

## Johnson, Sabrina O

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**From:** Troy Hays <thayes@jonesedmunds.com>  
**Sent:** Thursday, December 19, 2019 3:02 PM  
**To:** SWD\_Waste; Borderieux, Scott  
**Cc:** Boatwright, Kelley M.; steve.tafuni@floridadep.gov; Madden, Melissa; Henry C. Norris  
**Subject:** Facility ID: 39859-Citrus County Central Landfill: Response to Warning Letter #WL19-107SW09SWD  
**Attachments:** 2019.12.19\_LTR\_Resp.WarningLtr Comments.pdf

Good Afternoon Mr. Borderieux,

Attached is the response to FDEP's Warning Letter #WL19-107SW09SWD for the Citrus County Central Landfill (Facility ID # 39859). If you have any questions while reviewing the attached or need any additional information, please do not hesitate to contact me at 352-258-9520.

Please reply to this email confirming receipt of the response letter.

Thank you,

**Troy D. Hays, PG**  
Senior Manager / Vice President



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December 19, 2019

Mary Yeargan, PG  
Southwest District Director  
Florida Department of Environmental Protection  
13051 North Telecom Parkway #101  
Temple Terrace, Florida 33637-0926

RE: Citrus County Central Class I Landfill  
CO#05-1078  
Facility ID#: 39859  
Warning Letter #WL19-107SW09SWD

Dear Ms. Yeargan,

This letter is provided in response to your Florida Department of Environmental Protection Warning Letter submitted to Citrus County Central Class I Landfill. Each FDEP comment is presented below in *italics* followed by our response in **bold**.

*Comment 1.6: Explanation: Volatile Organic Compounds (VOCx) were detected above groundwater standards at MW-7 and MW-19 in the 2<sup>nd</sup> SA 2016 through 2<sup>nd</sup> SA 2019 Groundwater Monitoring Reports. The 1<sup>st</sup> SA 2016 Groundwater Monitoring Report attributed the VOCs exceedances at these wells to landfill Gas.*

*Corrective Action: On 2/22/2017, the Department, Citrus County, and Jones Edmunds had a meeting to discuss landfill gas migration and groundwater exceedances at the facility. The facility assessed the adequacy of the existing landfill gas and groundwater monitoring systems and submitted a plan (Landfill Gas Assessment and Groundwater Delineation plan, revised 6/6/2017, received 6/9/2017) to retrofit/expand both systems to determine the extent and path of landfill gas migration and impacts to groundwater. Please provide an update on the implementation of the Landfill Gas Assessment and Groundwater Delineation plan. In addition, the results of the expanded monitoring should be used to develop a remediation plan.*

*Comments: The Department received and reviewed the Landfill Gas Assessment and Groundwater Delineation Report transmitted November 29, 2017 by email. A meeting was held on February 15, 2018 to discuss the County's proposed methods and timeframes for remediating migrating landfill gas, the next steps for assessment of impacted groundwater monitoring wells at the site and the existing Consent Order 05-1078 status. The County*

*received a permit modification to expand the LFG system on July 10, 2018 and has started the construction. The County is also continuing monitor the site as outlined in the report discussed above. The Department anticipates an evaluation of the effectiveness of the expanded LFG system on groundwater in the impacted areas (MW-7 and MW-19 primarily) once the system has been installed and has been operating for a minimum of 1 year. Based on a schedule provided on June 21, 2019, and updated September 9, 2019, it is anticipated that construction will be substantially completed by approximately December 2019. Please provide updates on the progress of installation of the expanded system and notify the Department once completed.*

**Response 1.6:**      **The expanded LFG system construction on the closed cells and active areas will be complete in December 2019 and are expected to be fully operational by January 1, 2020. The appropriate FDEP construction certification forms will be submitted once construction is complete.**

**During a meeting with FDEP on November 21, 2019, FDEP stated that an evaluation of the effectiveness of the expanded LFG system is expected to be included with the first semiannual 2020 groundwater sampling event. The evaluation will be included in the report.**

*Comment 2.1.1: Explanation: Class 1 waste was observed in the furniture area of the citizen drop-off. Per Permit Condition C.5.b and Operation Plan Section K.2.c, Class 1 waste cannot be stored on the ground in this area.*

*Corrective Action: Staff needs to be retrained/reminded that Class 1 waste needs to be disposed of in the landfill or in the provided Class 1 dumpsters. In an email on October 18, 2019, Henry Norris stated that "Scale house employees and Spotters have been briefed on prohibited Class 1 waste deposited in the furniture area, customers are being instructed to place all household waste delivered to the customer service area in the provided dumpsters. Additionally, we are planning to redirect customers with dump trailers to the working face if loads are determined to contain Class 1 waste. The gas system expansion contractor is currently installing lateral headers in phase III in the west end of phase III, once this phase of the project is complete a small working face will be created on the west end of phase III to take residential Class I waste."*

*While the Department has no objections to this new working face, it will require an update to Section K.2.C of the Facility' Operation Plan. Please provide the Department a timeline for when the Operation Plan will be*

*updated and when this new procedure will begin within 30 days of receiving this inspection report.*

**Response 2.1.1:**    **The County has already provided additional training for the spotters and scale house employees on directing the citizens to the correct disposal locations. The County is not moving forward with the proposed small working face at this time due to concerns with citizens' safety disposing of trash in the active landfill cell.**

**Additionally, the housekeeping of the citizens service area has been reinforced to all employees, so they recognize the critical nature of the correct wastes being disposed of in the correct locations. Spotters are taking a more active role in directing citizens where to go and making sure the waste is properly disposed of.**

**The County is also moving forward with planning and designing a new citizens service area to replace the current area at the landfill. We will be working with FDEP Tallahassee on the permitting of the new citizens service area in late 2020.**

*Comment 2.18: Explanation: Please see comments for Item 2.19*

*Correction Action: Please see comments for Item 2.19*

**Response 2.18:**    **See response for 2.19.**

*Comment 2.19: Explanation: The Department received a complaint on September 26, 2019 regarding cover used at the Facility. During the inspection, insufficient initial and intermediate cover, especially on the west end of Phase III, was observed. Exposed waste was apparent across the surface of Phase III.*

*Corrective Action: Permit Condition C.8 and Operation Plan Section K.2.g.2 require at least eighteen inches of cover (12 inches of intermediate cover in addition to the 6 inches of initial cover) to cover waste. Please cover this area per the requirements of the Permit and Operation Plan and send photographs of Phase III after it has been covered. In a follow-up email on October 18, 2019, Henry Norris stated that "Cover material will be utilized to minimize vector breeding, animal attraction and reduce fire potential as well as to prevent blowing litter and to control odors. Daily cover material will be composed of soil from the on-site borrow area and sufficient amounts will be hauled daily to cover working face. A 50/50 mixture of soil and mulch can be used to reduce soil consumption in addition to ADC which can be utilized and*

*applied for a maximum duration of seven days in dry conditions. Daily soil cover will be placed and compacted minimum thickness of 6 inches; sprayed on ADC will be applied per manufacturer specification and shall not be used in rain. Intermediate cover shall be applied to a minimum thickness of 12 inches whenever an area is not intended for use for a period of longer than 180 days."*

**Response 2.19:**     **The County is working to ensure that adequate cover per the Rule is applied and maintained. Additionally, the BOCC recently approved a contract for purchase and use of an ADC material to augment the use of soil cover.**

**Figure 1: Adequate Cover**



*Comment 2.28: Explanation: The Department received a complaint on September 26, 2019 regarding landfill leachate seeps mixing with the stormwater system. During the inspection, active leachate seeps were observed on the east end of Phase III, potentially discharging to the stormwater system. Also, there was no perimeter berm present around the working face.*

*Per Permit Condition C.16 and Operation Plan K.8, leachate shall not be discharged into the the stormwater management system. Stormwater or other surface water which comes into contact with or mixes with the solid waste or leachate shall be considered leachate and is subject to the requirements of Rile 62-701.500(8).*

*Corrective Action: Repair the seeps to prevent mixing of leachate with stormwater. On October 18, 2019, Henry Norris sent a follow-up email that stated "Seep repairs are ongoing on east and north side of phase III, expected completion 10/18. 200 loads of red clay soil is currently being procured to be used for any future seep repairs". Documentation received on October 24, 2019 confirmed that the seeps and berm had been repaired.*

**Response 2.28:**     **The identified seeps have been repaired (Figure 2) and a stormwater berm has been installed (Figure 3) and will be maintained around the working face to control any leachate runoff, keeping the leachate in the active cell. The County has implemented two action items so that any future seeps will be identified quickly and repaired.**

**1.     The County added monitoring for leachate seeps to the weekly inspection protocol. Every Monday, when the weekly inspection protocol is conducted, the inspector will walk the side slopes looking for leachate seeps. Figure 4 provides the updated inspection form.**

**2.     The County purchased 200 loads of red clay soil to use in the repair of any identified seeps. This material is stockpiled on site and ready for use when a seep is identified.**



**Figure 2: Seep Repairs on East Slope**



**Figure 3: Stormwater Berms**







**Figure 4: Updated Inspection Log**

Citrus County Central Landfill		Daily Operator Log		
DESCRIPTION	SOURCE / LOCATION	ACTION REQUIRED	TYPE OF ACTION	ACTION COMPLETION DATE / NOTES
<b>EROSION</b> (50% of soil has been eroded or waste or liner is exposed) To be repaired within 48 hours or by close of the next business day	<input type="checkbox"/> 80 ACRE <input type="checkbox"/> 60 ACRE <input type="checkbox"/> OTHER	YES <input type="checkbox"/> NO YES <input type="checkbox"/> NO YES <input type="checkbox"/> NO		
<b>SETTLEMENT</b> (low spots & improperly graded areas which causes ponding of water) To be repaired within 7 days	<input type="checkbox"/> 80 ACRE <input type="checkbox"/> 60 ACRE <input type="checkbox"/> OTHER	YES <input type="checkbox"/> NO YES <input type="checkbox"/> NO YES <input type="checkbox"/> NO		
<b>ODORS</b> (Beyond North Boundary Line)	<input type="checkbox"/> 80 ACRE <input type="checkbox"/> 60 ACRE <input type="checkbox"/> OTHER	YES <input type="checkbox"/> NO YES <input type="checkbox"/> NO YES <input type="checkbox"/> NO		
<b>LITTER</b> (Normal traffic areas to be collected & disposed daily - property boundary weekly)	<input type="checkbox"/> 80 ACRE <input type="checkbox"/> 60 ACRE <input type="checkbox"/> OTHER	YES <input type="checkbox"/> NO YES <input type="checkbox"/> NO YES <input type="checkbox"/> NO		
Complete every MONDAY: Identify & report any leachate seepage in phase 1,1A,2,& 3	<input type="checkbox"/> 80 ACRE	YES <input type="checkbox"/> NO		
<b>WATERING</b> for dust control Show locations on map	<input type="checkbox"/> 80 ACRE	Number of Truck loads:	Attach tickets to log	Damage and/or failure of any of the landfill site facilities, unauthorized leachate discharges, dry GW wells, gas exceedances, fire, explosion, development of sinkholes or other subsurface instability at the site.
<b>Leachate Storage Tank</b> containment area inspection leaks / damage		YES <input type="checkbox"/> NO		
Working Face Width < 50'x75'. Only wide enough for traffic, minimizing exposed area & daily cover	<input type="checkbox"/> 80 ACRE	YES <input type="checkbox"/> NO		
Notify DEP within 24 hours and written follow up within 7 days.				

**OTHER ITEMS:**  
To be forwarded to SWM Director by 10:00 am each day

*Daily Inspections assigned as follows:*  
 Monday: Dan / Michael  
 Tuesday: Harold / Neil  
 Wed: Tammy/Michael  
 Thursday: Billy / Dan  
 Friday: Aaron / Neil  
 Sat: Certified Landfill Operator  
 Sunday: Per sign up sheet

INSPECTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 \*see schedule  
 F:\Shared\DPW\SWMF\FORMS\LISTS. etc\  
 Daily Log Form Master.Rev8.16.xls

**Comment 1.4:**      *Explanation: 2019 Quarter 1 and Quarter 2 gas monitoring reports were received on June 19 and October 8, 2019 respectively, after Department request. Please note that reports are due 15 days after each calendar quarter ends (i.e. April 15, July 15, October 15 and January 15).*

*Corrective Action: Ensure that all reports are submitted to the Department on time. Quarterly reports are due 15 days after each calendar quarter ends (i.e. April 15, July 15, October 15 and January 15) per Rule 62-701.530(2)(c), Permit Condition 2.E.4, and Operation Plan Section K.9.e. Consent order 05-1078 also requires reporting of gas sampling (Paragraph 7 and Exhibit B) Stipulations in the Consent Order allow for penalties of \$100 per day for failure to meet any requirement of the Consent Order. In the future, the Department may pursue penalties for any late submittals.*

**Response 1.4:**      **All future reports for the Citrus County Central Landfill will be submitted to SWD\_Waste@dep.state.fl.us.**

**Comment 2.22:**      *Explanation: The Department received a complaint on September 26 regarding leachate pump operations and reporting. It appears that the leachate pumps and transducers within the riser pipes of Phase 3 (and possibly Phase 2) may be located outside of the sump (within the pipe & before the elbow) and/or that the pump setpoints may be set too high. During the inspection, the Phase 3 primary lead pump was set to pump at 7' and the lag at 7'2", with pump off at 6'5" and the secondary on at 1'5" and pump off 1'1". The primary alarm is set to 8'. It was also indicating that the transducer is set 1' above the pump in the riser pipe. The sump appears to be 4' deep. Please see the Phase 3 Expansion Project, Sheet 9, titled Leachate Collection System Details for more detail about the sump construction. Based on these observations, it appears that head on liner may be accumulating in excess of 12" within Phase 3 (and possibly Phase 2). Phase 3 may never be drawn down to less than 12" of head (normal operating condition between 2'7" and 3' of head on liner outside of the sump or more depending on transducer location). Similar setpoints were observed for Phase II but details for the sump construction have not yet been reviewed. This would be potentially in violation of Permit Condition C.12 and Operation Plan section K.8.a.*

*Corrective Action: Provide additional information about pump and transducer locations at Phases 1, 1A, 2 and 3 in relation to the pump setpoints and provide a demonstration that leachate is not allowed to accumulate in excess of 12" on each of the respective landfill liners.*

*In the 10-18-19 follow-up email, Henry Norris stated "The landfill is currently working with vendor to provide submersible camera services to determine transducer location within the risers and to determine the amount of head that is in each sump. Once this is completed a report will be submitted to FDEP for review." On October 24, 2019, Mr. Norris informed the Department that the vendor will be onsite on October 30, 2019 with cameras. Please submit the report to the Department within 14 days of project completion.*

**Response 2.22:**      **To verify that the system is working as intended, the County contracted with a submersible camera vendor to video the level of the leachate in the sumps in relation to the pump and transducer. The video can be provided to FDEP if requested.**

**The video shows that the transducer and pump are both in the leachate and that there is less than 1 foot of leachate in the sump. Additionally, the video shows that the pump cycles on when approximately 7 inches of leachate builds up in the sump and off when there is about 2 inches of leachate left in the sump. The telemetry readouts were incorrectly labeled with the**

**pump on and off levels reading in feet but should be reading in inches. This has been corrected. At no point is the leachate suspected to have built up over 12 inches on the liner.**

**The setpoints for pump on and off as well as the high alarms are being evaluated for optimal performance of the system. The pump on at 7 inches and off at 2 inches is causing the pump to cycle on and off at an accelerated rate, reducing the operational efficiency and life span of the pumps.**

**The County is implementing procedures to ensure that the leachate system is functioning as intended in compliance with State Rules and the design intent of the system. The new procedures include:**

- 1. Reviewing and updating operation and maintenance (O&M) procedures as needed to ensure that what is documented corresponds to what is implemented in the field.**
- 2. Reviewing the SCADA controls system with an outside consultant to verify that the system is reading and operating correctly.**
- 3. Performing inventories and assessments of all on-site spare parts for emergency repairs to the leachate system, including:**
  - a. Setting up an exercising protocol as needed to ensure certain stored equipment is properly maintained.**
  - b. Establishing ongoing contracts with vendors so that if something is needed, the procedures are in place to immediately contract for services.**
- 4. Reassessing internal protocols for leachate system observation and maintenance.**
  - a. The leachate systems are currently operated and maintained by the County's Utilities Division. Due to County wide growth and water/wastewater system expansion, the demands of maintaining the water and wastewater infrastructure throughout the County for the Water Resources, Utilities Operations and Maintenance Division, has drastically increased; therefore, the Solid**

**Waste Division will be taking over responsibility of the operation and maintenance of the leachate systems. County Utilities Division will provide support as needed to ensure that the leachate system maintains the operational status required.**

- b. This includes internal training for Solid Waste Division staff on the O&M of the system. The County plans to move forward with hiring additional staff whose primary responsibility will be the correct operation of the leachate system.**
- c. The County will be contracting with a consultant to reevaluate the SCADA system to ensure that it is reading and documenting the conditions correctly.**

**In summary, the County has been and continues to work to ensure that leachate is collected, monitored, and disposed of according to the Central Landfill's Operation Plan and State Rules. We do not think there has been any issue with leachate building up to unacceptable levels on the liner. The County is implementing procedures to ensure efficient operation of the leachate system.**

*Comment 2.37: Explanation: Well pads for MW-19 and MW-19D were cracked. Appendix 3.IV of the Permit requires notification if a well becomes damaged or inoperable.*

*Corrective Action: In an email dated October 18, 2019, Henry Norris stated "MW-19 and MW-19d were found to be damaged by contractor installing powered gas extraction system on the 7 acre site. Field services workers from Jones Edmunds have inspected the wells and found that the integrity of the wells have not been compromised and informed the contractor of the required repairs to concrete pads. Will follow up with FDEP when concrete work is complete." Please provide an expected timeline for these repairs and report submittal. Not every well was inspected during the inspection by the Department. The Department recommends that Citrus County verify that each well is intact, locked, labelled, and properly maintained.*

**Response 2.37: Jones Edmunds inspected the wells and determined that they were not damaged, just the pad was cracked. The Contractor who damaged the wells has replaced the pads and the new pads are shown in Figure 5. The well top of casings (TOCs)**



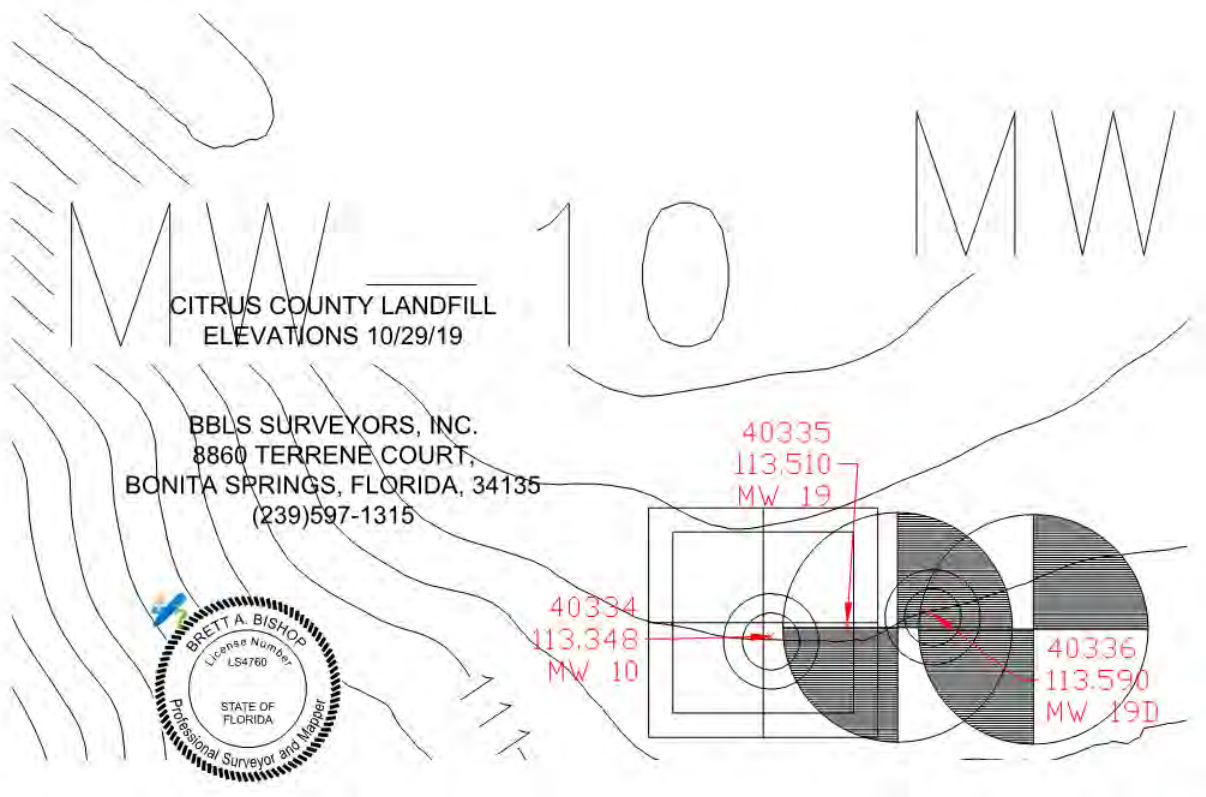
were surveyed to ensure that there was no change in the elevation. The elevations are summarized for each well below and the survey is included as Figure 6:

- **MW-10: Previous TOC: 113.37; New TOC: 113.35**
- **MW-19: Previous TOC: 113.50; New TOC: 113.51**
- **MW-19D: Previous TOC: 113.59; New TOC: 113.59**

**Figure 5: Photos of new well pads on MW-19 and MW-19D**



**Figure 6: Survey of New TOC Elevations**



If you have any questions or need clarification regarding the enclosed information, please contact us at (352) 377-5821.

Sincerely,

Troy D. Hays, PG  
Florida Professional Geologist #PG2679  
730 NE Waldo Road  
Gainesville, Florida 32641

xc: Henry Norris, Citrus County Solid Waste Director