

# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

CENTRAL DISTRICT 3319 MAGUIRE BOULEVARD, SUITE 232 ORLANDO, FLORIDA 32803-3767 RICK SCOTT GOVERNOR

HERSCHEL T. VINYARD JR. SECRETARY

June 28, 2013

NOTICE OF PERMIT

By-Email lmarion@volusia.org

In the matter of an Application for Permit By:

Mr. Leonard Marion Volusia County Solid Waste Division 3151 East New York Ave. DeLand, Florida 32724 OCD-SW-13-2031

Volusia County – SW WACS # 27540 Tomoka Farms Road Landfill – North Cell, Class I DEP File No. 0078767-030-SO-01

Dear Mr. Marion:

Enclosed is Permit Number 0078767-030-SO-01 to operate the Tomoka Farms Road Landfill, North Cell Class I disposal area, issued under Sections 403.061(14) and 403.707, of the Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit under section 120.68 of the Florida Statutes, by the filing of a Notice of Appeal under rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, 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 of appeal must be filed within thirty days after this notice is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

on behalf of Jeff Prather, Director, Central District

#### 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.

June 28, 2013

Date

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were sent before the close of business on <u>June 28, 2013</u> to the listed persons.

JP/ftl/kr

**Enclosures** 

1. Permit No. 0078767-030-SO-01

Copies furnished to:

Junos Reed, P.E. – Volusia County, <u>jreed@volusia.org</u>

Jennifer Stirk – Volusia County, jstirk@volusia.org

FDEP Solid Waste Financial Coordinator, solid.waste.financial.coordinator@dep.state.fl.us

Richard Tedder, P.E. - DEP, DWM, richard.tedder@dep.state.fl.us

Cory Dilmore, P.E. - DEP, DWM, <a href="mailto:cory.dilmore@dep.state.fl.us">cory.dilmore@dep.state.fl.us</a>

Reggie Phillips – DEP, Central District, reggie.phillips@dep.state.fl.us

Gloria DePradine – DEP, Central District, Gloria.depradine@dep.state.fl.us

Mehran (Ron) S. Beladi, P.E. – Neel-Schaffer, Inc., ron.beladi@neel-schaffer.com

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# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

RICK SCOTT GOVERNOR

CENTRAL DISTRICT 3319 MAGUIRE BOULEVARD, SUITE 232 ORLANDO, FLORIDA 32803-3767

HERSCHEL T. VINYARD JR. SECRETARY

#### Permit Issued to:

Volusia County Solid Waste Division 3151 East New York Ave. DeLand, Florida (386) 943-7889

WACS Facility ID No.: 27540 Tomoka Farms Road Landfill – North Cell Class I 1990 Tomoka Farms Road Port Orange, Volusia County, Florida

> Contact Person: Leonard Marion, Director lmarion@co.volusia.fl.us

### **Solid Waste Operation Permit – Landfill**

Permit No.: 0078767-030-SO-01

Permit Issued: [June 28, 2013] Permit Renewal Application Due Date: 03/13/2033 Permit Expires: 05/13/2033

#### **Permitting Authority**

Florida Department of Environmental Protection Central District Office 3319 Maguire Blvd., Ste 232 Orlando, Florida 32803 407-897-4100 DEP\_CD@dep.state.fl.us

#### **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 1990 Tomoka Farms Road, Port Orange, in Section 09, Township 16S, Range 32E, in Volusia County, Florida (Latitude 29° 7' 42.27" and Longitude 81° 4' 54.49").

### C. Facility Description

The permittee is hereby authorized for the following operations:

- To continue disposal operations at the Tomoka Farms Road Landfill, North Cell Class I disposal area. Solid waste has been disposed of at the Tomoka Landfill site since 1969. The landfill receives residential, commercial, agricultural and industrial waste.
- The contiguous North Cell, Class I disposal area is comprised of the North Cell Phase I Expansion (65.64 acres) and the North Cell Phase II Expansion (21.70 acres). Phase I is divided into Areas 1 and 2; Phase II is divided into Areas 3 and 4. The total disposal area of the North Cell, Class I Landfill is 87.34 acres.
- The facility is authorized for waste disposal in the North Cell Phase I, Areas 1 and 2 (65.64 acres). Disposal in the Phase I, Areas 1 and 2 was authorized on January 31, 2006 in FDEP letter OCD-SW-06-0047.
- The North Cell has an active landfill gas collection system (LGCS). The LGCS is installed in phases per the approved design to control air emissions, odor and migration of methane. The phased construction will include installation of additional horizontal collectors, vertical wells, laterals, and associated piping.

PERMITTEE NAME: Volusia County Solid Waste Division FACILITY NAME: Tomoka Farms Road Landfill – North Cell, Class I Landfill

- To perform sequential partial closure activities at the North Cell, Class I Landfill as portions reach permitted final grade.
- To continue post-closure care of the South Cell, Class I Landfill. The 30-year long-term care period has not begun because the South Cell water quality cannot be monitored separately from the North Cell.

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• The facility is authorized to operate a waste tire site as part of this permit. It also operates a Household Hazardous Waste (HHW) collection center and a white goods storage area at the facility. All are outside of the permitted footprint of the North Cell, Class I Landfill.

The following is additional information about the facility:

- Major features of the Class I, North Cell shared with the overall facility include site fencing and security, a scale house, a household hazardous waste facility, a tire and white goods facility, a Class III landfill (Permit Number SO64-0078767-026, expiration date 10/09/2014), equipment maintenance facilities, ground water monitoring, borrow pits and administration facilities.
- At the North Cell, leachate is collected via the leachate collection system. The leachate is stored in the north surface impoundment which is then pumped to the on-site leachate sequential batch reactor (SBR). The leachate is treated and then used on site for dust control or transmitted to a 26-acre on-site spray irrigation field (IWP No. 64-FLA66356).
- The project incorporates a site-wide ground water and surface water monitoring plan.
- Household Hazardous Waste (HHW) A HHW collection center is located at the facility. The collection center minimizes the quantities of these materials from being disposed in the landfill. The HHW center shall operate in accordance with Section 403.7265, F.S., addressing the need for local governments to establish local hazardous waste management programs and local collection centers throughout the state. The HHW collection center is operated for the collection of household hazardous waste and does not accept waste from small businesses. The HHW materials are removed by an independent contractor for proper disposal twice a year or when the storage facility reaches 75% of its capacity.

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#### **D.** Appendices Made Part of This Permit

**APPENDIX 1 - General Conditions** 

APPENDIX 2 – List of Documents Incorporated into this Permit

APPENDIX 3 – Water Quality Monitoring Plan

#### E. Attachments for Informational Purposes Only

#### ATTACHMENT 1 - Time Sensitive Action Chart

If any of the time deadlines in the Time Sensitive Action Chart are inconsistent with the time deadlines in the permit conditions, the time deadlines in the permit condition shall be followed.

#### **SECTION 2 - SPECIFIC CONDITIONS**

#### A. Administrative Requirements

- 1. <u>Documents Part of This Permit</u>. 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. <u>Permit Modification</u>. 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. <u>Permit Renewal</u>. 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. <u>Transfer of Permit or Name Change</u>. In accordance with Rule 62-701.320(11), 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. <u>Air Permit Requirements</u>
  - a. The facility has a Title V permit #1270117-006-AV. It expires on July 26, 2016. The facility must comply with its air permit and all applicable air requirements.
  - b. Consult with the Division of Air Resource Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, regarding any air permitting requirements.
- 6. Permit Fees. The total permit fee required for this permit is \$40,000. 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 May 13, 2018, May 13, 2023 and May 13, 2028 the permittee shall submit to the Department an installment payment of this fee in the amount of \$10,000. This fee is due to 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 include with the transfer application a signed agreement from the proposed transferee to accept responsibility for the remainder of the permit fee due.

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7. <u>5 Year Submittal Report</u>. No later than May 13, 2018, May 13, 2023, and May 13, 2028 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.
- e. An updated site plan or topographic survey if current conditions at the facility are not reflected in the existing plan.

#### **B.** Construction Requirements

- 1. <u>Construction Authorized</u>. This permit does not authorize any bottom liner construction activities.
  - a. SC64-0078767-029 (expiration date 01/10/2018) authorizes the construction of North Cell, Phase II, Class I Disposal Area (approximately 22.7 acres).
  - b. Landfill Gas Collection System (LGCS) construction activities are outlined in Section 2.E below and partial closure construction activities are outlined in Section 2.G below.

#### C. Operation Requirements

- 1. <u>General Operating Requirements</u>. The permittee shall operate the landfill in accordance with the most recently approved Operation Plan. 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. <u>Operation Plan</u>. 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. <u>Authorized Waste Types</u>. The North Cell, Class I Landfill 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) Commercial waste
    - 3) Water treatment sludge
    - 4) Industrial waste
    - 5) Shredded/cut tires.
    - 6) Agricultural waste
    - 7) Industrial sludge
    - 8) Domestic sludge

- b. Other wastes specifically authorized for disposal at the North Cell, Class I Landfill:
  - 1) Asbestos
- c. Other wastes authorized to be handled at the facility but not authorized for disposal at the North Cell, Class I Landfill:
  - 1) Waste tires The facility may operate a waste tire site in accordance with the Waste Tire Rule, Chapter 62-711, F.A.C.
  - 2) White goods The white goods storage area shall be policed on a daily basis to insure white goods are properly stored and handled. An independent contractor is used on an "as needed" basis to transport these materials off-site for recycling.
- 4. <u>Unauthorized Waste Types</u>. The North Cell, Class I Landfill 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.

### 5. <u>Waste Management and Handling</u>

- 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.
- 6. <u>Landfill Elevation.</u> The final (maximum) elevation of the North Cell, Class I Landfill shall not exceed 193 feet NGVD as shown on Drawing 3, Final Cover / Closure Site Plan, reference 1, APPENDIX 2.
- 7. <u>Initial Waste Placement.</u> 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:

Cover shall be applied as follows:

- a. Initial Cover: Initial cover shall be applied at the end of each working day unless waste will be placed in the area within 18 hours in which case a temporary cover may be used, Rule 62-701.500(7)(e)2, F.A.C. A mixture of clean soil and vegetative waste (mulched yard trash and land clearing debris) may be used for initial cover, when available. This mixture may contain no more than 50% by volume of mulched vegetative waste.
- b. Intermediate Cover: Stabilization of the fill areas using intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion. All or part of the intermediate cover may be removed prior to placing additional waste or installing final cover, Rule 62-701.500(7)(f), F.A.C.

9. <u>Erosion Control:</u> 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.

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- 10. <u>Contingency Plan and Notification of Emergencies.</u> 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) 897-4100.
- 11. <u>Housekeeping</u>. 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 Operation Plan.
- b. Routine inspections and maintenance of the leachate management system shall be conducted.
- 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 to the Department.
- d. The permittee shall record quantities of leachate generated on a weekly basis in gal/week, shall record precipitation at the facility, and shall compare these measurements. The information shall be included in the operating record.
- e. 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.
- f. Leachate Collection and Detection System Repairs. As described in reference 1, APPENDIX 2, retrofits of leachate sumps 1, 4, 5, and 6 have been completed. Retrofits of sumps 2 and 3 shall be completed within 12 months from the date this permit is issued. If it appears that the project will take longer than 12 months, the permittee must provide the Department advance written notice of the cause for the delay and request an extension for completion of the project.
- g. Leachate Quantity Analysis Report. The permittee shall annually provide the Department a graphical representation of the monthly leachate generation rate for each of the 6 pumps and an analysis of the data. Any significant drop in leachate generation shall be explained or the root cause determined. The report must be submitted not later than January 31 following the reporting year.

13. <u>Spotters and Operators.</u> The 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: <a href="http://www.treeo.ufl.edu/sw/">http://www.treeo.ufl.edu/sw/</a>.

#### 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 January 20. 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 annually by November 1. The report is required by Rule 62-701.500(13)(c), F.A.C. and must be submitted to the Central District Office (DEP\_CD@dep.state.fl.us) and to:

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

- 15. <u>Hazardous Waste</u>. 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 facility Operation Plan.
- 16. <u>Stormwater</u>. 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.

#### **D.** Water Quality Monitoring Requirements

1. Zone of Discharge. There is one zone of discharge for the entire Tomoka Farms Road Landfill (TFRL) facility (both Class I and Class III landfills). The zone of discharge for this facility shall be a three dimensional volume, defined in the horizontal plane as extending 100 feet from the edge of the solid waste deposit, or to the property boundary, whichever is less, as depicted in Attachment B of the Monitoring Plan Implementation Schedule (APPENDIX 3), and defined in the vertical plane as extending from the top of the ground to the bottom of the casing of the lower surficial monitoring wells (that is, Zone 4). Class G-II water quality standards must be met at the boundary of the zone of discharge in accordance with Rule 62-522.410, F.A.C.

- 2. <u>Electronic Reporting.</u> Required water quality monitoring reports and all ground water and surface water shall be submitted electronically. Water quality monitoring reports shall be submitted in Adobe pdf format. The water quality data Electronic Data Deliverable (EDD) shall be provided to the Department in an electronic format consistent with requirements for importing the data into the Department's databases. Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations and shall include the following:
  - a. Cover letter;
  - b. Summary of exceedances and sampling problems, if any (e.g., variation from SOP field criteria);
  - c. Conclusions and recommendations;
  - d. Ground water contour maps;
  - e. Chain of custody forms;
  - f. Water levels, water elevation table;
  - g. Ground Water Monitoring Report Certification, using the appropriate Department form;
  - h. Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01); and,
  - i. Laboratory and Field EDDs and error logs, as applicable.

All submittals in response to this specific condition shall be sent to the District Office and to:

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

- 3. Water Quality Monitoring Plan. The water quality monitoring plan is called the Monitoring Plan Implementation Schedule (MPIS). There is one MPIS for the entire TFRL solid waste management facility. The newest version (dated 5/22/2013) is included as APPENDIX 3. It is made a part of this permit and all other permits for the TFRL solid waste management facility. The MPIS or its attachments may be revised or updated at any time. The revised/updated documents will be issued with a new date and effective for the next sampling event.
- 4. <u>Evaluation Monitoring</u>. The permittee shall continue the evaluation monitoring as modified by Attachment G of the MPIS (APPENDIX 3).

#### E. Gas Management System Requirements

1. <u>Gas System Construction Requirements</u>. 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 gas extraction wells are specified in Attachment G, LFG Management Master Plan and North Cell, Class I Landfill (reference 1, APPENDIX 2).

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- b. The approval of the referenced landfill gas management system in this solid waste permit does not relieve the permittee from ensuring compliance with Air program permitting requirements.
- 2. <u>Gas System Construction Disturbed Waste/Final Cover.</u> Any waste or final cover disturbed during construction or maintenance of the gas system control devices shall be handled as follows:
  - a. Disturbed waste shall be protected from stormwater intrusion.
  - b. All disturbed waste shall be disposed of in the Class I active working face or hauled to a permitted Class I landfill within 24 hours.
  - c. Disturbed final cover shall be repaired per the current CQA plan.
- 3. <u>Gas System Maintenance</u>. The facility shall conduct on-going maintenance of the LGCS as needed including: replacement, re-drilling, relocation, raising and decommissioning of existing wells as needed to achieve overall gas control.
- 4. <u>Gas System Certification of Construction Completion.</u> After each gas system construction event is completed 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.
- 5. <u>Operational Requirements</u>. Gas controls shall be operated and maintained so that they function as designed.
- 6. <u>Monitoring Requirements.</u> 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 Central District Office (DEP\_CD@dep.state.fl.us) under separate cover no later than 15 days after the monitoring occurred.
- 7. <u>Gas Remediation Plan.</u> 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. If either of these limits is exceeded then a gas remediation plan shall be designed and implemented in accordance with Rule 62-701.530(3)(a), F.A.C.
- 8. <u>Odor Remediation Plan.</u> 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

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1. <u>Financial Assurance Mechanism.</u> 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 4565 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. A cost estimate covering disposal units not previously covered by financial assurance mechanisms must be submitted prior to submitting financial assurance for such disposal units.
- d. 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 2.F.1. or to the following email address: Solid.Waste.Financial.Coordinator@dep.state.fl.us.

#### **G.** Closure Requirements

#### 1. Closure Permit Requirements.

- a. Phased Closure activities for the North cell were authorized in Permit SF64-0078767-028. The references, requirements, and authorizations in permit SF64-0078767-028 are incorporated into this permit.
- b. Prior to initiating any closure action not covered by this permit, the permittee must schedule a meeting with the Department to determine whether a permit modification is necessary.

#### 2. Notification of Closure Activities.

- a. At least 90 days prior to initiating any partial closure activity, submit to the Department:
  - a statement that closure construction will be initiated, a drawing depicting the area of closure construction, a statement that the permitted closure design and plan are still current, and a statement that all current rule requirements are met;

or

- ii. schedule a meeting with the Department to determine whether a permit modification is necessary.
- b. The permittee must receive written authorization from the Department prior to initiating closure activities. The written authorization will be either an authorization letter or a permit modification.
- c. The permittee shall notify the Department 30 days prior to commencing closure field activities such as constructing the cap, side slopes, and stormwater drainage facilities.
- 3. <u>Closure Design</u>. All closure construction shall be done in accordance with the approved closure design plan as described in the references associated with Permit Application SF64-0078767-028 list in APPENDIX 2. The Department shall be notified before any changes, other than minor deviations, to the approved closure design in order to determine whether a permit modification is required per Section 2.G.2.a above.
- 4. <u>Final Cover System</u>. The final cover system for the North Cell, Class I Landfill shall consist of in descending order:
  - a. Six inches of topsoil
  - b. 18 inches of compacted protective soil
  - c. Double-sided geocomposite
  - d. 40-mil linear low density polyethylene (LLDPE) geomembrane liner
  - e. 12 inches of granular fill grading layer (intermediate cover) Sod will be placed on top of the protective soil cover. The components of the final cover system shall meet the requirements of Rule 62-701.600(3)(g), F.A.C. as demonstrated by the technical specifications in Appendix D of reference 8,
- APPENDIX 2 and Attachment R19 of Reference 9, APPENDIX 2.
- 5. Final Cover Design Side Slopes. The side slope design for the North Cell closure is shown on sheets C-05 of the Closure Design Drawings and detail sheets C-06 through C-09 of Reference 8, APPENDIX 2. The maximum side slope is 3H:1V, Rule 62-701.600(3)(e), F.A.C. A series of 19-foot wide drainage terraces are located at approximate elevations of 69, 107, 145 and 185 feet NGVD, as a means of controlling stormwater flow down the side slopes. The terraces will be constructed with a 1% slope to direct stormwater to a series of 18-inch and 24-inch diameter downdrains. Downdrains will be constructed at approximately 400-foot intervals and discharge stormwater to the perimeter drainage channels. The top flat area on the North Cell will have a 4% slope to direct runoff to the downdrains.

- 6. <u>Closure Sequencing.</u> The final cover shall be constructed in three sequences, to allow the permittee to install final cover over areas which have reached final permitted elevation as shown on sheet 00C-04 in reference 8, APPENDIX 2.
- 7. <u>Construction Quality Assurance Plan</u>. The Construction Quality Assurance (CQA) Plan submitted with the permit modification application in Appendix C of reference 8, APPENDIX 2 shall be followed for installing and testing the liner system and related components. The CQA engineer or his designee shall be on-site at all times during construction of the liner system to monitor the construction activities.
- 8. <u>Post-Construction Survey</u>. A survey shall be performed by an engineer or registered surveyor to verify that final contours and elevations of the facility are in accordance with the plans as approved in this permit. Aerial mapping techniques that provide equivalent survey accuracy may be substituted for the survey. Contours should be shown at no greater than five-foot intervals. The landfill owner or operator shall submit this information to the Department along with the Certification of Construction Completion required in Specific Condition 2.G.9.
- 9. <u>Certification of Closure Construction Completion.</u> After each sequence of 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.
- 10. <u>List of Closed Units Not in Long-Term Care</u>. Closed sections of the landfill will continue to be monitored and maintained per the Operation Plan.
  - a. The South Cell has been properly closed as acknowledged on December 17, 2003 in DEP letter OCD-SW-03-0397. The official date of closing has not been established and the 30-year long-term care period has not begun for the South Cell. Its post-closure care was permitted in SF64-0078767-028 and is incorporated into this permit.
  - b. The following three phases of closure activities have been permitted for the North Cell (SF64-0078767-028) as described on sheet 00C-04, reference 8, APPENDIX 2:
    - i. Closure Sequence 1-28.2 acres, North Cell, Class I Landfill western side slopes
    - ii. Closure Sequence 2 33.3 acres, North Cell, Class I Landfill eastern side slopes
    - iii. Closure Sequence 3 25.1 acres, North Cell, Class I Landfill top deck
  - c. Post-closure Care Requirements:
    - i. The permittee shall continue to monitor and maintain the integrity and effectiveness of the final cover as well as other appurtenances, control erosion, fill subsidence comply with the ground water monitoring plan and gas monitoring program and maintain the storm water system, landfill gas

PERMITTEE NAME: Volusia County Solid Waste Division FACILITY NAME: Tomoka Farms Road Landfill – North Cell, Class I Landfill

PERMIT NO.: 0078767-030-SO-01 WACS Facility ID: 27540

- collection system, leachate collection system (when applicable) in accordance with an approved closure plan for all areas which have received final cover.
- ii. Stabilization Report. Every 5 years as part of the 5 year submittal report in section 2.A.7 above, the permittee shall submit a report to the Department that addresses stabilization of closed disposal mounds. The submittal shall include the technical report required in Rule 62-701.510(9)(b), F.A.C., and shall also address subsidence, barrier layer effectiveness, storm water management, gas production and management. It shall also address leachate collection and removal system effectiveness, leachate quality and leachate quantity (when applicable).

#### **H.** Long Term Care Requirements

[No areas in the Tomoka Farms Road Landfill solid waste management facility are in long-term care at this time. The South Cell is in post-closure care.]

Executed in Orange County, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

On Behalf of Jeff Prather

District Director, Central District

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

Cloud

June 28, 2013

Date

# 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, are 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 Statues 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;

#### General Conditions Page 3 of 3

- 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**

# **List of Documents Incorporated into this Permit**

#### **Documents Generated for this Permit Application:**

- 1. FDEP Solid Waste Permit Application for the Operations of North Cell Class I Landfill, dated December 12, 2012. Received and stamped December 28, 2012, DEP Central District.
- 2. First Request for Additional Information from DEP Central District dated January 25, 2013.
- 3. Response to First Request for Additional Information dated February 20, 2013. Received and stamped February 22, 2013, DEP Central District.
- 4. Second Request for Additional Information from DEP Central District dated March 15, 2013.
- 5. Response to Second Request for Additional Information dated April 10, 2013. Received and stamped April 12, 2013, DEP Central District.

#### List of Documents Associated with Closure Permit SF64-0078767-028:

- 6. Tomoka Farms Road Landfill Class I Closure of North Cell Phase I and Post-Closure Care of South Cell "Application for Renewal of Existing Closure Permit", signed and sealed by Kanishka Perera, P.E. HDR Engineering, Inc. Jacksonville, Florida, dated December 6, 2011. Received and stamped December 7, 2011, DEP-Central District.
- 7. Response to FDEP's 1st Request for Additional Information from Kanishka Perera, P.E. HDR Engineering, Inc. Jacksonville, Florida, dated January 27, 2012. Received and stamped January 30, 2012, DEP-Central District.
- 8. Tomoka Farms Road Landfill, North Cell Class I Closure, Intermediate Modification Permit Application, Prepared By: HDR Engineering, Inc., Jacksonville, Florida 32202, dated August 25, 2010. Received and stamped September 14, 2010, Central District DEP.
- 9. Response to First Request for Additional Information from HDR Engineering, Inc., dated November 11, 2010 (Tomoka Farms Road Landfill, North Cell Class I Closure, Intermediate Modification Permit Application, dated November 2010). Received and stamped November 12, 2010, Central District DEP.

#### **List of Documents Incorporated into this Permit**

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- Closure Permit Application, Tomoka Farms Road Landfill North and East Class I Cell, November 15, 2006. Received and stamped December 1, 2006, Central District -DEP.
- 11. Tomoka Farms Road Landfill, North and East Cell Closure Permit Drawings dated October 2006 (included with November 15, 2006 Closure Permit Application, Tomoka Farms Road Landfill North and East Class I Cell). Received and stamped December 1, 2006, Central District DEP.
- 12. Application for Intermediate Modification of Operation Permit to Construct and Operate a Landfill Gas Collection and Control System, dated October 2, 2003. Received and stamped October 15, 2003, Central District DEP.

#### Referenced Historical Documents:

- 13. FDEP Application for Renewal of the Existing Closure Permit, Class I Landfill North Cell, Tomoka Farms Road Landfill, dated December 6, 2011. Received and stamped December 7, 2011.
- 14. Response to First Request for Additional Information dated January 27, 2012. Received and stamped January 30, 2012, Central District DEP.
- 15. FDEP Application for Intermediate Modification of the Existing Closure Permit, North Cell Class I, Tomoka Farms Road Landfill, dated August 25, 2010. Received and stamped September 14, 2010, Central District DEP.
- 16. Tomoka Farms Road Landfill, North Cell Phase II, Class I Construction Permit Renewal Application, dated August 1, 2012. Received and stamped August 2, 2012, Central District DEP.
- 17. Response to First Request for Additional Information dated September 17, 2012. Received and stamped September 18, 2012, Central District DEP.
- 18. Response to Second Request for Additional Information dated November 1, 2012. Received and stamped November 1, 2012, Central District DEP.
- 19. Construction Permit Application, Operation Permit Modification, Tomoka Farms Road Landfill, East Cell Expansion, dated April 3, 2002. Received and stamped May 28, 2002, Central District DEP.
- 20. Tomoka Farms Road Landfill, Landfill Gas Collection System Expansion Certification Report, dated May 12, 2010. Received and stamped May 17, 2010, Central District DEP.

#### **APPENDIX 2**

# List of Documents Incorporated into this Permit

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- 21. Tomoka Farms Road Landfill, Landfill Gas Collection System Expansion for Closure Notification, dated September 10, 2012. Received and stamped September 19, 2012, Central District DEP.
- 22. Tomoka Farms Road Landfill, East Cell Expansion Geotechnical Report, dated November 14, 2000. Received and stamped May 28, 2002, Central District DEP.
- 23. Landfill Gas Collection System Expansion, bid drawings and as-built survey, dated June 6, 2005. Received and stamped May 21, 2013, Central District DEP.

#### Appendix 3

#### TOMOKA FARMS ROAD LANDFILL

WACS\_FACILITY: 27540

# MONITORING PLAN IMPLEMENTATION SCHEDULE (MPIS) 5/22/2013

#### **GENERAL**

- 1. This water quality monitoring plan (called the Monitoring Plan Implementation Schedule) is for the entire TFRL solid waste management facility. This MPIS is effective when the permit **0078767-030-SO-01** is issued. It replaces all previous MPIS issued for the Tomoka Farms Road Landfill solid waste management facility, WACS #27540. [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), F.A.C.]

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

4. 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, to confirm the data, shall resample the 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. The permittee must notify the Department within 14 days of receipt of the sampling data whether the original data will be accepted as representative of current ground water conditions or whether resampling will be accomplished to confirm the data.

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. Use "CONF" (for confirmation data) in the report type column. **[62-701.510(6)(a), F.A.C.]** 

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

#### **GROUND WATER QUALITY MONITORING**

- 5. The fifty-four (54) ground water monitoring wells designated for water quality testing and water level measurements are listed on **Attachment A** and are shown on **Attachment B**. . **B 62-701.510(3)(d)2 & 3, F.A.C.**]
- 6. Any initial sample collected from a ground water monitoring well shall be analyzed for the following Initial Sample Ground Water Monitoring Parameters. [62-701.510(5)(b)2, F.A.C.]

Initial Ground Water Monitoring Parameters					
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				

<sup>\*</sup> Mercury not on list because it is included in Appendix II

7. Semi-annual samples shall be collected in **May and November.** The samples shall be analyzed for the following Ground Water Monitoring Parameters. [62-701.510(5)(c) & (7)(a), F.A.C.]

	Semi-Annual Ground Water Monitoring Parameters					
	Field Parameters	Laboratory Parameters				
1.	Static water level in wells before purging	1.	Ammonia – N, Total			
2.	Specified conductivity	2.	Chlorides			
3.	pН	3.	Iron			
4.	Dissolved oxygen	4.	Mercury			
5.	Turbidity	5.	Nitrate			
6.	Temperature	6.	Sodium			
7.	Colors sheens (by observation)	7.	Total dissolved solids (TDS)			
		8.	Those parameters listed in 40 CFR Part 258 Appendix I			

- 8. 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.
- 9. Please confer with your consultant and analytical laboratory prior to sampling to ensure the analytical method is capable of achieving detection limits at or below the Groundwater Cleanup Target Levels (GCTLs) 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 that are not water quality standards are used as screening tools and interim guidelines for ground water minimum criteria until standards are promulgated.

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<sup>\*</sup> Appendix I is not listed because it is a subset of Appendix II

#### SURFACE WATER MONITORING

- 10. The seven (7) surface water sites included in this monitoring plan are SW-1, SW-2, SW-3, SW-4, SW-5, SW-11 and SW-12. They are listed on **Attachment A** and shown on **Attachment B**. [62-701.510(4)(c), F.A.C.]
- 11. 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 <sub>5</sub> )			
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			

12. Semi-annual samples from the seven (7) 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 <sub>5</sub> )		
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 phosphorus (as mg/L 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		

13. Please confer with your consultant and analytical laboratory prior to sampling to ensure the analytical method is capable of achieving detection limits at or below the Freshwater Surface

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Water Criteria 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". Freshwater Surface Water Criteria that are not water quality standards are used as screening tools and interim guidelines for ground water minimum criteria until standards are promulgated.

#### MONITORING WELL REQUIREMENTS

- 14. If a monitoring well or piezometer becomes damaged or inoperable, the Permittee shall notify the Department in writing within seven (7) days. 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. [62-4.070(3), F.A.C.]
- 15. New or replacement monitoring well design or placement must be approved by the Department. Either:
  - a. Proposed well construction details based on site-specific borings must be submitted with all supporting data (grain size distribution analyses, in-situ hydraulic conductivity testing, depth to water, etc.) for the Department's approval prior to well installation. or
  - b. The Department approves in advance of installation that the anticipated lithology and the proposed well construction is similar to close wells in the MPIS and that the final determination of this information (grain size distribution analyses, in-situ hydraulic conductivity testing, depth to water, etc.) can be evaluated by an engineer or geologist at the time of well installation and submitted with the well completion information. (This condition is satisfied for the 17 new wells specified in this MPIS.)
- 16. Use of hollow stem auger equipment is recommended. Other drilling methods must be approved by the Department prior to well installation. [62-520.600(3), F.A.C.]
- 17. 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.]
- 18. An abandonment plan for abandoning any well that is unsuitable for ground water monitoring or for any piezometer must be approved by the Department prior to abandonment. [62-701.510(3)(d)6, F.A.C.]

#### REPORTING REQUIREMENTS

#### FIELD ACTIVITIES

19. 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). [62-701.510(8)(a), F.A.C.]

#### MONITORING WELL COMPLETION

20. One (1) paper copy and one (1) electronic copy (Adobe pdf format) of **Attachment C Monitoring Well Completion Report** (as modified by the Central District) and required Attachments (for example, construction diagram and lithologic log), must be submitted to the

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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.

**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 & 62-532.410, F.A.C.]

#### **SURVEYING**

- 21. 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 NGVD 1929 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.]
- 22. 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 the new well,

#### **DEPTH MEASUREMENTS**

23. A total depth measurement must be made on each well at time of permit renewal. 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

24. 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

- 25. 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. The depth to water shall be converted to feet NGVD and this elevation shall be reported semi-annually.
- 26. 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.

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- 27. All water level measurements must be made within a one-day period.
- 28. 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 NGVD 1929, depth to water and calculated water level elevation referenced to NGVD 1929. The ground water and surface 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**

29. Ground water elevation contour maps for each monitored aquifer zone must be submitted semi-annually to the Department. 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 NGVD 1929, a bar scale, north arrow, ground water contour interval, date of measurement and ground water flow direction. The map(s) must incorporate adjacent and onsite 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)**

- 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.

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30. 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 2012 thru May 2014	5	At the time of Application for Renewal of the Class III Permit 0078767- <u>026</u> -SO-01 8/10/2014
2	Sept 2014 Thru May 2017	6	September 30, 2017
3	Sept 2017 Thru May 2020	6	September 30, 2020
4	Sept 2020 Thru May 2023	6	September 30, 2023
5	Sept 2023 Thru May 2026	6	September 30, 2026
6	Sept 2026 Thru May 2029	6	September 30, 2029
7 Renewal Report	Sept 2029 Thru May 2033	7	At the time of Application for Renewal of the Class I Permit 0078767- <u>030</u> -SO-01 3/13/2033

#### Requirements for Electronic Reporting of Water Quality Data

- 31. 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 62-160.340, F.A.C.)
- 32. Monitoring Plan Implementation Schedule--Tracking versions for current permit period:

Date	Type	Notation
11/3/2009	Update	Added ADaPT electronic reporting requirement language.
		Changed Biennial Report to MPIS Technical Report per pending
		Chapter 62-701 F.A.C revision.
		<ul> <li>Added reporting of water level in leachate basins.</li> </ul>
3/12/2012	Permit	Current ADaPT electronic reporting requirement language.
	Renewal	Changed Biennial Report to MPIS Technical Report per Chapter 62-
		701 F.A.C revision.
5/22/2013	Permit	<ul> <li>Updated per Chapter 62-701 F.A.C revision 8/12/2012</li> </ul>
	Renewal	Removed Leachate Sampling per rule revision.
	Class I	Include EM wells on Att B Monitoring Locations Map
		Include Att G Evaluation Monitoring Plan Status

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#### **List of Attachments**

**Attachment A** – Monitoring Well, 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

**Attachment G** – Evaluation Monitoring Status

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# ATTACHMENT 1 Time Sensitive Action Chart

## Required Notifications and Submittals to the Department

If any of the time deadlines in the Time Sensitive Action Chart are inconsistent with the time deadlines in the permit conditions, the time deadlines in the permit condition shall be followed.

Specific Condition	Topic	Action	Due Date
Section 2.A.3	Permit Renewal	Submit permit renewal application to the Department	Due 3/13/2033
Section 2.A.6	Permit Fees	Submit installment payment of \$10,000 to the Department	May 13, 2018 May 13, 2023 May 13, 2028
Section 2.A.7	5 Year Submittal Report	Submit report to the Department	May 13, 2018 May 13, 2023 May 13, 2028
Section 2.C.1	Operation Plan	Notify the Department	Before any non-minor operational changes
Section 2.C.9	Erosion Control	Notify the Department	When it is determined that the erosion cannot be corrected within 7 days of occurrence.
Section 2.C.10	Emergencies	Notify the Department	Per the Contingency Plan
Section 2.C.12.c	Leachate Management	Submit a summary report to the Department concerning the leachate collection pipes cleaning or video inspection	At a minimum by: May 13, 2018 May 13, 2023 May 13, 2028 As part of the report required by Section 2.A.7
Section 2.C.12.f	Leachate Management	Notify the Department	If the retrofits of leachate sumps 2 and 3 are not completed within 12 months of permit issued date
Section 2.C.12.g	Leachate Management	Submit leachate quantity analysis report	January 31 of each year
Section 2.C.14	Waste Quantity Report	Submit information at http://www.fldepportal.com/go	January 20 of each year
Section 2.C.14	Estimate of Remaining Life	Submit estimate of remaining life to the Department	November 1 of each year
Section 2.C.15	Regulated Hazardous Waste	Notify the Department	Immediately upon discovery
Section 2.D	Ground Water Monitoring	Conduct sampling semi-annual events and submit groundwater Reports	Per the current MPIS
Section 2.E.1	LGCS Construction	Notify the Department	Prior to any non-minor changes to the approved design are implemented
Section 2.E.4	LGCS Construction	Submit Certification of Construction Completion Report	After each gas system construction event is completed
Section 2.E.6	Gas Monitoring	Submit report to the Department	Quarterly within 15 days of monitoring event
Section 2.F.1	Cost Estimate for Unused Disposal Units	Submit to the Department	60 days prior to the planned acceptance of waste
Section 2.F.1	Annual Financial	Submit evidence of adjusted	Annually after the adjusted cost

Specific Condition	Торіс	Action	Due Date
	Mechanism Adjustment	financial mechanism to the Department	estimate is approved
Section 2.F.2	Cost Estimate	Submit to the Department	Annually between July 1 and September 1
Section 2.F.2	Detailed Cost Estimate	Submit to the Department	At a minimum by: May 13, 2018 May 13, 2023 May 13, 2028 As part of the report required by Section 2.A.7
Section 2.G.2.a	Closure	Submit to the Department or meet with the Department	90 days prior to commencing closure activities
Section 2.G.2.c	Closure	Notify the Department	30 days prior to commencing closure activities
Section 2.G.8	Closure Post- Construction Survey	Submit to the Department	With the Certification of Construction Completion Report
Section 2.G.9	Closure Construction	Submit Certification of Construction Completion Report	After completion of each sequence of closure
Section 2.G.10	Post-Closure Care	Submit the stabilization report to the Department	At a minimum by: May 13, 2018 May 13, 2023 May 13, 2028 As part of the report required by Section 2.A.7

#### **ATTACHMENT A**

# TOMOKA FARMS ROAD LANDFILL WACS \_FACILITY: 27540 MONITORING SITES

	Monitoring Site Number	WACS Well	Well Type	Zone/ Screen	GW/SW Class	WACS Report Type
Ground W		Well	Type	Screen	Class	Report Type
1.	B1-B	15636	СО	ZONE 4*	G-II	SEMGW
2.	B-2	15402	BG	ZONE 4	G-II	SEMGW
3.	B-5	15403	CO	ZONE 4*	G-II	SEMGW
4.	B8	15642	IM**	ZONE 6*	G-II	SEMGW
5.	B8-2	15790	IM**	ZONE 4	G-II	SEMGW
6.	B11	15679	BG	ZONE 1-2	G-II	SEMGW
7.	B-32	15791	BG	ZONE 4	G-II	SEMGW
8.	B33-1	15792	BG	ZONE 4	G-II	SEMGW
9.	B33-2	15793	CO	ZONE 1-2	G-II	SEMGW
10.	B34-1	15794	BG	ZONE 4	G-II	SEMGW
11.	B34-2	15795	BG	ZONE 1-2	G-II	SEMGW
12.	B35-1	15796	BG	ZONE 4	G-II	SEMGW
13.	B35-2	15797	BG	ZONE 1-2	G-II	SEMGW
14.	B36	15798	BG	ZONE 4	G-II	SEMGW
15.	B37-1	15799	CO	ZONE 4	G-II	SEMGW
16.	B37-2	15800	СО	ZONE 1-2	G-II	SEMGW
17.	B38-1	15801	CO	ZONE 4	G-II	SEMGW
18.	B38-2	15802	СО	ZONE 1-2	G-II	SEMGW
19.	B-39	15803	СО	ZONE 1-2	G-II	SEMGW
20.	B40-1	15804	СО	ZONE 4	G-II	SEMGW
21.	B40-2	15805	СО	ZONE 1-2	G-II	SEMGW
22.	B41-1	15806	СО	ZONE 4	G-II	SEMGW
23.	B41-2	15807	СО	ZONE 1-2	G-II	SEMGW
24.	B42-1	15808	СО	ZONE 4	G-II	SEMGW
25.	B42-2	15809	СО	ZONE 1-2	G-II	SEMGW
26.	B43-1	15810	СО	ZONE 3-4	G-II	SEMGW
27.	B43-2	15811	СО	ZONE 1-2	G-II	SEMGW
28.	B44	15812	СО	ZONE 1-2	G-II	SEMGW
29.	B45-1	15813	СО	ZONE 4	G-II	SEMGW
30.	B45-2	15814	СО	ZONE 1-2	G-II	SEMGW
31.	B59-1R	15817	СО	ZONE 4	G-II	SEMGW
32.	B59-2R	15818	СО	ZONE 1-2	G-II	SEMGW
33.	B60	15819	CO	ZONE 4	G-II	SEMGW
34.	B61R	15820	DE	ZONE 1-2	G-II	SEMGW
35.	B62-1R	15821	DE	ZONE 4	G-II	SEMGW
36.	B62-2R	15822	DE	ZONE 1-2	G-II	SEMGW
37.	B63-1	15823	CO	ZONE 4	G-II	SEMGW
38.	B63-2	15824	СО	ZONE 1-2	G-II	SEMGW
39.	B64	15825	СО	ZONE 1-2	G-II	SEMGW
40.	B65	15826	СО	ZONE 1-2	G-II	SEMGW

#### **ATTACHMENT A**

# TOMOKA FARMS ROAD LANDFILL WACS\_FACILITY: 27540 MONITORING SITES

B66	15827	DE	ZONE 1-2	G-II	SEMGW
B68	15829	CO	ZONE 4	G-II	SEMGW
B70-1	19800	CO	ZONE 4	G-II	SEMGW
B70-2	19801	DE	ZONE 1-2	G-II	SEMGW
B71	19802	CO	ZONE 1-2	G-II	SEMGW
B72	19803	СО	ZONE 1-2	G-II	SEMGW
B73-1	19804	CO	ZONE 4	G-II	SEMGW
B73-2	19805	СО	ZONE 1-2	G-II	SEMGW
B74	19806	CO	ZONE 1-2	G-II	SEMGW
B75	19807	СО	ZONE 1-2	G-II	SEMGW
FA-1B	15639	BG	FLORIDAN	G-II	SEMGW
FA-2C	15836	CO	FLORIDAN	G-II	SEMGW
F-MB	22777	СО	FLORIDAN	G-II	SEMGW
MO5-B	15635	CO	ZONE 4*	G-II	SEMGW
/ater					
SW-1	15830	CO	BACKGROUND	SW-IIIF	SEMSW
SW-2	15831	СО	EXTERNAL DITCH	SW-IIIF	SEMSW
SW-3	15832	CO	OUTFALL FROM LANDFILL	SW-IIIF	SEMSW
SW-4	15833	СО	OUTFALL OF RETENTION POND	SW-IIIF	SEMSW
SW-5	15638	со	OUTFALL OF INTERNAL DITCH	SW-IIIF	SEMSW
SW-11	19798	СО	STORMWATER MANAGEMENT DITCH	SW-IIIF	SEMSW
SW-12	19799	СО	SE CORNER OF BORROW AREA	SW-IIIF	SEMSW
	B68 B70-1 B70-2 B71 B72 B73-1 B73-2 B74 B75 FA-1B FA-2C F-MB MO5-B /ater SW-1 SW-2 SW-3 SW-4 SW-5	B68       15829         B70-1       19800         B70-2       19801         B71       19802         B72       19803         B73-1       19804         B73-2       19805         B74       19806         B75       19807         FA-1B       15639         FA-2C       15836         F-MB       22777         MO5-B       15635         /ater       SW-1       15830         SW-2       15831         SW-3       15832         SW-4       15833         SW-5       15638         SW-11       19798	B68         15829         CO           B70-1         19800         CO           B70-2         19801         DE           B71         19802         CO           B72         19803         CO           B73-1         19804         CO           B73-2         19805         CO           B74         19806         CO           B75         19807         CO           FA-1B         15639         BG           FA-2C         15836         CO           F-MB         22777         CO           MO5-B         15635         CO           /ater         SW-1         15830         CO           SW-2         15831         CO           SW-3         15832         CO           SW-4         15833         CO           SW-5         15638         CO	B68         15829         CO         ZONE 4           B70-1         19800         CO         ZONE 4           B70-2         19801         DE         ZONE 1-2           B71         19802         CO         ZONE 1-2           B72         19803         CO         ZONE 1-2           B73-1         19804         CO         ZONE 4           B73-2         19805         CO         ZONE 1-2           B74         19806         CO         ZONE 1-2           B75         19807         CO         ZONE 1-2           FA-1B         15639         BG         FLORIDAN           FA-2C         15836         CO         FLORIDAN           F-MB         22777         CO         FLORIDAN           MO5-B         15635         CO         ZONE 4*           /ater           SW-1         15830         CO         BACKGROUND           SW-3         15832         CO         OUTFALL OF EXTERNAL DITCH           SW-4         15833         CO         OUTFALL OF INTERNAL DITCH           SW-5         15638         CO         OUTFALL OF INTERNAL DITCH           SW-11         19798         CO <th>  B68</th>	B68

<sup>\*</sup> As designated in the 2001 Biennial Report Table 1 foot notes per Dr. Gomberg.

### **Well Type Codes:**

(BG) Background (DE) Detection (IM) Intermediate (CO) Compliance

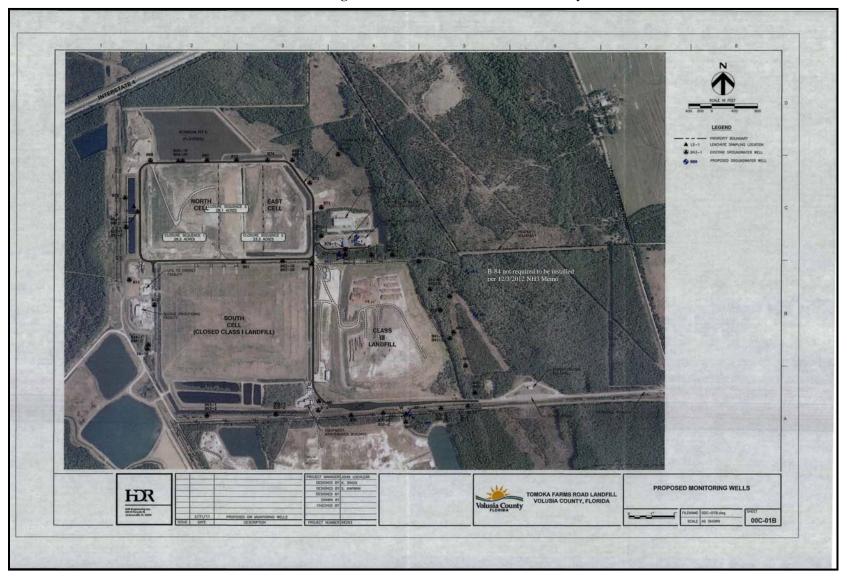
### **ATTACHMENT A**

# TOMOKA FARMS ROAD LANDFILL WACS \_FACILITY: 27540 MONITORING SITES

## **Evaluation Monitoring (EM) Wells**

EM Wells Not in the MPIS	EM Wells Sampled for Benzene	EM Wells Also Sampled for Ammonia
EM Wells in M	IPIS	
1	B41-1	B41-1
2	B43-1	B43-1
3	B45-1	
4	B45-2	
EM Wells Not	Currently in MPIS	
5	B76-1	
6	B76-6	
7	B79-6	B79-6
8	B77	
9	B79-1	B79-1
10	B81-4	
11	B82-1	
12	B83	
13	B85	B85
14	B86	

Tomoka Farms Road Landfill----Attachment B Monitoring Locations—Aerial from 4/6/2011CER by HDR



#### **ATTACHMENT C**

# Florida Department of Environmental Protection

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

# MONITORING WELL COMPLETION REPORT FORM

Facility Name: Tomoka Farms Road Landfill Date:						
DEP Permit No.:	WACS Facility ID #:27540					
WACS Monitoring Site ID #:	WACS Monitoring Site Name:					
Well Type: ☐ Background ☐	Detection 🚨 0	Compliance	☐ Oth	er		
LATITUDE AND LONGITUDE (See Next	: Page For Require	ments):				
Coordinate Accuracy:	Datum:			Elevation	n Datum:	
Collection Method:			Collection	on Date:		
Collector Name:			Collecto	or Affiliation	n:	
Aquifer Monitored:						
Drilling Method:			Date Ins	stalled:		
Installed By:						
Bore Hole Diameter:			Total De	epth:(BLS)	)	
Casing Type:	Casing Diameter:			Casing Le	ength:	
Screen Type:	Screen Slot Size:	Screen Length:		ength:		
Screen Diameter:	Screen Interval: _	То			(BLS)	
Filter Pack Type:		Filter Pa	ack Grain	Size:		
Filter Interval Covered:	Filter Interval:		To			(BLS)
Sealant Type:	Sealant Interval: _		To			(BLS)
Grout Type:	Grout Interval:		To(E			(BLS)
Top Of Casing Elev. (NGVD):		Ground Surface Elev. (NGVD):				
Post Development Water Level Elev. (NO	GVD):	Date And Time Measured:				
Describe Well Development:						
Remarks:						
Name Of Person Preparing Report:						
Organization:			Phone I	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 REQUIREMENT FOR SUBMITTING ELECTRONIC WATER QUALITY DATA TO THE FDEP CENTRAL DISTRICT WASTE AND AIR RESOURCE PROGRAMS

#### 5/22/2013

#### I. General Information

Electronic versions of monitoring reports and all ground water, surface water and leachate analytical results for the Solid Waste Program shall be submitted to the Department on compact disc, DVD, or flash drive media readable by Microsoft Windows. Water quality monitoring reports shall be submitted 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: <a href="http://www.dep.state.fl.us/waste/categories/shw/pages/ADaPT.htm">http://www.dep.state.fl.us/waste/categories/shw/pages/ADaPT.htm</a>. (Rules 62-160.240 and 62-160.340, F.A.C.)

#### II. Monitoring Report

Two electronic copies of the water quality monitoring report shall be submitted. The electronic version of the monitoring report shall be submitted in Adobe pdf format, with the EDDs as separate files on the electronic media.

The Monitoring Report shall include the following items:

- 1. Cover letter;
- 2. Summary of exceedances and sampling issues (if any, for example, variation from SOP field criteria);
- 3. Conclusions and recommendations;
- 4. Ground water contour maps;
- 5. Chain of custody forms;
- 6. Water levels, water elevation table;
- 7. Ground Water Monitoring Report Certification, using the appropriate Department form (Attachment E);
- 8. Required sampling information on Form FD 9000-24 (DEP-SOP-001/01) (Attachment F);
- 9. Laboratory and Field EDDs that are compatible with ADaPT software and the ADaPT error log(s).

(NOTE: You no longer have to complete or submit the DEP Form 62-522.900(2), Parameter Monitoring Report.)

Requirements for Electronic Submittal of Water Quality Data Date 5/22/2013 Page 2

One copy of the Monitoring Report shall be sent to each:

Florida Department of Environmental Protection Central District Waste and Air Resource Programs 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803 DEP\_CD@dep.state.fl.us

#### And to:

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

#### III. ADaPT EDDs

The ADaPT EDD consists of two electronic deliverables: (1) a Laboratory EDD, identified as swldd.txt; and (2) a Field EDD identified as swfdd.txt. The Laboratory EDD shall be submitted in a comma separated (.csv format) text file which can be produced through Excel. The Laboratory EDD file name format shall be: WACS Facility I.D. underscore Begin Sampling Date (yyyymm) underscore swldd.txt. The period at the end would not be included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the Laboratory EDD file name should be: 12345\_200811\_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 Date (yyyymm) underscore swfdd.txt. Again, the period at the end is not included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the file name should be: 12345\_200811\_swfdd.txt

For confirmation sampling, add the term \_conf to the EDD filenames as follows: 12345\_200811\_conf\_swldd.txt for the Laboratory EDD or 12345\_200811\_conf\_swfdd.txt for the Field EDD.

For data that is resubmitted, add \_#, where # is the number of data submittals (greater than 1). For example, if the data was resubmitted for the first time, and was thus submittal number 2, then the EDD filenames would be as follows: 12345\_200811\_2\_swldd.txt for the Laboratory EDD and 12345\_200811\_2\_swfdd.txt for the Field EDD.

Finally, taking this to an extreme, if confirmation data was resubmitted for say the 10<sup>th</sup> time, then the EDD filenames would be: 12345\_200811\_conf\_10\_swldd.txt for the Laboratory EDD or 12345\_200811\_conf\_10\_swfdd.txt for the Field EDD.

#### IV. Signatures Required

Water quality monitoring reports and interpretative documents (such as recommendations about exceedances and/or contour maps) shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations. A sealed signature page may be submitted with the electronic copy of the report provided that the seal is legible (gray the embossed seal and scan). Otherwise, you must separately mail the sealed and signed page.

#### V. Process Required

Three steps are generally required. First, two copies of the Laboratory EDD, one in comma separated text format and one as a PDF file, must be submitted by the laboratory. A digitally "signed" PDF copy (read-only file) by the laboratory serves to maintain the integrity of the Laboratory EDD. 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 Solid Waste 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 using the Department's Solid Waste Master library and correct all critical errors and explain all non-critical errors prior to submittal. Finally, as a completeness check, the permittee or consultant shall process both the Laboratory EDD and the Field EDD through ADaPT and confirm a successful export to disk prior to submitting the Laboratory EDD, Field EDD and ADaPT error log(s) to the Department.

#### VI. Resources

In the event help is needed to prepare these EDDs, you can contact the Central District Solid Waste staff:

Florida Department of Environmental Protection Central District Office Waste and Air Resource Programs 3319 Maguire Blvd., Ste. 232 Orlando, FL 32803-3767

Telephone: 407-897-4100

DEP\_CD@dep.state.fl.us.

You can also receive assistance by contacting Mr. Clark Moore (850-245-8739 or by e-mail at clark.b.moore@dep.state.fl.us) or Mr. Lee Martin (850-245-8734 or by e-mail at lee.martin@dep.state.fl.us) in FDEP Tallahassee.

# ATTACHMENT E Florida Department of Environmental Protection 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

# **GROUND WATER MONITORING REPORT**

Rule 62-522.600(11)

#### PART I GENERAL INFORMATION

(1)	Facility Name TOMOKA FARMS ROAD LAI	NDFILL			
	Address				
	City	Zi <sub> </sub>	o	County	
	Telephone Number ()	E-m	ail address		
(2)	WACS_Facility 27540				
(3)	DEP Permit Number				
(4)	Authorized Representative's Name		Ti	tle	
	Address				
	City	_ Zip	County		
	Telephone Number ()	E-m	ail address		
(5)	Type of Discharge				
(6)	Method of Discharge				
		CERTIFICATION	l		
doo the	ertify under penalty of law that I have perso cument and all attachments and that, based a information, I believe that the information is nalties for submission of false information inclu	on my inquiry of tho s true, accurate, an	se individuals im d complete. I a	mediately responsible for obtaini m aware that there are significa	ng
Da	te Owner or A	uthorized Represent	ative's Signature		
PΑ	RT II QUALITY ASSURANCE REQUIREMEN	TS			
Sa	mpling Organization				
An	alytical Lab NELAC #/ HRS Certification				
	b Name				
Ad	dress				
	one Number ( )				
	mail Address				

### Attachment F **WATER SAMPLING LOG**

DEP-SOP-001/01 FS 2200 Groundwater Sampling

#### Form FD 9000-24

-	NAME: Tomoka Farms Road Landfill WACS 27540 LOCATION:													
				WACS_WELL:				DATE:						
	PURGING DATA													
WELL DIAMETER		TUBING DIAMETER (			WELL SC DEPTH:	feet t	o feet	TO W		(feet):	PURGE PUMP OR BAILER:	TYPE		
	UME PURGE: if applicable)	1 WELL VOLU	JME = (T	OTAL	WELL DEP	TH - ST	TATIC DEPTH 1	O WAT	ΓER)	X WELL CAF	PACITY			
	,		= (			feet -			feet)		gallons/foo			gallons
	<b>EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL.</b> = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)													
(orny nii out	= gallons + ( gallons/foot X feet) + gallons = gallons									gallons				
INITIAL PUMP OR TUBING FINAL PUM DEPTH IN WELL (feet): DEPTH IN V				POR TUBING PURGIN ELL (feet): INITIAT		ED AT: ENDED			TOTAL VOLUME PURGED (gallons):					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURG RATI (gpm	E	DEPTH TO WATER (feet)	pH (standard units)	d TEMP.	CON (μmh m α μS/α	os/c or	DISSOLVED OXYGEN (circle mg/L o % saturation)	r TURBIDITY (NTUs)		OLOR escribe)	ODOR (describe)
							0.06; <b>2</b> " = 0.1 <b>1/4</b> " = 0.002			<b>4"</b> = 0.65 <b>0</b> .004; <b>3/8</b> '	<b>5</b> " = 1.02; ' = 0.006; <b>1/2</b> "	<b>6</b> " = 1.4 = 0.010		" = 5.88 " = 0.016
							PLING DA	ATA						
SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATU						IGNATUR	ES: SAMPLING INITIATED AT:			:	SAMPLING ENDED AT:			
PUMP OR TUBING DEPTH IN WELL (feet):  SAMPLE PUMP FLOW RATE (mL per minute):  MATERIAL CODE:														
	ONTAMINATIO	N: Y N		FIE	LD-FILTERE ation Equipr	D: Y	N FILT	ER SIZ	'E:	μm	DUPLICATE:	Υ	N	
		CONTAINER		FIIII	alion Equipi			RVATIC	)NI					
SAMPLE II	SAMPLE ID CODE RS CO		VOLU	LUME PRESERVATIVE USED		VATIVE	TOTAL VOL ADDED IN FIELD (mL)			FINAL pH	INTENDED ANALYSIS ANI METHOD	D/OR EQUIPME		AMPLING QUIPMENT CODE
REMARKS:	REMARKS:													
MATERIAL	MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)													
SAMPLING EQUIPMEN		APP = After Per RFPP = Revers			<b>B</b> = Ba tic Pump;		<b>BP</b> = Bladder Potraw Method (T				omersible Pump; Γ = Vacuum Trap;		= Perista = Other (	altic Pump (Specify)
OTES: 1 T	he above do	not constitut	o all of	tha it	nformation	roquiro	d by Chantor	62 16	O E A	\ <u>C</u>				

pH:  $\pm$  0.2 units **Temperature**:  $\pm$  0.2 °C **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 NTU or  $\pm$  10% (whichever is greater)

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

# Attachment G Evaluation Monitoring (EM) Status 5/22/2013

- 1. Per the Department's December 3, 2012 email, any evaluation monitoring for only ammonia may be terminated. In the wells that were to be monitored for both benzene and ammonia, both parameters must be included in the sampling.
- 2. On 1/6/2010 Rule 62-701.510(7)(a)2., F.A.C was revised to require only quarterly sampling and analysis of Appendix I parameters and annual sampling and analysis of Appendix II parameters.
  - a. Section 3.1 of the Annual Evaluation Monitoring Report notes that the facility will be using the revised criteria. Based on the data 2010-2013 the Department agrees that the routine evaluation monitoring sampling shall be reduced from Appendix II to Appendix I.
  - b. Based on the data 2010-2013, the annual sampling requirement for Appendix II is suspended.
- 3. Sampling for EM wells shall be accomplished semi-annually in May and November for the standard list of semi-annual parameters for Class I facilities (MPIS Condition #7).
- 4. After removing wells sampled for ammonia only, the current list of EM assessment wells is:

EM Wells Not in the MPIS	EM Wells Sampled for Benzene	EM Wells Also Sampled for Ammonia							
EM Wells in MPIS									
1	B41-1	B41-1							
2	B43-1	B43-1							
3	B45-1								
4	B45-2								
EM Wells Not Currently in MPIS									
5	B76-1								
6	B76-6								
7	B79-6	B79-6							
8	B77								
9	B79-1	B79-1							
10	B81-4								
11	B82-1								
12	B83								
13	B85	B85							
14	B86								

- 5. The Department requests that the facility submit the 2013-05 semi-annual data to the Department then arrange a July 2013 meeting to decide:
  - a. If additional assessment wells are required as indicated by the benzene exceedances in the initial sample for 3 of the assessment wells (B86, B76-6, and B79-6).
  - b. If the Appendix I parameter sampling in the assessment wells can be reduced (e.g. field, benzene, Na, Cl, and ammonia in the affected wells)