**Wakulla Springs Alliance**

**9-16-16 WSA Board Meeting Minutes**

**Submitted by Robert Deyle**

**Highlights**

* Next WSA Meeting is October 21, 9-12 at the Renaissance Building 2nd FL.
* A letter is in the works to works to City Manager, Rick Fernandez, from the Executive Board expressing concern over the 1.6 million gallon sewage spill into Munson Slough during Hurricane Hermine and asking for an explanation.
* Big Bend Environmental Forum will be Oct 6 before the November election. Everyone is encouraged to attend. Jim Stevenson and Sean McGlynn will staff a table again. Pam Hall will try to help out.
* Pam Hall will draft a handout about OSTDS remediation for review by the Executive Committee that can be distributed at the BBEF and used as talking points with local officials.
* Sean McGlynn will make a presentation at the Florida Springs Restoration Summit (September 30 – October 2) updating on progress at Wakulla Springs.
* Cal Jamison and Howard Kessler will pursue modifications to a memorandum of understanding between the City of Tallahassee and the State Department of Environmental Protection that currently prohibits farmers in Wakulla County from buying the city’s biosolids fertilizer product for use on their farms.
* Bob Gelhart, who developed the Friends of Wakulla Springs website, has offered to develop a website for WSA for half his normal fee. Sean will ask him to make a presentation at next meeting.

**Overview**

The Wakulla Springs Alliance held a Board meeting on September 16, 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 recorder’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. The minutes of the last Board meeting and the Treasurer’s Report (Appendix C) were approved.

**Sustaining the Floridan Aquifer: Special Guest Todd Kincaid, Ph.D.**

Todd displayed a slide which illustrates the interconnection between Wakulla Springs and Spring Creek. He noted that salt water intrusion into the aquifer has been documented. It moves as a high-density plug along the bottoms of the conduits.

Dye tests in 2006-2007 at the sprayfields revealed no dye reaching the St. Marks River but dye showed up at several locations: principally the Wakulla Spring B Tunnel; secondarily at Indian Spring, Sally Ward Spring, and the springs along McBride Slough. Insufficient flow data are available to calculate percent dye recovery. Initial slug od dye arrived at Wakulla Springs after about 60 days, but dye continued to be recovered for many months thereafter suggesting that some of it must have moved out into the wider limestone aquifer matrix and that was subsequently flushed out.

Dye test conducted at Bird Sink which is situated in NE Leon County way north of the Cody Scarp and 23 miles from Wakulla Spring revealed connections to both the St. Marks River and Wakulla Spring (travel time 1.5 months).

Todd observed that Minimum Levels and Flows (MFLs) are typically based on sustaining an aquatic ecosystem’s biological communities, but he argued that for springs, clear water also is important.

He noted that there are two principal sources of water to the Upper Florida Aquifer UFA) that feeds Wakulla Springs: (1) discharges from sinking streams that flow into sinkholes (swallets) and diffuse recharge through the overlying soil and limestone matrix of the aquifer. The water clarity experienced at Wakulla Spring depends upon the mixture of the two sources: flow from the streams is dark with dissolved tannins; base flow from the aquifer is clear. It amounts to about 80 million gallons per day (mgd).

In terms of minimum flows, Todd argued that the problem is not with total flow, it’s with the base flow from the aquifer matrix which is what is essential to clear water at Wakulla Springs. With more frequent inflows from Lost Creek, which are affected by the complex hydrodynamics of the interconnectivity of Wakulla Springs and Spring Creek, the role of that clear base flow has become even more important.

Todd argued that the model boundaries used to define the basin management plan springshed are too small. They ignore the boundary effects with the greater extent of the UFA. He maintained that ground water flow to Wakulla Springs from the UFA can come from areas further west and north, e.g. all the way to the Ochlockonee River. He displayed a map illustrating agricultural and municipal withdrawals in both Florida and Georgia.

Jim Stevenson argued that withdrawals closest to the spring have the greatest impact.

Todd responded that artesian pressure is greatest in the areas north of the Cody Scarp underlain by the confining Hawthorne clays. That pressure is what drives the groundwater flow south towards the spring. Maintaining that pressure is critical to preserving the UFA base flow and the clarity of Wakulla Spring. The more water that is pumped out of the aquifer in that region, the less the pressure.

Kathleen Coates observed that the City of Tallahassee’s water supply withdrawals comprise only about 4% of the total flow of Wakulla Springs and Spring Creek. She said that the MFL modelling being developed by the Northwest Florida Water Management District will account for changes in sea level as well as withdrawals. Nick Wooten noted that the model accounts for agricultural as well as municipal withdrawals. Coates also reported that the District has additional flow and level data from new wells that have been installed as part of developing the Wakulla MFL model. She will provide information on that data at a later date.

Todd argued that if water clarity matters, we need to calculate withdrawals as a percentage of base flow rather than total flow. All withdrawals mater, although some correction needs to be made for water that is returned to the aquifer, i.e. wastewater discharges from septic tanks and via the sprayfields. Greatest losses are evaporation and transpiration from irrigation. Estimates are all over the place (0-85% return) but within the confining area, i.e. north of the Cody Scarp, the majority of water used for irrigation can be assumed to have been lost from the springshed.

**Sewage Spills in Wakulla Springshed After Hurricane Hermine**

Jim Stevenson reported on a recent Tallahassee Democrat story that indicated that 21 sewage spills had occurred in Tallahassee and Leon County during Hurricane Hermine, One of which was 1.6 million gallons from a pump station ion Springhill Road that discharged into Munson Slough..

* The Democrat learned about this as result of a local citizen request for info.
* Jim said that he was disappointed by this occurrence – not on purpose, but those kinds of accidents don’t need to happen. We need explanations for how this happened and what can be done to prevent future occurrences. Two days warning should have been sufficient to check function of generator for the pumping station on Springhill Road.
* A letter is in the works to City Manager, Rick Fernandez, from the Executive Board expressing concern and asking for explanation.
* Pam Hall said that 1.6 million is about 20-25% of what septic tanks discharge every day in terms of total nitrogen. Bob Deyle said it’s about 2 the daily total nitrogen discharge from the spray field.
* Concerns also raised about communications with the public beyond simply following state regulations which require reporting such spills to the Florida Department of Environmental Protection and whether or not the city should have notified the State Department of Health. We don’t know how FDEP responded to these notifications. Agreed that more timely notice to general public could have happened.
* Discussion ensued about a possible op ed article in addition to the letter to Fernandez. Agreed to hold off until response received from Fernandez.

**Big Bend Environmental Forum Update**

* Jim Stevenson reported that the BBEF and League of Women Voters will hold second candidate forum on October 6th at City Hall: 5:15 – 8:00 pm. We need to be represented for this one too. Jim and Sean McGlynn will staff a table again. Pam Hall will try to help out. Others of us should attend, circulate, and talk with the candidates.
* Debbie Lightsey said it is apparent that candidates don’t know much about the basic issue which probably reflects lack of general public understanding. That public understanding is needed to drive policy priorities of the candidates. We need to continue to look for ways to better educate the public about septic tanks.
* Gail Fishman suggested we also should be paying attention to land uses and their impacts on the quality of water recharging the aquifer.
* Sean suggested that we could put together an EPA Section 319 grant public education application due Nov 2nd. He noted that the BMAP public education focus is solely on OSTDSs.

**Springshed Tours**

* Jim Stevenson reported that he is continuing to get many people and groups on the tours including an FSU environmental law class and several candidates for public office.
* School groups participating too.
* Four Leon County commissioners have taken tour; none from city commission.
* Next public tour on Oct 15th will be last of the season.

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

* Sean McGlynn reported that he will be presenting update on progress at Wakulla Springs.
* Todd Kincaid will give a short presentation on critical issues of sustainability springs statewide. Todd suggested that we promote the initiative taken by the City of Tallahassee to reduce total nitrogen discharges from the wastewater treatment plant sprayfield.

**Bluegreen toxins in Fallschase Sink and Upper Lake Lafayette**

* Sean McGlynn reported that despite the operation of the Weems Pond phosphate removal system, there is a persistent bloom of the cyanobacterium Microcystis which produces the cyanotoxin microcystin.
* A sample Sean collected from the Fallschase Sink in ULL has a microsystin concentration of 714 mg/L.
* Nick Wooten suggested that the blooms may be the result of other nonpoint sources that are not treated through Weems Pond system.
* Mark Heidecker said that phosphate levels in the discharge from the Weems treatment system are extremely low; nitrate levels range from 0.3 mg/L to nondetectable. He also wondered if there are other loading sources noting that known inflows are lower than levels in the lake.
* Johnny Richardson reported that there are water quality reports at the Leon County Water Quality website as well as maps. Johnny noted that EPA is working on national recreational standards for cynaotoxins.

**FDEP Revised Water Quality Standards for Toxins**

* James Call reported that he is continuing to cover this story.
* Suits challenging the procedures followed by FDEP in announcing the draft rule were rejected by the State Department of Administrative Hearings because they were not filed timely. Likely to go to litigation in state district court.

**Legislative Update**

* Ryan Smart, President of 1000 Friends of Florida reported that nothing much is going on. Committee assignments have not yet been made so he has no sense for what’s possible in terms of new legislation in the 2017 session.
* He said something is in the works to address deficiencies in last year’s water bill, e.g. monitoring threshold for discharge pipes. The Senate was amenable last year; House was not.
* We’ll know who the committee chairs are within a week or so after the election.
* Senator Negron coming in as President of the Senate. He has expressed significant concern with water resources in south Florida.
* There is concern, however, that most of the Amendment 1 land preservation money will go to south Florida, especially the Everglades, if north Florida legislators don’t get together to push for funding for north Florida needs (especially springs), including land preservation money.
* Ryan noted that 1000 Friends released its Florida 2070 Project yesterday. It shows how development will proceed with or without land acquisition.
* The projected state budget surplus this year is an order of magnitude smaller than last. A deficit is projected in 2018.

**US 319 Project Stormwater Ponds,**

* Bob Deyle reported followup letters from Sean McGlynn on behalf of the Executive Committee to local officials after his My View piece have not yet gone out. Hoping to get that done soon
* Cal Jamison reported that the Capital Regional Transportation Agency held a meeting last week in Wakulla County addressing the 319 widening project. Sections 4 and 5 are underway at the intersection of US 319 and US 98.

**Springshed Updates**

* Cal Jamison reported substantial rainfall has occurred before, during, and after Hurricane Hermine in the Tallahassee. The Apalachicola National Forest got a lot more rain than COT and Crawfordville which is why water at the spring is so high and dark.
* Sinking streams draining the National Forest are now back to normal flow but still flowing.
* The Secchi disk visibility reading two weeks ago (one week after the hurricane) was 5 ft. Nine feet yesterday.
* He and Sean McGlynn are monitoring water color in the conduits, but it’s not as dark as what’s in the spring basin. Cal suggested that we may be missing some inflows or “maybe it’s just optics.”
* Farmers in Wakulla County are interested in using the City of Tallahassee’s biosolids from the Thomas Smith wastewater treatment plant as fertilizer. FDEP permits its use for this purpose. Cost is an order of magnitude less than commercial fertilizer.
* However, farmers cannot purchase it directly from the city because of a Memorandum of Understanding between the City and FDEP. They can buy it retail in Jefferson County.
* There also is state legislation that restricts disposal of biosolids within springsheds that went into effect July 1st but it should not affect this product.
* Howard Kessler suggested this is an opportunity for WSA to endorse something that makes sense as opposed to always being seen as antagonists.
* Cal and Howard will pursue further.
* Cal also mentioned that a permit application in the works for a sand mind near Silver Lake in Apalachicola NF. Not clear if this might have any negative impacts on the aquifer.

**Website and Social Media, updates**

* Sean McGlynn reports that Jamie Hughes has been doing great work developing WSA’s Face Book page.
* We remain, however, without a functional website.
* Bob Gelhart, who developed the website for the Friends of Wakulla Springs, has offered to develop one for WSA for 50% of his typical price, i.e. $1,785 plus an annual maintenance fee of something like $30-40 per month. See Appendix D for samples of websites he has developed.
* He would provide guidance on uploading etc.
* Sean will ask him to make a presentation at next meeting.

**Informing Public Officials About OSTDS Remediation**

* Following the August Big Bend Environmental Forum, Tom Taylor sent a detailed list to candidate Manny Joanos regarding what is needed to manage OSTDSs (septic tanks) better.
* Pam Hall suggested that we develop something more targeted that can be used at the October BBEF and as talking points with candidates and elected officials. She suggested that the key points should be to advocate for
  + Funding the sales tax project for developing comprehensive wastewater facilities management plan
  + Adopting and implementing local OSTDS design regulations for new and redeveloped properties.
* Pam offered to prepare a draft for review by the Executive Board.

Appendix A

**Wakulla Springs Alliance**

Draft Agenda 09/16/16

**9:00 Opening**

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

**9:10     Special Guest: Todd Kincaid, Ph.D., Geologist Sustaining the Floridan Aquifer**

**10:10   What’s new**

* Sewage Spills in Wakulla Springshed After Hurricane Hermine – Jim Stevenson
* Toxic Algae Bloom in Wakulla Springshed, 714% of the WHO drinking water guideline - Bob Deyle
* Department of Environmental Regulation’s plan to updated rules Water Quality Rules– Board
* WMD modeling Wakulla Springshed MFL – Board
* Legislative Update – Ryan Smart, President of 1000 Friends of Florida (absent, update next meeting)
* SWIM Plan in the Wakulla Springshed, update – Rob Williams
* Florida Springs Restoration Summit, September 30 – October 2 – Seán McGlynn
* We need a WSA webmaster, Website and Social Media, Updates – Seán McGlynn, Jamie Hughes-Davis
* Foley Perry Plant, update – Howard Kesler
* US 319 project, update - Bob Deyle
* Big Bend Environmental Forum, update – Jim Stevenson
* License Plate Grant and  Tracing Studies – Bob Deyle and Seán McGlynn
* Springshed Updates – Cal Jamison

**11:00   NWFWMD Spring Protection Projects for 2016** – Board

**11:30 Bullet points for funding the RME** – Pam Hall

**12:00 Adjourn**

Appendix B

**Board Advisors and Guests**

\* Indicates 9-16-16 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

Bart Bibler \*

Tim Brewton \*

James Call \*

Kathleen Coates\*

Mike Fagan \*

Mark Heidecker \*

Chuck Hess \*

Jake Hines \*

Jamie Hughes \*

Johnny Richardson \*

Peter Scalco \*

Edgar Wade\*

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 September 16, 2016 meeting

Treasurer Report For Month ending August 31, 2016

Starting Balance August 31, 2016: 4,209.27

Deposits: Jim’s Tours 144.00

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

80.00 BBEF dues

Balance ending August 31, 2016: **4,271.27**

Appendix D

