

PRELIMINARY DETERMINATION

PERMIT RENEWAL AND MINOR MODIFICATION

Coffee County Commission
No. 2 County Complex
New Brockton, AL 36351

Coffee County Sanitary Landfill
Permit No. 16-10

February 10, 2022

CDG Engineers & Associates Inc., on behalf of Coffee County applied to the Alabama Department of Environmental Management (ADEM) for renewal and modification of the Solid Waste Disposal Facility Permit for the **Coffee County Sanitary Landfill (Permit 16-10)**. The requested modifications included a request to raise a portion of the lateral berm between Cells 8 and 9 and the submission of an updated groundwater monitoring plan to reflect current operations onsite. In addition, the Permittee has requested a variance from ADEM Rule 335-13-4-.22(1)(b) requiring all waste to be confined to as small an area as possible. The Permittee requests to operate two working faces; the first for the placement of MSW waste and the second for the placement of construction and demolition waste. In addition, both working faces must be confined to as small an area as possible.

The waste stream for the municipal solid waste disposal area of the Coffee County Sanitary Landfill would remain nonhazardous solid wastes, noninfectious putrescible and non-putrescible wastes including but not limited to household garbage, industrial waste, construction and demolition debris, commercial waste, appliances, tires, trees, limbs, stumps, sludge, paper and other similar type materials. Special waste approved by ADEM may also be accepted. The waste stream for the construction and demolition waste disposal area would remain non-putrescible and non-hazardous construction and demolition waste, scrap tires, and rubbish as defined by ADEM Rule 335-13-1-.03. The service area for the Coffee County Sanitary Landfill would remain the States of Alabama, Florida, and Georgia. The maximum average daily volume of waste disposed at the Coffee County Sanitary Landfill would remain 1200 tons a day. All previous variances have been requested by the applicant and will be granted in the renewed permit.

The landfill is located in NW $\frac{1}{4}$ of NW $\frac{1}{4}$; the E $\frac{1}{2}$ of the NW $\frac{1}{4}$; the NE $\frac{1}{4}$ of SW $\frac{1}{4}$; the N $\frac{1}{2}$ of the SE $\frac{1}{4}$; and the NE $\frac{1}{4}$ of Section 12, Township 6 North, Range 20 East; the NW $\frac{1}{4}$ of the SW $\frac{1}{4}$ and the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 7, Township 6 North, Range 21 East; the S $\frac{1}{2}$ of the SE $\frac{1}{4}$ and the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 1, Township 6 North, Range 20 East in Coffee County, Alabama. The permitted facility consists of approximately 496.76 acres, with 171.55 acres for municipal solid waste disposal and 28.73 acres for construction and demolition waste disposal.

The Land Division has determined that the renewal and modification of the permit meets the applicable requirements of ADEM's Administrative Codes Division 13.

Technical Contact:

Mary Catherine Muscha
Solid Waste Engineering Section
Land Division
(334) 270-5651



ALABAMA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

SOLID WASTE DISPOSAL FACILITY PERMIT

PERMITTEE: Coffee County Commission

FACILITY NAME: Coffee County Sanitary Landfill

FACILITY LOCATION: NW ¼ of NW ¼; the E ½ of the NW ¼; the NE ¼ of SW ¼; the N ½ of the SE¼; and the NE ¼ of Section 12, Township 6 North, Range 20 East; the NW ¼ of the SW¼ and the SW ¼ of the NW ¼ of Section 7, Township 6 North, Range 21 East; the S ½ of the SE ¼ and the SE ¼ of the SW ¼ of Section 1, Township 6 North, Range 20 East. The facility boundary area is 496.76 acres, with a solid waste boundary area for municipal solid waste disposal of 171.55 acres and for construction and demolition waste disposal of 28.73 acres.

PERMIT NUMBER: 16-10

PERMIT TYPE: Municipal Solid Waste

WASTE APPROVED FOR DISPOSAL: The Permittee may accept for disposal at the municipal solid waste disposal area: nonhazardous solid wastes, noninfectious putrescible and non-putrescible wastes including but not limited to household garbage, industrial waste, construction and demolition debris, commercial waste, appliances, tires, trees, limbs, stumps, sludge, paper and other similar type materials. Special waste approved by ADEM may also be accepted.

The Permittee may accept for disposal at the construction and demolition waste disposal area: Non-putrescible and non-hazardous construction and demolition waste, scrap tires, and rubbish as defined by ADEM Rule 335-13-1-.03.

APPROVED WASTE VOLUME: Maximum Daily Volume of 1200 tons per day

APPROVED SERVICE AREA: States of Alabama, Florida, and Georgia

In accordance with and subject to the provisions of the Alabama Solid Wastes and Recyclable Materials Management Act, as amended, Code of Alabama 1975, SS 22-27-1 to 22-27-27 ("SWRMMA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, SS 22-22A-1 to 22-22A-15, and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to dispose of the above-described solid wastes at the above-described facility location.

ISSUANCE DATE: ???????????

EFFECTIVE DATE: ???????????

EXPIRATION DATE: ???????????

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
SOLID WASTE PERMIT**

Permittee: Coffee County Commission
No. 2 County Complex
New Brockton, AL 36351

Landfill Name: Coffee County Sanitary Landfill

Landfill Location: Located approximately six miles north of the City of Elba on Alabama Highway 125 in Coffee County, in the location described as: the Northwest ¼ of Northwest ¼; the East ½ of the Northwest ¼; the Northeast ¼ of Southwest ¼; the North ½ of the Southeast ¼; and the Northeast ¼ of Section 12, Township 6 North, Range 20 East; the Northwest ¼ of the Southwest ¼ and the Southwest ¼ of the Northwest ¼ of Section 7, Township 6 North, Range 21 East; the South ½ of the Southeast ¼ and the Southeast ¼ of the Southwest ¼ of Section 1, Township 6 North, Range 20 East.

Permit Number: 16-10

Landfill Type: Municipal Solid Waste

Pursuant to the Solid Wastes & Recyclable Materials Management Act, Code of Alabama 1975, §§22-27-1, *et seq.*, as amended (the "Act"), and attendant regulations promulgated thereunder by the Alabama Department of Environmental Management (ADEM), this permit is issued to Coffee County Commission (hereinafter called the Permittee), to operate a solid waste disposal facility, known as the Coffee County Sanitary Landfill.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions set forth herein (including those in any attachments), and the applicable regulations contained in Chapters 335-13-1 through 335-13-16 of the ADEM Administrative Code (hereinafter referred to as the "ADEM Admin. Code"). Rules cited are set forth in this document for the purpose of Permittee reference. Any Rule that is cited incorrectly in this document does not constitute grounds for noncompliance on the part of the Permittee. Applicable ADEM Administrative Codes are those that are in effect on the date of issuance of this permit or any revisions approved after permit issuance.

This permit is based on the information submitted to ADEM on June 13, 2019 for permit renewal, and as amended, and is known as the Permit Application (hereby incorporated by reference and hereinafter referred to as the Application). Any inaccuracies found in this information could lead to the termination or modification of this permit and potential enforcement action. The Permittee must inform ADEM of any deviation from or changes in the information in the Application that would affect the Permittee's ability to comply with the applicable ADEM Admin. Code or permit conditions.

This permit is effective as of ????????????, and shall remain in effect until ????????????, unless suspended or revoked.

Alabama Department of Environmental Management

Date Signed

SECTION I. STANDARD CONDITIONS

- A. Effect of Permit. The Permittee is allowed to dispose of nonhazardous solid waste in accordance with the conditions of this permit and ADEM Administrative Code, Division 13. Issuance of this permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local laws or regulations. Except for actions brought under Code of Alabama 1975, Section 22-27-1, *et seq.*, as amended, compliance with the conditions of this permit shall be deemed to be compliance with applicable requirements in effect as of the date of issuance of this permit and any future revisions.
- B. Permit Actions. This permit may be suspended, revoked or modified for cause. The filing of a request for a permit modification or the notification of planned changes or anticipated noncompliance on the part of the Permittee, and the suspension or revocation does not stay the applicability or enforceability of any permit condition.
- C. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- D. Definitions. For the purpose of this permit, terms used herein shall have the same meaning as those in ADEM Administrative Code, Division 13, unless this permit specifically provides otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.
1. "EPA" for purposes of this permit means the United States Environmental Protection Agency.
 2. "Permit Application" for the purposes of this permit, means all permit application forms, design plans, operational plans, closure plans, technical data, reports, specifications, plats, geological and hydrological reports, and other materials which are submitted to the Department in pursuit of a solid waste disposal permit.
- E. Duties and Requirements.
1. Duty to Comply. The Permittee must comply with all conditions of this permit except to the extent and for the duration such noncompliance is authorized by a variance granted by the Department. Any permit noncompliance, other than noncompliance authorized by a variance, constitutes a violation of Code of Alabama 1975, Section 22-27-1 *et seq.*, as amended, and is grounds for enforcement action, permit suspension, revocation, modification, and/or denial of a permit renewal application.
 2. Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. The renewal application must be submitted to the Department at least 180 days before this permit expires.
 3. Permit Expiration. This permit and all conditions therein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application as required by Section I, Paragraph E, Subparagraph 2, and, through no fault of the Permittee, the Department has not made a final decision regarding the renewal application.
 4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit.
 5. Duty to Mitigate. In the event of noncompliance with this permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

6. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with the conditions of this permit.
7. Duty to Provide Information. If requested, the Permittee shall furnish to ADEM, within a reasonable time, any information that ADEM may reasonably need to determine whether cause exists for denying, suspending, revoking, or modifying this permit, or to determine compliance with this permit. If requested, the Permittee shall also furnish the Department with copies of records kept as a requirement of this permit.
8. Inspection and Entry. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the employees of the Department or their authorized representative to:
 - a. Enter at reasonable times the Permittee's premises where the regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
 - d. Sample or monitor, at reasonable times, any substances or parameters at any location for the purposes of assuring permit compliance or as otherwise authorized by Code of Alabama 1975, Section 22-27-1 *et seq.*
9. Monitoring, Corrective Actions, and Records.
 - a. Samples and measurements taken for the purpose of monitoring or corrective action shall be representative of the monitored activity. The methods used to obtain representative samples to be analyzed must be the appropriate method from Chapter 335-13-4 or the methods as specified in the Application and incorporated by reference. Laboratory methods must be those specified in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Publication SW-846, latest edition), other appropriate EPA methods, or as specified in the Application. All field tests must be conducted using approved EPA test kits and procedures.
 - b. The Permittee shall retain records, at the location specified in Section I, Paragraph I, of all monitoring, or corrective action information, including all calibration and maintenance records, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three years from the date of the sample, measurement, report or record or for periods elsewhere specified in this permit. These periods may be extended by the request of the Department at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.
 - c. Records of monitoring and corrective action information shall include:
 - i. The exact place, date, and time of sampling or measurement.
 - ii. The individual(s) and company who performed the sampling or measurements.
 - iii. The date(s) analyses were performed.
 - iv. The individual(s) and company who performed the analyses.

- v. The analytical techniques or methods used.
 - vi. The results of such analyses.
 - d. The Permittee shall submit all monitoring and corrective action results at the interval specified elsewhere in this permit.
10. Reporting Planned Changes. The Permittee shall notify the Department, in the form of a request for permit modification, at least 120 days prior to any change in the permitted service area, increase in the waste received, or change in the design or operating procedure as described in this permit, including any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
11. Transfer of Permit. This permit may be transferred to a new owner or operator. All requests for transfer of permits shall be in writing and shall be submitted on forms provided by the Department. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of this permit.
12. Certification of Construction. The Permittee may not commence disposal of waste in any new cell or phase until the Permittee has submitted to ADEM, by certified mail or hand delivery, a letter signed by both the Permittee and a professional engineer stating that the facility has been constructed in compliance with the permit. ADEM must inspect the constructed cells or phases before the owner or operator can commence waste disposal unless the Permittee is notified that ADEM will waive the inspection.
13. Compliance Schedules. Reports of compliance or noncompliance with or any progress reports on interim and final requirements contained in any compliance schedule required and approved by the Department shall be submitted no later than 14 days following each schedule date.
14. Other Noncompliance. The Permittee shall report all instances of noncompliance with the permit at the time monitoring reports are submitted.
15. Other Information. If the Permittee becomes aware that information required by the Application was not submitted or was incorrect in the Application or in any report to the Department, the Permittee shall promptly submit such facts or information. In addition, upon request, the Permittee shall furnish to the Department, within a reasonable time, information related to compliance with the permit.
- F. Design and Operation of Facility. The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of contaminants (including leachate and explosive gases) to air, soil, groundwater, or surface water, which could threaten human health or the environment.
- G. Inspection Requirements.
- 1. The Permittee shall comply with all requirements of 335-13.
 - 2. The Permittee shall conduct random inspections of incoming loads.
 - 3. Records of all inspections shall be included in the operating record.
- H. Recordkeeping and Reporting.
- 1. The Permittee shall maintain a written operating record at the location specified in Section I.I. The operating record shall include:
 - a. Documentation of inspection and maintenance activities.

- b. Daily Volume reports.
 - c. Personnel training documents and records.
 - d. Solid/Hazardous Waste Determination Forms for Industrial Wastes, and associated ADEM disposal approval correspondence for industrial waste and special waste.
 - e. Groundwater monitoring records.
 - f. Explosive gas monitoring records.
 - g. Surface water and leachate monitoring records.
 - h. Copies of this Permit and the Application.
 - i. Copies of all variances granted by ADEM, including copies of all approvals of special operating conditions.
2. Quarterly Volume Report. Beginning with the effective date of this permit, the Permittee shall submit, within thirty (30) days after the end of each calendar quarter, a report summarizing the daily waste receipts for the previous (just ended) quarter. Copies of the quarterly reports shall be maintained in the operating record.
3. Monitoring and Corrective Action Reports. The Permittee shall submit reports on all monitoring and corrective activities conducted pursuant to the requirements of this permit, including, but not limited to, groundwater, surface water, explosive gas and leachate monitoring. The groundwater monitoring shall be conducted in March and September of each year, or as directed by ADEM, and the reports shall be submitted at least semi-annually, or as directed by ADEM. The reports should contain all monitoring results and conclusions from samples and measurements conducted during the sampling period. Explosive gas monitoring must be submitted once each year, and the reports should be submitted to ADEM and placed in the operating record within 30 days of the monitoring event. Copies of the groundwater and explosive gas monitoring reports shall be maintained in the operating record.
4. Availability, Retention, and Disposition of Records.
- a. All records, including plans, required under this permit or 335-13 must be furnished upon request, and made available at reasonable times for inspection by any officer, employee, or representative of ADEM.
 - b. All records, including plans, required under this permit or 335-13 shall be retained by the Permittee for a period of at least three years. The retention period for all records is extended automatically during the course of any unresolved enforcement action regarding the facility, or as requested by ADEM.
 - c. A copy of records of waste disposal locations and quantities must be submitted to ADEM and local land authority upon closure of the facility.
- I. Documents to be Maintained by the Permittee. The Permittee shall maintain, at the Coffee County Sanitary Landfill office, the following documents and amendments, revisions and modifications to these documents until an engineer certifies closure.
- 1. Operating record.
 - 2. Closure Plan.

- J. Mailing Location. All reports, notifications, or other submissions which are required by this permit should be sent via signed mail (i.e. certified mail, express mail delivery service, etc.) or hand delivered to:
1. Mailing Address.
Chief, Solid Waste Branch
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, AL 36130-1463
 2. Physical Address.
Chief, Solid Waste Branch
Alabama Department of Environmental Management
1400 Coliseum Blvd.
Montgomery, Alabama 36110-2400
- K. Signatory Requirement. All applications, reports or information required by this permit, or otherwise submitted to ADEM, shall be signed and certified by the owner as follows:
1. If an individual, by the applicant.
 2. If a city, county, or other municipality or governmental entity, by the ranking elected official, or by a duly authorized representative of that person.
 3. If a corporation, organization, or other legal entity, by a principal executive officer, of at least the level of Vice President, or by a duly authorized representative of that person.
- L. Confidential Information. The Permittee may claim information submitted as confidential if the information is protected under Code of Alabama 1975 §22-39-18, as amended.
- M. State Laws and Regulations. Nothing in this permit shall be construed to preclude the initiation of any legal action or to relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

SECTION II. GENERAL OPERATING CONDITIONS.

- A. Operation of Facility. The Permittee shall operate and maintain the disposal facility consistent with the Application, this permit, and 335-13.
- B. Open Burning. The Permittee shall not allow open burning without prior written approval from ADEM and other appropriate agencies. A burn request should be submitted in writing to ADEM outlining why that burn request should be granted. This request should include, but not be limited to, specifically what areas will be utilized, types of waste to be burned, the projected starting and completion dates for the project, and the projected days and hours of operation. The approval, if granted, shall be included in the operating record.
- C. Prevention of Unauthorized Disposal. The Permittee shall follow the approved procedures for the detecting and preventing the disposal of free liquids, regulated hazardous waste, PCB's, and medical waste at the facility.
- D. Unauthorized Discharge. The Permittee shall operate the disposal facility in such a manner that there will be no water pollution or unauthorized discharge. Any discharge from the disposal facility or practice thereof may require a National Pollutant Discharge Elimination System permit under the Alabama Water Pollution Control Act.
- E. Industrial and Medical Waste Disposal. The Permittee shall dispose of industrial process waste as required by 335-13, and as specified in the Application. The Permittee, prior to disposal of industrial waste and/or

medical waste, shall obtain from each generator a written certification that the material to be disposed does not contain free liquids, regulated hazardous wastes, regulated medical waste, or regulated PCB wastes.

- F. Boundary Markers. The Permittee shall ensure that the facility is identified with a sufficient number of permanent boundary markers that are at least visible from one marker to the next.
- G. Certified Operator. The Permittee shall be required to have an operator certified by the Department on-site during hours of operation, in accordance with the requirements of ADEM Admin. Code 335-13-12.

SECTION III. SPECIFIC REQUIREMENTS FOR MSW LANDFILLS

A. Waste Identification and Management

- 1. Subject to the terms of this permit, the Permittee may dispose of the nonhazardous solid wastes listed in Section III, Paragraph B. Disposal of any other wastes is prohibited, except waste granted a temporary or one time waiver by the Director.
- 2. The total permitted area consists of approximately 496.76 acres with a municipal solid waste disposal area of 171.55 acres and a construction and demolition waste disposal area of 28.73 acres.
- 3. The maximum average daily volume of waste disposed at the facility, as contained in the permit application, shall not exceed 1200 tons/day for the municipal solid waste disposal area and the construction and demolition waste disposal area combined. Should the average daily volume exceed this value by 20% or 100 tons/day, whichever is less, for two (2) consecutive quarters the permittee shall be required to modify the permit in accordance with 335-13-5-.06(2)(b)2. The average daily volume shall be computed as specified by 335-13-4-.22(2)(g).

B. Waste Streams. The waste stream for the municipal solid waste disposal area of the Coffee County Sanitary Landfill would remain nonhazardous solid wastes, noninfectious putrescible and non-putrescible wastes including but not limited to household garbage, industrial waste, construction and demolition debris, commercial waste, appliances, tires, trees, limbs, stumps, sludge, paper and other similar type materials. Special waste approved by ADEM may also be accepted. The waste stream for the construction and demolition waste disposal area would remain non-putrescible and non-hazardous construction and demolition waste, scrap tires, and rubbish as defined by ADEM Rule 335-13-1-.03.

C. Service Area. The Permittee is allowed to receive for disposal waste from the States of Alabama, Florida, and Georgia.

D. Special Waste. The Permittee may dispose of special wastes in accordance with 335-13.

- 1. Asbestos Waste. The Permittee shall dispose of asbestos waste in accordance with 335-13-4-.26(2).
- 2. Foundry Sand. The Permittee shall dispose of foundry waste in accordance with 335-13-4-.26(3).
- 3. Petroleum Contaminated Waste. The Permittee shall dispose of petroleum contaminated waste in accordance with 335-13-4-.26(4).
- 4. Municipal Solid Waste Ash. The Permittee shall dispose of municipal solid waste ash in accordance with 335-13-4-.26(5).

E. Liner Requirements. The Permittee shall install a composite liner system for the municipal solid waste disposal area as described in the Application consisting of 2 feet of 1×10^{-7} cm/sec compacted soil, and a 60 mil HDPE geomembrane. The 60 mil HDPE will be overlain with an HDPE drainage net overlain with a geotextile filter fabric, and an 18 inch thick drainage layer. The Permittee is approved to construct an alternate liner. The alternate liner consists of 12 inches of 1×10^{-5} cm/sec compacted soil, geosynthetic clay

liner, and a 60 mil HDPE geomembrane, The 60 mil. HDPE will be overlain with an HDPE drainage net overlain with a geotextile filter fabric, and an 18 inch thick drainage layer. The base of the composite liner system shall be a minimum of five (5) feet above the highest measured groundwater level as determined by 335-13-4-.11(2)(a).

The Permittee shall not be required to construct a composite liner for the construction and demolition waste disposal area. The bottom of the construction and demolition waste shall be a minimum of five (5) feet above highest measured groundwater level as determined by 335-13-4-.11(2)(a).

- F. Septic Tank Pumpings and Sewage Sludge. The Permittee shall not dispose of septic tank pumpings and/or sewage sludge unless specifically approved in writing by ADEM.
- G. Large Dead Animals and Highly Putrescible Wastes. The Permittee shall handle the disposal of large dead animals and/or highly putrescible waste as required by 335-13-4-.22(1)(j). Disposal is allowed only in the municipal solid waste disposal area.
- H. Cover Requirements. The Permittee shall cover all wastes as required by 335-13. The municipal solid waste disposal area shall be covered at the conclusion of each day's activities. The construction and demolition waste disposal area shall be covered at the conclusion of each week's activities.

The Permittee has been approved to utilize Posi Shell Cover System as an alternate daily cover and shall be required to follow the manufacturer's specifications on mixing and applying the alternate daily cover. The Permittee shall be required to cover all exposed waste with a minimum of six inches of compacted earth at the conclusion of each week's operation at the MSW cells and at the conclusion of each month's operation at the C/D cells (See Section X.2.)

- I. Waste Compaction. All waste shall be thoroughly compacted with adequate landfill equipment before the daily or weekly cover is applied. A completed daily cell shall not exceed eight feet in vertical thickness measured perpendicular to the slope of the preceding cell.
- J. Daily Cells. All waste shall be confined to an area as small as possible within a single working face and spread to a depth not exceeding two feet prior to compaction, and such compaction shall be accomplished on a face slope not to exceed 4 to 1 or as otherwise approved by ADEM.

The Permittee has been granted a variance to operate two working faces. Two working faces have been approved as follows: the first for the placement of MSW waste and the second for the placement of Construction and Demolition waste. The working faces must be confined to as small an area as possible (See Section X.3.).

- K. Security. The Permittee shall provide artificial and/or natural barriers, which prevent entry of unauthorized vehicular traffic to the facility.
- L. All Weather Access Roads. The Permittee shall provide an all-weather access road to the dumping face that is wide enough to allow passage of collection vehicles.
- M. Adverse Weather Disposal. The Permittee shall provide for disposal activities in adverse weather conditions.
- N. Personnel. The Permittee shall maintain adequate personnel to ensure continued and smooth operation of the facility.
- O. Equipment. The Permittee shall provide the landfill equipment as required by 335-13-4-.22(1)(f).
- P. Environmental Monitoring and Treatment Structures. The Permittee shall provide protection and proper maintenance of environmental monitoring and treatment structures.
- Q. Vector Control. The Permittee shall provide for vector control as required by 335-13.

- R. Bulk or Noncontainerized Liquid Waste. The Permittee shall not dispose of bulk or noncontainerized liquid waste, or containers capable of holding liquids, unless the conditions of 335-13-4-.22(1)(k) are met.
- S. Empty Containers. The Permittee shall render empty containers larger than normally found in household waste unsuitable for holding liquids prior to delivery to the landfill unit unless otherwise approved by ADEM.
- T. Other Requirements. ADEM may enhance or reduce the requirements for operating and maintaining the landfill as deemed necessary by the Land Division.
- U. Other Permits. The Permittee shall operate the landfill according to this and other applicable permits.
- V. Scavenging and Salvaging Operations. The Permittee shall prevent scavenging and salvaging operations, except as part of a controlled recycling effort.
- W. Signs. The Permittee shall provide a sign outlining instructions for use of the site. The sign shall be posted and have the information required by 335-13-4-.22(1)(i).
- X. Litter Control. The Permittee shall control litter.
- Y. Fire Control. The Permittee shall provide fire control measures.

SECTION IV. GROUNDWATER MONITORING REQUIREMENTS

- A. The Permittee shall install and/or maintain a groundwater monitoring system, as specified below.
 - 1. The permittee shall maintain the groundwater monitoring wells and piezometers identified in Table 1 at the locations specified in the Application, and any other groundwater monitoring wells which are added during the active life and the post-closure care period.
 - 2. The Permittee shall install and maintain additional groundwater monitoring wells as necessary to address changes in the rate and extent of a plume of contamination or as otherwise deemed necessary to maintain compliance with the 335-13.
 - 3. Prior to installing additional groundwater monitoring wells, the Permittee shall submit a report to ADEM with a permit modification request specifying the design, location and installation of additional monitoring wells. This report shall be submitted within one hundred and twenty (120) days prior to the installation which, at a minimum, shall include.
 - a. Well construction techniques including proposed casing depths, proposed total depth, and proposed screened interval of well(s);
 - b. Well development method(s);
 - c. A complete analysis of well construction materials;
 - d. A schedule of implementation for construction; and
 - e. Provisions for determining the lithologic characteristics, hydraulic conductivity and grain-size distribution for the applicable aquifer unit(s) at the location of the new well(s).
- B. Groundwater Monitoring Requirements.

1. The Permittee shall determine the groundwater surface elevation at each monitoring well and piezometer identified in Table 1 each time the well or piezometer is sampled and at least semi-annually throughout the active life and post-closure care period.
 2. The Permittee shall determine the groundwater flow rate and direction in the first zone of saturation at least annually or each time groundwater is sampled and submit as required by 335-13.
 3. Prior to the initial receipt of waste at the facility, the Permittee shall sample, and analyze for the parameters listed in Appendix I of 335-13-4-.27, in all monitoring wells identified in Section IV.A.2. to establish background water quality and/or as directed by 335-13-4-.27(2)(j) and 335-13-4-.27(2)(a)(1).
 4. The Permittee shall sample, and analyze all monitoring wells identified in Table 1 for the parameters listed in Appendix I of 335-13-4-.27(3), on a semi-annual basis throughout the active life of the facility and the post-closure care period in accordance with 335-13-4-.27(3). Sampling shall be conducted during March and September of each year, beginning with the effective date of this permit. The records and results of this sampling and analysis activity shall be submitted to ADEM, within ninety (90) days of the date of sampling.
 5. In addition to the requirements of Sections IV., B.1., B.2., B.3. and B.4., the Permittee shall record water levels, mean sea level elevation measuring point, depth to water, and the results of field tests for pH and specific conductance at the time of sampling for each well.
- C. Sampling and Analysis Procedures. The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from the groundwater monitoring wells described in Section IV.A. to provide a reliable indication of the quality of the groundwater.
1. Samples shall be collected, preserved, and shipped (when shipped off-site for analysis) in accordance with the procedures specified in the Application. Monitoring wells shall be bailed or pumped to remove at least four times the well volume of water. Slow recharge wells shall be bailed until dry. Wells shall be allowed to recharge prior to sampling.
 2. Samples shall be analyzed according to the procedures specified of the Application, Standard Methods for the Examination of Water and Wastewater (American Public Health Association, latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Publication SW-846, latest edition), or other appropriate methods approved by this Department. All field tests must be conducted using approved EPA test kits and procedures. The Permittee is approved for intra-well statistical analysis.
 3. Samples shall be tracked and controlled using the chain-of-custody and QA/QC procedures specified of the Application.
- D. Recordkeeping and Reporting Requirements.
1. Recording of Results. For each sample and/or measurement taken pursuant to the requirements of this permit, the Permittee shall record the information required by Section I.E.9.c.
 2. Recordkeeping. Records and results of all groundwater monitoring, sampling, and analysis activities conducted pursuant to the requirements of this permit shall be included in the operating record required by Section I.I.1.
- E. Permit Modification. If the Permittee or ADEM determines that the groundwater monitoring system no longer satisfies the requirements of 335-13-4-.14 or Section IV.A. of this permit, the Permittee must, within 120 days, submit an application for a permit modification to make necessary and/or appropriate changes to the system.

TABLE 1 GROUNDWATER MONITORING WELLS		
Monitoring Well Number	Top of Casing (feet msl)	Part Monitoring
Well 1	373.41	Entire Landfill
Well 2R	292.29	Cells 1-7
Well A	269.18	Cells 1-7
Well 4	292.14	Cells 8-10
Well 4A	292.28	Cells 8-10
Well 5	285.17	Cells 8-10
Well 6	341.73	Cells 1-4

SECTION V. GAS MONITORING REQUIREMENTS.

The permittee must install and maintain an explosive gas monitoring system in accordance with ADEM Administrative Code, Division 13.

SECTION VI. MUNICIPAL SOLID WASTE LANDFILL AIR EMISSIONS.

This landfill may be subject to ADEM Admin. Code Division 3 and the Federal Clean Air Act. Contact the ADEM Air Division for applicable requirements and permits.

SECTION VII. LEACHATE AND SURFACE WATER MANAGEMENT REQUIREMENTS.

The Permittee must collect and dispose of the leachate that is generated at the facility. The Permittee shall install a leachate collection system designed to maintain less than 12 inches (30 cm) depth of leachate over the liner. Prior to initial disposal, the permittee shall provide the Department with a letter from the receiving publicly or privately owned treatment works, approving the acceptance of the leachate. Discharges to publicly or privately owned treatment works may be subject to the requirements of the ADEM Water Division's State Indirect Discharge (SID) Program. The permittee shall construct and maintain run-on and run-off control structures. Surface water discharges from drainage control structures shall be permitted through the ADEM Water Division's National Pollutant Discharge Elimination System (NPDES) Program.

SECTION VIII. CLOSURE AND POST-CLOSURE REQUIREMENTS

The Permittee shall close the landfill and perform post-closure care of the landfill in accordance with 335-13.

- A. Final Cover. The Permittee shall grade final soil cover such that surface water does not pond over the permitted area as specified in the Application. The Permittee is approved for 3 to 1 final slopes. (See Section X.1.)
- B. Vegetative Cover. The Permittee shall establish a vegetative or other appropriate cover within 90 days after completion of final grading requirements in the Application. Preparation of a vegetative cover shall include, but not be limited to, the placement of seed, fertilizer, mulch, and water.

- C. Notice of Intent. The Permittee shall place in the operating record and notify ADEM of their intent to close the landfill prior to beginning closure.
- D. Completion of Closure Activities. The Permittee must complete closure activities of each landfill unit in accordance with the Closure Plan within 180 days of the last known receipt of waste.
- E. Certification of Closure. Following closure of each unit, the Permittee must submit to ADEM a certification, signed by an engineer, verifying the closure has been completed according to the Closure Plan.
- F. Post-Closure Care Period. Post-closure care activities shall be conducted after closure of each unit throughout the life of this permit and continuing for a period of thirty (30) years following closure of the facility. ADEM may shorten or extend the post-closure care period applicable to the solid waste disposal facility. The Permittee shall reapply in order to fulfill the post-closure care requirements of this permit.
- G. Post-Closure Maintenance. The Permittee shall provide post-closure maintenance of the facility to include regularly scheduled inspections. This shall include maintenance of the cover, vegetation, monitoring devices and pollution control equipment and correction of other deficiencies that may be observed by ADEM. Monitoring requirements shall continue throughout the post-closure period as determined by ADEM unless all waste is removed and no unpermitted discharge to waters of the State have occurred.
- H. Post-Closure Use of Property. The Permittee shall ensure that post-closure use of the property never be allowed to disturb the integrity of the final cover, liner, or other components of the containment system. This shall preclude the growing of deep-rooted vegetation on the closed area.
- I. Certification of Post-Closure. Following post-closure of each unit, the Permittee must submit to ADEM a certification, signed by an engineer, verifying the post-closure has been completed according to the Post-Closure Plan.
- J. Notice in Deed to Property. The Permittee must provide documentation of compliance with the requirements of the Uniform Environmental Covenants Program in ADEM Admin. Code Division 335-5 and shall record a notation onto the land deed containing the property utilized for disposal within 90 days after permit expiration, revocation or when closure requirements are achieved as determined by ADEM as stated in the Application. This notation shall state that the land has been used as a solid waste disposal facility, the name of the Permittee, type of disposal activity, location of the disposal facility and beginning and closure dates of the disposal activity.
- K. Recording Instrument. The Permittee shall submit a certified copy of the recording instrument to ADEM within 120 days after permit expiration, revocation, or as directed by ADEM as described in the Application.
- L. Removal of Waste. If the Permittee or other person(s) wishes to remove waste, waste residues, the liner, or any contaminated soils, the owner must request and receive prior approval from ADEM.

SECTION IX. FINANCIAL ASSURANCE

- A. The Permittee shall maintain detailed written cost estimates, in current dollars, at the landfill office and on file with ADEM in accordance with ADEM Admin. Code 335-13-4-.28.
- B. All cost estimates must be updated annually as required by ADEM Admin Code 335-13-4-28.
- C. The Permittee must place a copy of the financial assurance mechanism along with other items required by ADEM Admin. Code 335-13-4-28. into the landfill operating record and submitted to ADEM before the initial receipt of waste in the case of closure, post-closure care, or no later than 120 days after corrective action remedy has been selected.

- D. The financial assurance mechanisms must ensure that funds will be available in a timely fashion when needed.
- E. The financial assurance mechanisms must be legally valid, binding, and enforceable under state and federal law.
- F. The Permittee shall demonstrate continuous compliance with ADEM Admin. Code 335-13-4-28 by providing documentation of financial assurance in at least the amount that equals or exceeds the cost estimate. Changes in the financial assurance mechanism must be approved by the Department.
- G. The Permittee shall increase the closure, post-closure or corrective action cost estimates and the amount of financial assurance if changes in the closure, post-closure or correction action plans or landfill conditions increase the maximum cost.
- H. The Permittee may reduce the amount of financial assurance by submitting justification and a revised estimate to ADEM for approval.

SECTION X. VARIANCES

- 1. The Permittee is granted a variance from Rule 335-13-4-.20(2)(c)2. The Permittee is approved for 3 to 1 final slopes. (See Section VIII.A.)
- 2. The Permittee has been approved to utilize Posi Shell Cover System as an alternate daily cover and shall be required to follow the manufacturer's specifications on mixing and applying the alternate daily cover. The Permittee shall be required to cover all exposed waste with a minimum of six inches of compacted earth at the conclusion of each week's operation at the MSW cells and at the conclusion of each month's operation at the C/D cells (See Section III.H.)
- 3. A variance is granted from ADEM Rule 335-13-4-.22(1)(b) requiring waste to be confined to as small an area as possible. The Permittee has been approved to operate two working faces. Two working faces have been approved as follows: the first for the placement of MSW waste and the second for the placement of Construction and Demolition waste. The working faces must be confined to as small an area as possible. (See Section III. J.).

Any variance granted by the Department may be terminated by the Department whenever the Department finds, after notice and opportunity for hearing, that the petitioner is in violation of any requirement, condition, schedule, limitation or any other provision of the variance, or that operation under the variance does not meet the minimum requirements established by state and federal laws and regulations or is unreasonably threatening the public health.

Permit Renewal Application



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Andalusia, AL 36421
Post Office Box 278
Andalusia, AL 36420
Tel (334) 222-9431
Fax (334) 222-4018

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June 13, 2019

Mr. Jared Kelley
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, AL 36130

**Re: Permit Renewal Application & Supplemental Information
Coffee County Landfill (No. 16-10)**

Dear Mr. Kelley,

Please find enclosed the permit renewal application for the Coffee County Landfill, as well as the necessary supplemental information to be submitted with the application.

The following information includes:

- Updated and signed ADEM Form 439,
- Adjacent landowner list and map as of August 3, 2018 (Updated as part of the Major Modification Permit), and
- ADEM Fee Schedule

A check in the amount of \$18,635 will be issued to cover the fees for the renewal of the permit.

On behalf of the client, CDG would like to request to continue any currently permitted variances at the landfill.

Please find the landfill's waste screening process under Chapter 6.0 of the current Operations Manual (*Coffee County Landfill Operations Manual, Volume II, July 2018*).

Please feel free to call should you have any questions.

Sincerely,

CDG Engineers & Associates, Inc.

Laura Kate Young
Engineer I

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ANDALUSIA
AUBURN
DOTHAN
GADSDEN
HOOVER
HUNTSVILLE

SOLID WASTE APPLICATION

PERMIT APPLICATION
SOLID WASTE DISPOSAL FACILITY
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
(Submit in Triplicate)

1. Facility type: Municipal Solid Waste Landfill (MSWLF)
 Industrial Landfill (ILF)
 CCR Landfill (CCRLF)
 CCR Surface Impoundment (CCRSI)
 Other (explain) _____

2. Facility Name Coffee County Landfill

3. Applicant:

Name: Coffee County Commission

Address: No. 2 County Complex New Brockton, AL 36351

Telephone: 334-894-6600

4. Location: (Include county highway map or USGS map)

Township See attached Range _____

Section _____ County _____

5. Land Owner:

Name: Coffee County Commission

Address: No. 2 County Complex New Brockton, AL 36351

Telephone: 334-894-6600

(Attach copy of agreement from landowner if applicable.)

Solid Waste Permit Application
Page 2

6. Contact Person:

Name Mike Thornton

Position or Affiliation _____

Director of Environmental Services

Address: No. 2 County Complex New Brockton, AL 36351

Telephone: 334-894-6600

7. Size of Facility:

Size of Disposal Area(s):

See attached Acres

_____ Acres

8. Identify proposed service area or specific industry that waste will be received from:

States of Alabama, Florida, and Georgia

9. Proposed maximum average daily volume to be received at landfill (choose one):

1,200 Tons/Day _____ Cubic Yards/Day

10. List all waste streams to be accepted at the facility (i.e., household solid waste, wood boiler ash, tires, trees, limbs, stumps, etc.):

Nonhazardous solid wastes, noninfectious putrescible and non-putrescible wastes including, but not limited to household garbage, industrial waste, construction and demolition debris, commercial waste, appliances, tires, trees, limbs, stumps, sludge, paper, and other similar type materials. Also non-putrescible and non-hazardous construction and demolition waste, scrap tires, and rubbish as defined by ADEM Rule 335-13-1-.03.

Paul Max

SIGNATURE

6-10-19

DATE

ADDITIONAL REQUIRED INFORMATION

Applicants seeking to obtain a permit to construct and/or continue to operate a municipal solid waste (MSW) landfill, industrial landfill, coal combustion residuals (CCR) landfill, or CCR surface impoundment are required to submit additional information as part of the Solid Waste Disposal Facility Permit Application. These additional information requirements vary depending on the facility type.

For new and existing landfill units, refer to ADEM Admin Code 335-13-5-.02 for a list of additional information to be submitted in the permit application. Some requirements apply only to MSW landfills and CCR landfills, while other requirements apply to industrial landfills. You need only to address the requirements that pertain to your type landfill. For new and existing CCR surface impoundments, refer to ADEM Admin Code 335-13-15-.09 for additional information to be submitted in the permit application.

Each rule that is applicable to your type landfill or surface impoundment must be addressed in detail in the operational narrative and/or engineering drawings before the review process can be completed. All operational narratives, engineering drawings, survey maps and legal descriptions are to be prepared by licensed engineers or surveyors registered in the State of Alabama and with their stamp or seal on each drawing/map and cover of the narrative.

Act No. 89-824 Section 9(a) states "The department may not consider an application for a new or modified permit for a facility unless such application has received approval by the affected unit of local government having an approved plan." This document must be received by the Department prior to processing the application.

The referenced rules are covered in greater detail in ADEM's Administrative Code, Division 13. Clarification can be obtained by reviewing the regulations. Copies of the ADEM Administrative Code, Division 13 regulations, can be obtained for a fee by contacting ADEM's Permits and Services Division. If the Department can answer any questions, please contact the Solid Waste Branch at (334) 274-4201.

DATA TO BE SUBMITTED ON ALL LANDFILLS REQUIRING A GEOLOGICAL EVALUATION

The following items must be submitted along with the permit application. This data is necessary for ADEM to determine if the proposed landfill site is suitable from a geological standpoint.

- a. Conduct a water well survey to a minimum of 1 mile from the perimeter of the proposed landfill or expansion.
 1. Locate water wells on a USGS 7.5 minute topographic map.
 2. Provide corresponding names and addresses of well owners.
 3. Determine the depth of the well and the static water level. Specify whether these data were determined by measurement or interview.
- b. Conduct borings and/or pit excavations to establish site geology and hydrology at least to the mean annual water table or bedrock.
 1. Locate soil borings or excavation pits on a USGS 7.5 minute topographic map.
 2. Provide a log of excavation which includes the following:
 - Foot by foot soil classification by the Unified Soil Classification System (USCS).
 - Elevation at which groundwater or bedrock was observed.
 - Elevation of groundwater after 24 hours.
- c. Sample soil material from test borings or pit excavations for the following tests:
 1. Proctor density 90%-95% for liner material, 85%-90% for cover material.
 2. Permeability in cm/sec at the item (1) densities.
- d. Construct the following maps:
 1. Potentiometric map using general elevations established after 24 hours.
 2. Regional map to a minimum of 1 mile from the perimeter indicating geology, structural features such as faults, etc.
 3. Cross sections using borings and/or excavation pits of site.
- e. Any additional information deemed necessary to properly evaluate the site.

NW ¼ of NW ¼; the E ½ of the NW ¼; the NE ¼ of the SW ¼; the N ½ of the SE ¼; and the NE ¼ of Section 12, Township 6 North, Range 20 East: the NW ¼ of the SW ¼ and the SW ¼ of the NW ¼ of Section 7, Township 6 North, Range 20 East. The facility boundary is 524.08 acres, with a solid waste boundary for municipal solid waste of 171.55 acres and for construction and demolition waste disposal of 28.73 acres.

Disposal areas:

MSW: 171.55 acres

C/D: 28.73 acres



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Jan. 4, 2021

Mary Catherine Muscha
Permit Engineer, Solid Waste Engineering Section
Alabama Department of Environmental Mgmt.
1400 Coliseum Boulevard
Montgomery, AL 36110
United States

**Re: Coffee County Landfill, Permit 16-10
Request for Minor Modification**

Dear Ms. Muscha,

Please accept this submission on behalf of Coffee County Commission as a request for minor modification to Permit No. 16-10. The following changes are being requested:

Minor Modifications – Permit Plans, May 2007, Permit 16-10

Coffee County Commission is requesting the following changes to the referenced Permit Plans. Each request includes the items requested to be changed and reference to the specific plan sheets that will be affected by the change.

1. Raising a portion of the permanent lateral berm between Cells 8 & 9

The permanent lateral berm between Cells 8 and Future Cell 9 for the MSW portion of the Coffee County Landfill is specified on permit plan sheets 8 and 11. The proposed modification is to allow the following changes:

The base grades on Sheet 8 of the permit plans suggest a permanent lateral berm between Cells 8 and 9 constructed from the northeast corner of Cell 8 to the southeast corner at a 0% slope for some distance and then a transition to a 6% slope for the remaining length of the berm.

The Permittee proposes to raise and widen the berm by revising the longitudinal grade as indicated on Sheet C-301 and C-801 included with this submission in order to increase the vertical height between the cell floor and the top of the berm. This minor modification is being proposed in order to

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allow adequate space for construction of the liner and drainage system and to provide for a lined berm which can serve as an exterior berm until such time as Cells 9 and 10 are permitted for construction.

The proposed changes are indicated on Minor Modification Plan Sheets C-301 & C-801.

2. Final Grading Plan

The final grading plan for the MSW portion of the Coffee County Landfill is specified on Permit Plan Sheet 18. The proposed modification is to allow the following changes:

Sheet C-302 of the Minor Modification Plans has been updated to reflect the berm changes discussed above and its impact on the eastern slope of the landfill final cover system as a direct result of the proposed modification noted above.

Sincerely,

CDG Engineers & Associates, Inc.

A handwritten signature in blue ink that reads "R. Daniel Wells". The signature is written in a cursive, flowing style.

R. Daniel Wells, PE
Principal Engineer

Enclosures: ADEM Permit Form 439
Sheet C-301 – Liner Construction
Sheet C-302 – Final Grading Plan – MSW Area
Sheet C-801 – Details

SOLID WASTE APPLICATION

PERMIT APPLICATION
SOLID WASTE DISPOSAL FACILITY
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
(Submit in Triplicate)

1. Facility type: Municipal Solid Waste Landfill (MSWLF)
 Industrial Landfill (ILF)
 CCR Landfill (CCRLF)
 CCR Surface Impoundment (CCRSI)
 Other (explain) Minor Modification

2. Facility Name Coffee County Sanitary Landfill

3. Applicant:

Name: Coffee County Commission

Address: No. 2 County Complex
New Brockton, AL 36351

Telephone: 334-894-6600

4. Location: (include county highway map or USGS map)

Township see attached Range _____
Section _____ County _____

5. Land Owner:

Name: Coffee County Commission

Address: No. 2 County Complex
New Brockton, AL 36351

Telephone: 334-894-6600

(Attach copy of agreement from landowner if applicable.)

Solid Waste Permit Application
Page 2

6. Contact Person:

Name Mike Thornton

Position or Affiliation Environmental Services Director

Address: No. 2 County Complex
New Brockton, AL 36351

Telephone: 334-894-6600

7. Size of Facility: 496.76 **Acres** **Size of Disposal Area(s):** 171.55 **Acres**

8. Identify proposed service area or specific industry that waste will be received from:

States of Alabama, Florida, and Georgia

9. Proposed maximum average daily volume to be received at landfill (choose one):

1,200 **Tons/Day** _____ **Cubic Yards/Day**

10. List all waste streams to be accepted at the facility (i.e., household solid waste, wood boiler ash, tires, trees, limbs, stumps, etc.):

nonhazardous solid wastes, noninfectious putrescible and non-putrescible wastes including
but not limited to household garbage, industrial waste, construction and demolition debris,
commercial waste, appliances, tires, trees, limbs, stumps, sludge, paper and other similar type
materials. Special waste approved by ADEM may also be accepted.

 1-4-2021
SIGNATURE **DATE**



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January 13, 2022

Mary Catherine Muscha
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, AL 36130

**Re: Request for Variance-Multiple Working Faces
Coffee County Landfill (No. 16-10)**

Dear Mrs. Muscha,

Coffee County Landfill requests a variance for the operation of multiple working faces at the facility.

This request is a variance from ADEM Rule 335-13-4-.22(1)(b) which requires the working face to be confined to as small an area as possible. The Permittee is requesting approval to continue to operate both a C/D landfill and MSW landfill at the facility. One working face will be utilized for the municipal waste disposal area. The second working face will be utilized for the construction and demolition waste disposal area.

If you have any questions, please feel free to call.

Sincerely,

CDG Engineers & Associates, Inc.

R. Daniel Wells, PE
Principal Engineer

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ANDALUSIA

AUBURN

DOTHAN

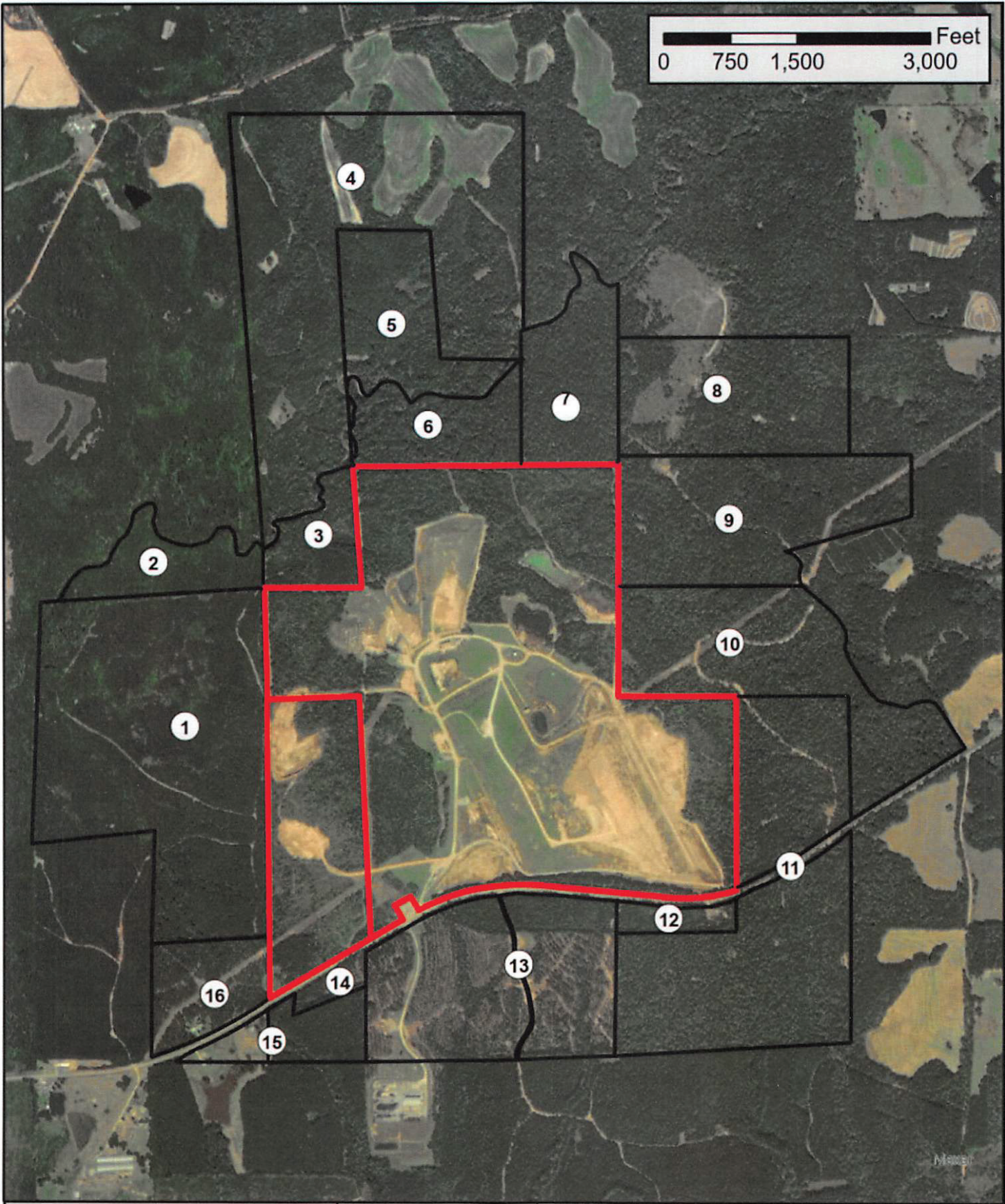
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HOOVER

HUNTSVILLE

Location

NW $\frac{1}{4}$ of NW $\frac{1}{4}$; the E $\frac{1}{2}$ of the NW $\frac{1}{4}$; the NE $\frac{1}{4}$ of SW $\frac{1}{4}$; the N $\frac{1}{2}$ of the SE $\frac{1}{4}$; and the NE $\frac{1}{4}$ of Section 12, Township 6 North, Range 20 East: the W $\frac{1}{4}$ of the SW $\frac{1}{4}$ and the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 7, Township 6 North, Range 21 East: the S $\frac{1}{2}$ of the SE $\frac{1}{4}$ and the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 1, Township 6 North, Range 20 East. The facility boundary area is 496.76 acres, with a solid waste boundary area for municipal solid waste disposal of 171.55 acres and for construction and demolition waste disposal of 28.73 acres.



Adjacent Landowner Map
Coffee County Landfill
 Elba, AL



Sheet No.
 1

Drawn By: LKY
 Checked By: SJS
 Date: November 2021

Coffee County Landfill Adjacent Landowners

Source: alabamagis.com

As of 11/22/2021

ID	PROPERTY OWNER	ADDRESS	PARCEL NUMBER	DB/ PG
1	Series One of Twin Creeks Timber LLC	C/O Larson & McGowin P.O Box 1446 Mobile, AL 36633	190601110000001.000	819/393
2	Lema Florence Gilmore; Charles Walker	1226 County Road 217 Elba, AL 36323	190601020000009.000	186A/131
3	Series One of Twin Creeks Timber LLC	C/O Larson & McGowin P.O Box 1446 Mobile, AL 36633	190601010000007.000	819/393
4	Kenneth D & Sara W Strong	P.O. Box 768 Elba, AL 36323	190601010000006.000	179A/502
5	Series One of Twin Creeks Timber LLC	C/O Larson & McGowin P.O Box 1446 Mobile, AL 36633	190601010000005.000	819/393
6	Series One of Twin Creeks Timber LLC	C/O Larson & McGowin P.O Box 1446 Mobile, AL 36633	190601010000004.000	819/393
7	Miriam Dismuke (1/2 INT) & James Oakes	P.O. Box 99 Port St. Joe, FL 32457	190601010000003.000	183A/726
8	Miriam Dismuke (1/2 INT) & James Oakes	P.O. Box 99 Port St. Joe, FL 32457	190703060000011.002	183A/726
9	Miriam Dismuke (1/2 INT) & James Oakes	P.O. Box 99 Port St. Joe, FL 32457	190703060000011.000	183A/726
10	Miriam Dismuke (1/2 INT) & James Oakes	P.O. Box 99 Port St. Joe, FL 32457	190703070000005.000	183A/726
11	Miriam Dismuke (1/2 INT) & James Oakes	P.O. Box 99 Port St. Joe, FL 32457	190703070000008.000	183A/726
12	Coffee County	#2 County Complex New Brockton, AL 36351	190703070000006.000	-
13	Coffee County	#2 County Complex New Brockton, AL 36351	190601120000005.000	-
14	Coffee County	#2 County Complex New Brockton, AL 36351	190601120000003.001	158A/790
15	Lucas & Jennifer Taylor	677 Highway 125 Elba, AL 36323	190601120000004.000	180A/188
16	Ronnie Westbrook	7181 Highway 125 Elba, AL 36323	190601110000011.000	-

CHAPTER SIX GENERAL OPERATIONAL STANDARDS

6.1 PURPOSE

These general operational standards for the Coffee County Sanitary Landfill have been prepared primarily as a guideline for daily operational and maintenance procedures to be performed by landfill personnel. These general standards have been written in accordance with state requirements to properly operate this facility so as to protect human health and the environment.

6.2 ORIGIN OF WASTE

The origin of waste for the Coffee County Sanitary Landfill are Barbour, Butler, Coffee, Covington, Crenshaw, Dale, Geneva, Henry, Houston, and Pike County, all which are located in the State of Alabama.

6.3 ACCEPTABLE WASTE

Wastes accepted at this facility shall be strictly controlled so as to allow only waste stipulated on the permit or waste approved by the Alabama Department of Environmental Management.

Wastes which will be accepted for disposal at the facility include all non-hazardous, non-infectious putrescible and non-putrescible wastes including, but not limited to household waste, commercial solid waste, non-hazardous sludge, industrial solid waste, construction and demolition waste, tires, appliances, trees, limbs, stumps, paper, and similar type materials generated in the service area.

6.4 HAZARDOUS AND RESTRICTED WASTE DETECTION PLAN

Hazardous and restricted wastes which are unacceptable to Coffee County Sanitary Landfill include but are not limited to the following: wet paint, used oil, free liquids, batteries, untreated medical waste, hazardous waste, regulated PCB wastes. In addition, bulk or non-containerized liquid, and containers capable of holding liquids are not acceptable to this landfill.

Lists of acceptable and unacceptable waste streams for the landfill disposal area will be posted at the scale house and will be made available to all landfill personnel.

The following plan shall be implemented by the Landfill Operator to detect and prevent the disposal of hazardous and restricted wastes at the landfill facility. This plan shall include at a minimum the implementation of the following:

1. Landfill personnel must inspect all suspicious waste loads and randomly inspect waste during the day. All waste load inspections shall be supervised by the Landfill Operator. The results of each inspection will be recorded on a Waste Load Inspection Form and filed at the landfill office. The information shall include the waste origin, the waste transporter, and any certifications provided by the waste generator. Copies of the Waste Load Inspection Forms shall be included in the Operating Record.
2. Upon discovering hazardous or restricted wastes, the landfill operator must immediately notify the generator and/or transporter that the material is restricted from disposal in a municipal solid waste landfill (MSWLF) unit and must contact ADEM for the appropriate action to be taken.
3. The Landfill Operator shall notify ADEM prior to allowing the disposal of any questionable waste stream in either the municipal solid waste (MSW) disposal area or the construction/demolition (C/D) disposal area.
4. If there are questions regarding any incoming waste stream, the facility personnel have been instructed to ADEM's Solid Waste Branch prior to allowing the disposal of the waste at the landfill.
5. The landfill personnel shall receive training from the Landfill Operator or solid waste organization's programs to detect hazardous or restricted waste.
6. The Landfill Operator shall identify and keep records of industrial users of the landfill, producers of special wastes, and transporters of the waste.

6.5 OPEN BURNING

Open burning of waste shall not occur at the landfill unless it is approved by ADEM as follows:

1. Clearing debris at the landfill such as trees and stumps may be burned if prior approval is received from ADEM and the Alabama Forestry Commission.
2. Emergency clean-up debris resulting from catastrophic incidents may be burned at the landfill if prior approval is received from ADEM and other appropriate agencies.
3. If approved, open burning shall not occur over previously filled areas or within 200 feet of the existing disposal operations unless otherwise specified by ADEM.

1. EXPLOSIVE GAS MONITORING

The explosive gas monitoring stations identified at the facility shall be monitored for methane levels during the active life, closure and post-closure care period in accordance with ADEM requirements and this explosive gas monitoring plan.

1.1 Explosive Gas Monitoring Procedures

Explosive Gas Monitoring will be conducted at the facility on a quarterly basis, or as otherwise specified by ADEM, at each permanent explosive gas point identified. The existing permanent vents or barhole punch method will be utilized by the facility to monitor these locations at a minimum depth of 4 feet. A standard portable gas detection instrument for monitoring landfill gas will be used in accordance with the manufacturer's recommendations, to detect the methane gas concentrations in each monitoring station at the facility. In addition to the explosive gas stations, other monitoring stations including any on-site structures, culverts, drop inlets, and other locations conducive to gas accumulation shall be monitored on a quarterly basis.

1.2 Explosive Gas Reporting Plan

The levels of gas detected in each well and any other monitoring stations shall be expressed in percent methane by volume and percent Lower Explosive Limit (LEL) on the Explosive Gas Monitoring Report. Copies of the monitoring report shall be submitted to ADEM and placed in the Operating Record of the facility within 30 days of the monitoring event.

1.3 Interpretation of Data

The LEL of the methane is 5% by volume. Explosive gas levels should not exceed the lower explosive limit at the facility boundary and should not exceed 25% of the lower explosive limit in the facility structures. If the explosive gas levels at the facility exceed the respective limits, the Landfill Operator shall immediately take necessary steps to ensure the protection of human health and property and shall immediately notify ADEM of the exceeded limits.

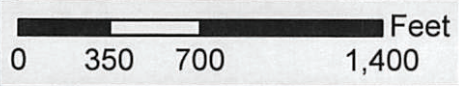
1.4 Remediation Plan

Within 7 days of detection, the Landfill Operator shall place in the Operating Record, the explosive gas levels detected, and the immediate steps taken to protect human health and property.

Within 20 days of detection, the Landfill Operator shall submit to ADEM for approval a remedial plan for the explosive gas releases. This plan shall describe the nature and extent of the problem and the proposed remedy. The plan shall be implemented upon approval by ADEM within 60 days of the detection. Within this 60-day period, a copy of the plan shall be placed in the Operating Record and ADEM shall be notified of the plan's implementation.

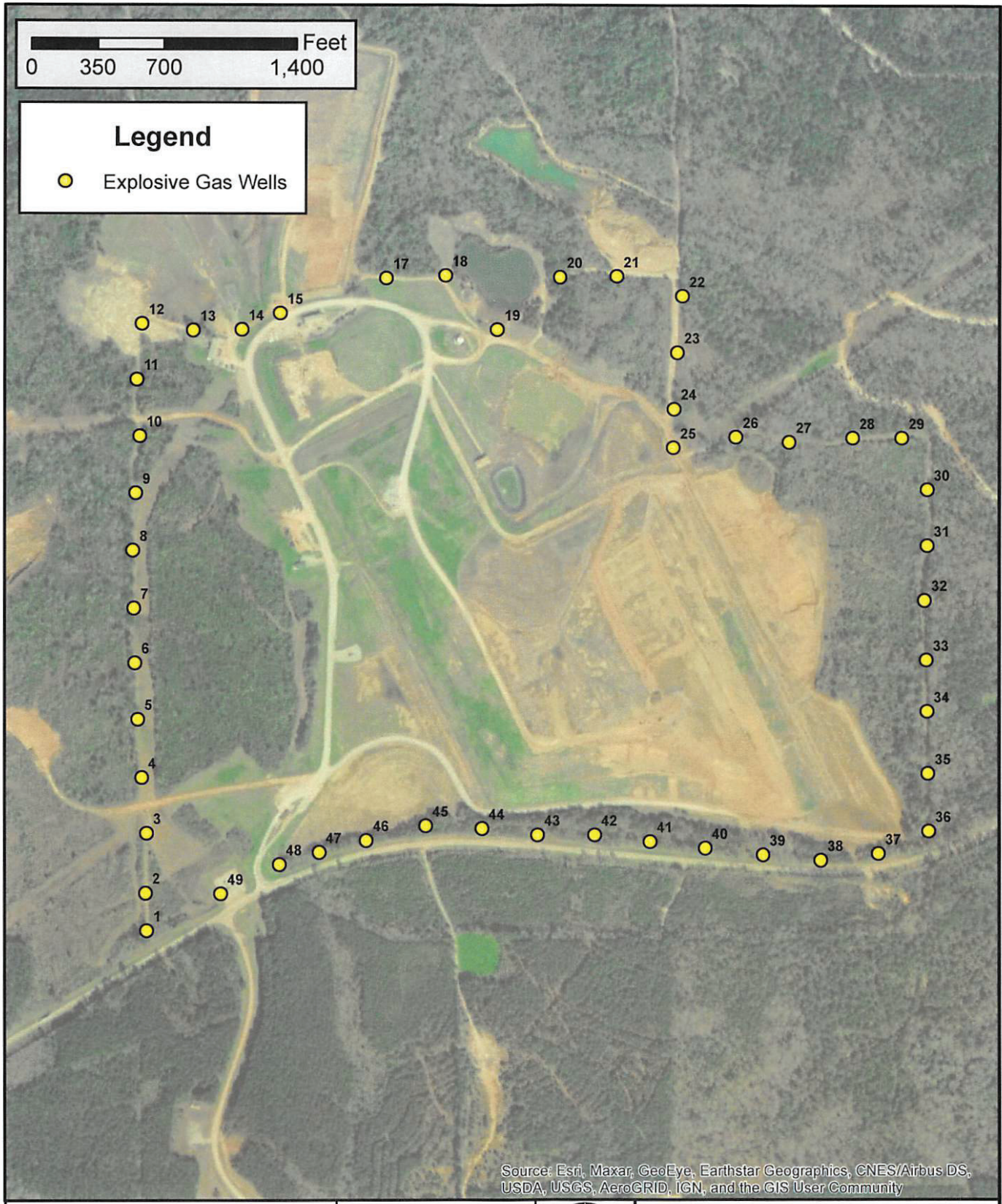
If the explosive gas levels at the facility exceed the respective limits, the Landfill Operator shall immediately take necessary steps to ensure the protection of human health and property. Specifically, the Landfill Operator shall:

1. Notify ADEM's Solid Waste Branch of the excessive levels and follow and procedures deemed necessary by the department.
2. Immediately perform explosive gas monitoring in and around nearby residences and structures, which are conducive to gas accumulation.



Legend

- Explosive Gas Wells



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Explosive Gas Well Locations
Coffee County Landfill



Sheet No.
1

Drawn By: LKY

Checked By: JRA

Date: July 2020



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November 16, 2021

MEMORANDUM

To: Jared Kelly, Chief *JK*
Engineering Section
Solid Waste Branch

Through: Billie Jean Wascher, Chief *BW*
Groundwater Protection Unit
Hydrogeology Section
Groundwater Branch

Through: Mary Catherine Muscha *MCM*
Engineering Section
Solid Waste Branch

From: Wesley S. Edwards *WSE*
Groundwater Protection Unit
Hydrogeology Section
Groundwater Branch

RE: Revised Groundwater Monitoring Plan (10 year permit renewal)
Coffee Co. MSW #16-10
Coffee County, Alabama

Summary

The Department received the Revised Groundwater Monitoring Plan (GWMP) for the Coffee Co. MSW #16-10 landfill dated October 25, 2021. The ADEM Solid Waste Branch requested that the Groundwater Branch review the GWMP as part of the 10 year permit renewal process and provide pertinent comments and recommendations. This report is a result of that request.

Comments and Recommendations

The monitoring network appears to meet the requirements of ADEM regulations.



REVISED GROUNDWATER MONITORING PLAN

COFFEE COUNTY SANITARY LANDFILL
ELBA, COFFEE COUNTY, ALABAMA
PERMIT NO: 16-10

Submitted to:

Coffee County Commission
P. O. Box 428
New Brockton, Alabama 36351

Prepared by:

TTL, Inc.
3516 Greensboro Avenue
Tuscaloosa, Alabama 35401

Project No. 600107013 (REV.2)

December 20, 2021

The logo for TTL, Inc. consists of the letters 'TTL' in a bold, italicized, sans-serif font. The letters are slanted to the right and have a slight shadow effect, giving them a three-dimensional appearance.

PREFACE

This Groundwater Monitoring Plan was initially issued as part of the facility Project Manual (Section 9.0 Landfill Monitoring), dated June 2000. This Groundwater Monitoring Plan has been revised and updated to reflect modifications to the original Groundwater Monitoring Plan per Alabama Department of Environmental Management's (ADEM's) directive in the Department's October 7, 2021 letter.

CERTIFICATION

I certify that I am a qualified groundwater professional, demonstrated by an Alabama state license as a professional geologist. I have sufficient training and experience in groundwater hydrology and related fields to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that the data in this report has been prepared by me and/or a subordinate under my direction.

Name:

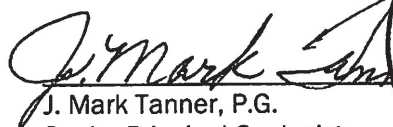

J. Mark Tanner, P.G.
Senior Principal Geologist
Alabama License No. 247



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APPENDICES

APPENDIX A: **Figures**

- A-I Site Location & Topographic Map
- A-II Site Layout Showing Monitoring Well Locations

APPENDIX B: **Field Information Form & ADEM Groundwater Monitoring Report Form**

1.0 LANDFILL MONITORING

The Coffee County Commission operates its municipal solid waste (MSW) disposal facility under ADEM Permit Number: 16-10. The Coffee County Sanitary Landfill is located approximately five miles north of the City limits of Elba off Alabama Highway 125 at 31° 30' 31.63" N, 85° 59' 48.43" W in Coffee County, Alabama. A topographic map of the facility location is provided in Appendix A-I.

1.1 Groundwater Monitoring System

The Groundwater Monitoring Plan, dated June 2000, included a Groundwater Monitoring System comprised of six groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-A). As of the publication date of the initial groundwater Monitoring Plan, monitoring wells MW-1, MW-2, MW-3, MW-6, and MW-A were the only wells installed at the subject site. Records regarding installation of well MW-3 are lacking. Since construction of Cell 5 began in 2000, the abandonment of well MW-3 would likely have occurred in 1999 or early 2000. In accordance with the facility's Groundwater Monitoring Plan, monitoring well MW-3 was plugged and abandoned prior to the construction of Cell 5. Due to physical site limitations, monitoring well MW-3 was unable to be replaced within a reasonable distance of the former location of monitoring well MW-3. Monitoring well MW-2 was damaged in late January of 2003 and was subsequently abandoned and replaced with monitoring well MW-2R on April 18, 2003. Monitoring wells MW-1 and MW-6 were designated "upgradient" and compliance wells MW-2R and MW-A were designated as "downgradient" of the regulated unit. Two additional compliance groundwater monitoring wells MW-4 and MW-5 (designated "downgradient") were subsequently approved to monitor Cells 8 through 10 with installation to be completed prior to the construction of Cells 7 and 8, respectively. However, well MW-4 was installed in February 2013 as the construction of Cell 7 would have made it difficult to install MW-4 in its permitted location. In a letter dated August 2, 2017, the ADEM approved the installation of monitoring well MW-5 and assessment well MW-4A. During an in-person meeting with representatives of Coffee County and the County's consultants on May 25, 2021, the ADEM requested that the facility update its groundwater monitoring plan to include monitoring well MW-4A as part of the facility's groundwater monitoring network. The locations of all seven on-site groundwater monitoring wells are shown on Figure A-II (Appendix A) for reference.

1.1.1 Groundwater Monitoring Program

The groundwater monitoring program will comply with ADEM Administrative Code R 335-13-4-27 (2/15/21 revision). The program will, therefore, comply with the requirements for sample collection, sample preservation and shipment, analytical procedures, chain-of-custody control, quality assurance and quality control, statistical evaluation of groundwater monitoring data, detection monitoring, assessment monitoring, and corrective action. The program incorporates permanent and/or temporary monitoring elements to provide environmental protection during and after landfill development. The Coffee County Sanitary Landfill is an existing Subtitle D landfill currently operating under permit number 16-10. This updated monitoring program supersedes earlier versions and is written to include monitoring of the existing wells. In accordance with ADEM Admin. Code r. 335-13-4-.27(1)2, a revised/updated Groundwater Monitoring Plan will be submitted to the Department prior to the placement of waste in future landfill cells (Cells 11-19). Additionally, once monitoring well locations are approved, the newly proposed wells will be installed prior to placement of waste in future cells (Cells 11-19).

1.1.2 Sample Collection

Environmental quality sampling at the site will be accomplished by personnel trained in sampling protocol and will be consistent with ADEM guidance and ASTM Standards. As site conditions change, activities related to monitoring at the site will be continually reviewed and scrutinized for completeness and integrity. In order to ensure the integrity of the collected groundwater samples, considerable effort will be directed toward optimizing the sampling protocol and refining it as more information becomes available. The protocol for collection of the groundwater sampled will be documented and reported to the ADEM with the analytical results.

1.1.3 Well Inspections

Prior to performing purging or sampling, each monitoring well will be inspected in an attempt to assess its integrity. The condition of each well will be evaluated for physical damage that may have been caused by site equipment or other vehicular traffic. The security of each well will be assessed in an attempt to confirm that outside source contaminants have not been introduced into the well. Inspection information, as well as the date and time, general weather conditions, and sampling personnel identification, will be documented on a Field Information Form (Appendix C). The actual form that is utilized may vary in format. Field personnel will record, at a minimum, the following:

- Date, time, and sampler's name
- Well number, elevation of measuring point, well depth, and depth to water
- Well casing material and inside diameter
- Static water level prior to purging
- Volume of water purged prior to sampling
- Sampling equipment used
- Volume of water purged prior to sampling
- Sample container numbers, types, sizes, and preservatives
- pH, specific conductance, temperature, and turbidity of water samples
- Comments about sample color, odor, and unusual characteristics
- Comments about weather conditions
- Comments about accessibility and condition of well

1.1.4 Monitoring Well Abandonment/Replacement

If it is determined that a well should to be replaced for any reason, a Monitoring Well Abandonment and Replacement Plan (the Plan) will be prepared for submittal to ADEM within 60 days of making the determination. The Plan will include, at a minimum, consideration of the following:

- The appropriate method for abandonment.
- The need for relocation to protect the replacement well from future damage.
- The anticipated replacement well type, depth, screened interval, casing diameter and surface completion in accordance with ADEM Admin Code 335-13-4-.27(2)(c).
- The need for replicate sample collection and if required, the number of replicate samples and a schedule for completing sample collection.
- Statistical analysis to be used for groundwater quality data collected from the replacement well and a determination addressing pooling data from the abandoned well with the new well is appropriate.

Upon approval of the Plan and the replacement of the new well, a report documenting the abandonment and replacement activities will be prepared and submitted to ADEM along with a Minor Permit Modification request to update the facility Permit and include the newly installed well into the Permit compliance well network.

1.1.5 *Sample Collection Procedures*

For sample collection, each monitoring well in the groundwater monitoring system will be sampled with dedicated equipment and methodologies that minimize the potential for alteration or contamination of the sample and that are capable of cleaning sampling equipment on the ground or on any contaminated surface. Additionally, personnel who contact sampling equipment that may contact the interior of the monitoring well or the groundwater will don powderless latex gloves. If applicable, non-contaminated well(s) or typically upgradient wells will be sampled prior to those wells which are known to be impacted (typically downgradient wells).

1.1.6 *Decontamination of Sample Equipment*

Although use of non-dedicated equipment is discouraged, any non-dedicated well equipment that may contact the interior of the well or groundwater will be decontaminated in the field immediately prior to use, or in the office/lab and protected using aluminum foil and/or plastic bags. However, for any sampling events requiring non-dedicated sampling equipment, decontamination procedures will consist of rinsing the equipment once with deionized or laboratory reagent-quality water, brushing the equipment with a laboratory-quality soap such as Liquinox, and triple rinsing the equipment with deionized or laboratory-reagent quality water.

1.1.7 *Water-level Measurements*

Prior to groundwater purging and sampling, static water-level measurements will be made at each well location by utilizing a portable electronic water-level indicator, tape, or other suitable measuring device, capable of achieving an accuracy of 0.01 foot. Wells will be measured for depth to water on the same day and immediately prior to purging. The measuring device will be used in accordance with the manufacturer's recommendations and/or directions. Prior to measuring, equipment that may contact the groundwater will be decontaminated by triple rinsing with distilled or deionized water. Measurements of the depth to water from a surveyed reference datum (the top of the well casing) will be to the nearest 0.01 foot, and the values will be recorded on the ADEM Groundwater Monitoring Report Form (Appendix C). Total well depths shall be obtained as necessary if there is evidence of well tampering or siltation.

1.1.8 *Well Evacuation/Purging*

Immediately prior to sampling, the water within the well will be evacuated until measured water-quality parameters indicate that formation water has entered the well or to sufficient volume to assure that stagnant water has been purged from the well. The wells will be evacuated using the standard 3 to 5 well-volume purging method or by low-flow (minimal drawdown) sampling methods. Low-flow sampling methods are preferred. If low-flow methods are used, the procedure will be in accordance with EPA/540/S-95/504, "Low-flow (Minimal Drawdown) Groundwater Sampling Procedures".

Purging may be considered complete when: Standard 3 to 5 well volume method - A minimum of three (3) well volumes (based upon well- construction records) have been evacuated from the well and two of the field measured parameters (pH, specific conductance, temperature, and turbidity) have stabilized, or to five (5) well volumes, or until the well is pumped/bailed dry; or

Low-flow - Two of the field measured water-quality parameters have stabilized (measured within 15% relative to previous measurements).

If three well volumes cannot be obtained due to the well being pumped or bailed dry, the well will be allowed to recover and then the samples will be collected. If sufficient water is not available for sampling within 24 hours of purging for slowly recovering wells, the well will be considered dry, and no sample will be collected.

Low-flow sampling will be performed only if dedicated pumps have been installed in each well. If low-flow (or minimal drawdown) techniques are used, purging will be performed with flow-control submersible bladder pumps. Purging rates will be monitored and depth to water measurements recorded to assure that evacuation rates do not induce a substantial lowering of the water within the well. Flow rates will vary for each well, but rates of approximately 0.1 to 0.5 L/min are typical. Pump discharge lines will be purged prior to collecting field parameter samples for field analysis with appropriate meters.

All purge water removed from monitoring wells as well as sample water not collected in the laboratory provided sample container will be discharged on the ground surface at a point near the well.

1.1.9 Sample Collection

Samples will be collected from each well using either a dedicated (or disposable) Teflon or polyethylene bailer or through the discharge of pumps used to evacuate the well. Samples will be collected at a rate that minimizes potential alteration of the sample due to agitation or oxidation. Pumping rates for collection of samples for volatiles analysis (VOA's, etc.) will be approximately 0.1 L/min or less, to the extent practical based on the sampling equipment. Pumping rates for collecting other samples may be increased, but will be adjusted to a rate that also prevents chemical alteration.

If low-flow sampling methods are employed, the sampling rate will not exceed the purging rate, with flow rates of approximately 0.1 to 0.5 L/min recommended (EPA/540/S-95/504). Sampling pumps will be operated in a continuous manner so that they do not produce samples that are aerated in the discharge tube. Groundwater samples will be collected as soon as possible after purging.

1.1.10 Sample Preservation & Shipment

Samples will be collected and containerized in the order of the volatilization sensitivity of the parameter (i.e., volatile organics, organic compounds, inorganic species, and major cations and anions). Sample containers of the appropriate size and type, and with the preservatives appropriate for the analytical tests to be performed from the sample, will be prepared and labeled by the independent testing laboratory utilized by the facility. The laboratory will specify the preservation methods based on knowledge of methods and procedures approved by ADEM and/or EPA. The facility owner/operator will contract for services with a laboratory that meets these requirements.

Holding times, storage conditions, and transport conditions are important elements of the sampling protocol. They will be identified from references such as the most recent edition of EPA SW-846 (Test Methods for Evaluating Solid Waste; Physical/Chemical Methods; EPA SW-846) and Standard Methods for the Examination of Water and Wastewater. Samples will be packaged securely in an iced cooler (kept at or below a temperature of 4 °C) and transported to the analytical laboratory following strict chain-of-custody protocol.

On the day following sample shipment, the laboratory will be contacted to confirm the laboratory's receipt of samples as well as to confirm sample integrity.

1.1.11 Chain of Custody

Each sample container will be individually identified as to sample number, date and time of collection, and source of sample. A chain-of custody record will be prepared for all samples that will include:

- a) Name of the person collecting the samples;
- b) Date and time of sample collection;
- c) Identity of each sample (soil or water);
- d) Source of each sample (monitoring well identifier);
- e) Preservation provisions for each sample;
- f) Analytical requirements; and
- g) Name of person accepting sample.

Custody transfers of samples will be recorded on the chain-of-custody form by signatures of the transferor (relinquisher) and the transferee (receiver). This procedure will be repeated, as necessary, until final delivery is made to the analytical laboratory.

1.1.12 Analytical Procedures

Groundwater samples will be analyzed for the constituents specified in the detection-monitoring program. Where appropriate, assessment monitoring may be required. No specific analytical methods are cited in the regulations although suggested analytical methods are listed. The suggested methods are those EPA-approved methods and procedures that are published in SW-846. The laboratory under contract to the facility shall use one of the approved methods.

1.1.13 Practical Quantitation Limits (PQLs)

Coffee County proposes to utilize laboratory-specific PQLs as the reporting limits of applicable low-detection analytes (especially organics). The USEPA developed the concept of the PQL to address the issue of analytical variability. The PQL concept was developed for compliance with the Safe Drinking Water Act (50FR46906, Nov. 13, 1985) where it is defined: "The PQL thus represents the lowest level achievable by good laboratories within specified limits during routine laboratory operating conditions." A nationally recognized analytical laboratory will be contracted to perform sample analysis and the laboratory will typically be capable of meeting the applicable ADEM water- quality standards.

1.1.14 Quality Assurance & Quality Control

A quality-assurance and quality-control (QA/QC) program will be part of the sampling protocol and a requirement for the laboratory chosen to provide analytical services. Field QA/QC per sampling event will require, at least, the collection of two types of blanks: trip blanks and equipment-rinsate blanks for non-dedicated equipment. Procedures for collecting and evaluating these blanks, as described in the EPA Handbook Groundwater; Volume II: Methodology (EPA/625/6- 90/01b), will be followed.

The laboratory QA/QC program will be a written program, a copy of which will be available to the owner/operator. This program will describe the precision, accuracy, and completeness of the laboratory data; the documentation of procedures for calibration and maintenance of laboratory equipment, for analysis of samples, for computing and validating test data, and for chain-of-custody control; and the control and security of all documentation. Laboratory QA/QC standards will be initialed with the receipt of samples and will be maintained throughout the recordkeeping period.

1.1.15 Detection Monitoring Parameters

The initial detection monitoring parameters for the Coffee County Sanitary Landfill will be the constituents in Appendix I to ADEM Administrative Code R. 335-13-4-27. The Landfill also may, at the County's digression, monitor groundwater for major leachate indicator parameters (such as total dissolved solids and alkalinity) and for major cations and ions (such as calcium, magnesium, sulfate, and carbonate). Further, the Landfill may also, at the County's digression, collect and analyze leachate samples. Monitoring for the additional groundwater parameters and characterizing the leachate will be independent of the permit requirements.

ADEM Administrative Code R. 333-13-4-27(3)(a)3 allows the Department to delete any of the detection monitoring parameters if it can be shown that the removed constituents are not reasonably expected to be contained in or derived from the waste contained in the unit. ADEM Administrative Code R. 333-13-4-27(3)(a)4 allows the Department to establish an alternative list of inorganic indicator parameters in lieu of some or all of the heavy metals (constituents 1 through 16 in Appendix I) if the alternative parameters provide a reliable indication of inorganic releases from the municipal solid waste landfill (MSWLF) unit to the groundwater.

1.1.16 Detection Monitoring Frequency

Detection Monitoring will be performed in March and September of every year during the active life of the facility (including closure) and during the post-closure period until or unless the Department specifies an alternative monitoring frequency.

1.1.17 Inter-well & Intra-well Comparisons

Two general approaches to groundwater monitoring at waste disposal facilities are: (1) inter-well comparisons by which new downgradient monitoring measurements are compared to water-quality measurements obtained from wells that are hydraulically upgradient to the facility; and (2) intra-well comparisons by which new downgradient measurements are compared to their own historical concentrations. In general, intra-well monitoring is preferable to inter-well monitoring because it eliminates the spatial component of natural groundwater chemistry variability. This spatial component comprises a significant portion of the total variability that must be accounted for by the statistical methodology.

The statistical method described in ADEM Administrative Code R 335-13-4-27 (16)(C) as a tolerance or prediction interval procedure will be used to evaluate groundwater monitoring data. An appropriate variation of this method will be used for each constituent. This method can be used for all constituents because it allows for the construction of either one-sided or two-sided intervals from either parametric or nonparametric distributions of data, and because various adaptations of the method account for varying percentages of data below the laboratory's PQL. This method will be used as long as the continuing assessment or groundwater monitoring data accumulated from the site supports its appropriateness. If the site data provides evidence that an alternative statistical method should be used, this evidence will be submitted to ADEM to justify the request for ADEM's approval to use another method.

1.1.18 Background Monitoring

After each new well is constructed, samples will be collected for at least four independent sampling events to specifically provide background groundwater quality data. Collected groundwater samples will be analyzed for the detection monitoring parameters. Additional background indicator data may be collected from the existing wells for further characterization as described in Section 1.1.14.

During background sample collection, the data will be examined for outliers, anomalies, and trends that might indicate a release. Outliers and anomalies are inconsistently large or small values that can occur due to sampling, laboratory, transportation or transcription errors, or even by chance alone. Significant trends indicate a source of systematic error or an actual contamination occurrence that must be evaluated and corrected before the detection monitoring program can be implemented. The inclusion of such values in the historical database used for statistical evaluation could cause misinterpretation of the data set, and result in an artificial increase in the magnitude of statistical limits, which could result in an increase in the false negative rate (i.e., a decrease in the sensitivity of the statistical procedure).

To remove the possibility of historical outliers and trends creating false statistical limits, the data for each well and each constituent will be tested for the existence of outliers. Outliers may be removed from consideration during the establishment of all statistical limits. The statistical outlier and trend detection procedure will be performed for those wells that have had at least 5 measurements for a given constituent. Once the background database is established, the outlier procedure described above may be applied and appropriate statistical limits set in accordance with the appropriate statistical method. Sufficient background indicator data has been compiled for each of the seven groundwater monitoring wells in this groundwater monitoring network/system.

The background dataset should be updated in accordance with the procedures as described in Chapter 5 of the Unified Guidance:

- Updating background data should be completed every 2-3 years for semi-annual groundwater monitoring.
- Updating background data should only be performed if no SSIs have been recorded for that well constituent since the last update.
- The Student's t-test or Wilcoxon rank-sum comparison should be conducted for each compliance well between the existing intra-well background data and the potential new background data. The test must find no significant difference between the old background and new background data at the $\alpha = 0.01$ level of significance before the two data sets can be combined.
- If plots of data versus time suggest an overall trend in the combined data sets or distinct differences in the respective sets, linear or non-parametric trend tests should be utilized.
- When an initial exceedance may be due to a laboratory error or other anomaly that has caused the observation to be an outlier, the error should be documented and not included in the updated background sample.
- When background data is updated, all statistical testing limits need to be recomputed to account for the revised background sample.

1.1.19 Statistical Methods

Statistical analysis is required by the Rules of the ADEM, Solid Waste Management (Chapter 335-13-4-.27). The purpose of statistical analysis is to identify whether any monitored constituents are detected in amounts that constitute a statistically significant increase (SSI) relative to background concentrations. If a groundwater constituent is detected at a level determined to represent an SSI above background values and the SSI cannot be attributed to errors in sampling, laboratory analysis, statistical evaluation, or natural variation in groundwater quality, the facility is typically required to initiate (or continue) Assessment Monitoring.

In the application of statistics to groundwater monitoring data from this site, all data will be treated as independent and representative of the quality of the groundwater at the site. Statistical methods used, and their application to data from this site, meet the EPA standards referenced in *Statistical Analysis*

of *Groundwater Monitoring Data Unified Guidance* document. The March 2009 Unified Guidance document provides guidance for the statistical analysis of groundwater monitoring data from RCRA facilities. It updates and replaces the earlier 1989 *Interim Final Guidance* and the associated *July 1992 Addendum*.

If a constituent has been detected in a compliance monitoring well then it is required that statistical analysis for determination of an SSI be performed for that constituent/compliance well pair. However, before an SSI can be declared, the constituent/compliance well pair should be re-sampled to confirm (or disconfirm) the concentration value which prompted the initial indication of an SSI.

Typically, the first step in the statistical analysis process is that the entire dataset (background and compliance) is subjected to a distribution analysis to determine if the data is normally distributed or can be transformed (i.e., log-normal distribution). If data is not normal, or cannot be transformed, a non-parametric prediction limit statistical analysis method is recommended. If data is normal, or can be transformed, a parametric prediction limit statistical analysis method is recommended. However, when the data contains a significant percentage of non-detects (defined as greater than 10-15%), the validity of distribution tests are questionable and it is suggested that a non-parametric prediction limit method be used.

Parametric and non-parametric prediction limit statistical analysis methods can be performed as an inter-well test (utilizing sample data from a designated background well) or as an intra-well test (utilizing sample data from the historical results of the constituent/compliance well). In either case, a comparison is made of each individual compliance concentration for the most recent event to the maximum concentration in background samples. The non-parametric prediction limit method does not produce an actual limit, but simply a maximum value of the constituent concentration above which contamination is assumed. It should be noted that the Unified Guidance suggests that all non-detects should be replaced with one-half ($\frac{1}{2}$) of the RL for the purpose of identifying the prediction limit (i.e., maximum background concentration) for parametric prediction interval analysis. For the purpose of identifying the prediction limit for non-parametric prediction interval analysis, all non-detect values should be reduced to zero. For reporting purposes, the laboratory represents all non-detects as being less than the RL (e.g., ND<100) for each constituent. The reduction of non-detect values to zero would be necessary due to differences in RLs used throughout the monitoring history for the facility. By reducing the non-detects to zero, the ChemStat program would use confirmed values as the prediction limit instead of the RL since it is unknown what values the non-detects truly represent.

The May 2009 *Statistical Analysis of Groundwater Monitoring Data Unified Guidance* recommends the use of confidence intervals as a general statistical strategy for comparing groundwater analytical data to Groundwater Protection Standards (GWPSs) to determine if groundwater concentrations statistically exceed established standards. A confidence interval around the mean is designed to estimate the true average of the underlying population, while at the same time accounting for variability in the sample data set. Confidence limit intervals [Upper Confidence Limits (UCLs) and Lower Confidence Limits (LCLs)] can be constructed around the population median (50th percentile) for constituent/compliance pair sample data. These limits define the range in which the true concentration should be expected to exist. The Unified Guidance recommends that the null hypothesis (i.e., the assumption that the compliance concentration is less than an established standard) is not true when the entire confidence interval, including the LCL, exceeds the established standard. Therefore, as long as the LCL for a specific constituent is less than or equal to the established standard, the constituent/well data indicates that no statistical exceedance of the GWPS has occurred. However, if the LCL for specific constituent/well data exceeds an established MCL or GWPS, then there is statistically significant evidence that the population median is greater than the GWPS and an ASD or an Assessment of Corrective Measures (ACM) may be warranted. However, when assessment

monitoring is warranted, it is recommended that the constituent data distribution be determined and used to select an appropriate assessment/corrective action monitoring test.

1.1.20 *Detection Verification Procedures*

If detection monitoring results is determined initially to be above the appropriate statistical level, the result will be verified. Verification re-sampling is an integral part of the statistical methodology described by U.S. EPA's Addendum to Interim Final Guidance Document - Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities (July 1992). Without verification re-sampling, much larger statistical limits would be required to achieve site-wide false-positive rates of 5% or less. Furthermore, the resulting false-negative rate would be greatly increased. Only compounds that initially exceed their statistical limit will be sampled for verification purposes.

Volatile Organic Compounds (VOCs): If one or more VOCs are detected above their statistical limit (i.e., PQL), a minimum of one verification resample will be conducted. If two re-sampling events are conducted, the samples will be collected independently, no sooner than 30 days apart. A statistical exceedance will be recorded and alternate source identification or assessment monitoring initiated if any single VOC is measured above the PQL in each of the verification resamples. It should be noted that based on the Alabama Groundwater Report Guidance for Solid Waste Facilities, dated March 2011, "the detection of any organic constituents is considered an SSI."

Inorganic Constituents: If one or more of the inorganic parameters are detected above their statistical limit (i.e., Shewart-CUSOM control chart computation value/prediction limit), a minimum of one verification resample will be collected at the next scheduled sampling event. If the exceedance is confirmed during the next event, a second verification re-sampling event may be completed within 30 days. A statistical exceedance will be recorded and assessment monitoring will be initiated if verification of one or more elevated parameters is confirmed for each of the discrete verification resamples.

1.1.21 *Assessment Monitoring*

Assessment monitoring, if required, will be in accordance with ADEM Administrative Code R. 335-13-4-.27(4).

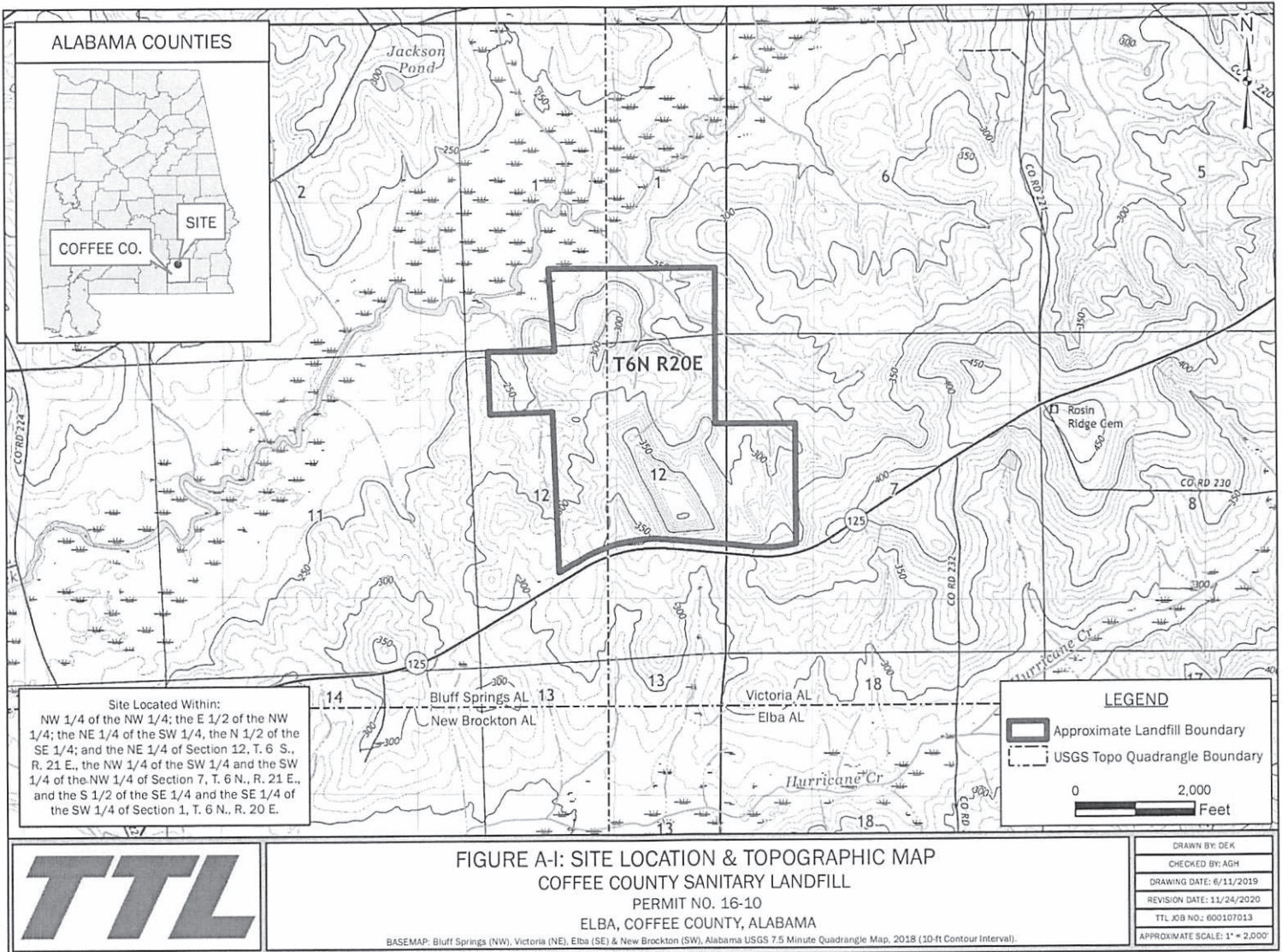
1.1.22 *Corrective Action*

Corrective action, if required, shall be conducted in accordance with ADEM Administrative Code R. 335-13 -4-.27(5).

APPENDIX A: Figures

Figure 1: Site Location & Topographic Map

Figure 2: Site Layout Showing Monitoring Well Locations



ALABAMA COUNTIES



Site Located Within:
 NW 1/4 of the NW 1/4; the E 1/2 of the NW 1/4; the NE 1/4 of the SW 1/4, the N 1/2 of the SE 1/4; and the NE 1/4 of Section 12, T. 6 S., R. 21 E., the NW 1/4 of the SW 1/4 and the SW 1/4 of the NW 1/4 of Section 7, T. 6 N., R. 21 E., and the S 1/2 of the SE 1/4 and the SE 1/4 of the SW 1/4 of Section 1, T. 6 N., R. 20 E.

LEGEND

- Approximate Landfill Boundary
- USGS Topo Quadrangle Boundary

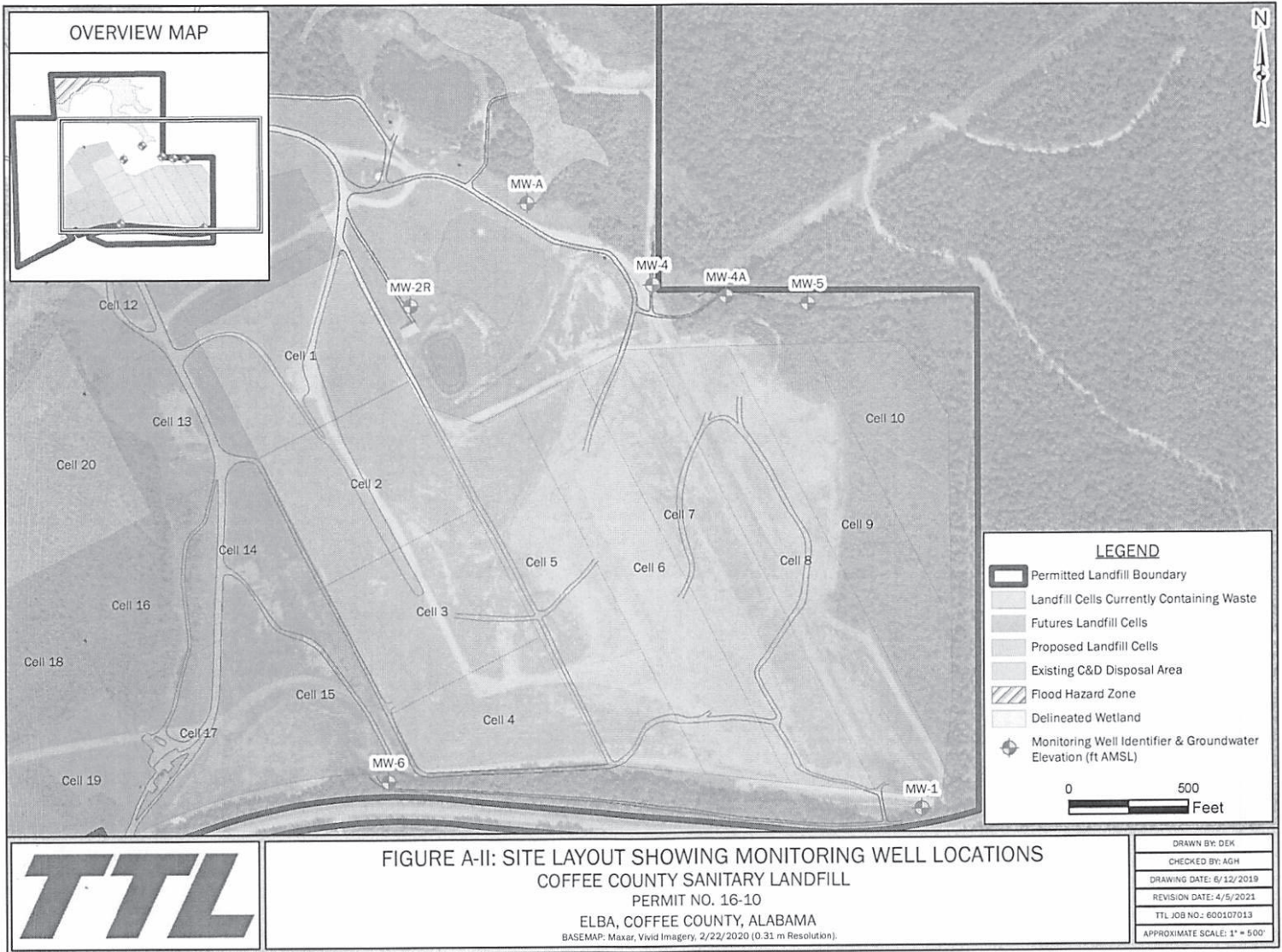
0 2,000
 Feet



FIGURE A-I: SITE LOCATION & TOPOGRAPHIC MAP
COFFEE COUNTY SANITARY LANDFILL
 PERMIT NO. 16-10
 ELBA, COFFEE COUNTY, ALABAMA

BASEMAP: Bluff Springs (NW), Victoria (NE), Elba (SE) & New Brockton (SW), Alabama USGS 7.5 Minute Quadrangle Map, 2018 (30-ft Contour Interval).

DRAWN BY: DEK
CHECKED BY: AGH
DRAWING DATE: 6/11/2019
REVISION DATE: 11/24/2020
TTL JOB NO.: 600107013
APPROXIMATE SCALE: 1" = 2,000'



**APPENDIX B: Field Information Form & ADEM Groundwater
Monitoring Report Form**

GROUNDWATER MONITORING FORM

PROJECT NAME: _____ TTL PROJECT No: _____

SAMPLING DATE: _____ TIME: _____ PERSON COLLECTING SAMPLE: _____

WELL NUMBER: _____ TOP OF CASING ELEVATION (MSL): _____ ft

TOTAL DEPTH OF WELL: _____ ft BLS DEPTH TO WATER: _____ ft BMP

VOLUME REMOVED BEFORE SAMPLING: _____ gal.

INSIDE DIAMETER OF WELL CASING: _____ in. WELL CASING MATERIAL: PVC

SAMPLING EQUIPMENT: (BAILER, PUMP, ETC.): _____

Specific conductance _____ (µmhos/cm)

pH _____ (standard units)

Temperature _____ (degrees in F or C)

Turbidity _____ (NTUs)

Odor of sample _____

Unusual characteristics _____

Filter size, if filtered _____

Weather Conditions _____

Accessibility of well _____

Condition of well _____

Other comments _____

Field Representative

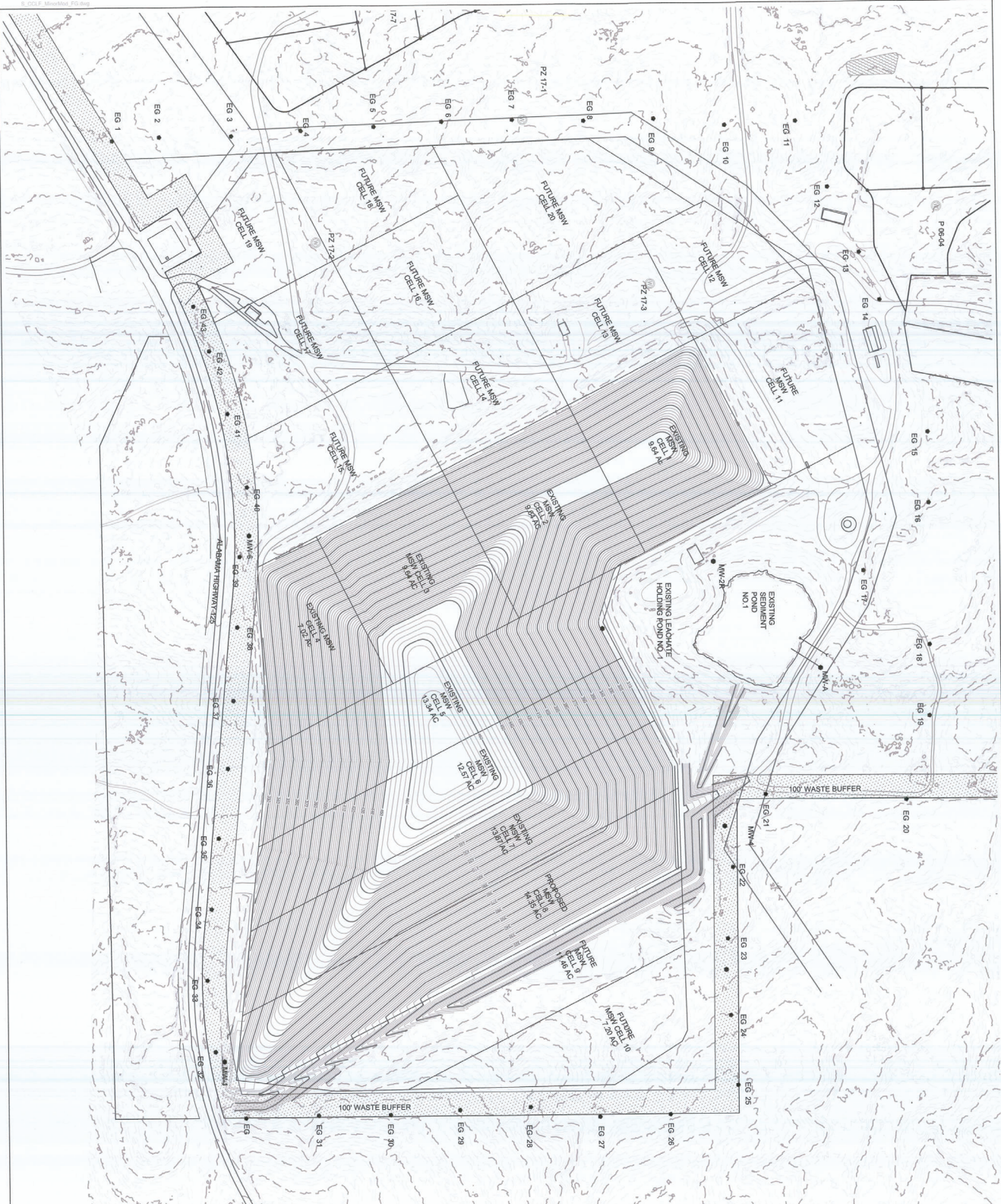
GROUNDWATER MONITORING REPORT

Facility Name: _____ **TTL Project No.:** _____
Sample Date: _____ **Time:** _____ **Person Collecting Sample:** _____
Purge Date: _____ **Well Number:** _____ **Top of Casing Elevation (MSL):** _____
Diameter of Well Casing: _____ inches **Well Casing Material:** _____
Total Depth of Well (TD): _____ feet **Depth to Water (DW):** _____
One Well Volume: _____ gal **X3** _____ gal **X5** _____ gal
Purging Equipment: _____ **Sampling Equipment:** _____
Field Parameter Equipment (brand & SN): _____

Time													
Volume (gal.)													
Water Level (ft.)													
Temperature (°C)													
Sp. Cond. (µmhos)													
pH													
D.O.													
ORP													
Turbidity (NTU)													
Pump Setting													
Carbon Dioxide													
Iron II													
Alkalinity													
Sulfide													

Total Volume Purged: _____ gal **Color of Sample:** _____ **Odor of Sample:** _____
Weather Conditions: _____
Accessibility of Well: _____ **Condition of Well:** _____
Unusual Characteristics: _____
Other Comments: _____

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NOTE:
FINAL GRADES OF THE MSW AREA ARE SHOWN AT A 4:1 SLOPE, BUT SHALL BE GRASSED TERRACES INSTALLED EVERY 20 FEET OF VERTICAL RISE.



SHEET NO.	C-302
PROJECT NO.	1216678
SCALE:	AS SHOWN
DATE:	12/7/20
REVISED:	



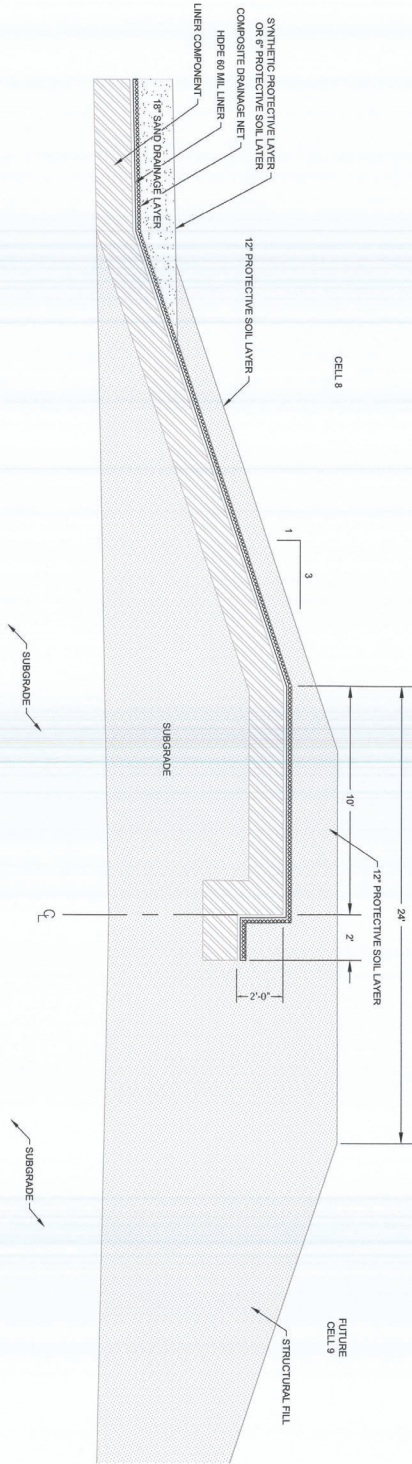
FINAL GRADING PLAN - MSW AREA
 MINOR MODIFICATION
 COFFEE COUNTY COMMISSION
 COFFEE COUNTY, ALABAMA

1840 EAST THREE NOTCH ST.
 ANDALUSSIA, AL 36421
 P.O. BOX 278 (36420)
 PH: (334) 222-9431

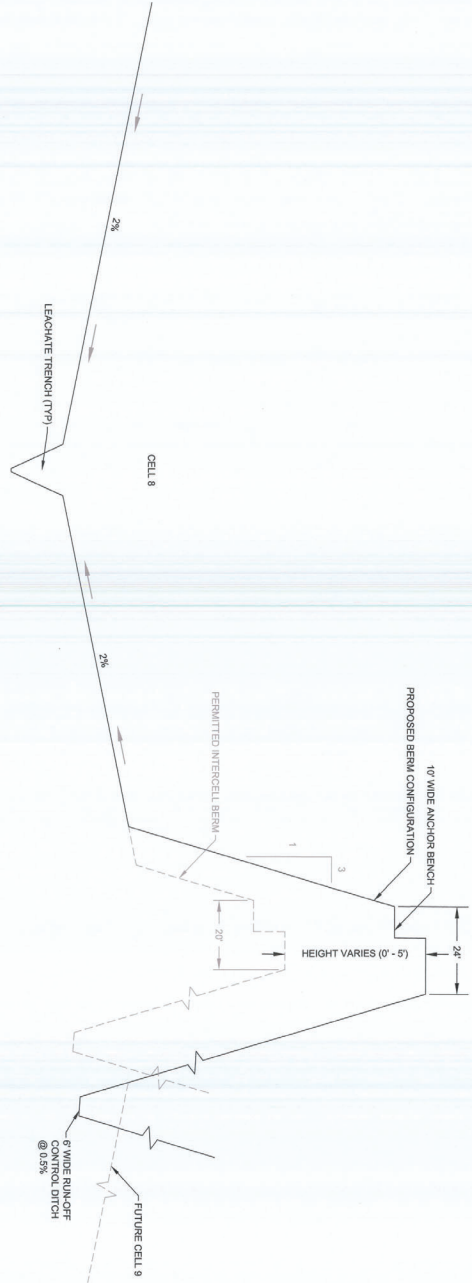
CDG
 Engineering Environmental Answers
 ANDALUSSIA, AL GADSDEN, AL
 AUBURN, AL HOOVER, AL
 DOTHAN, AL HUNTSVILLE, AL

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2 BERM CONSTRUCTION (TYP)



1 CROSS-SECTION A-A'



PROJECT NO:	1254878
SCALE:	AS SHOWN
DATE:	12/17/20
REVISION:	
SHEET NO.:	C-801



DETAILS
 MINOR MODIFICATION
 COFFEE COUNTY COMMISSION
 COFFEE COUNTY, ALABAMA

1840 EAST THREE NOTCH ST.
 ANDALUSIA, AL 36421
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