



FLORIDA DEPARTMENT OF Environmental Protection

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February 10, 2021

Mr. Kirk Willis
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Osceola County – Solid Waste
J.E.D. Solid Waste Management Facility
St. Cloud, Florida
WACS ID: 89544

Review of 33rd Semi-Annual Water Quality Monitoring Report

Dear Mr. Willis:

The Department has reviewed the “**33rd Semi-Annual Water Quality Monitoring Report**”, which was dated February 3, 2021 and submitted on February 5, 2021 for the **J.E.D. Landfill – (Solid Waste Management Facility) - WACS Facility ID: 89544 – Osceola County**. The Report was submitted by Geosyntec Consultants. The report is 499 pages long, and the EDD files were included in the submittal. We find the report acceptable. The last permit modification for this facility is dated April 10, 2019, and the facility is compliant with the Monitoring Plan Implementation Schedule (MPIS) attached to that permit modification. Semiannual groundwater and surface water monitoring is performed in May and November.

A total of **50** groundwater monitoring wells were utilized to monitor the groundwater at the **J.E.D. Landfill** facility during the November 2020 event. No exceedances of state surface water standards or criteria were reported. Review of the data provided indicates that 7 parameters were detected at concentrations exceeding their respective Florida regulatory limits or criteria for groundwater. This includes Arsenic, Antimony, Sodium, Chloride, Iron, Benzene, and Total Dissolved Solids. This data is summarized in Section 4.2 and Table 3 of the Report. The analytes of concern and/or exceedances of the respective Primary Drinking Water Standards (PDWS) (62-550 Florida Administrative Code (F.A.C.)), Secondary Drinking Water Standards (SDWS) (62-550 FAC), or Florida Groundwater Cleanup Target Levels (GCTLs) (62-777 F.A.C.) detected during this period include:

Antimony - This analyte was detected in A-zone groundwater monitoring wells MW-11A (12 micrograms per liter (µg/L)), MW-16AR (7.9 µg/L), MW-27A (6.5 µg/L), and B-zone well MW-4B (9.3 µg/L) during this period above the GCTL of 6 micrograms per liter (µg/L). Antimony had not been detected above the GCTL during the May 2020 event. All four (4) of these wells were resampled for antimony on December 29 and 30, 2020. The results of this additional laboratory analysis indicated antimony concentrations below the method detection (which ranged between 2 and 5 µg/L).

Therefore, the November 2020 detections of this analyte may have been sampling or laboratory error. We will continue to monitor this analyte.

Arsenic - This analyte was detected in CW-1A (91 micrograms per liter ($\mu\text{g/L}$)), CW-3A (11 $\mu\text{g/L}$), MW-4B (16 $\mu\text{g/L}$), and MW-29A (31 $\mu\text{g/L}$) during this period above the GCTL of 10 micrograms per liter ($\mu\text{g/L}$). These wells are located within the perimeter of the facility and Arsenic has been historically **stable** in recent sampling events. We will continue to monitor these concentrations.

Sodium – This analyte was detected in MW-1A, MW-4B, MW-11A, MW-12A, MW-13A, MW-22AR, MW-23A, MW-23B, MW-28A, CW-2A and CW-3A during this period above the PDWS/GCTL of 160,000 $\mu\text{g/L}$. These detections show an overall historically **stable** trend and all of these wells are located within the perimeter of the facility. We will continue to monitor these concentrations.

Chloride – This analyte was detected in MW-1A, MW-2A, MW-4B, MW-12A, MW-13A, MW-22AR, MW-23A, MW-23B, MW-28A, CW-2A, and CW-3A during this period above the SDWS/GCTL of 250,000 $\mu\text{g/L}$. All of these wells are located within the perimeter of the facility. These results show an overall historically **stable** trend for this analyte. We will continue to monitor these concentrations.

Iron – This analyte was detected above the SDWS/GCTL of 300 $\mu\text{g/L}$ in all monitoring wells sampled during this event except for MW-5A, MW-22AR, MW-4B, and MW-5B. The highest A-Zone and B-zone iron concentrations were from MW-31A and MW-31B. This matches the previous three sampling events and indicates a **stable** trend for this analyte. Historical analytical data indicates Iron has exceeded the SDWS in most wells during all of the groundwater monitoring events, including the baseline events. All of these wells are within the perimeter of the facility. We will continue to monitor these concentrations.

Benzene– This analyte was detected above the PDWS/GCTL of 1.0 $\mu\text{g/L}$ in 9 of the A – Zone wells, and two B-zone wells, with the highest concentration from MW-10B at 12 $\mu\text{g/L}$. The source of the benzene has been attributed to landfill gas (HDR Engineering, Inc. 2012, Geosyntec, 2013 and 2017). All of the wells that had detections of benzene are within the perimeter of the landfill and these concentrations show a historically **stable** trend. No additional action is warranted at this time. We will continue to monitor these concentrations.

Surface water samples were collected during the November 2020 event and the results showed a detection of fecal coliform at downstream (SW-3) location (3800 #/100mL) and upstream (SW-4) location (1300 #/100mL).

No changes to the sampling schedule are recommended at this time and we concur with this conclusion.

Please perform the next semiannual groundwater sampling event in **May 2021**. Please notify the Department at DEP_CD@dep.state.fl.us at least **fourteen (14) days** prior to the installation and/or sampling of any monitoring well. [62-701.510(9)(a), Florida Administrative Code (F.A.C.)]. Please also copy me at Dale.Melton@dep.state.fl.us for field activity notifications and correspondence.

The monitoring report (including ADaPT EDDs) should be emailed to Tallahassee using the following email address: ADaPT.EDDs.and.Reports@dep.state.fl.us. **Please copy me on the email.**

Additionally, if attachments are too large to email, monitoring reports may also be transmitted to the FDEP Solid Waste program in Tallahassee using the following FTP site: ftp://ftp.dep.state.fl.us/pub/WACS-ADaPT/EDDS_and_Reports. Please email us at ADaPT.EDDs.and.Reports@dep.state.fl.us informing us of what files were transmitted via FTP for which facility sampling event.

Please submit the next **MPIS Technical Report by March 31, 2022**. This Technical Report should cover the five (5) semiannual sampling events for the November 2019 through November 2021 monitoring period. If you have any questions concerning this correspondence, please contact me by telephone at (407) 897-4326, or by email at Dale.Melton@dep.state.fl.us. Please include the **WACS Facility ID: 89544** on all reports and correspondence.

Sincerely,



Dale Melton
Environmental Consultant
Permitting and Waste Cleanup Program

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