA Board Meeting Minutes**

**Highlights**

* Next WSA Meeting is September 16, 9-12 at the Renaissance Building 2nd FL.
* The WMD is continuing to work on modeling this as part of the MFL studies. It will be about 1-1/2 years to complete.
* Dr. Todd Kincaid will be the Apalachee Audubon Society’s guest speaker on September 15, 2016. This will be held in the King Building, FSU or possibly another location.
* [Florida Springs Restoration Summit,](http://www.springsrestorationsummit.org/) September 30 – October 2, Harvey R. Klein Conference Center, 3001 SW College Road, Ocala, FL 34474
* We need someone willing to be the WSA webmaster. It may be possible to coordinate the WSA and Friends of WS websites. Anyone interested should contact [ttaylor@fsu.edu](mailto:ttaylor@fsu.edu).
* WSA will reach out to DEP and local governments to pressure FDOT to modify the Hwy 319 stormwater ponds. Howard Kessler will ask the Wakulla Commission for a resolution.
* Big Bend Environmental Forum will be Oct 6 before the November election. Everyone is encouraged to attend.
* Bob Deyle will propose a Fish and Wildlife Foundation license tag grant to measure the impacts cyanobacteria from the river on the snails’ reproduction.
* Pam Hall said she is preparing bullet points for funding the Responsible (Septic System) Management Entity, RME

**Overview**

The Wakulla Springs Alliance held a Board meeting on August 19, 2016 at the Renaissance Building. The draft agenda and list of participants can be found in Appendices A and B. Review the action items underlined below for your commitments and actions you can help with. This report is based on the secretary’s notes and does not capture everything or exactly what was said.

**Opening**

Chair Sean McGlynn welcomed everyone, reviewed the meeting agenda and everyone introduced themselves, including Howard Kessler and Chuck Hess who are running for Wakulla County Commission. The minutes of the last Board meeting and Treasurer’s Report (Appendix C) were approved.

**Connections between the Lost Creek Swallet, Spring Creek Springs and the Leon Sinks-Wakulla Cave System**

Scott Barrett Dyer and Seth Willis Bassett provided an update on the results of their and other’s research. An abstract of the study and their bios are in Appendix D.

1. Does the flow history of Spring Creek and WS correlation imply that flow increases at WS is from the saltwater plug? If so could the flow reductions from withdrawals cause flow reversals and therefore need to be reduced? The WMD is working on modeling this as part of the MFL studies. It will be about 1-1/2 years to complete. 10 new monitoring wells have been put in. This includes water clarity data that can also be used in the BMAP process. They will look at both groundwater and rainfall.
2. Can the WMD modeling show the contribution of septic systems in Priority Focus Area 2 to nutrients in WS be used in prioritizing sewering and alternative nutrient reduction efforts (nutrient reducing septic systems)? Talk on “Sustaining the Floridan Aquifer

The Apalachee Audubon Society’s guest speaker on September 15, 2016. This will be held in the King Building, FSU or possibly another location. Dr. Todd Kincaid will discuss the importance of the Florida Aquifer and ways to help sustain it.  Dr. Todd Kincaid holds M.S. and Ph.D. degrees in geology and hydrogeology from the University of Florida and University of Wyoming.  He has dedicated most of his professional life to mapping and understanding groundwater flow in many of the world’s karst aquifers. Todd is an avid scuba diver and he has been actively diving since 1979 and pushing the limits of cave and technical diving since 1987.  Todd started the consulting company GeoHydros in 1999 to pursue work on caves and karsts, while also helping to establish the non-profit organization Global Underwater Explorers to share his lifelong interest in aquatic conservation.

**FDEP’s updated rules concerning chemical compounds allowed in Florida waters were approved by the Environmental Regulation Commission.**

There was a brief overview of the new standards. Please see attached My View, by John Moran in Appendix E. These are some notes from the discussion:

* There has been good media coverage of the decision and the board representation issue.
* John Moran is doing a history of this event and is looking for interviews of those involved.
* Bart Bibler also wrote a “My View.” He noted that drinking wells are not monitored or treated and will be more polluted resulting in increased cancer and other health issues.
* Testing methods do not consider synergetic impacts of pollutants.

**Florida Springs Restoration Summit, September 30 – October 2**

* Sean McGlynn will make a presentation.
* Others may want to join

**Website and Social Media, updates**

* Tom Taylor, the secretary, announced that we have lost all the information that was on the WSA website and that it needs to be rebuilt.
* We need someone willing to be the WSA webmaster. It may be possible to coordinate the WSA and Friends of WS websites. Anyone interested should contact [ttaylor@fsu.edu](mailto:ttaylor@fsu.edu).
* We could create a google doc with minutes.
* Jamie Hughes-Davis set up a WSA Facebook page and encouraged everyone to “like” it and add content.

**Foley Perry Plant Discharge Pipeline Permit**

* The Wakulla County Commission passed a resolution opposing the pipeline.
* Taylor Co voted 5-0 for the pipe based in part on the treatment and environmental improvements.
* Appeals to the USACOE and USEPA are underway.
* The salinity in the effluent is the problem.
* They pump 40-80 million gallons/day and this has reduced groundwater levels.
* Friends of WS has been getting corporate sponsorship from Foley.
* We can support treatment improvements and still oppose the problems.

**US 319 project stormwater ponds,**

* Bob Deyle reported on the WSA meeting with Michael Bateman at the WMD -
* We have been meeting with FDOT for 18 months.
* District 3 Secretary said they will not modify the pond designs.
* Bob had a My View published yesterday and there will be similar letter to local elected officials.
* Silver Spring SR 40 and Wekiva project ponds were modified (Bio Absorption Material, BAM).
* WSA will reach out to DEP and local governments to pressure FDOT to modify the Hwy 319 stormwater ponds. Howard Kessler will ask the Wakulla Commission for a resolution.

**Wakulla County Commission race**

* Charles Hess and Howard Kessler are running for the Commission.

**Candidate’s Tour**

Jim Stevenson will provide a special tour tor the city, county and legislative candidates on September 10 to educate them about water moving across the landscape to Wakulla Spring.

**Big Bend Environmental Forum**

* Jim Stevenson stated that the BBEF has historically been very influential. There was a full house and this influences the candidates.
* Tom sent follow up letters to several of the candidates encouraging them to support WSA principles for Springs protection.
* Oct 6 is the next forum for the November election. Everyone is encouraged to attend.

**Springshed Updates**

* Cal Jamison reported that recent rains have fed the creeks and they are all flowing well. WS clarity has been changing, now at 17 feet. The color is tannic and clean.
* Cal has been reelected to the WSWCD. Charlie Hess has resigned.

**Algal blooms in Upper Lake Lafayette**

* Pollution levels are 700 times the World Health Organization standards for drinking water; 714 ug/l currently.
* Blooms are caused by Nitrogen and Phosphorus from fertilizer, etc.
* Apple snails accumulate cyanotoxins and populations are way down. There may be a correlation. Bob Deyle will propose a Wildlife license grant to measure the impacts cyanobacteria from the river on the snails’ reproduction.

**Wakulla Springs BMAP and the OSTDS committee meeting**

* Anthony Gaudio said we should encourage proven septic system technologies to significantly reduce nitrogen rather than experimental systems for pilot and other projects.
* The WMD said that the advanced pilot project will evaluate approved systems and the WMD will work with DEP and Leon and Wakulla Counties on selection. There may be passive and other systems.
* There are conditional and fully approved systems. Passive systems have not been recognized nationally. We want use funding for systems that work. The engineering is well designed. The experiment needs to be on management of the technologies as a community. This may be addressed with operating permits and monitoring. Past problems were related to owners turning units’ power off and consultants and DOH signed off saying they were operating.
* The systems that were installed in Wakulla County were the cheapest, noisiest, smelliest and had the highest operating cost.
* The passive nitrogen reduction study used monitoring wells. The current proposal is for testing tubes in the drainfield, which will be less costly to monitor.
* The goal is to see if there are improvements in a neighborhood.
* At the last meeting John Buss summarized the Lombardo report. There needs to be a standardized method for comparing proposed projects.
* The Sustainable Tallahassee [website](http://sustainabletallahassee.org/page-374775) has a video by the City showing that the problem is management of septic systems.

**Funding the Responsible (Septic System) Management Entity, RME Study**

* Pam Hall said she is preparing bullet points for funding the RME, not writing a white paper.
* We should call it “finding management and financing strategies that work” not an RME study.”
* Pam will use Tom’s message and draft a more succinct message.

**SWIM Plan Report Submitted by Rob Williams**

Below is the most recent update on the SWIM plans. I agree with [Bob Knight's editorial](http://www.gainesville.com/opinion/20160810/robert-knight-smarter-spending-needed-to-restore-springs) on the need for a comprehensive strategy for restoration. One of the biggest problems is only partially addressing the impacts of past development without doing anything to address the potential impacts of future development, e.g. fixing a small % of existing septic tanks while continuing to allow new septic tanks. My own view is that under the circumstances, land acquisition may be the best short-term investment. It seems that the WMD may be disposed to buy the Ferrell Tract--I think we should encourage this as one of our priorities.

*Progress Update – Northwest Florida Water Management District SWIM Plan Development*. Northwest Florida Water Management District consultants and staff are currently working on watershed characterization reports in support of the Surface Water Improvement and Management (SWIM) plan updates. It is anticipated that these will be posted online at <http://www.nwfwater.com/Water-Resources/SWIM/SWIM-Plan-Updates> in October 2016 for  review and comment. Please note that additional opportunities for public review and input on the final SWIM plans will follow in the months ahead.

Technical and public workshops are tentatively planned for each watershed in the timeframe of December 2016 – January 2017. These meetings will focus on (1) prioritization of watershed challenges and issues (2) identification of goals and objectives to address these issues and (3) proposed management strategies and criteria for identifying and evaluating priority projects.

The anticipated schedule for the process ahead is as follows:

|  |  |
| --- | --- |
| **Fall 2016** | Draft watershed characterizations released for review and comment |
| **Fall 2016 – Winter 2017** | Public and technical workshops focusing on watershed conditions and implementation strategies and criteria |
| **Early Summer 2017** | Draft SWIM plans released for review and comment |
| **Fall 2017** | Final SWIM plans brought before the NWFWMD Governing Board for approval |

Input is always appreciated concerning watershed issues and proposed implementation strategies and project priorities. It is requested that any such input be sent to [swim@nwfwater.com](mailto:swim@nwfwater.com).

More details will be posted at <http://www.nwfwater.com/Water-Resources/SWIM/SWIM-Plan-Updates> as they become available. For additional information, please contact Paul Thorpe at [(850) 539-5999](tel:%28850%29%20539-5999) or [Paul.Thorpe@nwfwater.com](mailto:Paul.Thorpe@nwfwater.com).

Appendix A

**Wakulla Springs Alliance**

Draft Agenda 08/19/16

**9:00 Opening**

1. Welcome and meeting agenda review (Seán McGlynn)
2. Introductions (Board)
3. Secretary Minutes (Tom Taylor)
4. Treasurer Report (Howard Kessler)

**9:10  Guest Speaker: SCOTT BARRETT DYER and SETH WILLIS BASSETT**

**10:10      What’s new**

* Sustaining the Floridan Aquifer, with Dr. Todd Kincaid, guest speaker, AAS, King Building, FSU, Sept. 15. 2016
* Legislative Update – Ryan Smart, President of 1000 Friends of Florida (absent, update next meeting)
* Department of Environmental Regulation’s plan to updated rules concerning chemical compounds allowed in Florida waters, (please see attached My View, by John Moran) – Board
* SWIM Plan in the Wakulla Springshed, update – Rob Williams
* Florida Springs Restoration Summit, September 30 – October 2 – Tom Taylor
* TMDLs in the Wakulla Springshed, update - Seán McGlynn
* Website and Social Media, updates – Tom Taylor, Jamie Hughes-Davis
* Foley Perry Plant, update – Howard Kessler
* US 319 project, meeting with Michael Bateman at the WMD - Bob Deyle
* Big Bend Environmental Forum – Jim Stevenson
* License Plate Grant and Tracing Studies – Bob Deyle and Seán McGlynn
* Springshed Updates – Cal Jamison

**11:00     Wakulla Springs BMAP and the OSTDS committee meeting**– Bob Deyle

**11:15 NWFWMD Spring Protection Projects for 2016** – Board

**11:30 Funding the RME study, and possible “white paper”** – Pam Hall

**12:00 Adjourn**

Appendix B

**Board, Advisors and Guests**

\* Indicates 7-15-16 Participants

Board Members

Bob Deyle \*

Gail Fishman

Albert Gregory \*

Cal Jamison \*

Howard Kessler \*

Todd Kincaid

Debbie Lightsey

Terrance McCaffrey

Sean McGlynn \*

Ryan Smart

Jim Stevenson \*

Tom Taylor \*

Rob Williams

Guests

Jon Arthur \*

Doug Barr \*

Scott Barrett Dyer \*

Bart Bibler \*

Kristina Bridger \*

Caitlin Brongel \*

Brett Cyphers \*

Bill Howell \*

Theresa Heiker \*

David Henry \*

Chuck Hess \*

Jamie Hughes \*

Clint Kromhout \*

John Moran \*

Johnny Richardson \*

Richard Wieckowiez \*

Nick Wooten \*

WSA Advisors

Anthony Gaudio \*

Pam Hall \*

Julie Harrington

Bob Henderson \*

Bob Knight

Pam McVety

Dan Pennington

Bob Thompson **\***

Appendix C

Wakulla Springs Alliance Treasurer Report

for August 19, 2016 meeting

Treasurer Report For Month ending July 31, 2016

Starting Balance May 1, 2016: 3,663.27

Deposits: Donation Shi-Ling Hsu 200.00

Tour Proceeds Jim 348.00

Withdrawals: 2.00 monthly service fee --- for hard copies of statements\*\*\*

Balance ending July 31, 2016: **4,209.27**

There is an $80.00 check for BBEF dues that has not cleared

After BBEF check clears true balance: **4,129.27**

Appendix D

**Guest Speaker: SCOTT BARRETT DYER and SETH WILLIS BASSETT**

**DYE TRACING INVESTIGATES CONDUIT CONNECTIONS BETWEEN LOST CREEK SWALLET, SPRING CREEK SPRINGS AND THE LEON SINKS – WAKULLA CAVE SYSTEM**

ABSTRACT

An overview of the karstic hydrogeology of the Woodville Karst Plain in Wakulla County. The overall flow dynamics of the basin with emphasis on the coupled springshed(s) of Wakulla Spring and Spring Creek Springs. Dye tracing in the basin, water level elevation monitoring at karst windows and conduit flow monitoring by the Florida Geological Survey will be discussed. Swallet, karst windows and spring connections via conduits, basin wide water level elevation responses, two-stage flow mechanics dependent on discharge at Spring Creek Springs, gradient reversals in the southern portion of the basin, and the propensity for estuarine water from Spring Creek Springs to be conveyed through the conduit system are all topics to be emphasized.

Seth Willis Bassett:

Seth Bassett received his Bachelors of Science from the University of Southern Mississippi in 2005. He has worked at the Florida Geological Survey since 2010 as a GIS and data analyst.

Scott Barrett Dyer:

Native of Tallahassee with extended family ties to Wakulla, Jefferson and Leon Counties. Graduated from FSU in 1989 and worked in international transportation from 1990 – 2004 in Sand Diego, Seattle, Charleston, New York and Atlanta. In 2006 returned to Tallahassee to aid ailing father and continue post-bachelorette studies at FSU in geology; B.S. Geology 2007, M.S. Geology 2015. Employed with the Florida Geological Survey 2006 – present. Married and father of three children under the age of five years old.

Appendix E

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Appendix F

**FDOT won’t to go extra mile to protect Wakulla Springs**

Robert Deyle, My View 10:01 a.m. EDT August 17, 2016

Storm water management basins that the Florida Department of Transportation plans to construct for a project to widen Crawfordville Highway between Crawfordville and the Leon County line will increase nitrogen entering the ground water that flows into Wakulla Springs.

Alternative basin designs could significantly reduce those discharges, but FDOT District 3 Secretary James Barfield refuses to pay the price for the additional right-of-way required to do so.

In 2012, the State Department of Environmental Protection determined that the spring and upper Wakulla River are impaired waters because of excess levels of nitrate-nitrogen.

The city of Tallahassee has spent $225 million to upgrade the Thomas P. Smith sewage treatment plant to significantly reduce nitrogen loadings. The state of Florida is providing millions of dollars to help pay for connecting some homes and businesses that currently use septic tanks to sewers to reduce their nitrogen discharges to the ground water.

In areas outside the Tallahassee urban services area, and in most parts of Wakulla County, new homes and businesses will soon be required to install more expensive septic tank systems that remove nitrogen (conventional systems do not do so).

But Barfield is not willing to pay FDOT’s share of the cost of protecting the spring.

FDOT’s proposed dry retention basins are designed to discharge collected storm water as quickly as possible into the ground. It plans to locate the basins at least 300 feet from mapped ground water caverns that flow to the spring. However, all storm water that soaks into the ground will reach the spring, and numerous smaller caverns and conduits exist that have not been mapped.

A study completed for the FDEP in 2007 concluded that dry retention systems operating in sandy karst soils – such as those in the Wakulla Spring primary focus areas – do not remove nitrogen, but instead convert it to nitrate, which enters the ground water. Several studies have shown that alternative retention basin designs can reduce nitrate discharges to ground water by 40 to 70 percent.

FDOT has rebuffed multiple proposals by the Wakulla Springs Alliance over the past 18 months to consider using any of these alternative designs. What’s more, the Northwest Florida Water Management District, which will issue the Environmental Resource Permit for the project, maintains it cannot require FDOT to use an alternative design because the district’s rules do not require any specific level of nitrogen removal.

Protecting Wakulla Springs from the increased nitrogen pollution from this project appears to depend entirely on the good will of FDOT. The agency has used alternative retention basin designs to reduce nitrogen loadings to Silver Spring for a similar project in Marion County and on a major project in the Wekiva River Basin.

We urge our local and state elected officials to demand that FDOT take responsibility for its pollution of Wakulla Springs, too. Wakulla Springs is a world-class ecological treasure that deserves more than meeting only the minimum regulatory requirements.

*Robert Deyle is vice chair of the Wakulla Springs Alliance.*