



FLORIDA DEPARTMENT OF Environmental Protection

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

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

April 5, 2019

NOTICE OF PERMIT MODIFICATION

By-Email
gmathes@wm.com

In the Matter of an
Application for Permit by:
Trail Ridge Landfill, Inc
5110 U.S. Highway 301
Baldwin, Florida 32234

Duval
WACS # 39815
Trail Ridge Landfill

Attention: Greg Mathes

DEP File No: 0013493-028-SO-MM

Pursuant to Sections 403.061(14) and 403.707, Florida Statutes, the Department hereby issues modification number 0013493-028-SO-MM. The following conditions of permit number 0013493-025-SO-01 are modified as follows:

SPECIFIC CONDITIONS	FROM	TO	TYPE OF MODIFICATION
Cover Page	Existing	Amended	Added Permit Minor Modification No. 0013493-028-SO-MM.
Appendix 2	Existing	Amended	Added March 28, 2019 Application for Minor Modification to Permit
Appendix 3 Item II.3.d	Existing	Amended	Deleted "A report of laboratory data will be submitted to DEP for each sampling period no later than April 15 and October 15 of each year, respectively."
Appendix 3 Item III.2	Existing	Amended	Deleted "A report of laboratory data will be submitted to DEP for each sampling period no later than April 15 and October 15 of each year, respectively."
Attachment 1	Existing	Amended	Removed Actions requiring submittal of ground and surface water monitoring reports by "no later than" dates.
Attachment 1	Existing	Amended	Revised to match submittal date in Rule 62-701.500(4)(a), F.A.C.

Attachment 2	Existing	Amended	Added Permit Minor Modification No. 0013493-028-SO-MM.
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Attached is Permit Number 0013493-025-SO-01 as modified by this Order. The attached permit replaces all previous permits and permit modifications for this facility.

NOTICE OF RIGHTS

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within **14** days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within

14 days of publication of the notice or within **14** days of receipt of the written notice, whichever occurs first. The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under [Sections 120.569](#) and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us, before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

EXECUTION AND CLERKING

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



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

Attachment(s):

1. Permit No. 0013493-025-SO-01 as modified by 0013493-028-SO-MM

CERTIFICATE OF SERVICE

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

Name, company, email address

Jim Christiansen, Carlson Environmental Consultants, jchristi@cecenv.com

Michael Bogin, FDEP Northeast District, Michael.Bogin@dep.state.fl.us

Cory Dilmore, P.E., FDEP PCAP Solid Waste Section, Cory.Dilmore@dep.state.fl.us Frederick

F. Kocher, P.G., FDEP PCAP Solid Waste Section, Frederick.Kocher@floridadep.gov

FILING AND ACKNOWLEDGMENT

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

Tamela Starling
Clerk

4/5/2019
Date



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

BOB MARTINEZ CENTER
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

Permit Issued to:

Trail Ridge Landfill, Inc.
5110 U.S. Highway 301
Baldwin, Florida 32234
904-289-9100

WACS Facility ID No.: 33628
Facility Name: Trail Ridge Class I Landfill
Contact Person: Mr. Greg Mathes, General Manager

Authorized Representative:
Tim Hawkins, President
Trail Ridge Landfill, Inc.
5110 U.S. Highway 301
Baldwin, Florida 32234
thawkins@wm.com
(904) 289-9100

Solid Waste Operations Renewal Permit – Landfill
Permit No.: 0013493-025-SO-01
Replaces Permit No.: 0013493-017-SO-01

Solid Waste Construction Permit – Landfill
Permit No.: 0013493-026-SC-01

Permit Modification No. 0013493-027-SO-MM
Permit Modification No. 0013493-028-SO-MM

Permit Issued: June 16, 2014
Permit Renewal Application Due Date: April 16, 2034
Permit Expires: June 16, 2034

Permitting Authority
Florida Department of Environmental Protection
Tallahassee Solid Waste Program & Permitting
2600 Blair Stone Road, MS 4565
Tallahassee, Florida 32399-2400
(850) 245-8707
Fax (850) 245-8803

SECTION 1 - SUMMARY INFORMATION

A. Authorization

The permittee is hereby authorized to construct Phases 6 through 14, operate Phases 1 through 14, and close Phases 1 through 14 of the Class I landfill, operate a landfill gas management system, and operate a Waste Tire Processing facility as 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 from the Water Management District.

B. Facility Location

The main entrance to the Trail Ridge Landfill is located at 5110 U.S. Highway 301, in western Duval County, Florida. The facility is located at Latitude 30° 13' 27" North and Longitude 82° 02' 40" West in Sections 18, 19, 20, and 21, Township 3 South, Range 23 East.

C. Facility Description

The Trail Ridge Landfill (TRLF) is owned by the City of Jacksonville (City) and is operated by Trail Ridge Landfill, Inc. (a Waste Management Company). It serves the residents of Jacksonville, Duval County and Northeast Florida. The total land area is approximately 978 acres, of which approximately 148 acres are used for the current active Class I landfill. The active landfill was constructed in 5 phases, with Phase 5 being the only currently active disposal phase on the site. This permit authorizes the construction and operation of new Phases 6 through 14 with cells located to the north of existing Phases 1 through 5. The total disposal area of Phases 1 through 14 will be approximately 427 acres.

- Operation of the Landfill Gas to Energy Facility at the landfill is not included in this permit.
- The facility has a current Title V (NSPS) Air Permit No. 0310358-010-AV, which expires on May 10, 2015. The facility must comply with its air permit and all applicable air requirements.

PERMITTEE NAME: Trail Ridge Landfill, Inc.

Permit No.: 0013493-025-SO-01

Permit No.: 0013493-026-SC-01

FACILITY NAME: Trail Ridge Class I Landfill

WACS Facility ID: 33628

- The Facility design includes wetland mitigation, a stormwater water management system, and groundwater, surface water, and methane gas monitoring systems. The stormwater management system was permitted and constructed under Solid Waste/MSSW Permits Numbers: SC16-184444, SC16-184445, MS16-184447, and subsequent modification MS16-296691. The stormwater management system expansion was permitted under Permit Numbers 4-089-88607-ERP and is not a part of this permit.
- This facility has an expected weight of waste to be received of 3,500 tons/day during normal operations.

General Information

Disposal acres	Phase I through 5: 148 acres Phase 6 through 14: 279 acres Total Disposal Area Phase 1 through 14: 427 acres
Bottom liner design (From top to bottom)	Phase I-5: <ul style="list-style-type: none"> • a 24-inch protective soil layer with a minimum hydraulic conductivity of 1×10^{-3} cm/sec; • a 16-oz. geotextile fabric; • a 20-mil drainage layer (geonet); • a 60-mil high density polyethylene (HDPE) primary liner; • a geosynthetic clay liner (GCL/bentonite mat); • a six-oz. geotextile fabric; • a 20-mil geonet; • a 60-mil HDPE secondary liner; and • a six-inch compacted subgrade with a maximum saturated hydraulic conductivity of 1×10^{-5} cm/sec. <p>Phase 1A, 1B, 1C, 2A, 2B, and 2C differ with the GCL located below the secondary liner rather than the primary liner.</p> <p>Phase 6-14:</p> <ul style="list-style-type: none"> • a 2-foot thick protective sand layer; • a 275-mil double-sided geocomposite drainage layer; • a 60-mil textured HDPE geomembrane; • a 170-mil geosynthetic clay liner; • a 275-mil double-sided geocomposite drainage layer; • a 60-mil textured HDPE geomembrane; and • a 170-mil geosynthetic clay liner bottom layer.
Leachate storage	Six (6) 20,000 gallon above ground fiberglass storage tanks.
Final elevation (including cover)	Phase I-5: Not to exceed +350.6 feet NGVD Phase 6-14 Not to exceed +350 feet NGVD
Slopes	3H:1V

PERMITTEE NAME: Trail Ridge Landfill, Inc.

Permit No.: 0013493-025-SO-01

FACILITY NAME: Trail Ridge Class I Landfill

Permit No.: 0013493-026-SC-01

WACS Facility ID: 33628

D. Appendices Made Part of This Permit

APPENDIX 1 - General Conditions

APPENDIX 2 – List of Approved Documents Incorporated into the Permit

APPENDIX 3 – Water Quality Monitoring Plan

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 deadline in the permit condition shall be followed.

ATTACHMENT 2 - Facility Permit History

SECTION 2 - SPECIFIC CONDITIONS

A. Administrative Requirements

1. Documents Part of This Permit. The permit application as revised in final form replaced or amended in response to the Department's Request(s) for Additional Information is contained in the Department's files and are made a part of this permit. Those documents that make up the complete permit application are listed in APPENDIX 2.
2. Permit Modification. Any change to construction, operation, monitoring, or closure requirements of this permit may require a modification to this permit, in accordance with the provisions of Rule 62-701.320(4), F.A.C.
3. Permit Renewal. In order to ensure uninterrupted operation of this facility, a timely and sufficient permit renewal application must be submitted to the Department in accordance with Rule 62-701.320(10), F.A.C. A permit application submitted at least 61 days prior to the expiration of this permit is considered timely and sufficient.
4. Transfer of Permit or Name Change. In accordance with Rule 62-701.320(11), F.A.C., 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. Submittals Required Every Five Years. No later than June 16, 2019, June 16, 2024, and June 16, 2029, the permittee shall submit a report to the Department that contains the following:

- a. An updated closure plan reflecting any changes in closure design, long-term care requirements, and financial assurance requirements, if any changes are made to the closure construction plans approved as part of this permit.
- b. An updated 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.

B. Construction Requirements

1. Construction authorized. Construction of the TRLF will proceed in phases. The bottom liner system design for Phases 6 through 14 has been provided and approved with this permit. Complete design information with construction details for Phases 6 and 7 has also been provided and approved with this permit. Construction of subsequent phases is also approved provided that notification with construction details is submitted prior to commencement of construction and that the construction is consistent with the approved design and construction of Phases 6 and 7. If changes other than minor variations are proposed, a permit modification may be required.
 - a. The TRLF Class I Cell Expansion Project includes 9 phases (Phases 6 through 14), approximately 31 acres each as shown on Sheet C-2 of the design drawings in Appendix B of the Engineering Report dated February 19, 2014 (See APPENDIX 2, item 1.e). The double liner system for the Class I TRLF Phases 6-14 is described in Section 1.C. of this permit.
 - b. Gas management system. Construction requirements for expansion of the gas management system in Phases 1 through 14 are provided in Section 2.E. of this permit.
 - c. The stormwater management system consists of: swales, terraces, downcomers, perimeter drainage ditches and culverts, inlet and outlet structures, and a wet detention pond. Installation of terraces, inlets, temporary and permanent downcomers, outlets, stormwater management ditches, culverts, and discharge structures shall coincide with the construction of individual phases in accordance with the Filling Sequence Plan and the closure requirements of Section 2.G. of this permit. Dimensions and slopes of these components of the stormwater management system shall be in accordance with the design drawings (See APPENDIX 2, item 10.d, Permit Documents for Trail Ridge Landfill – Third Renewal), for Phases 1 through 5, and Appendix B of the Engineering Report dated February 19, 2014 (See APPENDIX 2, item 1.e), for Phases 6 -14.
2. General Construction Requirements. All construction shall be done in accordance with the approved design, drawings, CQA plan, 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.

3. Certification of Construction Completion. Upon completion of construction, 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 done in substantial conformance with the approved construction plans except where minor deviations were necessary. All deviations shall be described in detail and the reasons therefore enumerated. The following documents shall be submitted along with the Certification:
 - a. The final report and record drawings showing that the liner system has been installed in substantial conformance with the plans and specifications for the liner system. The record drawings must include the results of the surveys of the liner, base grade and collection pipe slopes.
 - b. The final report showing the results of the geomembrane liner leak location survey, if applicable.
 - c. Results of testing of geosynthetic and soil components of the liner system.
4. Construction Quality Assurance. The Construction Quality Assurance (CQA) Plan submitted with the permit application shall be followed for preparing the subgrade and installing and testing the liner system and related components. The CQA engineer or the engineer's designee shall be on-site at all times during construction of the liner system to monitor the construction activities including preparation of the subbase, placement of the liner components and leachate collection system, and placement of the drainage and protective layer over the primary liner.
5. Approval of Certification. The permittee shall not begin using newly constructed phases at the facility until one of the following has occurred: (1) the Department has stated in writing that it has no objection to the certification of construction completion; or (2) at least 30 days have passed since the certification was submitted and the Department has not responded in writing to the certification.

C. Operation Requirements

1. General Operating Requirements. The Permittee shall operate the landfill in accordance with Rule 62-701.500, F.A.C., and the Approved Operation Plan submitted March 27, 2014 as listed in APPENDIX 2 (item 2). The Department shall be notified before any changes, other than minor deviations, to the approved Operation Plan are implemented in order to determine whether a permit modification is required.
2. Operation Plan. A copy of the approved Operation Plan, including the operating record as defined in Rule 62-701.500(3), F.A.C., shall be kept at the facility and shall be accessible to landfill operators.

3. Authorized Waste Types. The facility is authorized to manage only the following waste types:
- a. Waste types defined in Rule 62-701.200, F.A.C.:
 - 1) Class I waste.
 - a) Household waste.
 - b) Commercial solid waste.
 - 2) Class III waste.
 - 3) Construction and demolition debris.
 - 4) Yard trash.
 - 5) Agricultural waste.
 - 6) Sludge (domestic, industrial).
 - 7) Industrial solid waste.
 - b. Other Wastes Specifically Authorized:
 - 1) Biological Wastes.
 - a) Bodies of domestic animals upon death by disease shall be disposed of pursuant to Section 823.041(1), F.S.
 - b) Bodies of captive wildlife, as well as bodies of domestic animals that have not died due to disease.
 - c) Treated Biomedical may only be accepted in accordance with Rule 62-701.300(6), F.A.C.
 - 2) Asbestos. Asbestos may be accepted and managed in accordance with the requirements of 62-701.520(3), F.A.C.
 - 3) Contaminated soil. Soil that has been contaminated with petroleum products or any other materials that are not hazardous wastes may be disposed of in Class I landfills, and may be used as initial or intermediate cover material at solid waste disposal facilities if it meets the criteria of subsections 62-701.200(53) or (55), F.A.C., as appropriate. Contaminated soil that has the potential to leach constituents in excess of Department ground water standards or criteria may be used only at Class I landfills and only in those areas of the landfill where runoff or infiltration is captured by the leachate collection system.
 - a) If contaminated soil is received on site, it shall either be disposed of immediately, or shall be stored as follows for future use as cover material:
 - 1. It shall be stored where it will not interfere with the Landfill's routine operations;
 - 2. It shall be stored so that the minimum distance from the stockpile(s) toe of slope to the edge of the Landfill slope is 20 feet or no less than the maximum height of the pile, whichever is greater;
 - 3. Signs shall be installed around the stockpile clearly indicating that the material is contaminated soil and may only be disposed of in the Class I Landfill, or used as landfill cover material;

4. If the soil is "leachable:" (i.e. potential to leach constituents in excess of FDEP groundwater standards or criteria)
 - (a) It shall only be stored over lined areas of the Class I Landfill;
 - (b) The area around the stockpile shall either be bermed, or it shall be contoured with silt fencing installed around the entire base of the stockpile except for the entrance, and both configurations shall be such that any and all runoff is from the stockpile is prevented from entering the surface water management system; and
 - (c) Additional signs shall be placed (or additional information on the existing signs) identifying the leachable soil and indicating that it may only be used as cover material on interior slopes of the Class I Landfill.
- b) The Permittee shall record, in logs, the following minimum information regarding the contaminated soil:
 1. The source of the contaminated soil;
 2. The analytical test results verifying that it is non-hazardous and whether or not it is "leachable;"
 3. The date and quantity of contaminated soil that was accepted; and
 4. The location, amount, and use (or disposal) of the contaminated soil (i.e., the location of its use within the Class I and/or Class III Landfill, whether it was used for initial or intermediate cover, or whether it was disposed).

The logs shall be kept on site and be made immediately available to DEP, including during routine inspections.

- c. Special Wastes: The disposal or control of special wastes such as slag and ash residue shall be in accordance with the most recently approved Operation Plan, Rules 62-701.300(8) and 62-701.520, F.A.C., and any other Department rules, to protect the public safety, health and welfare. The special wastes shall be handled on a first-in, first-out basis.
4. Unauthorized Waste Types. The facility is not authorized to process or dispose any waste types not listed in C.3. above. In addition, the facility is not authorized to process or dispose the following wastes in the Class I Landfill in accordance with Rule 62-701.300(8), F.A.C.
 - a. Lead-acid batteries;
 - b. Used oil, except as provided in Chapter 62-710, F.A.C.;

- c. Yard trash in a Class I landfill, except as may be allowed pursuant to Section 403.708(12)(c), F.S.;
- d. White goods and lawn mowers;
- e. Whole waste tires, except as provided in Chapter 62-711, F.A.C.

Any unauthorized waste inadvertently received by the facility shall be managed in accordance with the approved Operation Plan.

5. Waste Management and Handling.

- a. Solid waste shall be formed into cells to construct horizontal lifts. The working face of the cell, and side grades above land surface, shall be at a slope no greater than three feet horizontal to one-foot vertical rise or as authorized by this permit in accordance with the approved operation plan.
- b. No solid waste shall be disposed of outside of the permitted footprint of the solid waste disposal units.
- c. The landfill shall be operated and closed in phases. The sequence of waste filling for phases 1 through 5 shall be as specified in the approved design documents (See APPENDIX 2, item 10.d, Permit Documents for Trail Ridge Landfill – Third Renewal). The sequence of waste filling for phases 6 through 14 shall be as specified in the approved operation plan, submitted March 27, 2014, and approved engineering report submitted February 25, 2014.

6. Landfill Elevation. The final (maximum) elevation of the landfill, Phases 1-5, shall not exceed the previously permitted elevation of +350.6 feet NGVD as specified in permit 0013493-017-SO-01. The current final design elevation of the landfill, Phases 6-14, is +350 feet NGVD as depicted on “Proposed Build out Closure Sections” sheet C-32. (See APPENDIX 2, item 1.e, Appendix B Design Drawings)

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

8. Cover Requirements: All solid waste disposed of in the Class I landfill shall be covered as required by Rule 62-701.500(7), F.A.C.

- a. Initial Cover: Initial cover shall be applied and maintained at the end of each working day in the Class I landfill in accordance with Rule 62-701.500(7)(e)&(f), F.A.C., so as to protect the public health and welfare.
- b. Alternate initial cover material not identified herein shall be approved by the Department prior to use at the facility.
 - 1) For those areas where solid waste will be deposited on the working face within 18 hours, initial cover may consist of a temporary cover or tarpaulin.
 - 2) A soil/mulch mixture that consists of no more than 50% ground or chipped yard trash mulch (which may contain incidental amounts of shredded

- plastic yard trash bags) by volume may be used as initial cover provided it meets the definition of initial cover contained in Rule 62-701.200(53).
- 3) Shredded waste tires that are shredded in accordance with Rule 62-711.400(3)(a), F.A.C., (i.e., 70 percent of the waste tire material is cut into pieces of four square inches or less and 100 percent of the waste tire material is 32 square inches or less) may be used at the working face on condition the material is restricted to the interior slopes. Shredded material may be stored on interior slopes of the landfill in the vicinity of the working face prior to use. However, this permit does not authorize the storage or use of the material outside the lined footprint or on exterior side slopes.
 - 4) The Permittee may also use contaminated soils (including ash contaminated soils) as initial cover per special waste handling requirements found in the most recently approved site operations plan.
- c. Intermediate Cover: Intermediate cover shall be applied and maintained in accordance with Rule 62-701.500(7)(g), F.A.C. An intermediate cover of one (1) foot of compacted earth or 16-inch thick layer of a soil/mulch mixture that consists of no more than 50% ground or chipped yard trash mulch (which may contain incidental amounts of shredded plastic yard trash bags) by volume in addition to the six (6) inch layer of initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion.
 - d. Materials that have been used for intermediate cover may be removed and reused only if the materials are substantially free of waste.
9. Erosion Control: Erosion control measures shall be employed to correct any erosion which exposes waste or causes malfunction of the storm water management system. Such measures shall be implemented within three days of occurrence. If the erosion cannot be corrected within seven days of occurrence, the landfill operator shall notify the Department and propose a correction schedule.
 10. Contingency Plan and Notification of Emergencies. The Permittee shall notify the Department in accordance with the approved Contingency Plan. Notification shall be made to DEP's Northeast District Office at (904) 256-1700. If an emergency occurs outside regular business hours, the Permittee shall telephone the 24-hour emergency phone number 800-320-0519. This latter number is to be used for emergencies only.
 11. Housekeeping. The facility shall be operated to control dust, vectors, litter and objectionable odors. If objectionable odors are confirmed beyond the landfill property boundary, the owner or operator shall comply with the gas management requirement in Specific Condition 2.E.10.

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 in accordance with the Operation Plan, 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 in accordance with the schedule established in the Operation Plan.
- c. The leachate collection pipes shall be cleaned or video inspected at least once every five years. A summary of the results shall be submitted in accordance with Specific Condition 2.A.5.c and with the permit renewal application.
- d. The permittee, on a daily basis, shall record quantities of leachate generated in gal/day and precipitation at the facility, and shall compare these measurements.

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

14. Record Keeping Requirements.

- a. Waste Quantity Records. Waste records shall be compiled monthly, and copies shall be provided to the Department no less than annually by February 1st. 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 between July 1st and September 1st each year. The report is required by Rule 62-701.500(13)(c), F.A.C. and must be submitted to the District Office and to:
Florida Department of Environmental Protection
Solid Waste Program and Permitting
MS 4565
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

15. Hazardous Waste. No hazardous waste shall be disposed of in a solid waste management facility unless such facility is permitted pursuant to Chapter 62-730, F.A.C. If any regulated hazardous wastes are discovered to be deposited at the facility, the facility operator shall promptly notify the Department, the person responsible for shipping the wastes to the facility, and the generator of the wastes, if known. The area where the wastes are deposited shall immediately be cordoned off from public access. If the generator or hauler cannot be identified, the facility operator shall assure the cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility. In the event that hazardous

wastes are discovered they shall be managed in accordance with the procedures provided in the facility's Operation Plan.

16. Waste Tire Processing Facility. This Permit authorizes Trail Ridge Landfill to operate a waste tire processing facility on a parcel of land south of the non-contract drop off area and east of the operations building. Storage of waste tires and the operation of the waste tire processing facility shall be in accordance with Chapter 62-711, F.A.C., the approved Operation Plan submitted March 27, 2014, and the approved engineering report submitted February 25, 2014. Based upon operating capabilities, the maximum storage of whole waste tires is 100 tons or 10,000 tires. Per Rule 62.711.530(5), F.A.C., quarterly reports shall be submitted by the 20th of the month following the close of each calendar quarter. Per Rule 62.711.520 (7), F.A.C., an annual report must be submitted each year of operation by March 1st. When the Waste Tire Processing Facility ceases to accept waste tires, the permittee will:
 - a. Notify the Department of the closing;
 - b. Remove all waste tires and residual to a waste tire processing facility, solid waste management facility authorized to accept waste tires, or a legitimate user of waste tires;
 - c. Remove any solid waste to a permitted solid waste management facility; and,
 - d. Notify the Department when the closing is complete.

17. Stormwater. Leachate shall not be discharged into the stormwater management system. Stormwater or other surface water which comes into contact with or mixes with the solid waste or leachate shall be considered leachate and is subject to the requirements of Rule 62-701.500(8), F.A.C. Management of the stormwater system shall be in accordance with Section 1.16 of the Approved Operation Plan submitted March 27, 2014 as listed in APPENDIX 2 (item 2)

D. Water Quality Monitoring Requirements

1. Zone of Discharge. The primary zone of discharge for this facility shall be a three dimensional volume described as horizontally 100 feet from the waste management area; or to the property boundary; or to the shortest distance between the location of the compliance monitoring wells and the waste management area; whichever is less, and shall extend vertically to the bottom of the surficial aquifer. The permittee shall ensure that Class G-II water quality standards will not be exceeded at the boundary of the zone of discharge, per Rule 62-520.420, F.A.C., and that ground water minimum criteria will not be exceeded outside the boundary of the zone of discharge, per Rule 62-701.320(17), F.A.C.

2. Water Quality Monitoring Plan. The Water Quality Monitoring Plan for this permit is included in APPENDIX 3.

E. Gas Management System Requirements

1. General Requirements. The Permittee shall construct and operate the gas management system in accordance with the requirements of Rule 62-701.530, F.A.C. and any applicable requirements of air construction or air operation permits issued for the facility by the Department.
2. Active Gas Collection and Treatment Construction Requirements.
 - a. All construction shall be done in accordance with the approved gas management system design, drawings, and specifications. Except as described in Specific Condition 2.E.3. of this permit, 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.
 - b. Landfill gas collection system for Phases 1 through 5 shall be constructed in accordance with the Closure Phasing Plan shown in Drawing Sheets 14 and 15 (Appendix 2, 10.d.2.). The final permanent gas collection system including header pipes shall be installed during the final closure construction phase as shown on Drawing Sheet 9A (Appendix 2, 10.d.4.).
 - c. Landfill gas from Phases 6 through 14 will be collected through a segregated gas collection system designed to meet the projected landfill gas produced. It will involve the installation and expansion of additional gas collection systems and treatment facilities for Phases 6 through 14 as the landfill development proceeds. A description of the additional gas management system is outlined in Appendix Q of the Engineering Report submitted February 25, 2014. Partial construction details associated with Phases 6 through 14 areas shown on Drawing Sheets C-34 and CD-12 in Appendix B of the Engineering Report submitted February 25, 2014 (See APPENDIX 2, item 1.e, Appendix B Design Drawings).
3. Actions Not Requiring Solid Waste Permit Modifications. Modifications to the solid waste permit shall not be required for the following changes to the approved landfill gas management system.
 - a. In areas of the landfill without a final cover, provided the Permittee notifies the Department prior to implementing any of these modifications.
 - 1) Raising, replacing or re-drilling existing gas extraction wells.
 - 2) Decommissioning or abandoning existing gas extraction wells.
 - 3) Installation of temporary gas extraction wells and piping that are not part of the permitted gas collection system design.
 - 4) Adding additional gas extraction wells to an existing gas header or lateral of the permitted gas collection system in order to control odor or comply with air Title V requirements for gas control.
 - b. The Permittee may re-drill existing gas wells and install additional gas extraction wells in areas of the landfill with final cover if a construction plan for

this work is submitted to and approved by the Department prior to construction. This construction plan shall provide reasonable assurance that:

- 1) The integrity of the final cover will be maintained;
- 2) Any solid waste uncovered during the installation of the extraction wells will be properly managed; and,
- 3) Odors and stormwater will be controlled.

4. Gas Collection System Drawing.

The Permittee shall maintain an engineering drawing showing the locations of all existing temporary or permanent gas collection wells and piping at the site. This drawing shall be updated and submitted to the Department within 45 days of installation or removal of temporary or permanent gas collection wells.

5. Gas Monitoring Requirements.

a. Gas monitoring ambient sampling points and soil probes are specified in the table below and are graphically depicted on the Gas Probe Monitoring Plan, sheet 1 of 1 in Attachment A-1 of the approved Operation Plan submitted March 27, 2014. The listed gas monitoring probes are to be clearly labeled and their locations easily visible at all times.

Monitoring Point	Type of Monitoring	Location
GM-01	Ambient	Scale House
GM-02	Ambient	Scale House
GM-03	Ambient	Administration Building
GM-04	Ambient	Maintenance Building
GM-05	Ambient	Maintenance Building
GP-6	Soil Probe	West of Phase II A
GP-7	Soil Probe	West of Phase II B
GP-8	Soil Probe	West of Phase IV B
GP-9	Soil Probe	West of Phase V C
GP-10	Soil Probe	West of Phase V D

b. Additional soil monitoring probes for Phases 6 through 14 shall be installed as Phases 6 through 14 are constructed, consistent with the existing monitoring network configuration, along the western property boundary. Placement of probes shall also be in accordance with Rule 62-701.530(2)(b), F.A.C.

6. Certification of Construction Completion. After completion of construction of gas probes or of gas management system modifications, other than those that are exempted by Specific Condition 2.E.3., 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.

7. Operational Requirements. Gas controls shall be operated and maintained so that they function as designed.
8. Monitoring Requirements. Monitoring for methane gas at the property boundary and within structures on the property shall be performed quarterly to determine the effectiveness of the gas migration controls. Quarterly reports shall be submitted to the Department, Northeast District Office under separate cover no later than the 15th of January, April, July, and October of each year. The gas monitoring results shall be reported as a percent of the lower explosive limit (LEL), calibrated to methane.
9. Gas Remediation Plan. 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.
10. Odor Remediation Plan. The facility shall be operated to control objectionable odors. If objectionable odors are confirmed beyond the property boundary then upon notification by the Department the permittee shall develop and implement an odor remediation plan in accordance with the requirements of Rule 62-701.530(3)(b), F.A.C.

F. Financial Assurance and Cost Estimates

1. Financial Assurance Mechanism. The permittee may not receive waste for disposal or storage in any disposal unit for which financial assurance has not been approved. Proof that the financial mechanisms are established and funded in accordance with Rule 62-701.630, F.A.C. shall be submitted to the Department at least sixty (60) days prior to the planned acceptance of solid waste in a newly constructed 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

However, audits to the escrow account may be submitted by email to the following email address: Solid.Waste.Financial.Coordinator@dep.state.fl.us.

2. Cost Estimates.

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

G. Closure Requirements

1. Closure Permit Requirements. Prior to initiating closure of a solid waste disposal unit, or part of a solid waste disposal unit, the Permittee shall receive authorization from the Department in one of the following ways.

- a. If the landfill is operating under a Department permit that includes a Closure Plan with sufficient detail to provide reasonable assurance of compliance with the closing requirements of Rule 62-701.600, F.A.C., then the Permittee shall notify the Department at least 30 days prior to initiating the closure activities and receive written approval from the Department prior to beginning the work.
- b. If the landfill is operating under a Department permit that requires substantive changes to the closing activities in the permitted Closure Plan, then the Permittee shall request a modification of the permit to include sufficient design detail to ensure compliance with the closing requirements of Rule 62-701.600, F.A.C., and shall initiate closing only after the permit has been modified.
- c. The Permittee shall submit an application to the Department for a closure permit on Form 62-701.900(1) and shall initiate closure activities only after the permit is issued. The application shall include a Closure Plan made up of the following:
 - 1) A closure design plan;
 - 2) A closure operation plan;
 - 3) A plan for long-term care; and,
 - 4) A demonstration that proof of financial assurance for long-term care will be provided.

2. Closure Design. All closure construction shall be done in accordance with the approved closure design plan. The Department shall be notified before any

changes, other than minor deviations, to the approved closure design are implemented in order to determine whether a permit modification is required. Approved final cover specifications are provided below.

Approved Final Cover for Phases 6 Through 14:

- a. Side Slopes. The final cover system for the side slopes shall consist of the following from bottom to top: a minimum 12-inch intermediate cover layer consisting of only uncontaminated soil material or a 16-inch thick layer of a compacted mixture of uncontaminated soil and ground or chipped yard trash mulch (which may contain incidental amounts of shredded plastic yard trash bags) that consists of no more than 50% mulch by volume; a minimum 12-inch compacted clay layer with a maximum permeability of 6.67×10^{-8} cm/sec; a minimum of 24 inches of loosely compacted soil layer with the top 6 inches capable of sustaining vegetation or 30 inches of a loosely-compacted mixture of uncontaminated soil and ground or chipped yard trash mulch that consists of no more than 50% mulch by volume; and the vegetative cover.
 - b. Top Area. The final cover system for the top area shall consist of the following from bottom to top: a minimum 12-inch intermediate cover layer consisting of only uncontaminated soil material; a textured HDPE or LLDPE geomembrane with a minimum average thickness of 40-mil, a minimum 12-inch sand layer with a minimum permeability of 1×10^{-3} cm/sec ; and a minimum 12-inch soil layer with the top six inches capable of supporting vegetation or a minimum 15-inch mixture of uncontaminated soil and ground or chipped yard trash mulch (which may contain incidental amounts of shredded plastic yard trash bags) that consists of no more than 50% mulch by volume with the top six inches capable of supporting vegetation.
 - c. Interface Friction Angles. The Permittee shall test the interface friction angles of the material that will be installed in the final cover system to ensure they meet the design criteria.
3. Closure Operation Plan. All closure shall be done in accordance with the approved closure operation plan.
 4. Certification of Closure Construction Completion. After closure construction has been completed, the engineer of record shall certify to the Department on Form 62-701.900(2) that the closure is complete and that it was done in accordance with the plans submitted to the Department except where minor deviation was necessary. All deviations shall be described in detail and the reasons therefore enumerated.
 5. Closure Specifications for Phases 1 Through 5: The specifications for the final top cover layer for Phase 1 through 5 have been modified from a 40-mil textured liner with a 12" sand drainage layer and 12" top soil layer to a 50-mil AGRU Super Gripnet liner with a non-woven geotextile and 24" of protective cover layer (upper 6" vegetative top soil, as shown in revised Figure 20 (See APPENDIX 2, item 11.c). The document entitled "Trail Ridge Landfill Incremental Top Slope

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Closure Quality Assurance/quality Control Plan”, dated January 15, 2015, was revised to reflect the change in specifications (See APPENDIX 2, item 11.d).

6. List of Closed Units Not in Long-Term Care. Portions of phase 1-5 have been closed in accordance with the phased closure plan ((See APPENDIX 2, item 10.d.2). The closure consist of the side slopes up to the top terrace elevation = +270 NGVD.

H. Long Term Care Requirements

[No areas at the Trail Ridge Class I Landfill are in long-term care at this time.]

Permit originally executed in Leon County, Florida by Tim Bahr, Acting Program Administrator, Permitting and Compliance Assistance Program, State of Florida Department of Environmental Protection on June 16, 2014.

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APPENDIX 1

General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

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

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of noncompliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit or a copy thereof shall be kept at the work site of the permitted activity.
12. The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous

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monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

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

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

APPENDIX 2

List of Approved Documents Incorporated into the Permit

The approved application documents for the Trail Ridge Class I Landfill Operations Permit Renewal and Construction Permit for Phase 6-14 expansion consist of the following:

Permit Numbers 0013493-025-SO/01 and 0013493-026-SC/01

1. Permit Documents for Trail Ridge Landfill –Fourth Renewal and Phases 6– 14 Expansion, Permit Application and Drawings prepared by CDM Smith, Inc., signed and sealed by John Ladner, P.E., dated February 19, 2014, received February 25, 2014. With sections replaced or amended with supplemental information received March 27, 2014 by email:
 - a) Class I Cell Expansion Phases 6 – 14 Permit Application:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.196472.1>
 - b) Class I Cell Expansion Phases 6 – 14 Permit Application Appendix L Attachment L-2 Help Iterations:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.200057.1>
 - c) Class I Cell Expansion Phases 6 – 14 Permit Application Appendix P Attachment P-2 Groundwater Monitoring Report:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.200058.1>
 - d) Class I Cell Expansion Phases 6 – 14 Permit Application Appendix S Attachment S-1 References:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.200059.1>
 - e) Class I Cell Expansion Phases 6 – 14 Permit Application Appendix B Design Drawings:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.200055.1>
 - f) Class I Cell Expansion Phases 6 – 14 Permit Application Appendix F Attachment F-1 Geotechnical Data Report:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.200056.1>
2. Approved Operations Plan March 27, 2014.
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.202250.1>

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Previously Approved Documents Included by Reference

3. Permit Number 0013493-024-S0/MM

- Trail Ridge Landfill – Minor Modification, DEP Permit Number 0013493- 017-SO previously required all mulch used for cover to be essentially free of plastic. Changed to allow yard trash mulch used for cover to contain incidental amounts of shredded plastic yard trash bags and the use of soil/mulch mixtures of up to 50% yard trash mulch by volume as final, intermediate, and daily cover, dated September 6, 2013:

4. Permit Number 0013493-023-S0/MM

- Trail Ridge Landfill – Minor Modification, DEP Permit Number 0013493- 017-SO based on August 12, 2012 revision of Florida Administrative code chapter 62-701, dated September 28, 2012:

5. Permit Number 0013493-022-S0/MM

- Trail Ridge Landfill – Minor Modification, DEP Permit Number 0013493- 017-SO, based on January 2010 revision of Florida Administrative code chapter 62-701, dated May 18, 2012:

6. Permit Number 0013493-021-S0/MM

- Trail Ridge Landfill – Minor Modification, DEP Permit Number 0013493- 017-SO, prepared by England - Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated and received May 2, 2012:

7. Permit Number 0013493-020-S0/MM

- Trail Ridge Landfill – Minor Modification, DEP Permit Number 0013493- 017-SO, prepared by England - Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated February 28 and received February 29, 2012:

8. Permit Number 0013493-019-S0/MM

- Trail Ridge Landfill – Minor Modification, DEP Permit Number 0013493- 017-SO, Modification to reduce requirements for groundwater samples at permit renewal. Received September 15, 2011 and issued September 28, 2011.

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9. Permit Number 0013493-018-S0/MM

- a) Trail Ridge Landfill, DEP Permit Number 0013493-017-SO. A minor modification application, prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated and received February 18, 2010:
- b) Permit Modification for Trail Ridge Landfill, First RAI Response, prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated and received May 4, 2010:
- c) Trail Ridge Landfill, WACS I.D. Number: NED/16/00033628, Minor Modification Application of the Class I Landfill Permit\FDEP File Number 0013493-018 (i.e., Response to Second RAI), prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated and received July 26, 2010:
- d) Permit Modification for Trail Ridge Landfill, Third RAI Response, prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated and received November 3, 2010:
- e) Trail Ridge Landfill, WACS I.D. Number: NED/16/00033628, Minor Modification Application of the Class I Landfill Permit, FDEP File Number 0013493-018, Fourth Request for Additional Information (i.e., Response to Fourth RAI), prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated January 14 and received January 18, 2011:

10. Permit Number 0013493-017-S0/01

- a) Permit Documents for Trail Ridge Landfill – Third Renewal, Permit Application and Drawing Sheets 1 through 23, and 9A, prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated and received October 15, 2008.
- b) Trail Ridge Landfill – Permit Renewal, Revised Drawing Sheet 4, prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated and received October 22, 2008:
- c) Trail Ridge Landfill – Permit Renewal, Leachate collection system jet cleaning and video inspection report, prepared by England-Thims and Miller, Inc., signed by Scott Jordan Lockwood, P.E., dated November 10, 2008, and received November 12, 2008:
- d) Permit Documents for Trail Ridge Landfill – Third Renewal, Response to DEP Request for Additional Information and revised Drawing Sheets 1

through 23, and 9A, prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated and received January 20, 2009:

1. Fill Phasing Plan Phases 1 through 5

Fill Phasing Plan #11:

<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.40744.1>

Fill Phasing Plan #12:

<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.40745.1>

Fill Phasing Plan #13:

<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.40746.1>

2. Closure Phasing Plan Phases 1 through 5

Closure Phasing Plan #14:

<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.40748.1>

Closure Phasing Plan #15:

<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.40749.1>

3. Closure details for Phases 1 through 5

Closure Details #20:

<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.40754.1>

Closure Details #21:

<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.40755.1>

4. Gas Collection System Plan for Phases 1 through 5

Gas Collection System Plan #9A For Response To Request For Additional Information With Revised Drawings:

<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&%5bguid=8.40742.1>

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- e) Permit Documents for Trail Ridge Landfill – Third Renewal, Second Response to DEP Request for Additional Information, prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated May 6, 2009 and received May 7, 2009:
- f) Trail Ridge Landfill – Signature Page for the Financial Assurance Cost Estimate Form, prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., dated and received May 26, 2009:
- g) Additional information related to a clarification of acreage of the total disposal area, prepared by England-Thims and Miller, Inc., submitted by Juanitta Bader Clem, P.E., dated and received July 21, 2009:

Approved Modification Documents

11. Permit Number 0013493-027-S0-MM

- a) Minor Modification Request, dated August 9, 2016, prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., received August 10, 2016, which contains revised specifications for the top cover layer for Phases 1 through 5.
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.251146.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.251146.1])
- b) Final Cover Slope Stability calculations, dated August 8, 2016, prepared by Golder Associates, Inc., signed and sealed by Samuel F. Stafford, P.E., received August 10, 2016. (Attachment F)
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.250903.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.250903.1])
- c) Revised Figure 20, dated August 5, 2016, prepared by England-Thims and Miller, Inc., signed and sealed by Juanitta Bader Clem, P.E., received August 10, 2016, which contains revised specifications for the top cover layer for Phases 1 through 5. (Attachment D)
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.251000.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.251000.1])
- d) Revised QA/QC document entitled “Trail Ridge Landfill Incremental Top_Slope Closure Quality Assurance/quality Control Plan”, dated August 9, 2016, prepared by England-Thims and Miller, Inc., received August 10, 2016, which contains revised specifications for the top cover layer for Phases 1 through 5.(Attachment B)
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.250_999.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.250_999.1])

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12. Permit Number 0013493-028-S0-MM

- (a) Application for Minor Modification to Permit, dated March 28, 2019, prepared by Carlson Environmental Consultants, received March 29, 2019.
[https://depdms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity
&\[guid=8.293886.1\]&\[profile=Permitting_Authorization\]](https://depdms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=8.293886.1]&[profile=Permitting_Authorization])

APPENDIX 3 WATER QUALITY MONITORING PLAN

Trail Ridge Landfill

PERMIT NO: 0013493-025-SO/01

WACS_FACILITY ID: 33628

PERMIT DATE: June 16, 2014

I. GENERAL

1. 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.]**
2. 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. The laboratory designated to conduct the chemical analyses must be certified by the Florida Department of Health Environmental Laboratory Certification Program (DOH ELCP). This Certification must be for the test method and analyte(s) that are reported. **[62-160.210(1), 62-160.300(1), 62-701.510(2)(b), F.A.C. and DEP SOP FS 1008.]**

NOTE: DEP-SOP-001/01 can be accessed at:

<http://www.dep.state.fl.us/water/sas/sop/sops.htm>

3. The permittee must ensure that the analytical laboratory conducting the analyses uses analytical methods capable of achieving detection limits at or below the Groundwater Cleanup Target Levels (GCTLs) or the Freshwater Surface Water Cleanup Target Levels (SWCTLs) in Table I, Chapter 62-777, F.A.C. except those listed in Table C of the "FDEP Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits dated 10/12/2004". GCTLs and SWCTLs that are not water quality standards are used as screening tools and interim guidelines for ground water minimum criteria until standards are promulgated. **[DEP SOP FM 1000]**
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 may confirm the data by resampling the affected wells within thirty (30) days of receipt of the sampling data. Should the permittee choose not to resample, the Department will consider the water quality analysis as representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the

permittee shall notify the Department within 14 days of this finding. **[62-701.510(6)(a), F.A.C.]**

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

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

II. GROUND WATER QUALITY MONITORING

1. The 84 ground water monitoring wells/piezometers included in this monitoring plan and designated for water quality testing and water level measurements are listed on Table 1 and shown on Figure 1. **[62-701.510(3)(d)2 & 3, F.A.C.]**
2. Any initial sample collected from a new ground water monitoring well, unless the new monitoring well is installed to replace an existing well within the monitoring network, shall be analyzed for the following Initial Ground Water Monitoring Parameters. **[62-701.510(5)(b), F.A.C.]**

Field Parameters	Laboratory Parameters
1. Static water level in wells before purging	1. Ammonia – N, Total
2. Dissolved oxygen	2. Chlorides
3. pH	3. Iron
4. Specific conductivity	4. Nitrate
5. Temperature	5. Sodium
6. Turbidity	6. Total dissolved solids (TDS)
7. Colors and sheens (by observation)	7. Those parameters listed in the 1991 version of 40 CFR 258, Appendix II.*
8. ORP	

* Mercury not listed because it is included in Appendix II.

* Appendix I is not listed because it is a subset of Appendix II

3. The 84 monitoring wells/piezometers for the landfill shall be sampled and analyzed as outlined in the following sub-sections a through d:
 - a. Shallow zone background, detection, compliance and temporary shallow detection monitoring wells shall be routinely sampled and analyzed semi-annually prior to March 30 and September 30 of each year for the following Ground Water Monitoring Parameters. **[62-701.510(5)(c) & (7)(a), F.A.C.]**

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Field Parameters	Laboratory Parameters
1. Static water level in wells before purging	1. Ammonia – N, Total
2. Dissolved oxygen	2. Chlorides
3. pH	3. Iron
4. Specific conductivity	4. Mercury
5. Temperature	5. Nitrate
6. Turbidity	6. Sodium
7. Colors and sheens (by observation)	7. Total dissolved solids (TDS)
8. ORP	8. Those parameters listed in the 1991 40 CFR 258 Appendix I

- b. Intermediate zone background, detection, and compliance groundwater monitoring wells shall be routinely sampled and analyzed semi-annually prior to March 30 and September 30 of each year for the following 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. Total dissolved solids (TDS)
5. Temperature	5. Nitrate
6. Turbidity	6. Sodium
7. ORP	

- c. If the results of the analysis for intermediate monitoring wells indicates that leachate is impacting groundwater (elevated concentrations of the sampled constituents), then the well(s) in question will be sampled in the next sampling event for the monitoring parameters listed in **[62-701.510) (7)(a), F.A.C.]**

- ~~d. A report of laboratory data will be submitted to DEP for each sampling period no later than April 15 and October 15 of each year, respectively.~~

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

III. SURFACE WATER MONITORING

1. The seven surface water sites included in this monitoring plan are listed on Table 1 and shown on Figure 1. **[62-701.510(4)(c), F.A.C.]**
2. Semi-annual samples from the seven surface water monitoring sites shall be collected prior to March 30 and September 30 of each year. The samples shall be analyzed for the following Surface Water Monitoring Parameters. **[62-701.510(5)(d) & (7)(b), F.A.C.]**

Field Parameters	Laboratory Parameters
1. Surface Water Elevation	1. Unionized ammonia as N
2. Specific Conductivity	2. Total hardness as CaCO ₃
3. pH	3. Biochemical oxygen demand (BOD ₅)
4. Dissolved oxygen	4. Copper
5. Turbidity	5. Iron
6. Temperature	6. Mercury
7. Colors and sheens (by observation)	7. Nitrate/Nitrogen
8. ORP	8. Zinc
	9. Total Dissolved Solids (TDS)
	10. Total Organic Carbon (TOC)
	11. Fecal Coliform
	12. Total Phosphorus
	13. Chlorophyll-a
	14. Total Nitrogen
	15. Chemical Oxygen Demand (COD)
	16. Total Suspended Solids (TSS)
	17. Those parameters listed in the 1991 version of 40 CFR 258, Appendix I.

~~A report of laboratory data will be submitted to DEP for each sampling period no later than April 15 and October 15 of each year, respectively.~~

IV. MONITORING WELL REQUIREMENTS

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

2. New or replacement monitoring well design or placement must be approved by the Department. The design and construction of these wells must be based on site-specific borings with appropriate supporting data such as grain size distribution analyses, in-situ hydraulic conductivity testing, and depth to water. In addition, the details of the current monitoring wells that perform well with low turbidities can also be utilized as the basis for designing new or replacement wells. Unless otherwise approved by the Department, all new shallow surficial monitoring wells shall be constructed such that a portion of the screened interval shall extend into the vadose zone during all portions of the year and the screened interval shall be of sufficient length that a minimum of approximately five feet of screen shall extend into the water column throughout the year. Wells shall be installed using standard, accepted practices for well construction. **[62-701.510(3), F.A.C. and 62-520.600(3) and (6), F.A.C.]**
3. 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.]**
4. The Department shall be notified in writing before any monitoring wells are abandoned or plugged. Wells shall be abandoned using standard, accepted practices for well abandonment. **[62-701.510(3)(d)6, F.A.C.]**

V. REPORTING REQUIREMENTS

A. FIELD ACTIVITIES

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

B. MONITORING WELL COMPLETION REPORT

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

NOTE: The top of casing elevation of each well, to the nearest 0.01 feet, and the latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, must be determined and certified by a Florida Licensed Surveyor

and Mapper and provided on the form. **[62-701.510(3)(d)1 & 62-520.600(6)(i), F.A.C.]**

C. SURVEYING

3. One (1) paper copy and one (1) electronic copy (Adobe pdf format) of a drawing must be submitted within sixty (60) days following monitoring well installation showing the location of all monitoring sites (active, abandoned, and Evaluation Monitoring), piezometers, water bodies and waste filled areas. The location of features on the drawing must be horizontally and vertically located by standard surveying techniques. The drawing shall include all monitoring well locations, each monitoring well name and identification (WACS) number, the top of casing, pad elevation, permanent benchmark(s) and/or corner monument marker(s) referenced to a nationally recognized datum (such as NGVD 1929 or NAVD 1988) to the nearest 0.01 feet. The latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, must be determined and provided on the drawing. The survey shall be conducted and certified by a Florida Licensed Surveyor and Mapper. **[62-701.510(1)(c)&(3)(d)1, and 62-520.600(6)(i), F.A.C.]**
4. 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 monitoring plan 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 Report upon completion of each new well. **[62-701.510(3)(d)1, F.A.C.]**

D. DEPTH MEASUREMENTS

5. If it is believed that the well has been compromised, i.e. not providing representative samples, a total depth measurement must be made on each suspect well. 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.

E. INITIAL AND SEMI-ANNUAL SAMPLING AND SUBMITTING ELECTRONIC DATA

6. Required monitoring reports must be submitted to the Department within sixty (60) days from completion of laboratory analyses and shall follow the Department's electronic reporting requirements using the ADaPT software. **[Rule 62-701.510(8)(a), F.A.C.]**
7. Required water quality monitoring reports and analytical results 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 a comma separated text file electronic format consistent with

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requirements for importing the data into the Department's databases as summarized at:

<http://www.dep.state.fl.us/waste/categories/shw/pages/ADaPT.htm>. 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 recommendations;
- c) Ground water contour maps;
- d) Chain of custody forms;
- e) Water levels, water elevation table;
- f) Water Quality Monitoring Certification using Form Rule 62-701.900(31), F.A.C.;
- g) Appropriate information using the Groundwater Sampling Log, Form FD 9000-24 (DEP-SOP-001/01); and,
- h) Laboratory and Field EDDs and error logs, as applicable.

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

Florida Department of Environmental Protection Northeast District Office 8800 Baymeadows Way, Suite 100 Jacksonville, Florida 32256-7590	Florida Department of Environmental Protection Solid Waste Section 2600 Blair Stone Road, MS 4565 Tallahassee, Florida, 32399-2400
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F. WATER ELEVATIONS

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

G. GROUND WATER CONTOUR MAPS

- 9. Ground water elevation contour maps for each monitored aquifer zone must be submitted semi-annually to the Department, with contours at no greater than one foot intervals unless site specific conditions dictate otherwise. Ground water elevation contour map(s) should include monitoring well and piezometer locations, ground water elevation at each monitoring well or piezometer location referenced

to a nationally recognized datum (such as NGVD 1929 or NAVD 1988), a bar scale, north arrow, ground water contour interval, date of measurement and ground water flow direction. The map(s) must incorporate adjacent and on-site surface water elevations where appropriate. These maps shall be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a licensed professional who is able to demonstrate competence in this subject area. **[62-701.510(8)(a)9, F.A.C.]**

H. TECHNICAL REPORT

10. A technical report, signed and sealed by a professional geologist or professional engineer with experience in hydrogeologic investigations, shall be submitted to the Department approximately every two and one-half years during the active life of the facility, and every five years during the long-term care period. The report shall summarize and interpret the water quality monitoring results and water level measurements collected since the last Technical Report. The report shall contain, at a minimum, the following **[62-701.510(8)(b), F.A.C.]**:
 - a) Tabular displays of any data which shows that a monitoring parameter has been detected, and graphical displays of any leachate key indicator parameters detected (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium and iron), including hydrographs for all monitorwells;
 - 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.
11. One (1) paper and one (1) electronic copy (Adobe pdf format) of the Technical Report shall be submitted to the Department on the following schedule: **[62-701.510(8)(b), F.A.C.]**

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Report	Sampling Periods Covered	Number Of Semi-Annual Sampling Events in Report	Technical Report Due By
Technical Report 1	August 2013 through August 2015	5	9/30/2015
Technical Report 2	February 2016 through February 2018	5	3/31/2018
Technical Report 3	August 2018 through August 2020	5	9/30/2020
Technical Report 4	February 2021 through February 2023	5	3/31/2023
Technical Report 5	August 2023 through August 2025	5	9/30/2025
Technical Report 6	February 2026 through February 2028	5	3/31/2028
Technical Report 7	August 2028 through August 2030	5	9/30/2030
Technical Report 8	February 2031 through February 2033	5	3/31/2033
Technical Report 9	August 2033 through August 2035	5	9/30/2035

12. Required water quality monitoring reports and water quality data for the Technical Report shall be submitted in electronic format as described in Specific Conditions V. 6 and 7 of this Appendix. **[62-160.240 , and 62-701.510(8)(a), F.A.C.]**

List of Attachments

Table 1 – Water Quality Sampling Testsite Information

Figure 1 – Ground Water and Surface Water Monitoring Locations Map

Table 1 – Water Quality Sampling Testsite Information

Testsite Name	Testsite WACS No.	Designation	Aquifer
MWB-2(S)	17181	Background	Shallow Surficial
MWB-2(I)	17180	Background	Intermediate Surficial
MWB-3(S)	17183	Background	Shallow Surficial
MWB-3(I)	17182	Background	Intermediate Surficial
MWB-31(D)	17208	Piezometer**	Deep Surficial
MWB-35(S)	TBA*	Background	Shallow Surficial
MWB-35(I)	TBA*	Background	Intermediate Surficial
MWB-36(S)	TBA*	Background	Shallow Surficial
MWB-36(I)	TBA*	Background	Intermediate Surficial
MWB-37(S)	TBA*	Background	Shallow Surficial
MWB-37(I)	TBA*	Background	Intermediate Surficial
MWB-38(S)	TBA*	Background	Shallow Surficial
MWB-38(I)	TBA*	Background	Intermediate Surficial
MWB-7(S)***	17186	Compliance	Shallow Surficial
MWB-7(I)***	17185	Compliance	Intermediate Surficial
MWB-7(D)	17184	Piezometer**	Deep Surficial
MWB-11(S)	17188	Compliance	Shallow Surficial
MWB-11(I)	17187	Compliance	Intermediate Surficial
MWB-12(S)	17191	Compliance	Shallow Surficial
MWB-12(I)	17190	Compliance	Intermediate Surficial
MWB-12(D)	17189	Piezometer**	Deep Surficial

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Testsite Name	Testsite WACS No.	Designation	Aquifer
MWB-13(S)	17359	Compliance	Intermediate Surficial
MWB-13(I)	17358	Compliance	Intermediate Surficial
MWB-14(S)***	17194	Compliance	Shallow Surficial
MWB-14(I)***	17193	Compliance	Intermediate Surficial
MWB-14(D)	17192	Piezometer**	Deep Surficial
MWB-20(S)	17199	Compliance	Shallow Surficial
MWB-21(S)	17200	Compliance	Shallow Surficial
MWB-22(S)	17201	Compliance	Shallow Surficial
MWB-23(S)***	20842	Compliance	Shallow Surficial
MWB-24(S)***	20843	Compliance	Shallow Surficial
MWB-25(S)***	17204	Compliance	Shallow Surficial
MWB-25(I)***	17203	Compliance	Intermediate Surficial
MWB-25(D)	17202	Piezometer**	Deep Surficial
MWB-26(S)***	20847	Compliance	Shallow Surficial
MWB-27(S)	17207	Compliance	Shallow Surficial
MWB-27(I)	17206	Compliance	Intermediate Surficial
MWB-27(D)	17205	Piezometer**	Deep Surficial
MWB-29(S)	20104	Compliance	Shallow Surficial
MWB-29(I)	20105	Compliance	Intermediate Surficial
MWB-29(D)	20106	Piezometer**	Deep Surficial
MWB-32(S)	20844	Detection	Shallow Surficial
MWB-32(I)	20845	Detection	Intermediate Surficial
MWB-32(D)	20846	Piezometer**	Deep Surficial

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Testsite Name	Testsite WACS No.	Designation	Aquifer
MWB-33(S)	20107	Detection	Shallow Surficial
MWB-34(S)	20108	Detection	Shallow Surficial
MWB-34(I)	20109	Detection	Intermediate Surficial
MWB-34(D)	20110	Piezometer**	Deep Surficial
MWB-39(S)	TBA*	Detection	Shallow Surficial
MWB-39(I)	TBA*	Detection	Intermediate Surficial
MWB-40(S)	TBA*	Detection	Shallow Surficial
MWB-41(S)	TBA*	Detection	Shallow Surficial
MWB-41(I)	TBA*	Detection	Intermediate Surficial
MWB-42(S)	TBA*	Detection	Shallow Surficial
MWB-43(S)	TBA*	Detection	Shallow Surficial
MWB-43(I)	TBA*	Detection	Intermediate Surficial
MWB-44(S)	TBA*	Detection	Shallow Surficial
MWB-45(S)	TBA*	Detection	Shallow Surficial
MWB-45(I)	TBA*	Detection	Intermediate Surficial
MWB-46(S)	TBA*	Detection	Shallow Surficial
MWB-47(S)	TBA*	Detection	Shallow Surficial
MWB-47(I)	TBA*	Detection	Intermediate Surficial
MWB-48(S)	TBA*	Detection	Shallow Surficial
MWB-49(S)	TBA*	Detection	Shallow Surficial
MWB-49(I)	TBA*	Detection	Intermediate Surficial
MWB-50(S)	TBA*	Detection	Shallow Surficial

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Testsite Name	Testsite WACS No.	Designation	Aquifer
MWB-51(S)	TBA*	Detection	Shallow Surficial
SGMW-1(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-2(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-3(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-4(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-5(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-6(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-7(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-8(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-9(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-10(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-11(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-12(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-13(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-14(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-15(S)	TBA*	Temporary Detection	Shallow Surficial
SGMW-16(S)	TBA*	Temporary Detection	Shallow Surficial
SW-B	TBA*	Surface Water	Surficial
SW-1	17209	Surface Water	Surficial
SW-3	17211	Surface Water	Surficial
SW-4	TBA*	Surface Water	Surficial

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Testsite Name	Testsite WACS No.	Designation	Aquifer
SW-5	TBA*	Surface Water	Surficial
SW-6	TBA*	Surface Water	Surficial
SW-7	TBA*	Surface Water	Surficial

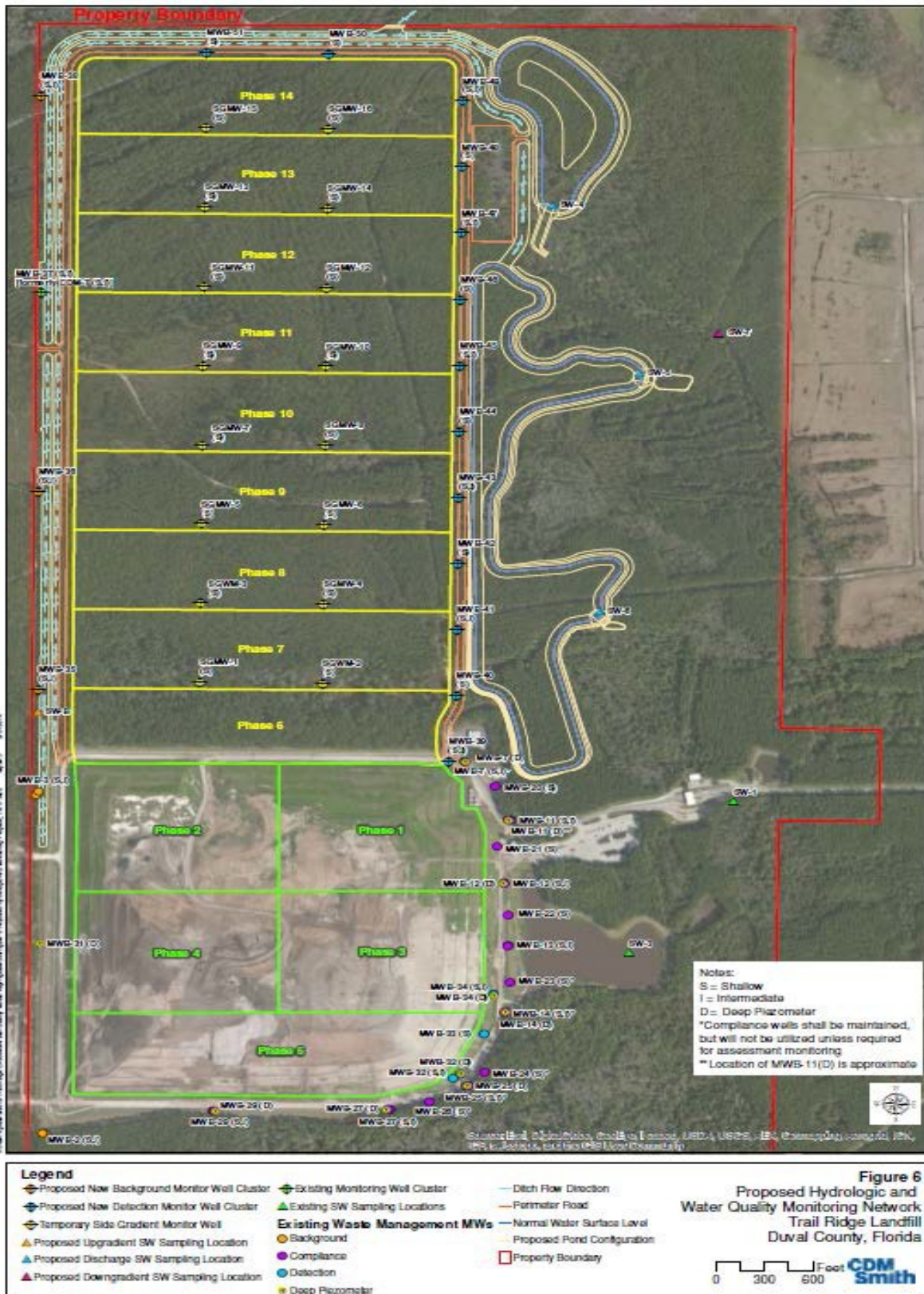
*TBA - To Be Assigned (refers to monitoring wells or surface water sample locations that will be installed or designated at a later date).

**Deep groundwater monitoring wells that are not on the sampling schedule but are maintained for future sampling if needed.

***Compliance Monitoring Wells MWB-7(S), MWB-7(I), MWB-14(S), MWB-14(I), MWB-23(S), MWB-24(S), MWB-25(S), MWB-25(I), and MWB-26(S) are not included on the sampling schedule but are maintained for future sampling if needed.

S - Shallow, I - Intermediate, D - Deep

FIGURE 1



PERMITTEE NAME: Trail Ridge Landfill, Inc.

Permit No.: 0013493-025-SO-01

Permit No.: 0013493-026-SC-01

FACILITY NAME: Trail Ridge Class I Landfill

WACS Facility ID: 33628

ATTACHMENT 1 Time Sensitive Action Chart

Specific Condition	Topic	Action	Submittal Due Dates
Section 2.A.3.	Permit Renewal	Submit permit renewal application to the Department	April 16, 2034
Section 2.A.5.	5 Year Submittal Report	Submit report containing an updated closure plan, revised closure cost estimate, demonstration the LCS has been water pressure cleaned or inspected by video, and an updated operation plan, if procedures have changed, to the Department	June 16, 2019 June 16, 2024 June 16, 2029
Section 2.B.1.	Construction Commencement	Notify the Department with construction details	Prior to commencing construction
Section 2.B.3.	Construction Completion Certification	Certify to the Department construction is complete and was done in substantial conformance with approved construction plans	Upon completion of construction
Section 2.C.9.	Erosion Control	Notify the Department and propose a correction schedule	When it is determined that the erosion cannot be corrected within 7 days of occurrence.
Section 2.C.10.	Contingency Plan and Notification of 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: June 16, 2019 June 16, 2024 June 16, 2029 as part of the report required by Section 2.A.5.
Section 2.C.14.a.	Waste Quantity Report	Submit waste quantity records at http://www.fldeportal.com/go	<u>February 1st of each year</u>
Section 2.C.14.b.	Estimate of Remaining Life	Submit estimate of remaining life to the Department	Between July 1 and September 1 of each year
Section 2.C.15.	Regulated Hazardous Waste	Notify the Department	Immediately upon discovery

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Specific Condition	Topic	Action	Submittal Due Dates
Section 2.C.16.	Waste Tire Processing	Submit quarterly reports	By 20th of month following the close of each calendar quarter
Section 2.C.16.	Waste Tire Processing	Submit annual report	Annually by March 1
APPENDIX 3 WQMP II.3.a, b, and c	Water Quality Monitoring	Conduct ground water sampling semi-annual events	Prior to March 30 and September 30 each year
APPENDIX 3 WQMP II.3. d	Water Quality Monitoring	Submit report of laboratory data from ground water monitoring	No later than April 15 and October 15th each year
APPENDIX 3 WQMP III.2.	Water Quality Monitoring	Conduct surface water semi-annual sampling events	Prior to March 30 and September 30 each year
APPENDIX 3 WQMP III.2.	Water Quality Monitoring	Submit report of laboratory data from surface water monitoring	No later than April 15 and October 15th each year
APPENDIX 3 WQMP V.E.6.	Water Quality Monitoring	Submit monitoring reports	Within 60 days of completion of laboratory analyses
APPENDIX 3 WQMP V.H.10,11, 12	Water Quality Monitoring	Submit Technical Report	September 30, 2015, March 31, 2018, September 30, 2020, March 31, 2023, September 30, 2025, March 31, 2028, September 30, 2030, March 31, 2033, September 20, 2035
Section 2.E.2.	Active Gas Collection and Treatment Construction Requirements	Notify the Department	Prior to any changes, other than minor deviations to the approved design, being implemented
Section 2.E.3.a	Actions Not Requiring Solid Waste Permit Modifications (areas without final cover)	Notify the Department	Prior to implementing modifications listed in Section 2.E.3.a, (1-4)

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Specific Condition	Topic	Action	Submittal Due Dates
Section 2.E.3.b	Actions Not Requiring Solid Waste Permit Modifications (areas with final cover)	Submit a construction plan to the Department and obtain approval	Prior to construction
Section 2.E.4.	Gas Collection System Drawing	Submit an updated engineering drawing showing the locations of all existing temporary or permanent gas collection wells and piping at the site	Within 45 days of installation or removal of temporary or permanent gas collection wells
Section 2.E.6.	Certification of Construction Completion	Submit Certification of Construction Completion Report to the Department	After completion if construction of gas probes or gas management system modifications
Section 2.E.8.	Monitoring Requirements	Submit quarterly monitoring reports	No later than the 15 th of January, April, July and October of each year
Section 2.F.1.	Financial Assurance Mechanism	Submit proof the financial mechanisms are established and funded in accordance with Rule 62-701.630, F.A.C.	60 days prior to the planned acceptance of waste
Section 2.F.2.b.	Cost Estimates	Submit annual inflation adjusted cost estimate	Annually between July 1 and September 1
Section 2.G.1.a	Closure Permit Requirements	Notify the Department and receive written approval from the Department	30 days prior to initiating the closure activities
Section 2.G.2.	Closure Design	Notify the Department	Before any changes, other than minor deviations, to the approved closure design are implemented
Section 2.G.4.	Certification of Closure Construction Completion	Submit Certification of Construction Completion Report to the Department	After closure construction has been completed

PERMITTEE NAME: Trail Ridge Landfill, Inc.

Permit No.: 0013493-025-SO-01

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ATTACHMENT 2

Facility Permit History

Permit No.	Name	Received Date	Issued Date	Description
0013493-017-SO/01	Trail Ridge Class I Landfill	10/16/2008	9/16/2009	Renewal of the Class I and Waste Tire Processing Facility Operations Permit
0013493-018-SO/MM	Trail Ridge I/F Cond. Mod	2/18/2010	4/6/2011	Modification to operations plan and monitoring program, and revisions to SPC's for clarity
0013493-019-SO/MM	GWM Parameters Mod	9/15/2011	9/28/2011	Modification to reduce requirements for groundwater samples at permit renewal
0013493-020-SO/MM	Trail Ridge LF MM Closure Plan	2/29/2012	4/10/2012	Modification of Fill Phasing and Closure Phasing Plans, annual survey dates, and alternative daily cover
0013493-021-SO/MM	Trail Ridge MM Yard Trash Disposal	5/2/2012	5/11/2012	Modification to accept yard trash for disposal
0013493-022-SO/MM	Trail Ridge MM Spotter Req	5/18/2012	5/18/2012	Modification of spotter requirements due to January 2010 Rule 62-701, F.A.C., revisions
0013493-023-SO/MM	Trail Ridge Landfill MM	9/28/2012	9/28/2012	Modification to remove leachate sampling due to August 2012 Rule 62-701, F.A.C., revisions
0013493-024-SO/MM	Trail Ridge Minor Mod	8/13/2013	9/6/2013	Modification to allow for incidental amounts of plastic yard trash bags in yard trash mulch used for cover
0013493-025-SO/01	Trail Ridge Operation	2/25/2014	06/16/2014	Operation Permit for Phases 1-14
0013493-026-SC/01	Trail Ridge Landfill Phases 6-14	2/25/2014	06/16/2014	Construction Permit for Phases 6-14
0013493-027-SO-MM	Trail Ridge LF MM Closure Plan	8/10/2016	08/31/2016	Modification of closure plan for Phases 1-5
<u>0013493-028-SO-MM</u>	<u>Trail Ridge MM</u>	<u>3/29/2019</u>	<u>4/5/2019</u>	<u>Modification of monitoring plan</u>