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**Friday, October 22, 2021**

**Board Meeting Minutes**

**Opening**

* Welcome and introductions - Bob Deyle, See Appendix B, Participant List
* Agenda review - Bob Deyle See Appendix A Agenda

**September 2021 minutes** - Tom Taylor

* Debbie Lightsey made the motion to approve the minutes, seconded by Jim Stevenson, which passed unanimously.

**August and September 2021 financial reports** - Jim Davis

* The financial reports are in Appendix C.
* Rob Gelhardt made the motion to approve the reports, seconded by Terry Ryan, which passed unanimously.

**Sanitary Sewer Overflow Spills and Contaminated Sites in Tallahassee**

* Terry Ryan, WSA and Tallahassee Sewage and Wakulla Basin Advocacy Group Board Member, introduced Heather Cavanagh, from UF who has a master’s degree in Environmental Science and 25-years of experience. She will present her Sewer Infiltration and Inflow, SSOs and Exfiltration report.
* There is inflow from downspouts and manholes and infiltration from cracks in lines.
* Sanitary Sewer Overflows, SSOs, come from clogged lines, power failures, etc.
* Exfiltration is raw sewage leaking out of the pipes.
* These pollute ground and drinking water and have environmental impacts from higher nutrient levels and pathogens.
* The LAVA maps show where there are less-confining layers near Wakulla Springs.
* Tallahassee consent orders in 2012, 2014 and 2019 have required pipe repairs and lining.
* The Tallahassee 2020 I&I study identified 167 more defects, spending $3 million/year and problems persist.
* There is a map of the lift stations and chart of the WWTP, rain and TPS flows.
* Wakulla Springs nitrate levels are still impaired with nutrients from several sources.
* Terry’s group is advocating continuing studies, identifying sources and fixing the problem by repairing sewers, collecting runoff and establishing policies. This is an ongoing effort.
* Q – We want to spend money effectively. Do we have a total of the nitrate contribution that can be used in the BMAP process? Can we figure out where we get the most bang for the buck?

A – We need an exfiltration study in the I&I report. The City says the I&I tasks need to be done first and this will also address exfiltration. We took additional tests in 6 areas and found evidence of sewage in all of them. We have FSU students with Ming Lee to determine the volume and direction of sewage flows. There is no number now. We are getting well drilling permits from the WMD. We need to determine whether the source is sewers or septic tanks. DOH has released information on septic system locations and these are being mapped.

* The Pam Hall study has the locations of all septic tanks in the State.
* Q – Are there other sources of sucralose? Can we get info from DOH? Sucralose is a good indicator of sewage. We will post articles on the WSA website.
* Q – How much is the City spending? The City has $3 m in the budget linked to the consent order. We are doing much more than this. The consent order will end soon but will continue to make improvements.
* Terry Ryan provided a list of recent spills. We are concerned about the discharge volume before the spill is reported.
* Q – What is the comparison of Tallahassee and other cities? A – The City’s level is excessive but not too bad compared to the state average. Tallahassee has done a lot of work and there is still a problem. Heather will provide some numbers to send out to WSA members. Fecal coliform can also come from animals and birds. Sucralose is an indicator of human waste.

**Springshed and river update -** Cal Jamison

* Wakulla is still dark but it may start to clear based on flows at the sinks and creeks.
* No outflow from Indian Springs and swamp water levels are dropping.
* Finishing up testing for pharmaceuticals and other pollutants with UF.
* USGS gauge has been over 0.4 mg/L nitrate for a week.
* Cal is identifying caves where crayfish can be found. The Wacissa and Wakulla springs crayfish are different species.
* Cal would like to get a sample from the Tallahassee spray field for the UF study. Mark Heidecker may be a good contact.

**Emergent marsh distress update** – Deyle

* Other submerged aquatic vegetation, SAV, species are continuing to colonize areas where knotweed disappeared: Two native species: red ludwigia (*L. repens*) and water lily (*Nymphaea odorata*) and one invasive exotic – parrot feather (*Myriophyllum aquaticum*)
* There is one patch of ludwigia along the west bank of the spring bowl where there have been no emergent plants recently.
* It will be interesting to see how these hold up to winter manatee grazing
* Plant tissue herbicide analyses came back from SD on 10/13: negative. Not definitive since we took the samples three months after the initial die-off
* Sampling for cyanotoxins conducted yesterday (10/21)
* Q – Is there anything for the manatee to eat? A – Still plenty of spring tape grass; eelgrass in and around the spring basin is coming back in some places after heavy grazing last winter
* C - There is red ludwigia in the Wakulla River and at Lightsey Park.
* Q – Are there any reports on manatees in Wakulla Springs? A - The Park maintains daily and weekly counts of manatees. We may want Pat Rose, Save the Manatee Club to speak at a future WSA meeting.
* We may ask Bob Thompson to do a SAV report.
* West coast manatees moved between Crystal River, Fanning Springs and Wakulla Springs.

**Woodville fish farm** – Gail Fishman

* They brought in a large machine to clear the weedy areas.
* They may be putting a driveway in from Wakulla Highway.
* The 4x4s installed have been extended, apparently to hold exterior cinderblock walls.
* There is no roof yet.

**RV park going in on Hwy 98**

* The zoning was changed on Monday.
* The Wakulla Commission has approved 4 RV parks and they have to be on sewer to get the density they want.

**City of Tallahassee solar farm herbicide use** – Jim Stevenson

* Bob has delt with the City and Origis
* Jim has been looking at the use of sheep. FDEP is looking at the use of sheep and other alternatives to herbicides and wholistic management.
* The crayfish in the caves are our canary in the coal mine. Jim has contacted both cave diving groups to observe crayfish.
* Bob Deyle will work with Steve Urse to contact the City.
* We need an onsite visit with a sheepherder to learn more.
* Origis has stopped using Roundup and is looking for alternatives. We need to find out what and how much herbicides will be used.
* The City may have limited leverage on Origis and KKR, who is now the owner of the system. The City owns the land and buys the electricity.
* Bob did an estimate of the potential for Oust levels at the Spring to exceed EPA’s phytotoxic threshold for vascular aquatic plants. That demonstrated that levels could be a little more or a lot less than the toxic threshold depending on the application rate and area treated which is information that Origis has refused to provide us.
* The solar farm is an example of the larger potential threats from herbicides and other pollutants. WSA can be an advocate for wholistic management across the Wakulla Springs watershed.

**10:40 Wakulla County wastewater disposal update** – Deyle

* Public hearing on proposal to purchase Wildwood golf course was postponed from Oct 4 to Oct 18. County Commission voted 5-0 to purchase on 10/18.
* Meanwhile, Stidham Associates completed an analysis of karst features and soils on the former Moore property. Sue Damon passed along a copy of the report to Bob last week. It was completed in May.
* In an email to David Edwards on Sept 29, Troy Hays of Jones Edmunds said the following: “. . . [T]he wetland recharge site had geotechnical issues identified that will make the creation of a wetland recharge park more expensive than we were originally expecting. The issues include:

1. The presence of depressional areas/sinks discovered at the site. Although these can be repaired, the required setback areas will limit the area available for recharge. Additionally, the available recharge area on this site was already limited due to the modeled floodplain covering almost half the site.
2. The additional geotechnical investigation showed more near surface sandy clay/clayey sand than observed in the previous preliminary investigation. This clay presence is expected to limit the site's recharge capacity by slowing infiltration.
3. We have developed some preliminary layouts and can design the site to infiltrate the originally needed 0.4 MGD; however, it will involve significantly more earthwork and hydraulic analysis. [Note: Information previously provided by the consultants indicate that the 2020 load to an RIB would have been 0.4 MGD; projected 2027 load is 0.6 MGD]
4. Additionally, due to the constraints listed above, the site would not be expected to be permitted above this amount without additional testing completed on the constructed system.

* At the Oct 18 county commission meeting, Doug Barr summarized findings from his analysis of the effects of different irrigation strategies, i.e., rates of application and areas irrigated, on water table elevations to address concerns about effects on “playability.” He calculated ground water depth decreases ranging from 2,2 to 3.3 feet with resulting water table elevations ranging from 9.7 to 10.8 feet below the surface and complete recovery within the 20-22 hour intervals between daily irrigations.
* Based on communications with David Edwards it appears that the current concept, subject to further site analysis, is to handle all the treated effluent at the golf course with the irrigation operation supplemented by one or two RIBs. Edwards indicated that the former Moore property is, in his opinion, not completely off the table. However, the Stidham analysis indicates that its utility would be very limited.
* Clean Water Wakulla folks are promoting using the former Moore parcel as some sort of park. David Edwards said the current concept is to handle everything at the golf course, possibly with RIBs on the golf course.
* Chuck Hess said that the Parks fund can’t repay the sewer fund if it is turned into a park. It could be sold.

**Membership renewals due by January 14** – Deyle

* Payments after June 30 count towards 2022
* Membership tally as of January 14 will determine basis for quorum for annual meeting on January 28th as well as who will be eligible to serve on the Board and vote in the election of board members.
* Membership categories:
  + STUDENT or SENIOR (55+) - $15/year
  + INDIVIDUALS - $25/year
  + FAMILY - $40/Year
  + SUPPORTER - $100-499/year
  + BENEFACTOR - $500-1,999+/year
  + LIFE MEMBER - $2,000+
  + Q - Can we get the numbers by category? A - Bob will provide that next month

**Appointment of Nominating Committee** – Deyle (see Appendix D)

* Bylaws requires appointing Nominating Committee of three members no less than 60 days before the annual meeting.
* Board shall comprise 10-15 members. We currently have 14. In addition, Brian Katz has moved to NC and despite indicating earlier that he would like to continue to stay active, he has not been attending Board meetings recently, so he may be ready to relinquish his position.
* In addition, we have six Directors whose terms expire at the end of December
* Bob made a pitch for filling any vacancies with residents of Wakulla County to increase our credibility with the County Commission
* Toward that end, Bob asked Cal if he’d be willing to serve; Cal agreed to do so.
* Rob Gelhardt made a motion, seconded by Debbie Lightsey to appoint Cal Jamison, Howard Kessler, Terry Ryan, which passed unanimously.

**Upcoming meetings and events** – Deyle

* November 19 (third Friday!) – TBA
* December 17 (third Friday!) – TBA
* Doug Alderson and a manatee expert will be considered for speakers.

**Wakulla websites**

* Rob Gelhardt has redone the Friends of Wakulla Springs website and can do the same thing for WSA.
* Everyone is encouraged to suggest what can be transferred to WSA.
* This can encourage membership, involvement, advocacy and education.

**Adjourn**

**Appendix A**

**Wakulla Springs Alliance**

**10-22-21 Board Meeting Agenda**

**9:00 Opening**

* **Welcome and introductions** - Bob Deyle
* **Agenda review** - Bob Deyle

**9:10 September 2021 minutes** - Tom Taylor [attached]

**9:15 August and September 2021 financial reports** [attached]- Jim Davis

**9:20 Sanitary Sewer Overflow Spills and Contaminated Sites in Tallahassee** – Terry Ryan, Tallahassee Sewage and Wakulla Basin Advocacy Group

**10:05 What’s new?**

* Springshed and river update - Cal Jamison
* Cave exploration updates
* Emergent marsh distress update – Deyle
* Woodville fish farm – Gail Fishman
* What else?

**10:30 City of Tallahassee solar farm herbicide use** – Jim Stevenson

**10:40 Wakulla County wastewater disposal update** – Deyle [see attached]

**10:55 Membership renewals due by January 7** – Deyle

* + STUDENT or SENIOR (55+) - $15/year
  + INDIVIDUALS - $25/year
  + FAMILY - $40/Year
  + SUPPORTER - $100-499/year
  + BENEFACTOR - $500-1,999+/year
  + LIFE MEMBER - $2,000+

**11:05 Appointment of Nominating Committee** – Deyle [screen share chart]

* Bylaws requires appointing Nominating Committee of three members no less than 60 days before the annual meeting. I had this scheduled for November, but Albert reminded me that we did it in October last year to give them more time. So, I’ve inserted it in today’s agenda
* Board shall comprise 10-15 members. We currently have 14. In addition, Brian Katz has moved to NC and despite indicating earlier that he would like to continue to stay active, he has not been attending Board meetings recently, so he may be ready to relinquish his position.
* In addition, we have six Directors whose terms expire at the end of December
* I’d like to make a pitch for filling any vacancies with residents of Wakulla County to increase our credibility with the County Commission
* Toward that end, I’d like to ask Cal if he’d be willing to serve.
* Albert has indicated that he would be willing to serve again but would be happy to let others do so. So, who else is willing to serve in this important role?

**11:20 Upcoming meetings and events** – Deyle

* **November 19 (third Friday**!) – TBA; Selection of Nominating Committee
* **December 17 (third Friday!)** - TBA

**11:25 Other business**

**11:30 Adjourn**

**Appendix B**

**8-27-21 WAKULLA SPRINGS Board Meeting Participants**

**\* Indicates those present**

Officers

Robert E. Deyle, Chair \*  
Howard Kessler, Vice-Chair \*  
Tom Taylor, Secretary \*   
Jim Davis, Treasurer

Directors

Gail Fishman \*

Albert Gregory   
Rob Gelhardt \*

Andreas Hagberg \*

Cal Jamison \*  
Brian K. Katz   
Debbie Lightsey \*

Terry Ryan \*

Lindsay Stevens   
Jim A. Stevenson \*

Members and Guests

Heather Cavanagh \*

Scott Hannahs \*

Chuck Hess \*

Linda Lee \*

Brian Luipani \*

Dallas Marshall \*

Charles Ouimet \*

Paul Thurman \*

Sophie Wacongne \*

Tim Shafers \*

**Appendix C**

**Financial Reports**

|  |  |
| --- | --- |
| **WAKULLA SPRINGS ALLIANCE** |  |
| **FINANCIAL REPORT** |  |
| **FOR THE EIGHT MONTHS ENDED AUGUST 31, 2021** |  |
|  |  |
| **INCOME** |  |
| Donations | $ 165.00 |
| Memberships | 645.00 |
|  | 810.00 |
|  |  |
| **EXPENSES** |  |
| Big Bend Environmental Forum | - |
| Florida Corporate Annual Report | - |
| Website related | - |
| PayPal Fees | 22.89 |
| Earl Bacon Agency - Insurance | 1,089.00 |
|  | 1,111.89 |
|  |  |
| **SURPLUS/(DEFICIT)** | (301.89) |
|  |  |
| **BANK BALANCE - 12/31/2020** | 2,664.70 |
| **PAYPAL BALANCE - 12/31/2020** | 3,444.57 |
| **TOTAL - 12/31/2020** | 6,109.27 |
|  |  |
| **BANK BALANCE - 8/31/2021** | 5,793.39 |
| **PAYPAL BALANCE - 8/31/2021** | 13.99 |
| **TOTAL - 8/31/2021** | **$ 5,807.38** |
|  |  |

|  |  |
| --- | --- |
| **WAKULLA SPRINGS ALLIANCE** |  |
| **FINANCIAL REPORT** |  |
| **FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2021** |  |
|  |  |
| **INCOME** |  |
| Donations | $ 165.00 |
| Memberships | 705.00 |
|  | 870.00 |
|  |  |
| **EXPENSES** |  |
| Big Bend Environmental Forum | - |
| Florida Corporate Annual Report | - |
| Website related | - |
| PayPal Fees | 26.93 |
| Earl Bacon Agency - Insurance | 1,089.00 |
|  | 1,115.93 |
|  |  |
| **SURPLUS/(DEFICIT)** | (245.93) |
|  |  |
| **BANK BALANCE - 12/31/2020** | 2,664.70 |
| **PAYPAL BALANCE - 12/31/2020** | 3,444.57 |
| **TOTAL - 12/31/2020** | 6,109.27 |
|  |  |
| **BANK BALANCE - 9/30/2021** | 5,793.39 |
| **PAYPAL BALANCE - 9/30/2021** | 69.95 |
| **TOTAL - 9/30/2021** | **$ 5,863.34** |

**Appendix D**

**WSA Board Member Status and Election Bylaws**

| **Name** | **Term Ends** | **Current Position** | **email** | **Phone** | **Comments** |
| --- | --- | --- | --- | --- | --- |
| Bob Deyle | Dec 2022 | Chair | rdeyle@fsu.edu | 850-443-6657 |  |
| Jim Davis | Dec 2021 | Treasurer | jim@jimdaviscpa.com | 850-445-5878 |  |
| Gail Fishman | Dec 2021 | Director | grtener@gmail.com | 850-545-6196 |  |
| Rob Gelhardt | Dec 2022 | Director | rob@gelhardt.com | 850-591-1290 |  |
| Albert Gregory | Dec 2021 | Director | albertgregory1@gmail.com | 850-562-1586 |  |
| Andreas Hagberg | Dec 2022 | Director | andreas@scubasoft.net | 352-474-9817 |  |
| Cal Jamison | Dec 2022 | Director | caljamison@msn.com | 850-509-4814 |  |
| Brian Katz | Dec 2022 | Director | Bg\_katz@hotmail.com |  | Moved; has not been attending |
| Howard Kessler | Dec 2021 | Vice Chr | annhow23@gmail.com | 850-597-3856 |  |
| Debbie Lightsey | Dec 2021 | Director | deblite2016@gmail.com | 850-567-7160 |  |
| Jim Stevenson | Dec 2021 | Director | Florida\_springs@comcast.net | 850-556-3072 |  |
| Terry Ryan | Dec 2022 | Director | terry@thetrakker.com | 850-321-9352 |  |
| Lindsay Stevens | Dec 2022 | Director | lindsay.stevens@TNC.ORG | 850-408-8286 |  |
| Tom Taylor | Dec 2022 | Secretary | ttaylor@fsu.edu | 850-656-9321 |  |

**Bylaws VI.1 Responsibilities and Number of Directors:** . . . . The Board shall comprise 10 to 15 directors. **[Currently have 14]**

**Bylaws VI.6 Vacancies [Directors]:** Vacancies arise when the minimum number of Director positions stipulated in Section V.1. are no longer filled due to resignation or removal of a Director. The Directors shall, by majority vote, elect an eligible Member to serve out the remaining term.

**Bylaws VII.6 Vacancies [Officers]:** In case of any vacancy in any office, the Board by a majority vote at a meeting at which a quorum is present may elect an eligible successor to hold the office for the remainder of the term. The Secretary shall receive nominations from current Directors at least fourteen days in advance of the board meeting at which the vacancy will be filled. Nominations shall be sent to Directors with the regular board meeting announcement.

**Bylaws VIII.1.b Nominating Committee:** Not later than sixty days before each general meeting the Board shall appoint a nominating committee of three Members of the Alliance who are in good standing. The committee shall implement the nominating processes for the election of Directors by the Membership and the election of Officers by the Directors as set forth in Article VI.5. and Article VII.3. respectively.