FLORIDA DEPARTMENT OF Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD, SUITE 232
ORLANDO FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

August 9, 2019

Mr. Kirk Willis
Southern Region Engineer
Waste Connections of Osceola County, LLC
1501 Omni Way
St. Cloud, Florida 34773
Kirk.Willis@wasteconnections.com

Osceola County – Solid Waste
J.E.D. Solid Waste Management Facility
St. Cloud, Florida
WACS ID: 89544
Review of 30th Semi-Annual Water Quality Monitoring Report

Dear Mr. Willis:

The Department has reviewed the "**30th Semi-Annual Water Quality Monitoring Report**", which was dated August 5, 2019 and submitted by Geosyntec Consultants on August 6, 2019 for the **J.E.D. Landfill – (Solid Waste Management Facility) - WACS Facility ID: 89544 – Osceola County**. The report is 387 pages long, and the EDD files were included in the submittal. We find the report acceptable and the facility in compliance. The last permit modification for this facility is dated April 10, 2019 and is attached for reference.

A total of 51 groundwater monitoring wells were utilized to monitor the groundwater at the **J.E.D. Landfill** facility during the May 2019 event. No exceedances of state surface water standards or criteria were reported. Review of the data provided indicates that six (6) parameters were detected at concentrations exceeding their respective Florida regulatory limits or criteria for groundwater. This includes Arsenic, 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:

Arsenic - This analyte was detected in compliance well CW-1A (160 micrograms per liter (µg/L)) during this period above the GCTL of 10 micrograms per liter (µg/L). Arsenic has historically exceeded the GCTL in this well, which is located within the perimeter of the facility. It is suspected that this exceedance of Arsenic may be contributable to a utility pole located 20 feet away from CW-1A or may be naturally occurring. We will continue to monitor these concentrations.

Sodium – This analyte was detected in MW-1A, MW-1B, MW-13A, MW-16AR, MW-23A, MW-23B, CW-2A and CW-3A during this period above the PDWS/GCTL of 160,000 µg/L. All of these wells are located within the perimeter of the facility. It is our understanding further discussion of the Sodium detections will be provided in the next Technical Report. We will continue to monitor these concentrations.

Chloride – This analyte was detected in MW-1A, MW-1B, MW-2B, MW-13A, MW-13B, MW-16AR, MW-23A, MW-23B, MW-24A, CW-2A, and CW-3A during this period above the SDWS/GCTL of 250,000 µg/L. All of these wells are located within the perimeter of the facility. We will continue to monitor these concentrations.

Iron – This analyte was detected above the SDWS/GCTL of 300 µg/L in 23 of the A – Zone wells, 22 of the B-Zone wells, and in 2 compliance wells. The highest A-Zone iron concentration was 96,000 µg/L from MW-31A, and the highest B-Zone iron concentration was 56,000 µg/L from MW-31B. The highest iron concentration in the compliance wells was 8,500 µg/L from CW-1A. 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 µg/L in 9 of the A – Zone wells, and one B-zone well, with the highest concentration from MW-9A at 9.9 µg/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. No additional action is warranted at this time. We will continue to monitor these concentrations.

The next semiannual groundwater sampling event is due in **November 2019**. 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 at ADaPT.EDDs.and.Reports@dep.state.fl.us (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.f;.us/pub/WACS-ADaPT/EDDS_and_Reports. Please email ADaPT.EDDs.and.Reports@dep.state.fl.us informing us of what files were transmitted via FTP and for which facility sampling event.

The next **MPIS Technical Report is due by September 30, 2019** and should cover five (5) semiannual sampling events for the May 2017 through May 2019 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. All correspondence and reports should include the **WACS Facility ID: 89544.**

Sincerely,

Dale E. Melton

Dale Melton
Environmental Consultant
Permitting and Waste Cleanup Program

Attachment: April 10, 2019 Permit Modification

cc:
Craig Joseph, P.G., Geosyntec CJoseph@Geosyntec.com
Mathew Wissler, P.G., Geosyntec MWissler@Geosyntec.com
Benjamin Gray, Waste Connections Benjamin.Gray@WasteConnections.com
DEP: Dale Melton, Christine Daniel, Nathan Hess, Kim Rush, El Kromhout, Ashley Gardner

FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

April 10, 2019

NOTICE OF PERMIT MODIFICATION

By-Email
kirk.wills@wasteconnections.com

In the Matter of an
Application for Permit by:
Kirk Wills, Southern Region Engineer
Waste Connections of Osceola County, LLC
1501 Omni Way
St. Cloud, FL 34773
_____/

Osceola County
WACS 89544
J.E.D. Solid Waste Management Facility

Attention: Mr. Wills

DEP File No: 0199726-036-SO-IM

Pursuant to Sections 403.061(14) and 403.707, Florida Statutes, the Department hereby issues modification number 0199726-036-SO-IM. The following conditions of permit number 0199726-033-SO-01 are modified as follows:

SPECIFIC CONDITIONS	FROM	TO	TYPE OF MODIFICATION
Page 1	Existing	Amended	Addition of Permit Modification No. 0199726-036-SO-IM and revised Permit Issued to: Waste Connections of Osceola County, LLC
1.C. Facility Description	Existing	Amended	Addition of Permit Modification No. 0199726-036-SO-IM and description of sideslope changes
2.C.6.	Existing	Amended	Addition of reference to Sheet 12 for the modification
2.F.2.c.	Existing	Amended	Revised financial group email address to Finanacial.Assurance.Working.Group@floridadep.gov
Appendix 2	Existing	Amended	Addition of Document 5 related to this permit modification
Appendix 3	Existing	Amended	Revised version of Attachment D to the MPIS

Attached is Permit Number 0199726-033-SO-01 as modified by this Order. The attached permit replaces all previous permits and permit modifications for this facility.

NOTICE OF RIGHTS

Judicial Review
Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68, F.S. by the filing of a notice of appeal under Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days after this order is filed with the Clerk of the Department.

EXECUTION AND CLERKING
Executed in Tallahassee, Florida.
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Kimberly A. Walker, Program Administrator
Permitting and Compliance Assistance Program

Attachment(s):
1. Permit No. 0199726-033-SO-01 as modified by 0199726-036-SO-IM

CERTIFICATE OF SERVICE
The undersigned duly designated deputy clerk hereby certifies that this document and all attachments were sent on the filing date below to the following listed persons:

Name, company, email address
Craig Browne, P.E., Geosyntec Consultants, cbrowne@geosyntec.com
Cory Dilmore, P.E., FDEP PCAP SWPP, cory.dilmore@floridadep.gov
El Kromhout, P.G., FDEP PCAP SWPP, elizabeth.kromhout@floridadep.gov
FDEP Central District, DEP_CD@floridadep.gov

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Tamela Starling
Clerk

4/10/2019
Date

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Permit Issued to:

Waste Connections of Osceola County, LLC ~~Omni Waste of Osceola County, LLC~~
1501 Omni Way
St. Cloud, Florida
(407) 891-3720

WACS Facility ID No.: 89544
Facility Name: J.E.D. Solid Waste Management Facility
Facility Address: 1501 Omni Way
St. Cloud, Florida

Contact Person:
Kirk Wills – Senior Region Engineer
kirk.wills@wasteconnections.com
(813) 388-1026

Solid Waste Operation Permit – Class I Landfill
Permit No.: 0199726-033-SO-01
Permit Modification No.: 0199726-034-SO-MM
Permit Modification No.: 0199726-036-SO-IM
Replaces Permit No.: SO49-0199726-022

Permit Issued: June 13, 2017
Permit Renewal Application Due Date: April 13, 2027
Permit Expires: June 13, 2027

Permitting Authority
Florida Department of Environmental Protection
Division of Waste Management
Permitting and Compliance Assistance Program
2600 Blair Stone Road
Tallahassee, Florida 32399
(850) 245-8707

SECTION 1 - SUMMARY INFORMATION

A. Authorization

The permittee is hereby authorized to operate the facility described below in accordance with the specific and general conditions of this permit and any documents attached to this permit or specifically referenced in this permit and made a part of this permit.

This solid waste operation permit is issued under the provisions of Chapter 403, Florida Statutes, Florida Administrative Code Chapters 62-4 and 62-701.

This permit does not relieve the permittee from complying with any other appropriate local zoning or land use ordinances or with any other laws, rules or ordinances. Receipt of any permits from the Department does not relieve the applicant from obtaining other federal, state, and local permits and/or modifications required by law, including those from other Sections within the Department or of the Water Management District.

B. Facility Location

The facility is located at 1501 Omni Way, approximately 6.5 miles south of Holopaw, on the west side of U.S. Highway 441 in eastern Osceola County, Florida (Latitude 28°3’32”N, Longitude 81°5’46”W).

C. Facility Description

The above named permittee is hereby authorized to operate the facility shown on the application, approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

- To continue waste processing and disposal operations at J.E.D. Solid Waste Management Facility (formerly known as the Oak Hammock Disposal Facility).

- To operate the Class I landfill Phases 1, 2, 3, 4, and 5 (Cells 1-15), approximately 208 acres. The complete build-out of the J.E.D. Class I Landfill includes 8 Phases (Cells 1-23), approximately 363 acres of total landfill acreage. The permitted maximum elevation is 330 feet NGVD. The landfill resides within a total property boundary of approximately 2,179 acres.

- The Class I landfill is designed with a double-composite liner system which directs any liquid entering the landfill that may have contacted refuse to a leachate collection system (LCS). The collected leachate is pumped from sumps into the leachate transmission line where it is conveyed to an on-site leachate storage facility.

- The facility holds Title V Air Permit No. 0970079-012-AV. The Class I landfill has an active landfill gas management system (LGMS) design. The LGMS is installed in phases per the approved design to control air emissions, odor, and migration of methane. A landfill gas to energy (LFGTE) facility has been constructed and is operational. The facility holds Air Construction Permit No. 0970079-013-AC/PSD-429A for the active GCCS.

- To store waste tires and processed waste tires.

- To operate the liquid waste solidification process within the permitted landfill footprint.

- To operate the auto fluff residual recycling operations. The recycling operations are located within the permitted landfill footprint.

- The facility has a ground water and surface water monitoring plan.

- Permit Modification No. 0199726-036-SO-IM includes changes to the sideslopes for Cells 4, 5, 7, 8, and 12. The final cover system geometry includes a 3H:1V inclination and tack-on berms while maintaining 15 foot wide stormwater drainage corridors and 40 foot vertical spacing between berms as shown on Sheets 12, 42, 45, 46A, and 47A (Appendix 2, Document 5).

D. Appendices Made Part of This Permit

APPENDIX 1 - General Conditions

APPENDIX 2 – List of Approved Documents Incorporated into the Permit

APPENDIX 3 – Water Quality Monitoring Plan

SECTION 2 - SPECIFIC CONDITIONS

A. Administrative Requirements

1. Documents Part of This Permit. The permit application as revised in final form replaced or amended in response to the Department's Request(s) for Additional Information are contained in the Department's files and are made a part of this permit. Those documents that make up the complete permit application are listed in APPENDIX 2.

2. Permit Modification. Any change to construction, operation, monitoring, or closure requirements of this permit may require a modification to this permit, in accordance with the provisions of Rule 62-701.320(4), F.A.C.

3. Permit Renewal. In order to ensure uninterrupted operation of this facility, a timely and sufficient permit renewal application must be submitted to the Department in accordance with Rule 62-701.320(10), F.A.C. A permit application submitted at least 61 days prior to the expiration of this permit is considered timely and sufficient.

4. Transfer of Permit or Name Change. In accordance with Rule 62-701.320(11), F.A.C. and Rule 62-4.120, F.A.C., the Department must be notified by submitting Form 62-701.900(8) within 30 days: (a) of any sale or conveyance of the facility; (b) if a new or different person takes ownership or control of the facility; or (c) if the facility name or permittee's legal name is changed.

5. Air Permit Requirements
   a. The Permittee is required to comply with the Facility's Title V Air Permit No. 0970079-012-AV and Air Construction Permit No. 0970079-013-AC/PSD-429A.

6. Submittals Required Every Five Years. No later than June 13, 2022, the permittee shall submit a report to the Department that contains the following:
   a. An updated closure plan to reflect changes in closure design, long-term care requirements, and financial assurance requirements.
   b. A revised closure cost estimate, made by recalculating the total cost of closure or long-term care, in current dollars.
   c. A demonstration that the leachate collection system has been water pressure cleaned or inspected by video recording.
   d. An updated operation plan, if operational procedures have changed.

7. Permit Fee Payments. The total permit fee required for this permit is $20,000 for a 10-year permit. The applicant has elected to pay this fee in installments in accordance with Rule 62-701.315(13), F.A.C., and submitted a fee of $10,000 with this application. No later than June 13, 2033, the permittee shall submit to the Department an installment payment of this fee in the amount of $10,000. This fee is due the State regardless of whether the permittee closes the facility, surrenders the permit, has the permit revoked, or transfers the permit before it expires. If the permittee elects to transfer the permit, it must either pay the entirety of the fee due before submitting the application for transfer, or it must include with the transfer application a signed agreement from the proposed transferee to accept responsibility for the remainder of the permit fee due.

B. Construction Requirements

1. Construction authorized. This Permit does not authorize any liner construction activities.

C. Operation Requirements

1. General Operating Requirements. The Permittee shall operate the landfill in accordance with the approved Operation Plan as listed in Appendix 2, Document 4. The Department shall be

notified before any changes, other than minor deviations, to the approved Operation Plan are implemented in order to determine whether a permit modification is required.

2. Operation Plan. A copy of the approved Operation Plan, including the operating record as defined in Rule 62-701.500(3), F.A.C., shall be kept at the facility and shall be accessible to landfill operators.

3. Authorized Waste Types. The facility is authorized to manage only the following waste types:
   a. Waste types defined in Rule 62-701.200, F.A.C.:
      1) Class I waste.
      2) Class III waste.
      3) Construction and demolition debris.
      4) White goods.
      5) Waste tires.
      6) Industrial waste.
      7) Commercial waste.
      8) Special waste.
   b. Other Wastes Specifically Authorized: agricultural waste, recovered screen material (RSM), contaminated soils, auto shredder residue, ash residue and treated biomedical waste, water treatment sludge, industrial sludge, domestic sludge, and leachate, gas condensate and industrial liquid waste for solidification (solid waste leachate and gas condensate may also be recirculated).
      a. Asbestos. Asbestos may be accepted and managed in accordance with the requirements of Rule 62-701.520(3), F.A.C.
      b. Treated Biomedical. Treated biomedical waste may only be accepted in accordance with Rule 62-701.300(6) and 62-701.520(5)(d), F.A.C.
      c. Non-hazardous contaminated soil. Contaminated soil acceptance is conducted on a case-by-case basis in accordance with Rule 62-713, F.A.C.

4. Unauthorized Waste Types. The facility is not authorized to accept, process or dispose any waste types not listed in C.3. above. Any unauthorized waste inadvertently received by the facility shall be managed in accordance with the approved Operation Plan (Appendix 2, Document 4).

5. Waste Management and Handling
   a. Solid waste shall be formed into cells to construct horizontal lifts. The working face of the cell, and side grades above land surface, shall be at a slope no greater than three feet horizontal to one-foot vertical rise or as authorized by this permit in accordance with the approved operation plan.
   b. No solid waste shall be disposed of outside of the permitted footprint of the solid waste disposal units.
   c. The sequence of waste filling shall be as specified in the approved Operation Plan (Appendix 2, Document 4).

6. Landfill Elevation. The final (maximum) elevation of the landfill shall not exceed 330 feet NGVD as shown on Sheets ~~12,~~ 13, 39 and 40 of Appendix 2, Document A and Sheet 12 of Appendix 2, Document 5.

7. Initial Waste Placement. The first layer of waste placed above the liner and leachate collection system shall be a minimum of four feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system.

8. Cover Requirements.
   a. Initial Cover as defined in Rule 62-701.200(53), F.A.C.: Initial cover shall be applied at the end of each working day. For those areas where waste will be deposited on the working face within 18 hours initial cover may consist of a temporary cover, such as a tarpaulin.
   b. Intermediate Cover as defined in Rule 62-701.200(55), F.A.C.: An intermediate cover in addition to the six-inch initial cover shall be applied and maintained within seven days if additional solid waste will not be deposited with 180 days. The landfill operator may remove all or part of the intermediate cover before placing additional waste or installing final cover.
   c. Alternate Materials for Initial Cover: Approved alternate cover materials for the use at J.E.D. Solid Waste Management Facility include tarps, auto shredder fluff, tire chips, mulch mixed with soil at a maximum 50/50 ratio, and petroleum contaminated soils.

9. Erosion Control: Erosion control measures shall be employed to correct any erosion which exposes waste or causes malfunction of the storm water management system. Such measures shall be implemented within three days of occurrence. If the erosion cannot be corrected within seven days of occurrence, the landfill operator shall notify the Department and propose a correction schedule.

10. Contingency Plan and Notification of Emergencies. The Permittee shall notify the Department in accordance with the approved Contingency Plan. Notification shall be made to the Solid Waste Section of DEP's Central District at (407) 897-4304.

11. Housekeeping. The facility shall be operated to control dust, vectors, litter and objectionable odors. If objectionable odors are confirmed beyond the landfill property boundary, the owner or operator shall comply with the gas management requirement in Section 2, Part E.

12. Leachate Management.
   a. The permittee shall operate the leachate management system (including the collection, removal, storage, and on-site treatment systems), and maintain the system as designed, so that leachate is not discharged from the system except as provided for in the Design Plan and the approved Operation Plan.
   b. Routine inspections and maintenance of the leachate management system shall be conducted in accordance with the schedule established in the approved Operation Plan.

c. The leachate collection pipes shall be cleaned or video inspected at least once every five years. A summary of the results shall be submitted with the permit renewal application.
d. The permittee shall record quantities of leachate generated on a daily basis in gal/acre/day, shall record precipitation at the facility, and shall compare these measurements. If measurements indicate a significant discrepancy between leachate generation rates and precipitation records, the permittee shall notify the Department and conduct an assessment to determine the cause of the discrepancy.
e. The permittee shall compare the leachate flow rates in the leak detection system with the design action leakage rate (ALR) for the double liner. If measurements indicate the ALR has been exceeded, the permittee shall notify the Department and conduct an assessment to determine the cause of the leak. This data shall be made available to the Department upon request.
f. Recirculation: Leachate may be recirculated in accordance with the Operation Plan. Leachate may only be recirculated on inside slopes of areas of the landfill which have not undergone final closure.
g. Annual sampling of leachate is not required for this permit. However, if the permittee receives any analytical results of the leachate which indicate that a contaminate listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee,:
    i. Shall notify the Department in writing within 14 days of receipt of the analytical data. The notification shall describe how the leachate will be handled, treated, and disposed.
    ii. Shall initiate monthly sampling and analysis within 60 days of receipt of the analytical data for the parameters in exceedance and for field parameters. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may request approval from the Department to discontinue the monthly sampling and analysis.
    iii. Shall submit and discuss all leachate sampling data in subsequent routine semi-annual sampling reports.

13. Spotters and Operators. This facility shall have the minimum number of spotters present when waste is accepted as specified in the operation plan, to be located as specified in the operation plan. A trained operator shall be on duty at the facility at all times the facility is operating. Approved training courses can be found at the following web site: http://www.treeo.ufl.edu/sw/.

14. Record Keeping Requirements.
    a. Waste Quantity Records. Waste records shall be compiled monthly, and copies shall be provided to the Department no less than annually by February 1, in accordance with Rule 62-701.500(4)(a), F.A.C. This information shall be reported to the Department through the DEP Business Portal located at: http://www.fldepportal.com/go.
    b. Estimate of Remaining Life. The permittee shall submit the annual estimate of the remaining life and capacity by September 30 of each year. The report is required by Rule 62-701.500(13)(c), F.A.C. and must be submitted to the District Office and to:

Florida Department of Environmental Protection
Solid Waste Section, MS 4565
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

15. Hazardous Waste. If any regulated hazardous wastes are discovered to be deposited at the facility, the facility operator shall promptly notify the Department, the person responsible for shipping the wastes to the facility, and the generator of the wastes, if known. The area where the wastes are deposited shall immediately be cordoned off from public access. If the generator or hauler cannot be identified, the facility operator shall assure the cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility. In the event that hazardous wastes are discovered they shall be managed in accordance with the procedures provided in the facility's approved Operation Plan.

16. Stormwater. Leachate shall not be discharged into 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 Rule 62-701.500(8), F.A.C.

17. Waste Solidification. Waste Solidification operations shall be done in accordance with the approved Operation Plan - Attachment F Waste Solidification Operation Plan (Appendix 2, Document 4).
    a. The wastes accepted for solidification at the facility shall be liquid and semi-liquid wastes that are classified as non-hazardous according to the State and Federal Regulations. Typical wastes may include pumping from maintenance and cleaning of septic systems, oil/water separators, drainage inlets, and other types of collection systems. Other waste may include by-products and waste waters generated from industrial manufacturing units, drilling fluids, bilge waters, and groundwater/soil contamination remediation activities and leachate generated at Transfer Stations.
    b. The solidification shall be performed using the solid wastes presently accepted for disposal. Solid waste materials used to solidify the liquid and semi-liquid wastes will be those types that characteristically have higher moisture absorptive characteristics (i.e., auto shredder fluff; contaminated and clean soils; cement, lime, and ash based wastes; and recovered screen materials (RSM).
    c. Waste solidification operations shall be performed within the lined limits of the Class I disposal area and solidified wastes will be transported and disposed in the active landfilling areas. The GPS coordinates of the solidified waste disposal locations within the cell footprint shall be recorded. This data shall be maintained at the site and readily available during Department inspections.
    d. The waste solidification operating area shall be clearly designated with visible signs. Additional signs shall be provided for the incoming traffic for directions to the waste solidification area.

18. Waste Tire Storage. All waste tire acceptance, storage, and reporting shall be done in accordance with Chapter 62-711, F.A.C. Waste tire storage shall be done in accordance with the approved Operation Plan - Attachment C Waste Tire Storage and Processing Plan (Appendix 2, Document 4).
    a. Waste Tire Processing Location: Waste tire storage shall be located in Cell 15 as shown on Sheet 3 in Attachment C of the approved Operation Plan (Appendix 2, Document 4). The permittee shall obtain approval from the Department prior to relocation of the waste tire storage operations. Upon relocation, the facility shall meet the certification requirements of Rule 62-701.320(9)(b), F.A.C. after completion of construction and prior to operation of the new waste tire processing location.
    b. Maximum Storage: The facility shall not accept any waste tires for storage if it has reached its permitted storage limit for any category of waste tires, or of the number of waste tires on the site exceeds the quantity estimate in the closing cost estimate, Rule 62-711.530, F.A.C. As stated in the approved Operation Plan Attachment C, Exhibit A, the maximum storage limits at the facility are the following:
        i. Whole waste tires- 313 tons,
        ii. Processed tires - 313 tons, and
        iii. Residuals - 10 tons.

D. Water Quality Monitoring Requirements

1. Zone of Discharge. The zone of discharge for this facility shall be a three dimensional volume described in the vertical plane as extending to the base of the surficial aquifer, and defines in the horizontal plane as extending 100 feet from the footprint of the waste disposal area or to the property boundary, whichever is less. The permittee shall ensure that Class G-II water quality standards will not be exceeded at the boundary of the zone of discharge, per Rule 62-520.420, F.A.C., and that ground water minimum criteria will not be exceeded outside the boundary of the zone of discharge, per Rule 62-701.320(17), F.A.C.

2. Water Quality Monitoring Plan. The Water Quality Monitoring Plan is called the Monitoring Plan Implementation Schedule (MPIS). The MPIS for this permit is included in APPENDIX 3.

E. Gas Management System Requirements

1. Construction Requirements. All construction shall be done in accordance with the approved gas management system design, drawings, and specifications. The Department shall be notified before any changes, other than minor deviations, to the approved design are implemented in order to determine whether a permit modification is required.
    a. Locations of ambient monitoring points and soil monitoring probes are specified in drawing 30 "Gas Management System Plan I" and drawing 31 "Gas Management System Plan II" of Appendix 2, Document A.
    b. The Gas Management System design, including the locations of gas extraction wells and collection lines, is detailed in drawings 30 - 37 of Appendix 2, Document A.

c. The Landfill Gas to Energy Facility Design, including flare locations, is detailed in drawings Cl00, A901, A001, A002, FA101 of Appendix 2, Document L.
d. The revisions to the Gas Management System, including the construction of a perimeter header conveyance system and design modifications to the horizontal collectors, are detailed in drawings 3A, 3B, 4, 5, and 6 of Appendix 2, Document J.
e. The GCCS Dewatering Design and Details are shown on Sheets 4, 5, 6, 7, 8, and 9 of Appendix 2, Document N.

2. Certification of Construction Completion. After each phase of construction is completed for the Gas Management System, the engineer of record shall certify to the Department in accordance with Rule 62-701.320(9)(b), F.A.C., that the permitted construction is complete and was performed in substantial conformance with the approved construction plans except where minor deviations were necessary. All deviations shall be described and the reasons therefore enumerated.

3. Operational Requirements. Gas controls shall be operated and maintained so that they function as designed. The dewatering system shall be operated and maintained as outlined in the Landfill Gas Collection and Control Dewatering Maintenance Plan (Appendix 2, Document O).

4. Monitoring Requirements. Monitoring for methane gas at the property boundary and within structures on the property shall be performed quarterly to determine the effectiveness of the gas migration controls. The gas monitoring results shall be reported as a percent of the lower explosive limit (LEL), calibrated to methane. The report shall be submitted to the Department under separate cover no later than 15 days after the end of the period in which the monitoring occurred.

5. Gas Remediation Plan.
a. The facility landfill gas management system shall be operated to prevent the concentration of combustible gases from exceeding 25% of the lower explosive limit in structures, excluding gas control or recovery components, and from exceeding the lower explosive limit at or beyond the property boundary.
b. The lower explosive limit at or beyond the property boundary has been exceeded during past quarterly monitoring. A gas remediation plan has been developed which outlines investigative and corrective actions. The Plan shall be implemented and revised as necessary until the gas migration issue has been deemed resolved by the Department.

6. Odor Remediation Plan. The facility shall be operated to control objectionable odors. If objectionable odors are confirmed beyond the property boundary then upon notification by the Department the permittee shall develop and implement an odor remediation plan in accordance with the requirements of Rule 62-701.530(3)(b), F.A.C.

F. Financial Assurance and Cost Estimates

1. Financial Assurance Mechanism. The permittee may not receive waste for disposal or storage in any disposal unit for which financial assurance has not been approved. Proof that the financial mechanisms are established and funded in accordance with Rule 62-701.630, F.A.C. shall be submitted to the Department at least sixty (60) days prior to the planned acceptance of solid waste in any disposal unit. When established, the permittee shall maintain, in good standing, the financial assurance mechanisms. Supporting documentation and evidence of increases associated with cost estimate increases shall be submitted within the time frames specified in Rule 62-701.630, F.A.C.

   All submittals in response to this specific condition shall be sent to:

   Florida Department of Environmental Protection
   Financial Coordinator - Solid Waste Section
   2600 Blair Stone Road, MS 4548
   Tallahassee, Florida 32399-2400

2. Cost Estimates.
   a. The permittee shall submit closure cost estimates, including annual adjustments for inflation, in accordance with the requirements of Rule 62-701.630(3) and (4), F.A.C., and 40 CFR Part 264.142(a) and .144(a) using Form 62-701.900(28).
   b. An owner or operator using an escrow account shall submit the annual inflation adjusted estimate(s) between July 1 and September 1. An owner or operator using a letter of credit, guarantee bond, performance bond, financial test, corporate guarantee, trust fund or insurance shall submit the inflation adjusted cost estimate(s) between January 1 and March 1.
   c. All submittals in response to this specific condition shall be sent to the Central District Office (DEP_CD@dep.state.fl.us) and a copy to the address identified in Specific Condition F.1. or to the following email address: Financial.Assurance.Working.Group@dep.state.fl.us ~~Solid.Waste.Financial.Coordinator@dep.state.fl.us~~.

G. Closure Requirements

1. Closure Permit Requirements. Prior to initiating closure of a solid waste disposal unit, or part of a solid waste disposal unit, the Permittee shall receive authorization from the Department in one of the following ways:
   a. If the landfill is operating under a Department permit that includes a Closure Plan with sufficient detail to provide reasonable assurance of compliance with the closing requirements of Rule 62-701.600, F.A.C., then the Permittee shall notify the Department at least 30 days prior to initiating the closure activities and receive written approval from the Department prior to beginning the work.
   b. If the landfill is operating under a Department permit that requires substantive changes to the closing activities in the permitted Closure Plan, then the Permittee shall request a modification of the permit to include sufficient design detail to ensure compliance with

the closing requirements of Rule 62-701.600, F.A.C., and shall initiate closing only after the permit has been modified.

c. The Permittee shall submit an application to the Department for a closure permit on Form 62-701.900(1) and shall initiate closure activities only after the permit is issued. The application shall include a Closure Plan made up of the following:
   1) A closure design plan;
   2) A closure operation plan;
   3) A plan for long-term care; and,
   4) A demonstration that proof of financial assurance for long-term care will be provided.

2. Closure Design. All closure construction shall be done in accordance with the approved closure design plan dated April 28, 2011 (Appendix 2, Document G). The Department shall be notified before any changes, other than minor deviations, to the approved closure design are implemented in order to determine whether a permit modification is required.

3. Closure Operation Plan. All closure shall be done in accordance with the approved closure operation plan.

4. Certification of closure construction completion. After closure construction has been completed, the engineer of record shall certify to the Department on Form 62-701.900(2) that the closure is complete and that it was done in accordance with the plans submitted to the Department except where minor deviation was necessary. All deviations shall be described in detail and the reasons therefore enumerated.

5. List of Closed Units Not in Long-Term Care. The closed sections of the landfill will continue to be monitored and maintained per the Operation Plan. The following closure activities have been permitted:
   a. Partial closure of the side slopes of Phase I, Cells 1-4, under Permit No. SO49-0199726-011 issued February 17, 2009.
   b. Partial closure of the upper side slopes of Phase I, Cells 1-4, under Permit No. SO49-0199726-018 issued July 28, 2011.

H. Long Term Care Requirements

No areas are in long-term care at this time.

Permit originally executed in Leon County, Florida. By Kimberly A. Walker, Program Administrator, State of Florida Department of Environmental Protection on June 13, 2017.

APPENDIX 1

General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law

and at reasonable times, access to the premises where the permitted activity is located or conducted to:

(a) Have access to and copy any records that must be kept under conditions of the permit;
(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

(a) A description of and cause of noncompliance; and
(b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit or a copy thereof shall be kept at the work site of the permitted activity.

12. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:
1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

13. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

APPENDIX 2

Approved Documents Incorporated into the Permit

The approved application documents for the J.E.D. Solid Waste Management Facility Operation Permit Renewal consist of the following:

1. Renewal Permit Application for Operation of J.E.D. Solid Waste Management Facility, prepared by Geosyntec Consultants for Omni Waste of Osceola County, LLC, dated May 2, 2017, and received by the Department May 3, 2017.

   https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.262573.1]&[profile=Permitting_Authorization

2. Approved Operation Plan dated May 2017.

   https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.262574.1]&[profile=Permitting_Authorization

Documents for Permit Modification No. 0199726-034-SO-MM

3. Minor Modification Application for Base Grade Gas Collection Improvements, Rain Cover, and Cell 12 Grading Revision, prepared by Geosyntec Consultants for J.E.D. Solid Waste Management Facility, dated June 18. 2018 and received by the Department June 18. 2018.

   https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.281064.1]&[profile=Permitting_Authorization

4. Approved Operation Plan, dated June 25, 2018, and received by the Department June 25, 2018.

   https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.281161.1]&[profile=Permitting_Authorization

Documents for Permit Modification No. 0199726-036-SO-IM

5. Intermediate Permit Modification Application Sideslope Modifications (Cells 4, 5, 7, 8, and 12), prepared by Geosyntec Consultants for J.E.D. Solid Waste Management Facility, Waste Connections of Osceola County, LLC., dated January 23, 2019, and received by the Department January 24, 2019.

   https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.291765.1]&[profile=Permitting_Authorization

Historical Permit Documents

A. Renewal Permit Application to Operate Phases 1 through 4 of the J.E.D. Solid Waste Management Facility, dated November 10, 2011. Received and stamped November 14, 2011, DEP - Central District.
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.130168.1]&[profile=Permitting_Authorization
Drawings
Sheet 3 (Waste Tire Storage and Processing Area) –
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.130127.1]&[profile=Permitting_Authorization
Sheets 1- 5
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.130087.1]&[profile=Permitting_Authorization
Sheets 6 - 10
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.130088.1]&[profile=Permitting_Authorization
Sheets 11 - 15
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.130092.1]&[profile=Permitting_Authorization
Sheets 16 - 22
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.130093.1]&[profile=Permitting_Authorization
Sheets 23 - 28
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.130094.1]&[profile=Permitting_Authorization
Sheets 29 - 35
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.130095.1]&[profile=Permitting_Authorization
Sheets 36 - 40
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.130096.1]&[profile=Permitting_Authorization
Sheets 41 - 45
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.130097.1]&[profile=Permitting_Authorization

B. First Request for Additional Information from DEP - Central District dated December 7, 2011.
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.131745.1]&[profile=Permitting_Authorization

C. First Request for Additional Information - Addendum: Cost Estimate Details from DEP - Central District dated December 29, 2011.
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.134990.1]&[profile=Permitting_Authorization

D. Response to First Request for Additional Information from Omni Waste of Osceola County, LLC dated February 8, 2012. Received and stamped February 10, 2012, DEP - Central District. https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.139088.1]&[profile=Permitting_Authorization https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.139083.1]&[profile=Permitting_Authorization

E. Second Request for Additional Information from DEP - Central District dated March 5, 2012. https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.141789.1)&[profile=Permitting_Authorization

F. Response to Second Request for Additional Information dated April 3, 2012. Received and stamped April 4, 2012, DEP - Central District. https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.144978.1)&[profile=Permitting_Authorization

G. Response to First Request for Additional Information (includes the approved Closure Plan as Appendix E of this document) from Omni Waste of Osceola County, LLC dated April 28, 2011. Received and stamped April 29, 2011, DEP - Central District. https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.111159.1]&[profile=Permitting_Authorization

H. Minor Modification Permit Application to update MPIS and the groundwater monitoring network dated December 24, 2013 and received by the Department December 24, 2013. http://depedms.dep.state.fl.us:80/0culus/servlet/shell?command=getEntity&[guid=8.190687 .1]&[profile=Permitting_Authorization

I. Additional Information clarifying the location of monitoring well cluster MW-30 dated January 10, 2014. http://depedms.dep.state.fl.us:80/0culus/servlet/shell?command=getEntity&[guid=8.191095.1]&[profile=Permitting_Authorization

J. Intermediate Modification Permit Application to Revise the Landfill Gas Collection and Control Systems dated October 10, 2014 and received by the Department October 13, 2014. http://depedms.dep.state.fl.us:80/0culus/serv1et/shell?command=getEntity&[guid=8.211802.1]&[profile=Permitting_Authorization

K. Draft Department comments to request additional information dated October 31, 2014. http://depedms.dep.state.fl.us:80/0culus/serv1et/shell?command=getEntity&[guid=8.213656.1]&[profile=Permitting_Authorization

L. Response to Draft Department comments from dated November 7, 2014. http://depedms.dep.state.fl.us:80/0culus/servlet/shell?command=getEntity&[guid=8.213657.1]&[profile=Permitting_Authorization

M. Minor Modification Permit Application for Operation Plan Revision for Temporary Geomembrane Covers for Erosion Control, prepared by Geosyntec Consultants, Inc., dated June 30, 2015 and received by the Department June 30, 2015. http://depedms.dep.state.fl.us:80/0culus/servlet/shell?command=getEntity&[guid=8.232251.1] &[profile=Permitting_Authorization

N. Application for Solid Waste Permit Minor Modification - Landfill Gas Collection and Control System Revisions, prepared by Golder Associates, Inc. for Omni Waste of Osceola County, LLC., dated and received by the Department on May 16, 2016. http://depedms.dep.state.fl.us:80/0culus/servlet/shell?command=getEntity&[guid=8.246517 .1]&[profile=Permitting_Authorization

O. Landfill Gas Collection and Control System Dewatering Maintenance Plan dated May 2016, received May 16, 2016. http://depedms.dep.state.fl.us:80/0culus/servlet/shell?command=getEntity&[guid=8.248420.1]&[profile=Permitting_Authorization

Appendix 3

MONITORING PLAN IMPLEMENTATION SCHEDULE

J.E.D. Solid Waste Management Facility (JED)

CLASS I LANDFILL

WACS_FACILITY: 89544

GENERAL

1. This water quality monitoring plan (called the Monitoring Plan Implementation Schedule) is effective immediately and becomes part of the current permit. It replaces all previous MPIS issued for the JED Landfill solid waste management facility, WACS #89544. **[62-701.510(1)(b)&(c), 62-520.600(5),(F.A.C.)]**

2. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with Chapter 62-160 (F.A.C.) Approved methods as published by the Department or as published in Standard Methods, ASTM, or EPA Methods shall be used. **[62-701.510(2)(b), F.A.C.]**

3. The organization collecting samples at this site must use the Field and Laboratory Standard Operating Procedures (DEP-SOP-001/01) referenced in Chapter 62-160, F.A.C. Sampling personnel must have a copy of the SOP for purging and sampling in the field when sampling and must be knowledgeable of its contents, procedures, and forms. The laboratory designated to conduct the chemical analyses must be certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP). This Certification must be for the test method and analyte(s) that are reported. **[62-160.210(1), 62-160.300(1), 62-701.510(2)(b), F.A.C., and DEP SOP FS 1008]**

NOTE: DEP-SOP-001/01 can be accessed at:
http://www.dep.state.fl.us/water/sas/sop/sops.htm

4. The permittee must ensure that the analytical laboratory conducting the analyses uses analytical methods capable of achieving detection limits at or below the Groundwater Cleanup Target Levels (GCTLs) or the Freshwater Surface Water Cleanup Target Levels (SWCTLs) in Table I, Chapter 62-777, F.A.C., except those listed in Table C of the "FDEP Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits dated 10/12/2004". GCTLs and SWCTLs that are not water quality standards are used as screening tools and interim guidelines for groundwater minimum criteria until standards are promulgated. **[DEP SOP FM 1000]**

5. If, at any time, analyses detect parameters which are significantly above background water quality, or which are at levels above the Department's water quality standards or criteria specified in Chapter 62-520, F.A.C., in the detection wells or at the edge of the Zone of Discharge, the Permittee may confirm the data by resampling the affected wells within thirty (30) days of receipt of the sampling data. Should the permittee choose not to resample, the Department will consider the water quality analysis as representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee must notify the Department within 14 days of this finding. **[62-701.510(6)(a), F.A.C.]**

If the resampling event detects parameters which are significantly above background water quality, or which are at levels above the Department's water quality standards or criteria specified in Chapter 62-520, F.A.C., the Permittee shall notify the Department in writing within 14 days of receipt of the sampling data. Confirmed data must be submitted to the Department within 60 days from completion of lab analyses, unless a different due date is approved. Use "CONF" (for confirmation data) in the report type column. **[62-701.510(8)(a), F.A.C.]**

Upon notification by the Department, the permittee shall initiate evaluation monitoring in accordance with Rule 62-701.510(6)(a) F.A.C.

GROUND WATER QUALITY MONITORING

6. Based on the first biennial sampling data, the Department accepts as background the following levels for ammonia and arsenic for the specific wells noted:

Well Name	Ammonia mg/L	Arsenic mg/L
MW-5A	10	
MW-9A	10	
MW-10A	10	
MW-11A	10	20
MW-13A		20

7. Based on historic sampling, the Department accepts as background 4.5 STU for pH at the site.

8. Active and expansion monitoring wells are listed on Attachment A. The monitoring well locations are shown on Attachment B. **[62-701.510(3)(d)2 & 3, F.A.C.]**

9. Any initial sample collected from a new ground water monitoring well, unless the new monitoring well is installed to replace an existing well within the monitoring network, shall be analyzed for the following Initial Ground Water Monitoring Parameters. **[62-701.510(5)(b), F.A.C.]**

Field Parameters	Laboratory Parameters*
1. Static water level in wells before purging	1. Ammonia – N, Total
2. Dissolved oxygen	2. Chlorides
3. pH	3. Iron
4. Specific conductivity	4. Nitrate
5. Temperature	5. Sodium
6. Turbidity	6. Total Dissolved Solids (TDS)
7. Colors and sheens (by observation)	7. Those parameters listed in 40 CFR Part 258, Appendix II*

* Mercury not on list because it is included in Appendix II
* Appendix I is not listed because it is a subset of Appendix II

10. The fifty-one (51) active ground water monitoring wells for the landfill shall be routinely sampled and analyzed semi-annually in **May** and **November** for the following Ground Water Monitoring Parameters. **[62-701.510(5)(c) & (7)(a), F.A.C.]**

Field Parameters	Laboratory Parameters
1. Static water level in wells before purging	1. Ammonia – N, Total
2. Dissolved oxygen	2. Chlorides
3. pH	3. Iron
4. Specific conductivity	4. Mercury
5. Temperature	5. Nitrate
6. Turbidity	6. Sodium
7. Colors and sheens (by observation)	7. Total Dissolved Solids (TDS)
	8. Those parameters listed in 40 CFR Part 258, Appendix I *

* Note: Barium, Cadmium, and Chromium have been deposited in the landfill at elevated levels and should not be removed from the sampling parameter lists without a current evaluation of the monitoring data.

11. Unless otherwise approved by the Department, wells with high turbidities must be remediated or reinstalled to reduce the turbidity value to less than 20 NTU prior to sample collection. Should any ground water sample exhibit dissolved oxygen concentrations greater than 20% of oxygen saturation at the field measured temperature, the sampled well must be repurged then resampled as soon as an acceptable dissolved oxygen value has been attained unless it can be demonstrated that in situ ground water contains higher levels of dissolved oxygen. All water quality analyses will be performed on unfiltered samples unless approved by the Department.

12. All water quality analyses will be performed on unfiltered samples unless approved by the Department.

SURFACE WATER MONITORING

13. The two (2) surface water sites included in this monitoring plan are SW-3 and SW-4. They are listed on Attachment A and shown on Attachment B. **[62-701.510(4)(c), F.A.C.]**

14. Initial samples from any new surface water monitoring sites shall be collected within 30 days of Department's approval of the sampling location. The samples shall be analyzed for the following Initial Surface Water Monitoring Parameters. **[62-701.510(5)(b)3, F.A.C.]**

Initial Surface Water Monitoring Parameters	
Field Parameters	**Laboratory Parameters**
1. Surface water level	1. Unionized ammonia as N
2. Dissolved oxygen	2. Total hardness as CaCO3
3. pH	3. Biochemical oxygen demand (BOD_5)
4. Specific conductivity	4. Iron
5. Temperature	5. Mercury
6. Turbidity	6. Nitrate
7. Colors and sheens (by observation)	7. Total dissolved solids (TDS)
	8. Total organic carbon (TOC)
	9. Fecal coliform
	10. Total phosphates as P
	11. Chlorophyll A
	12. Total nitrogen
	13. Chemical oxygen demand (COD)
	14. Total suspended solids (TSS)
	15. Those parameters listed in 40 CFR Part 258, Appendix I

15. Semi-annual samples from the two (2) surface water monitoring sites shall be collected in **May** and **November**. The samples shall be analyzed for the following Surface Water Monitoring Parameters. **[62-701.510(5)(d) & (7)(b), F.A.C.]**

Semi-Annual Surface Water Monitoring Parameters	
Field Parameters	**Laboratory Parameters**
1. Surface Water Elevation	1. Unionized ammonia as N
2. Dissolved oxygen	2. Total hardness as CaCO3
3. pH	3. Biochemical oxygen demand (BOD_5)
4. Specific conductivity	4. Iron
5. Temperature	5. Mercury
6. Turbidity	6. Nitrate
7. Colors and sheens (by observation)	8. Total Dissolved Solids (TDS)
	9. Total Organic Carbon (TOC)
	10. Fecal coliform
	11. Total Phosphorus as P
	12. Chlorophyll A
	13. Total nitrogen
	14. Chemical Oxygen Demand (COD)
	15. Total Suspended Solids (TSS)
	16. Those parameters listed in 40 CFR Part 258, Appendix I

MONITORING WELL REQUIREMENTS

16. If a monitoring well or piezometer becomes damaged or inoperable, the Permittee shall notify the Department within two (2) days of discovery with a written report within ten (10) days of notice. The written report shall describe what problem has occurred and the remedial measures that have been taken to prevent a recurrence. The Department can require the replacement of inoperable monitoring wells or piezometers. **[62-520.600(6)(l), F.A.C.]**

17. New or replacement monitoring well design or placement must be approved by the Department. The design and construction of these wells must be based on site-specific borings with appropriate supporting data such as grain size distribution analyses, in-situ hydraulic conductivity testing, and depth to water. Wells shall be installed using standard, accepted practices for well construction. **[62-701.510(3), F.A.C. and 62-520.600(3) and (6), F.A.C.]**

18. All wells and piezometers shall be clearly and permanently labeled and the well site maintained so that the well is visible at all times. Unless otherwise authorized in a Department permit, new monitoring wells, and existing monitoring wells at the time of permit renewal, shall have protective bollards or other devices installed around them if they are located in areas of high traffic flow to prevent damage from passing vehicles. **[62-701.510(3)(d)5, F.A.C.]**

19. The Department shall be notified in writing before any monitoring wells are abandoned or plugged. Wells shall be abandoned using standard, accepted practices for well abandonment. **[62-701.510(3)(d)6, F.A.C.]**

REPORTING REQUIREMENTS

FIELD ACTIVITIES

20. The Department must be notified in writing, hard copy or e-mail, at least fourteen (14) days prior to the installation and/or sampling of any monitoring well(s) so that the Department may collect split samples. **[62-701.510(8)(a), F.A.C.]**

MONITORING WELL COMPLETION

21. One (1) paper copy and one (1) electronic copy (Adobe pdf format) of the Monitoring Well Completion Report, Form 62-701.900(30), F.A.C., must be submitted to the Department within thirty (30) days after installation of any new or replacement monitoring well(s). In addition, as-built well construction diagrams and soil boring logs that cover the entire depth of the monitoring well(s) must be submitted to the Department. **[62-520.600(6)(j), F.A.C.]**

NOTE: The top of casing elevation of each well, to an accuracy of 0.01 feet, and the latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and certified by a Florida Licensed Surveyor and Mapper and provided on the form. **[62-701.510(3)(d)1 & 62-520.600(6)(i), F.A.C.]**

SURVEYING

22. One (1) paper copy and one (1) electronic copy (Adobe pdf format) of a drawing must be submitted within thirty (30) days following monitoring well installation showing the location of all monitoring sites (active, abandoned, and Evaluation Monitoring), piezometers, water bodies and waste filled areas. The location of features on the drawing must be horizontally and vertically located by standard surveying techniques. The drawing shall include all monitoring well locations, each monitoring well name and identification (WACS) number, the top of casing, pad elevation, permanent benchmark(s) and/or corner monument marker(s) referenced to a nationally recognized datum(such as NGVD 1929 or NAVD 1988) to the nearest 0.01 feet. The latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, must be determined and provided on the drawing. The survey shall be conducted and certified by a Florida Licensed Surveyor and Mapper. **[62-701.510(1)(c)&(3)(d)1, F.A.C., and 62-520.600(6)(i), F.A.C.]**

23. If a monitoring well is being replaced or new wells are being added to an existing ground water monitoring plan, only the new wells need to be surveyed as long as all other monitoring wells in the MPIS have been surveyed and certified by a Florida Licensed Surveyor and Mapper, and there is no reason to believe that the elevations have changed. The location and elevation determinations and the certification must be provided with the Monitoring Well Completion Form for each new well. **[62-701.510(3)(d)1, F.A.C.]**

DEPTH MEASUREMENTS

24. A total depth measurement must be made on each well at time of the Technical Report or every five years. This information must be provided as part of permit renewal application. This measurement is to be reported as total apparent depth below ground surface and should be compared to the original total depth of the well.

INITIAL AND SEMI-ANNUAL SAMPLING

25. Required monitoring reports must be submitted to the Department within sixty (60) days from completion of laboratory analyses. Requirement for submitting the report is outlined in Attachment D (ADaPT Electronic Reporting Requirement). **[Rule 62-701.510(8), F.A.C.]**

WATER ELEVATIONS

26. Water levels in all monitoring wells, whether sampled or not, all piezometers and all surface water sites must be measured to the nearest 0.01 foot and reported semi-annually. Surface water elevations at sampling locations must be measured to the nearest 0.01 foot on the same day as ground water levels in the wells and piezometers and reported semiannually. All water level measurements must be made within a one-day period. These measurements should be reported in a table that includes well or surface water point name, date water level measured, measuring point elevation referenced to a nationally recognized datum (such as NGVD 1929 or NAVD 1988), depth to water and calculated water level elevation referenced to the same nationally recognized datum. The ground water elevations shall be reported in the ADaPT data for the upload into WACS. **[62-701.510(8)(a)8, F.A.C.]**

GROUND WATER CONTOUR MAPS

15. Ground water elevation contour maps for each monitored aquifer zone must be submitted semi-annually to the Department, with contours at no greater than one foot intervals unless site specific conditions dictate otherwise. Ground water elevation contour map(s) should include monitoring well and piezometer locations, ground water elevation at each monitoring well or piezometer location referenced to a nationally recognized datum (such as NGVD 1929 or NAVD 1988), a bar scale, north arrow, ground water contour interval, date of measurement and ground water flow direction. The map(s) must incorporate adjacent and on-site surface water elevations where appropriate. These maps shall be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a licensed professional who is able to demonstrate competence in this subject area. **[62-701.510(8)(a)9, F.A.C.]**

MPIS Technical Report (formerly Biennial Report)

27. A technical report, signed and sealed by a professional geologist or professional engineer with experience in hydrogeologic investigations, shall be submitted to the Department approximately every two and one-half years during the active life of the facility, and every five years during the long-term care period. The report shall summarize and interpret the water quality monitoring results and water level measurements collected since the last Technical Report. The report shall contain, at a minimum, the following **[62-701.510(8)(b), F.A.C.]**:
    a. Tabular displays of any data which shows that a monitoring parameter has been detected, and graphical displays of any leachate key indicator parameters detected (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium and iron), including hydrographs for all monitor wells;
    b. Trend analyses of any monitoring parameters consistently detected;
    c. Comparisons among shallow, middle, and deep zone wells;
    d. Comparisons between background water quality and the water quality in detection and compliance wells;
    e. Correlations between related parameters such as total dissolved solids and specific conductance;
    f. Discussion of erratic and/or poorly correlated data;
    g. An interpretation of the ground water contour maps, including an evaluation of ground water flow rates; and
    h. An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

28. One (1) electronic copy (Adobe pdf format) of the MPIS Technical Report shall be submitted to the Department:

Report	Sampling Periods Covered	Number Of Semi-annual Sampling Events in Report	MPIS Technical Report Due
1	May 2017 through May 2019	5	September 30, 2019
2	November 2019 through November 2021	5	March 31, 2022
3	May 2022 through May 2024	5	September 30, 2024
4	November 2024 through November 2026	5	At time of Operation Permit Renewal (**March 2027**)

Requirements for Electronic Reporting of Water Quality Data

29. Required water quality monitoring reports and all ground water, and surface water analytical results shall be submitted as described in Attachment D (ADaPT electronic reporting requirement). Required monitoring reports must be submitted to the Department within sixty (60) days from completion of laboratory analyses. **[62-160.240 and 62-701.510(8)(a), F.A.C.]**

List of Attachments

Attachment A – Monitoring Well and Surface Water Sampling Point Lists

Attachment B – Monitoring Locations Map

Attachment C – Monitoring Well Completion Report Form

Attachment D – ADaPT Electronic Reporting Requirements

Attachment E – Ground Water Monitoring Report Certification Form

Attachment F – Water Sampling Log

Att. A - JED MPIS Monitoring Sites Status June 2017

Status 2017-06	Testsite Name	WACS Well#	Well Type	Zone/ Screen all G-II	WACS Report Type	Comments
Groundwater						
Active	MW-1 A	19900	DE	UpperSurficial	SEMGW	
Active	MW-1 B	19901	DE	IntermediateSurifical	SEMGW	
Suspended	MW-1 C	19902	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-2 A	19903	DE	UpperSurficial	SEMGW	
Active	MW-2 B	19904	DE	IntermediateSurifical	SEMGW	
Suspended	MW-2 C	19905	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-3 A	19906	DE	UpperSurficial	SEMGW	
Active	MW-3 B	19907	DE	IntermediateSurifical	SEMGW	
Suspended	MW-3 C	19908	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-4 A	19909	DE	UpperSurficial	SEMGW	
Active	MW-4 B	19910	DE	IntermediateSurifical	SEMGW	
Suspended	MW-4 C	19911	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-5 A	19912	DE	UpperSurficial	SEMGW	
Active	MW-5 B	19913	DE	IntermediateSurifical	SEMGW	
Suspended	MW-5 C	19914	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-6 A	19915	DE	UpperSurficial	SEMGW	
Active	MW-6 B	19916	DE	IntermediateSurifical	SEMGW	
Suspended	MW-6 C	19917	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-7 A	19918	DE	UpperSurficial	SEMGW	
Active	MW-7 B	19919	DE	IntermediateSurifical	SEMGW	
Suspended	MW-7 C	19920	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-8 A	19921	DE	UpperSurficial	SEMGW	
Active	MW-8 B	19922	DE	IntermediateSurifical	SEMGW	
Suspended	MW-8 C	19923	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-9 A	19924	DE	UpperSurficial	SEMGW	
Active	MW-9 B	19925	DE	IntermediateSurifical	SEMGW	
Suspended	MW-9 C	19926	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-10 A	19927	DE	UpperSurficial	SEMGW	
Active	MW-10 B	19928	DE	IntermediateSurifical	SEMGW	

Att. A - JED MPIS Monitoring Sites Status June 2017

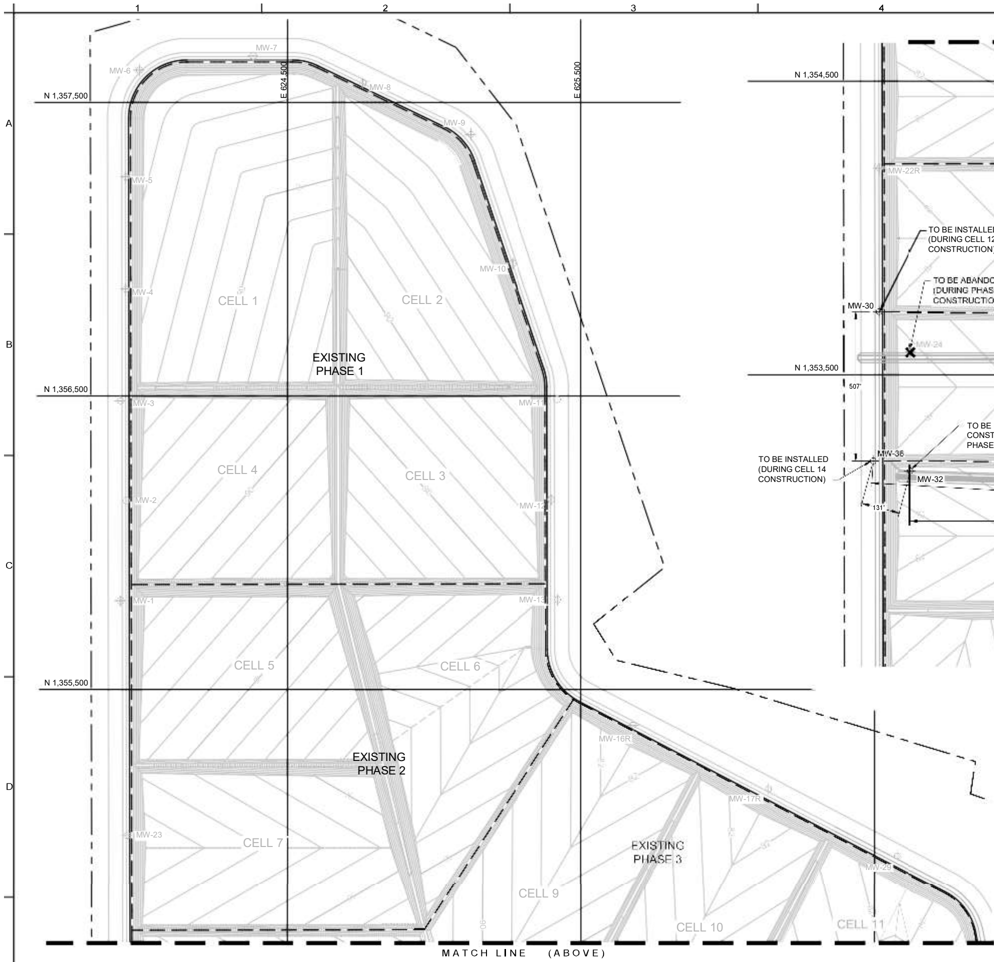
Status 2017-06	Testsite Name	WACS Well#	Well Type	Zone/ Screen all G-II	WACS Report Type	Comments
Suspended	MW-10 C	19929	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-11 A	19930	DE	UpperSurficial	SEMGW	
Active	MW-11 B	19931	DE	IntermediateSurifical	SEMGW	
Suspended	MW-11 C	19932	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-12 A	19933	DE	UpperSurficial	SEMGW	
Active	MW-12 B	19934	DE	IntermediateSurifical	SEMGW	
Suspended	MW-12 C	19935	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-13 A	19936	DE	UpperSurficial	SEMGW	
Active	MW-13 B	19937	DE	IntermediateSurifical	SEMGW	
Suspended	MW-13 C	19938	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-16 AR	22342	DE	UpperSurficial	SEMGW	Replaced MW-16A in 2013
Active	MW-16 BR	22343	DE	IntermediateSurifical	SEMGW	Replaced MW-16B in 2013
Suspended	MW-16 CR	22344	DE	DeepSurficial	SEMGW	Replaced MW-16C in 2013
Active	MW-17 AR	22345	DE	UpperSurficial	SEMGW	Replaced MW-17 A in 2014
Active	MW-17 BR	22346	DE	IntermediateSurifical	SEMGW	Replaced MW-17 B in 2014
Suspended	MW-17 CR	22347	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-22 AR	28685	DE	UpperSurficial	SEMGW	
Active	MW-22 BR	28686	DE	IntermediateSurifical	SEMGW	
Suspended	MW-22 CR	28687	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-23 A	22363	DE	UpperSurficial	SEMGW	
Active	MW-23 B	22364	DE	IntermediateSurifical	SEMGW	
Suspended	MW-23 C	22365	DE	DeepSurficial	SEMGW	Not required to be sampled unless specifically requested.
Active	MW-24 A	29170	DE	UpperSurficial	SEMGW	
Active	MW-24 B	29171	DE	IntermediateSurifical	SEMGW	
Proposed/On Hold	MW-24 C	29172	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Active	MW-25 A	29173	DE	UpperSurficial	SEMGW	
Active	MW-25 B	29174	DE	IntermediateSurifical	SEMGW	
Proposed/On Hold	MW-25 C	29175	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Active	MW-27 A	29179	DE	UpperSurficial	SEMGW	
Active	MW-27 B	29180	DE	IntermediateSurifical	SEMGW	

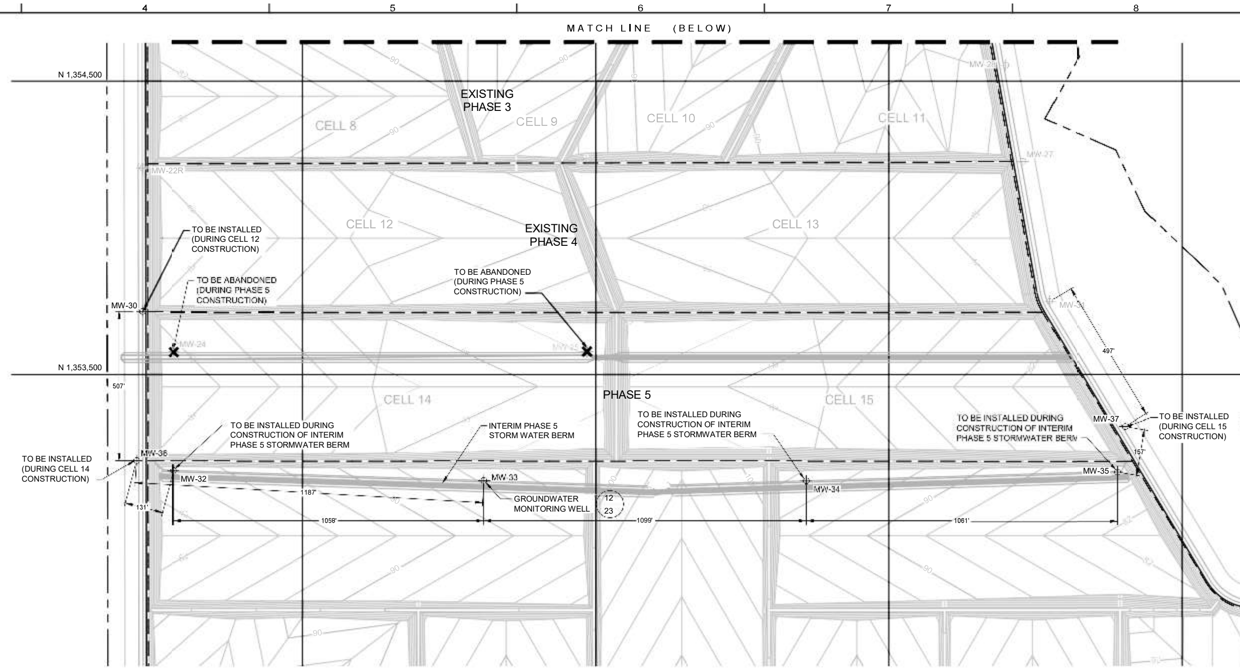
Att. A - JED MPIS Monitoring Sites Status June 2017

Status 2017-06	Testsite Name	WACS Well#	Well Type	Zone/ Screen all G-II	WACS Report Type	Comments
Proposed/On Hold	MW-27 C	29181	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Active	MW-28 A	29186	DE	UpperSurficial	SEMGW	
Active	MW-28 B	29187	DE	IntermediateSurifical	SEMGW	
Proposed/On Hold	MW-28 C	29188	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Active	MW-29 A	29189	DE	UpperSurficial	SEMGW	
Active	MW-29 B	29190	DE	IntermediateSurifical	SEMGW	
Proposed/On Hold	MW-29 C	29191	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Proposed	MW-30 A	29192	DE	UpperSurficial	SEMGW	Replacement for MW-24A when Cell 12 is constructed.
Proposed	MW-30 B	29193	DE	IntermediateSurifical	SEMGW	Replacement for MW-24B when Cell 12 is constructed.
Proposed/On Hold	MW-30 C	29194	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Active	MW-31 A	29195	DE	UpperSurficial	SEMGW	Replacement for MW-26A when Cell 13 is constructed.
Active	MW-31 B	29196	DE	IntermediateSurifical	SEMGW	Replacement for MW-26B when Cell 13 is constructed.
Proposed/On Hold	MW-31 C	29197	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Active	CW-1A	29157	DE	UpperSurficial	SEMGW	
Active	CW-2A	29158	DE	UpperSurficial	SEMGW	
Active	CW-3A	29159	DE	UpperSurficial	SEMGW	
Proposed	MW-32 A	30193	DE	UpperSurficial	SEMGW	To Be installed with Phase 5 Stormwater Berm
Proposed	MW-32 B	30194	DE	IntermediateSurifical	SEMGW	To Be installed with Phase 5 Stormwater Berm
Proposed/On Hold	MW-32 C	30195	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Proposed	MW-33 A	30196	DE	UpperSurficial	SEMGW	To Be installed with Phase 5 Stormwater Berm
Proposed	MW-33 B	30197	DE	IntermediateSurifical	SEMGW	To Be installed with Phase 5 Stormwater Berm
Proposed/On Hold	MW-33 C	30198	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Proposed	MW-34 A	30199	DE	UpperSurficial	SEMGW	To Be installed with Phase 5 Stormwater Berm
Proposed	MW-34 B	30200	DE	IntermediateSurifical	SEMGW	To Be installed with Phase 5 Stormwater Berm
Proposed/On Hold	MW-34 C	30201	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Proposed	MW-35 A	30202	DE	UpperSurficial	SEMGW	To Be installed with Phase 5 Stormwater Berm
Proposed	MW-35 B	30203	DE	IntermediateSurifical	SEMGW	To Be installed with Phase 5 Stormwater Berm
Proposed/On Hold	MW-35 C	30204	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Proposed	MW-36 A	30205	DE	UpperSurficial	SEMGW	To be installed during Cell 14 construction.
Proposed	MW-36 B	30206	DE	IntermediateSurifical	SEMGW	To be installed during Cell 14 construction.

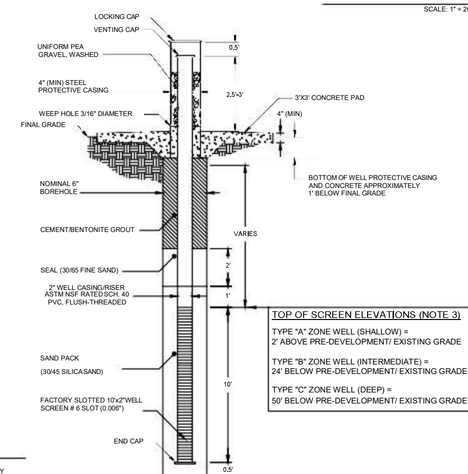
Att. A - JED MPIS Monitoring Sites Status June 2017

Status 2017-06	Testsite Name	WACS Well#	Well Type	Zone/ Screen all G-II	WACS Report Type	Comments
Proposed/On Hold	MW-36 C	30207	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Proposed	MW-37 A	30208	DE	UpperSurficial	SEMGW	To be installed during Cell 15 construction.
Proposed	MW-37 B	30209	DE	IntermediateSurifical	SEMGW	To be installed during Cell 15 construction.
Proposed/On Hold	MW-37 C	30210	DE	DeepSurficial	SEMGW	Not Required To Be Installed Until Needed
Surface Water						
Active	SW-3	19945	CO	SW-IIIF	SEMSW	Down Stream On Bull Creek
Active	SW-4	19946	BG	SW-IIIF	SEMSW	Up Stream Nw Of Site





PHASES 1 THROUGH 5
GROUNDWATER MONITORING WELL LAYOUT
SCALE: 1" = 200'



TOP OF SCREEN ELEVATIONS (NOTE 3)

TYPE "A" ZONE WELL (SHALLOW) =
2' ABOVE PRE-DEVELOPMENT/ EXISTING GRADE

TYPE "B" ZONE WELL (INTERMEDIATE) =
24' BELOW PRE-DEVELOPMENT/ EXISTING GRADE

TYPE "C" ZONE WELL (DEEP) =
50' BELOW PRE-DEVELOPMENT/ EXISTING GRADE

12 / 23 DETAIL (TYPICAL)
GROUNDWATER MONITORING WELL
SCALE: NOT TO SCALE
XREF: FL1962.02X1206

NOTES:

1. NORTHING AND EASTING COORDINATES SHOWN REPRESENT FLORIDA STATE PLANE EAST ZONE NORTH AMERICAN DATUM OF 1983 (NAD83).THE ELEVATIONS SHOWN REPRESENT NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29)(FEET).
2. THE PROPERTY BOUNDARY IS BASED ON A COMPOSITE BOUNDARY SURVEY PROVIDED BY JOHNSTON SURVEYING INC., KISSIMMEE FLORIDA, DATED AUGUST 12, 1999.
3. AT EACH MONITORING LOCATION A TWO WELL CLUSTER WILL BE INSTALLED TO A AND B ZONE DEPTHS. C ZONE WELLS WILL ONLY BE INSTALLED IF SUSTAINED DETECTIONS OF LEACHATE RELATED CONTAMINANTS OF CONCERN ARE DETECTED IN A AND B ZONE WELLS. THESE WELLS WILL BE SPACED 5 FEET APART AND ARRANGED PARALLEL TO THE PERIMETER MAINTENANCE ROAD OR INTERCELL BERM ALIGNMENTS OR ON TOP OF THE INTERIM STORM WATER BERMS.

GROUNDWATER MONITORING WELL SCHEDULE			
WELL	NORTHING	EASTING	STATUS
MW-1	1355801.76	623927.76	EXISTING
MW-2	1356141.76	623949.18	EXISTING
MW-3	1356481.70	623926.60	EXISTING
MW-4	1356863.75	623947.95	EXISTING
MW-5	1357245.77	623947.30	EXISTING
MW-6	1357609.65	623992.77	EXISTING
MW-7	1357655.74	624380.68	EXISTING
MW-8	1357563.00	624757.34	EXISTING
MW-9	1357390.93	625122.57	EXISTING
MW-10	1356950.48	625266.36	EXISTING
MW-11	1356487.15	625418.09	EXISTING
MW-12	1356145.69	625396.67	EXISTING
MW-13	1355804.30	625419.26	EXISTING
MW-14	1355846.36	624922.02	ABANDONED

GROUNDWATER MONITORING WELL SCHEDULE			
WELL	NORTHING	EASTING	STATUS
MW-15	1355845.51	624424.85	ABANDONED
MW-16R	1355376.34	625677.81	EXISTING
MW-17R	1355160.79	626135.96	EXISTING
MW-18	1354645.10	626139.82	ABANDONED
MW-19	1354265.03	625742.27	ABANDONED
MW-20	1354105.48	625215.92	ABANDONED
MW-21	1354133.12	624582.67	ABANDONED
MW-22R	1354201.80	623952.49	EXISTING
MW-23	1355001.79	623951.12	EXISTING
MW-24	1353576.17	624060.36	EXISTING
MW-25	1353578.36	625469.63	EXISTING
MW-26	1353614.23	626973.10	ABANDONED
MW-27	1354223.69	626957.52	EXISTING
MW-28	1354552.02	626898.52	EXISTING

GROUNDWATER MONITORING WELL SCHEDULE			
WELL	NORTHING	EASTING	STATUS
MW-29	1354931.80	626573.82	EXISTING
MW-30	1353711.32	623953.32	PROPOSED
MW-31	1353748.34	627048.06	EXISTING
MW-32	1353170.56	624059.78	PROPOSED
MW-33	1353136.09	625118.21	PROPOSED
MW-34	1353134.91	626217.06	PROPOSED
MW-35	1353167.20	627277.73	PROPOSED
MW-36	1353204.07	623933.19	PROPOSED
MW-37	1353322.16	627303.81	PROPOSED

N
0 200' 400'
SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY
- 90 SUBBASE ELEVATION (FEET)
- MW-1 EXISTING GROUNDWATER MONITORING WELL LOCATION
- MW-16 PROPOSED GROUNDWATER MONITORING WELL LOCATION

REV	DATE	DESCRIPTION	DRN	APP
1	MAY 2017	ISSUED FOR FDEP APPROVAL (OPERATIONS PERMIT RENEWAL)	CMV	AR
0	JUN 2016	ISSUED FOR FDEP APPROVAL	CMV	CRB

Geosyntec consultants
13101 TELECOM DRIVE, SUITE 120
TEMPLE TERRACE, FLORIDA 33637 USA
PH: 813.558.0990 - FX:813.558.9726
AUTHORIZATION NUMBER: 4321

WASTE CONNECTIONS, INC
1501 OMNI WAY
ST. CLOUD, FLORIDA 34773
TEL: 407-891-3720 FAX: 407-891-3730

TITLE: GROUNDWATER MONITORING NETWORK

PROJECT: PHASES 1-5 RENEWAL PERMIT DRAWINGS

SITE: J.E.D. SOLID WASTE MANAGEMENT FACILITY

SIGNATURE
5/3/2017
DATE
ALEX RIVERA - LICENSE NO. 78210

ALEXANDER RIVERA LICENSE No. 78210 STATE OF FLORIDA PROFESSIONAL ENGINEER

DESIGN BY:	CRB	DATE:	MAY 2017
DRAWN BY:	CMV	PROJECT NO.:	FL2987.01
CHECKED BY:	AR	FILE:	FL2987P23
REVIEWED BY:	KBT	DRAWING NO.:	
APPROVED BY:	AR	23 OF 48	

PERMIT DRAWING

ATTACHMENT C

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT FORM

Facility Name: **J.E.D. Disposal, Class I Landfill**		Date:
DEP Permit No.:	WACS Facility ID #: **89544**	
WACS Monitoring Site ID #:	WACS Monitoring Site Name:	
Well Type: ❑ Background ❑ Detection ❑ Compliance ❑ Other_____		
LATITUDE AND LONGITUDE (See Next Page For Requirements):		
Coordinate Accuracy:	Datum:	Elevation Datum:
Collection Method:	Collection Date:	
Collector Name:	Collector Affiliation:	
Aquifer Monitored:		
Drilling Method:	Date Installed:	
Installed By:		
Bore Hole Diameter:	Total Depth:(BLS)	
Casing Type:	Casing Diameter:	Casing Length:
Screen Type:	Screen Slot Size:	Screen Length:
Screen Diameter:	Screen Interval: _____To_____(BLS)	
Filter Pack Type:	Filter Pack Grain Size:	
Filter Interval Covered:	Filter Interval: _____To_____(BLS)	
Sealant Type:	Sealant Interval:_____To_____(BLS)	
Grout Type:	Grout Interval:_____To_____(BLS)	
Top Of Casing Elev. (NGVD):	Ground Surface Elev. (NGVD):	
Post Development Water Level Elev. (NGVD):	Date And Time Measured:	
Describe Well Development:		
Remarks:		
Name Of Person Preparing Report:		
Organization:	Phone Number:	

NOTE Attach As-Built Mw Construction Diagram, Lithologic Log, And Survey Drawing (See Next Page).
(NGVD)=National Geodetic Vertical Datum Of 1929 (BLS) = Below Land Surface

Additional Survey Notes:

1. Latitude and Longitude Requirements and Definitions:

   a. **Latitude** must be measured in degrees, minutes and seconds, to at least two (2) decimal places.

   b. **Longitude** must be measured in degrees, minutes and seconds, to at least two (2) decimal places.

   c. **Eastings and northings** (State Plane Coordinates) **must** be converted to latitude and longitude.

   d. **Coordinate Accuracy:** the measured, estimated degree of correctness of the measurement. An accuracy of 15 feet or 5 meters is required.

   e. **Datum:** the horizontal reference for measuring locations on the Earth's surface. NAD83-North American Datum of 1983 is preferred.

   f. **Elevation Datum:** the reference datum from which elevation measurements are made. NGVD29 (National Geodetic Vertical Datum of 1929 is required.

   g. **Collection Method:** the method or mechanism used to derive the measurements, e.g. GPS, map, aerial photo, etc.

   h. **Collection Date:** the date and time on which the measurements were taken.

   i. **Collector Name:** the name of the person taking the measurement.

   j. **Collector Affiliation:** the agency or company for whom the collector works.

2. As specified in the MPIS, One (1) paper copy and one (1) electronic copy of a drawing must be submitted within thirty (30) days following monitoring well installation showing the location of all monitoring wells (active and abandoned), water bodies and waste filled areas. The location of features on the drawing must be horizontally and vertically located by standard surveying techniques. The drawing shall include all monitoring well locations, each monitoring well name and identification (WACS) number, the top of casing, pad elevation, permanent benchmark(s) and/or corner monument marker(s) referenced to NGVD with an accuracy of 0.01 feet. The latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and provided on the drawing. The survey shall be conducted and certified by a Florida Licensed Surveyor and Mapper. [***62-701.510(1)(c)&(3)(d)1, F.A.C.***]

3. If a monitoring well is being replaced or new wells are being added to an existing ground water monitoring plan, only the new wells needs to be surveyed as long as all other monitoring wells in the MPIS have been surveyed and certified by a Florida Licensed Surveyor and Mapper and there is no reason to believe that the elevations have changed. This location and elevation determinations and the certification must be provided with the Monitoring Well Completion Form for the new well.

Attachment D

GUIDANCE FOR SUBMITTING ELECTRONIC WATER QUALITY DATA TO THE SOLID WASTE PROGRAM

I. General Information

Water quality monitoring reports and all groundwater, surface water, and leachate (when required) analytical results for the Solid Waste Programs shall be submitted to the Department electronically through FDEP's Business Portal, (ESSA); http://www.fldepportal.com/go/. Water quality monitoring reports shall be submitted as a single file in Adobe PDF format. Unless otherwise approved by the Department, the water quality Electronic Data Deliverable (EDD) shall be compatible with software called Florida DEP Automated Data Processing Tool (ADaPT). ADaPT has been developed to evaluate and upload water quality data into the Department's Water Assurance Compliance System (WACS) database. A copy of this ADaPT software with installation instructions and EDD specifications can be downloaded from the following website address: https://www.floridadep.gov/waste/waste/content/adapt

II. Monitoring Report

The groundwater monitoring report shall be submitted as a single file in Adobe PDF format, with the EDD as an attachment, and shall include the following items:

1. Cover letter;
2. Summary of exceedances and recommendations;
3. Groundwater contour maps;
4. Chain of custody forms;
5. Water levels, water elevation table;
6. Groundwater Monitoring Report Certification, using the appropriate Department form;
7. Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01); and,
8. Laboratory EDDs and associated Lab EDD ErrorLogs, Field EDDs that are compatible with ADaPT software and ADaPT export file(s).

Submit all ADaPT files in a single zip file named as follows:

12345_20081128_SWzdd.zip

Please do not submit multiple documents for the monitoring report; combine all documents in a single PDF document. Submit the monitoring report in a single (text, no scanned content) PDF file named as follows

12345_20081128_SWgwmr.pdf

III. ADaPT EDDs

The ADaPT EDD consists of four electronic deliverables: (1) a Laboratory EDD, identified as SWldd.txt; (2) a Laboratory EDD Error LOg, identified as SWldd_ErrorLog.txt; (3) a Field EDD identified as SWfdd.txt; and (4) an ADaPT export identified as ADaPTSWYYYYMMDDHHMMSS.csv where YYYYMMDDHHMMSS is the year, month, day , hour, minute and second the export file was created.

The Laboratory EDD shall be submitted in a comma separated (csv format) text file using the .txt filename extension. The Laboratory EDD file name format shall be: [WACS Facility I.D] underscore [Begin Sampling Year, Month and Day (yyyymmdd)] underscore SWldd.txt. The period at the end would not be included. For example, with WACS Facility I.D. # 12345 where sampling started November 28 and ended December 4, 2008, the Laboratory EDD file name should be: 12345_20081128_SWldd.txt

The Field EDD shall be submitted in the same comma separated (.csv format) text file as the Laboratory EDD. The Field EDD file name format shall be:
[WACS Facility I.D.] underscore [Begin Sampling Year, Month and Day (yyyymmdd)] underscore SWfdd.txt. Again, the period at the end is not included. For example, with WACS Facility I.D. # 12345 where sampling started November 28 and ended December 4, 2008, the file name should be: 12345_20081128_SWfdd.txt

For confirmation sampling, add the term " CONF" to the EDD filenames as follows: 12345_20081128_CONF_SWldd.txt for the Laboratory EDD or 12345_20081128_CONF_SWfdd.txt for the Field EDD.
For radiochemistry results, add the term " RAD" similar to confirmation sampling indicated above.

IV. Signatures Required

Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations. An electronic signed and sealed signature page may be submitted with the report provided a stamped seal is used. If a raised seal is used, ensure that the seal is legible (gray the embossed seal and scan). Otherwise, you must separately mail the signed and sealed page.

V. Process Required

Three steps are generally required. First, the Laboratory EDD, in comma separated text format, must be submitted by the laboratory. In order to validate the QA/QC aspects of the Laboratory EDD, the permittee shall ensure the laboratory processes the Laboratory EDD through ADaPT using both their laboratory specific library and the Department's Division of Waste Management Master library and corrects all critical errors and explains all non-critical errors prior to submittal. Second, the appropriate entity (laboratory, consultant, or permittee) shall process the Field EDD through ADaPT and correct all Field EDD errors prior to submittal. Finally, as a completeness

check, the laboratory, permittee or consultant shall process both the Laboratory EDD and the Field EDD through ADaPT and confirm a successful export to disk and submit the ADaPT generated export file (ADaPTSWYYYYMMDDHHMMSS.csv).

VI. Resources

In the event help is needed to prepare these EDDs, you can contact Clark Moore, clark.b.moore@dep.state.fl.us, (850) 245-8739 or by emailing ADaPT.EDDs.and.Reports@dep.state.fl.us

If monitoring testsite information needs updating in the WACS Oracle database, or if you need help in submitting the groundwater monitoring report, please contact the Department's Solid Waste staff at the Central District office:

Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803
(407) 897-4100

ATTACHMENT E

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

GROUND WATER MONITORING REPORT

Rule 62-520.900(2)

PART I GENERAL INFORMATION

(1) Facility Name **J.E.D. Disposal, Class I Landfill**

Address _____

City _____ Zip _____ County _____

Telephone Number (_____) _____ E-mail address _____

(2) WACS_Facility 89544

(3) DEP Permit Number _____

(4) Authorized Representative's Name _____ Title _____

Address _____

City _____ Zip _____ County _____

Telephone Number (_____) _____ E-mail address _____

(5) Type of Discharge _____ N/A _____

(6) Method of Discharge _____ N/A _____

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

_____ _____

Date Owner or Authorized Representative's Signature

PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization _____

Analytical Lab NELAC #/ HRS Certification _____

Lab Name _____

Address _____

Phone Number (_____) _____

E-mail Address _____

From DER Form Rule 62-520.900(2), F.A.C.

Attachment F
WATER SAMPLING LOG
DEP-SOP-001/01 FS 2200 Groundwater Sampling
Form FD 9000-24

FACILITY : J.E.D Solid Waste Management Facility, Class I Landfill WACS # 89544	FACILITY LOCATION:	
MONITORING_SITE_NUM:	WACS_WELL:	DATE:

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^{O}C)	COND. (μmhos/cm or μS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE:	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE:_____μm Filtration Equipment Type: _____	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP =** Peristaltic Pump **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: $\pm$ 0.2 units Temperature: $\pm$ 0.2 ºC Specific Conductance: $\pm$ 5% Dissolved Oxygen: all readings $\leq$ 20% saturation (see Table FS 2200-2); optionally, $\pm$ 0.2 mg/L or $\pm$ 10% (whichever is greater) Turbidity: all readings $\leq$ 20 NTU; optionally $\pm$ 5